# CIVIL AVIATION ACT

## CHAPTER 49:03

**Act**
**11 of 2001**
Amended by
17 of 2003

**Current Authorised Pages**

| *Pages (inclusive)* | *Authorised by L.R.O.* |
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| *1–1749* | .. |

*L.R.O.*

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**CHAPTER 49:03**

# CIVIL AVIATION ACT

**An Act to make provision for the establishment of the Trinidad and Tobago Civil Aviation Authority, for the regulation of all civil aviation activities, for the implementation of certain international conventions and for the institution of safety requirements.** 11 of 2001.

[1ST NOVEMBER 2001] Commencement. 242/2001.

**1.** This Act may be cited as the Civil Aviation Act. Short title.

## PART I

## PRELIMINARY

**2.** (1) In this Act— Interpretation. [17 of 2003].

"aerodrome" means any area of land or water designed, equipped, set apart or commonly used for affording facilities for the landing and departure of aircraft and includes any area or space, whether on the ground, on the roof of a building or elsewhere, which is designed, equipped or set apart for affording facilities for the landing and departure of aircraft capable of descending or climbing vertically, and also includes an airport which has the meaning given to it under the Airports Authority Act; Ch. 49:02.

"airman" means—

*(a)* any individual who engages, as the person in command or as a pilot, mechanic or member of the crew, or who navigates an aircraft while the aircraft is underway;

*(b)* any individual in charge of the inspection, maintenance, overhauling or repair of aircraft, and any individual in charge of the inspection, maintenance, overhauling, or repair of aircraft, aircraft engines, propellers or appliances; or

*(c)* any individual who serves in the capacity of flight operations officer;

"aircraft engine" means any engine used, or intended to be used, for propulsion of aircraft and includes all parts, appurtenances and accessories, other than propellers;

"air navigation" means the practice of controlling, guiding and operating aircraft from airport of departure to pre-determined airport of destination, including alternate airports. To ensure safety, regularity and efficiency of civil aviation operations, standardisation and common understanding among all parties involved are essential in all matters affecting the operation of aircraft and the numerous facilities and services required in their support, such as aerodromes, telecommunications, navigation aids, meteorology, air traffic services, search and rescue, aeronautical information services and aeronautical charts, in accordance with the procedures, rules and regulations contained in the appropriate ICAO Annexes;

"air navigation facility" means any facility used in, available for use in, or designed for use in aid of, air navigation, including airports, landing areas, lights, any apparatus or equipment for disseminating weather information, for signalling, for radio directional finding, or for radio or other electromagnetic communication, and any other structure or mechanism having a similar purpose for guiding or controlling flight in the air or in the landing and take-off of aircraft;

"air navigation services" includes information, directions and other facilities furnished, issued or provided in connection with the navigation or movement of aircraft, and the control of movement of vehicles in any part of an aerodrome used for the movement of aircraft;

"air operator" means any person, organisation or enterprise which undertakes to engage in domestic commercial air transport or international commercial air transport, whether directly or indirectly or by a lease or any other arrangement;

"Air Operator Certificate" means a certificate authorising an operator to carry out specified commercial air transport operations;

"air transport service" means a service for the carriage by air of passengers or cargo;

"appliances" means instruments, equipment, apparatus, parts or accessories, of whatever description, which are used or are capable of being used, in the navigation, operation or control of aircraft, including parachutes, communications equipment and any other mechanisms installed in or attached to aircraft during flight, and which are not part or parts of aircraft, aircraft engines or propellers;

"Authority" means the Trinidad and Tobago Civil Aviation Authority established under section 4;

"aviation document" means—

*(a)* any licence, certificate or other document issued by the Authority in respect of any person, aircraft, aerodrome or service related to aviation; or

*(b)* such other document as may be approved by the Authority;

"Board" means the Board of the Trinidad and Tobago Civil Aviation Authority established under section 11;

"cargo" includes mail;

"Chairman" means the Chairman of the Board and includes a temporary Chairman of the Board;

"Chicago Convention" means the Convention on International Civil Aviation concluded at Chicago on 7th December 1944 and includes any Protocol amending the Convention and any Annex to that Convention relating to international standards and recommended practices, being an Annex adopted in accordance with that Convention;

"commander", in relation to an aircraft, means the member of the crew designated for the time being as commander of that aircraft by the operator thereof, or, failing such a person, the person who for the time being is the pilot in command of the aircraft;

"commercial air transport" means the carriage by air, of passengers or cargo for remuneration or hire;

"Contracting State" means a country which is a party to the Chicago Convention;

"corporate plan" means a plan prepared in accordance with section 15;

"dangerous goods" means articles or substances which are capable of posing significant risk to health, safety or property when transported by air;

"Director-General" means the Director-General of Civil Aviation appointed under section 13;

"flight" means any period from the moment when all the external doors of an aircraft are closed following embarkation, until the moment when any of such doors are open for disembarkation;

"GAAP" means Generally Accepted Accounting Practice which includes the international accounting standards adopted by the Institute of Chartered Accountants of Trinidad and Tobago;

"loss or damage" includes, in relation to persons, loss of life and personal injury;

"member" means a member of the Board;

"Minister" means the Minister to whom responsibility for civil aviation is assigned;

"navigation of aircraft" means a function which includes the piloting of aircraft;

"operator" means—

*(a)* a person, organisation or enterprise, engaged in or offering to engage in, aircraft operations, and any person who causes or authorises the operation of aircraft, in the capacity of owner, lessee or otherwise, whether with or without the control of the aircraft; and

*(b)* who or which is deemed to be engaged in the operation of aircraft within the meaning of this Act;

"pilot in command", in relation to an aircraft, means a person who for the time being is in charge of the piloting of the aircraft without being under the direction of any other pilot in the aircraft;

"propeller" includes all parts, appurtenances and accessories of a propeller;

"public aerodrome or airport" means an aerodrome or airport which is under the management of a body corporate established or owned by the State;

"Rules of the Air" means those provisions for securing the safety of aircraft in flight and in movement on the surface and the safety of persons and property on the surface. These provisions include—

*(a)* lights and signals to be shown by aircraft;

*(b)* General, Visual and Instrument Flight Rules;

*(c)* Aerodrome Traffic Rules; and

*(d)* Aerodrome Signals and Markings;

"Trinidad and Tobago aircraft" means aircraft registered in Trinidad and Tobago.

(2) A reference to any aircraft registered in Trinidad and Tobago, shall include references to any aircraft which is for the time being under the management of a person who, or of persons each of whom, is qualified to be the owner of a legal or beneficial interest in an aircraft registered in Trinidad and Tobago.

(3) Any reference in this Act to the provisions of any Regulations shall include reference to any Rules made under the said Regulations.

## PART II

## ADMINISTRATION

Functions of Minister.

**3.** (1) The Minister shall be responsible for the general administration of this Act, and for the development of policy on air navigation for Trinidad and Tobago.

(2) In furtherance of subsection (1), the Minister may give to the Board any general or special policy directions in relation to this Act, with which the Board shall comply.

(3) Directions given in furtherance of this section, shall not be inconsistent with the provisions of this Act and shall be in writing signed by the Minister.

## PART III

## ESTABLISHMENT, FUNCTIONS AND POWERS OF THE TRINIDAD AND TOBAGO CIVIL AVIATION AUTHORITY

Establishment of the Authority.

**4.** There is hereby established a body corporate to be known as "the Trinidad and Tobago Civil Aviation Authority" (hereinafter referred to as "the Authority").

Functions of the Authority. [17 of 2003].

**5.** The functions of the Authority are—

*(a)* to maintain a standard of safety and efficiency in the civil aviation system that is at least equal to the standard of safety prescribed by the Chicago Convention and any other aviation convention, agreement or understanding to which Trinidad and Tobago is a party;

*(b)* to regulate, in accordance with this Act or other written law—

(i) civil aviation operations in Trinidad and Tobago;

(ii) the operation of Trinidad and Tobago aircraft; and

(iii) the operation of maintenance organisations in respect of aircraft on the Trinidad and Tobago register;

*(c)* to license aerodromes with or without conditions to regulate the same;

*(d)* to provide technical advice, assistance or training for any person in respect of any matter in which the employees of the Authority have the requisite skill or training;

*(e)* to issue, renew, vary, extend and amend licences and other aviation documents in respect of Trinidad and Tobago aircraft in any part of the world, and to collect fees in respect thereof;

*(f)* to provide an adequate system of air traffic services in the Piarco Flight Information Region and such other airspace as may be the subject of a treaty or an agreement between Trinidad and Tobago and any other State or organisation;

*(g)* to carry out an investigation of any aircraft accident occurring in or over Trinidad and Tobago or in relation to any Trinidad and Tobago aircraft;

*(h)* the development of civil aviation and the maintenance of a civil aviation system that is consistent with national security policy;

*(i)* to advise the Minister on matters relating to civil aviation;

*(j)* to utilise the property of the Authority in such a manner as may appear to the Authority to be requisite, advantageous or convenient with a view to making the best use of any of the property of the Authority in relation to its functions under the Act; and

*(k)* such other functions as are for the time being conferred upon it by virtue of this Act or any other written law.

General powers of the Authority.

**6.** The Authority has the power to do all things necessary and convenient for, or in connection with, the performance of its functions specified in section 5.

Specific Powers. [17 of 2003].

**7.** Without limiting the generality of section 6, the Authority may—

*(a)* engage in any activity that promotes and develops civil aviation, either alone or in conjunction with other civil aviation authorities, international agencies or organisations;

*(b)* enter into contracts for the supply of goods, services or materials or for the execution of works or any other contracts as may be necessary for the discharge of its functions under this Act;

*(c)* charge fees for the use of any facility or service provided by the Authority; and

*(d)* make rules and regulations prescribing all matters that are necessary, required or permitted by this Act to be prescribed.

Performance of functions and exercise of powers.

**8.** (1) In performing its functions and exercising its powers, the Authority shall have as its paramount consideration the safety of aviation.

(2) Subject to subsection (1), the Authority shall perform its functions and exercise its powers in a manner that ensures, as far as is practicable, that the environment is protected from any detrimental effects associated with the operation and use of aerodrome and aircraft and for this purpose the Authority shall observe the provisions of the Environmental Management Act, and any other written law.

Ch. 35:05.

Delegation of Authority's functions or powers to employees of Authority.

**9.** (1) The Authority may, from time to time, either generally or particularly, delegate to the Director-General or an employee of the Authority, any of its functions or powers under this Act or under any Regulations or Rules made pursuant thereto.

(2) Such delegation referred to in subsection (1) shall be in writing and signed by the Chairman.

Right of Authority to exclusive services.

**10.** Notwithstanding the Designation of Airports Notification 1978 relating to the Piarco International Airport and Crown Point Airport, the Authority has the exclusive right to provide the following air navigation services within Trinidad and Tobago:

*(a)* aerodrome control services at international aerodromes;

*(b)* approach control services;

*(c)* area control services;

*(d)* flight information services;

*(e)* air navigation facilities; and

*(f)* aereonautical information services.

## PART IV

## THE BOARD

Establishment and Composition. First Schedule.

**11.** (1) There shall be a Board to manage the business of the Authority comprising eight persons appointed by the President in accordance with the provisions of the First Schedule and the Director-General, appointed in accordance with section 13, who shall be an *ex officio* member.

Second Schedule.

(2) The Board shall conduct its proceedings in accordance with the provisions of the Second Schedule.

Secretary.

**12.** The Board shall appoint a suitably qualified person to perform the functions of secretary and such other functions as may be assigned to him by the Board.

Appointment of Director-General.

**13.** (1) The Authority shall, from time to time appoint, with the approval of the Minister, a suitably qualified and experienced person to be the chief executive officer, who shall be known as the Director-General of Civil Aviation (hereinafter referred to as "the Director-General").

(2) The Director-General shall have and may exercise such powers or functions as may be conferred or assigned to him by this Act or Regulations made hereunder, and such powers as may be delegated to him by the Authority.

(3) Where the Director-General is temporarily unable to perform his duties by reason of illness or otherwise, the Board may appoint another suitably qualified and experienced person to act as Director-General during such period of absence from duty.

Declaration of interest.

**14.** (1) A member of the Board who was in any way, whether directly or indirectly, interested in a contract or proposed contract with or in any other matter concerning an entity regulated by the Authority, or any body corporate carrying on business with the Authority, shall, as soon as possible after the relevant facts have come to his knowledge, disclose the nature of his interest.

(2) A disclosure under subsection (1), shall be recorded in the minutes of the Board, and the member—

*(a)* shall not take part after the disclosure in any deliberation or decision of the Board with respect to that contract; and

*(b)* shall be disregarded for the purpose of constituting a quorum of the Board.

(3) For the purpose of this section, a person who or any nominee or relative of whom is a Director, a shareholder or partner in a company or other body of persons other than a statutory authority or who is an employee thereof shall be treated as having indirectly, a pecuniary interest in a contract or proposed contract.

(4) A member who fails to comply with the provisions of this section is liable on summary conviction to a fine of one hundred thousand dollars, unless he proves that he did not know that the contract, proposed contract or other matter in which he had a pecuniary interest was the subject of consideration at the meeting.

(5) In subsection (3), "relative" means spouse, common-law spouse, father, mother, brother, sister, son or daughter of a person and includes the spouse of a son or daughter of such person.

Limitation on subsequent employment.

**14A.** No member or former member, shall accept employment or enter into a contract of service with an entity regulated by the Authority, until the expiry of two years from the termination of his appointment whether by signature, revocation, effluxion of time or otherwise.

## PART V

## PLANNING AND MANAGEMENT

Corporate plan.

**15.** (1) On the coming into force of this Act, the Board shall prepare for the approval of the Minister, a three-year corporate plan (hereinafter referred to as "the Plan"), in respect of the programmes or goals of the Authority.

(2) The Plan shall include details of the following:

*(a)* the Authority's operational environment;

*(b)* the strategies of the Authority;

*(c)* performance measures of the Authority;

*(d)* review of performance against previous Plans;

*(e)* analysis of risk factors likely to affect aviation safety in the aviation industry; and

*(f)* human resource strategies and industrial relations strategies.

(3) The Plan shall also cover any other matters required by the Minister to be covered, which may include further details about the matters referred to in subsection (2).

(4) The first Plan shall take effect no later than six months after the commencement of this section.

(5) The Plan may be revised at least once a year and up to sixty days before the end of the first year of the Plan.

(6) The Board shall keep the Minister informed about—

*(a)* significant changes to the Plan; and

*(b)* matters that arise that could significantly affect the objectives of the Plan.

Minister's response to Plan.

**16.** (1) The Minister shall respond to the Board in respect of a Plan submitted in accordance with section 15, within sixty days of receipt of the Plan, failing which the Board shall be entitled to proceed with the Plan as submitted.

(2) The Minister's response may include a direction to the Board to vary the Plan.

(3) A direction under subsection (2) shall be in writing, setting out reasons therefore.

(4) In directing a variation of the Plan, the Minister shall be guided by the established objectives and policies of the Government.

(5) Where the Minister's response includes a direction to vary the Plan, the Board shall prepare a revised Plan and submit it to the Minister within thirty days of being so directed and the Minister shall likewise respond within thirty days.

**PART VI**

**FINANCE**

Trinidad and Tobago Civil Aviation Authority Fund.

**17.** (1) There is hereby established a fund to be known as the "Trinidad and Tobago Civil Aviation Authority Fund" (hereinafter referred to as "the Fund").

(2) The monies in the Fund shall comprise—

*(a)* appropriations by Parliament from the Consolidated Fund;

*(b)* such sums as are provided by foreign States, international organisations, multilateral or bilateral lending agencies, corporations or private individuals for the exercise of any of the functions of the Authority; or

*(c)* sums received by or owed to the Authority in respect of—

(i) the performance of its functions or the exercise of its powers;

(ii) interest on loans made to employees.

Application of Fund.

**18.** The money in the Fund shall be applied in defraying the following expenditure:

*(a)* the acquisition of property by the Authority in the course of performing its functions or exercising its powers;

*(b)* the remuneration and allowances of members of the Board;

*(c)* the remuneration, allowances, advances, loans, pensions and gratuities payable or made to employees;

*(d)* contributions to the pension fund plan;

*(e)* capital and operating expenses, including maintenance and insurance of the property of the Authority; and

*(f)* any other expenditure authorised by the Authority in the performance of its functions.

Estimates of expenditure.

**19.** (1) The Authority shall, at least six months before the commencement of each financial year, submit to the Minister, for his approval, estimates of expenditure in such form as the Minister may prescribe in accordance with GAAP.

(2) The Authority shall, at such time as the Minister directs, furnish him with any further information in relation to the estimates as he may require.

(3) Subject to the provisions of the Constitution, and the Exchequer and Audit Act, the estimates of expenditure, as approved by the Minister, shall be the expenditure budget of the Authority for the financial year to which it relates. Ch. 69:01.

Financial year.

**20.** (1) The financial year of the Authority shall be the period of twelve months beginning the first day of October in any year to the thirtieth day of September in every year, but the period from the date of commencement of this Act to the end of September next following shall be deemed to be the first financial year.

(2) The Authority may, with the approval of the Minister with responsibility for Finance, vary its financial year.

Accounts and audit.

**21.** (1) The Authority shall keep proper books of accounts and records in accordance with GAAP, of all moneys received and expended and shall record the matters in respect of which such sums were received and expended.

(2) Within three months after the end of each financial year, the Authority shall cause to be prepared, in respect of that year—

*(a)* a report setting out the activities of the Authority; and

*(b)* financial statements prepared in accordance with GAAP and any other statement as required by the Minister with responsibility for Finance.

(3) In instances where the standards included in GAAP are inappropriate or inadequate, the Treasury shall provide the appropriate instructions.

(4) The accounts of the Authority are public accounts of Trinidad and Tobago for the purposes of section 116 of the Constitution. Ch. 1:01.

(5) As soon as the accounts of the Authority have been audited, the Auditor General shall submit his report in accordance with section 116 of the Constitution and shall forward a copy of the said report to the Minister.

Ch. 1:01.

(6) Nothing in this section precludes the Auditor General or an auditor engaged by the Board or the Minister of Finance from performing a management or comprehensive audit of the activities of the Authority.

Borrowing from Government sources.

**22.** The Minister with responsibility for Finance may, on behalf of the Government out of money appropriated by Parliament for that purpose, lend money to the Authority on such terms and conditions as he determines in writing.

Borrowing from non-government sources.

**23.** (1) The Authority may, with the approval of the Minister with responsibility for Finance, borrow money from bodies or persons other than the Government.

(2) Money may be borrowed wholly or partly in foreign currency.

(3) The Authority may, with the approval of the Minister with responsibility for Finance, give security over the whole or any part of its property for the due performance of its obligations incurred pursuant to this section.

Exemption from Central Tenders Board Act. Ch. 71:91.

**24.** (1) The Authority in the performance of its functions is not subject to the provisions of the Central Tenders Board Act, but the Authority shall, until such time as it makes its own Rules, observe the provisions of that Act.

(2) The Board shall, with the approval of the Minister, make Rules subject to negative resolution, relating to the award of tenders and contracts and those Rules shall be published in the *Gazette* and shall govern the conduct of the award of tenders and related matters.

(3) The Rules shall make it mandatory for every tender to be opened in public and for the parties to and contents of each tender to be publicly announced.

## PART VII

## STAFF

Board to employ staff.

**25.** (1) The Board may—

*(a)* employ such staff as is required by the Authority for the proper administration of its functions;

*(b)* fix qualifications, terms and conditions of service and salaries for its employees.

(2) The Board shall not fix the terms and conditions of service, salaries and perquisites for its executive management without the prior approval of the Minister.

Options available to public officers. Third Schedule.

**26.** A person who, on commencement of this section, is a public officer appointed to an office listed in the Third Schedule either by permanent or temporary appointment, in which he has served for at least two continuous years, shall within three months of the date of commencement of this section exercise one of the following options:

*(a)* to voluntarily retire from the Public Service on terms and conditions as agreed between him or his appropriate recognised association and the Chief Personnel Officer;

*(b)* to transfer to the Authority with the approval of the Public Service Commission on terms and conditions no less favourable than those enjoyed by him in the Public Service; or

*(c)* to remain in the Public Service.

Association deemed to be certified recognised majority union. [17 of 2003]. Ch. 88:01.

**26A.** Subject to the Industrial Relations Act, the Public Services Association of Trinidad and Tobago shall be deemed to be the certified recognised majority union under Part III of the Industrial Relations Act for the bargaining unit comprising the monthly paid/monthly rated employees of the Authority.

Application for certification of recognition. [17 of 2003]. Ch. 88:01.

**26B.** An application for certification of recognition under Part III of the Industrial Relations Act shall not be entertained or proceeded with where the application is made earlier than two years from the

date on which this amendment comes into force, but an application may be made with leave of the Court although two years have not expired since the amendment came into force, in which event the procedures set out under section 38(2) and (3) of the Industrial Relations Act shall apply.

Right of employees to form or join associations or trade unions. [17 of 2003].

**26C.** Employees may form an association which may be registered as a trade union or may join a trade union.

Employment of specific tasks.

**27.** The Authority may enter into contracts for services with persons for the performance of such tasks that the Authority considers necessary for the due performance of its functions and exercise of its powers under this Act, on such terms and conditions as are agreed between the Authority and the person and approved by the Minister.

Establishment of plan.

**28.** (1) The Authority shall within two years of the pension fund coming into operation of this Act, establish a pension fund plan.

(2) All employees of the Authority shall be members of the pension fund plan.

Preservation and accrual of superannuation benefits.

Ch. 23:52.
Ch. 23:53.

**29.** The superannuation benefits which have accrued to a person who exercises the option under section 26*(b)*, shall be preserved at the date of his employment by the Authority, and such person shall continue to accrue superannuation benefits under the Pensions Act or the Pensions Extension Act up to the date of commencement of the establishment of the pension fund plan on the basis of salary applicable to the office which he held immediately prior to his employment by the Authority.

Payment of superannuation benefits by the Authority prior to the establishment of pension fund.

**30.** (1) Where an employee of the Authority who had exercised the option referred to in section 26*(b)*, dies, retires, is retrenched or his post in the Authority is abolished prior to the establishment of the pension fund plan, and at the date of death, retirement, abolition or retrenchment, was in receipt of a salary higher than that referred to in section 29, the superannuation benefits payable to the employee or his estate shall be based on the higher salary.

(2) The difference between the superannuation benefits payable on the basis of the higher salary and those payable under the Pensions Act or the Pension Extension Act on the basis of the salary referred to in section 30, shall be paid by the Authority. Ch. 23:52. Ch. 23:53.

Payment of superannuation benefits by pension fund plan.

**31.** (1) When an employee of the Authority who had exercised the option referred to in section 26*(b)* dies, retires, is retrenched or his post in the Authority is abolished and he was a member of the pension fund plan, he or his estate shall be paid superannuation benefits by the pension fund plan at an amount which when combined with the superannuation benefits payable under section 29 is equivalent to the benefits based on his pensionable service in the Public Service combined with his service in the Authority and calculated at his salary applicable to him on the date of his death, retirement, abolition of his office or retrenchment.

(2) For the purposes of subsection (1) "salary" has the meaning given to it by the pension fund plan.

## PART VIII

## TRANSITIONAL

Transitional. [17 of 2003].

**32.** (1) Members of the Board of the former Authority shall continue in office in accordance with their respective instruments of appointment subject to the provisions of termination and removal as provided for in the First Schedule. First Schedule.

(2) Any arrangement or contract, aviation documents or resolution prepared, made, executed or approved by or on behalf of the Civil Aviation Authority established under the former Civil Aviation Authority Act, (the former Authority), shall continue and be deemed to have been prepared, made, executed or approved by the Authority pursuant to this Act. 33 of 2000.

(3) All obligations and liabilities of the Civil Aviation Division and the former Authority immediately before the commencement of this Act shall from that date be the obligations and liabilities of the Authority and the Authority shall have all the necessary powers to discharge them.

(4) Where anything has been commenced by or on behalf of the Civil Aviation Division and the former Authority, before the commencement of the Act, such thing may be carried on and completed under the authority of the Authority.

(5) In any written law in any agreement or any other document, unless the context otherwise requires, any reference to the Civil Aviation Division and the former Authority shall be construed as a reference to the Authority.

(6) All duties and functions carried out by the Civil Aviation Division immediately before the commencement of the former Act, and which were carried out by the former Authority, shall from the date of commencement of this Act, be undertaken by the Authority.

Fourth Schedule.

(7) All real and personal property listed in the Fourth Schedule, now held by or vested in any person for the use and benefit of the Civil Aviation Division and the former Authority are hereby transferred to and vested in the Authority.

## PART IX

## REGULATION OF AIR NAVIGATION

Power to effect to Chicago Convention and regulate air. [17 of 2003].

**33.** (1) For the purpose of carrying out and giving effect to the Chicago Convention, and any other related Protocols, the Authority shall, with the approval of the Minister make Regulations for—

*(a)* the licensing, inspection and regulation of navigation aerodromes;

*(b)* a system for the national registration of aircraft;

*(c)* the issuing of certificates of airworthiness and for prohibiting aircraft from flying unless such certificates, whether issued or validated are in force;

*(d)* the certification of air operators;

*(e)* the certification of airmen;

*(f)* the certification of aviation schools, approved maintenance organisations and repair stations;

*(g)* the conditions under which passengers may be carried by air and under which aircraft may be used for other commercial, industrial or gainful purposes;

*(h)* the conditions under which goods may be carried by air;

*(i)* securing the efficiency and regularity of the operations of air navigation and the safety of aircraft and of persons and property carried thereon, and of persons and property on the ground;

*(j)* prohibiting the carriage by air, such goods as may be specified by the Regulations;

*(k)* conferring on such persons as may be specified, powers relating to the enforcement of any such condition or prohibition including powers to examine, take samples of, seize and detain any goods, powers to open any baggage or packages containing goods after obtaining from a Magistrate a warrant to do so or to require them to be opened and powers to require the production of any documents;

*(l)* prescribing the fees to be paid in respect of the issue, validation, renewal, extension or variation of any aviation document or the undergoing of any examination or test required by, or in pursuance of the Regulations, or in respect of any other matter for which it appears to the Minister to be expedient to charge fees;

*(m)* ensuring that foreign air carriers operating in Trinidad and Tobago comply with the safety and security requirements of the Chicago Convention;

*(n)* registration of mortgages and any other liens on aircraft;

*(o)* giving effect to the Rules of the Air; and

*(p)* for any other matters required by or necessary to implement this Act.

*L.R.O.*

(2) Regulations made under this section, may provide—

*(a)* the examinations and tests to be undergone, and as to the form, custody, production, cancellation, suspension, endorsement and surrender of any such document; and

*(b)* for imposition of penalties not exceeding a fine of two hundred and fifty thousand dollars and imprisonment of two years.

(3) Regulations made under subsections (1) and (2)*(b)* shall be subject to negative resolution of Parliament.

(4) In this section a reference to "goods" shall include a reference to mail or animals.

(5) ***(Repealed by Act No. 17 of 2003).***

Standards. [17 of 2003].

**33A.** The Director-General may prescribe standards in respect of Regulations made under this Act.

Emergency regulations and rules. [17 of 2003].

**33B.** (1) The Director-General may make emergency regulations and emergency rules in circumstances where it is expedient to do so and shall disseminate same immediately by electronic means or any other expedient means, according to the circumstances.

(2) In furtherance of subsection (1), the emergency regulations and emergency rules shall be published in two daily newspapers within forty-eight hours of the making thereof.

Minister may approve, or revoke. [17 of 2003].

**33C.** (1) The Minister may within seventy-two hours of the making of an instrument under section 33B(1)—

*(a)* by Order published in the *Gazette,* approve such instrument; or

*(b)* by Regulations or Rules as the case may be, published in the *Gazette,* amend or revoke the instrument made under section 33B(1).

(2) An Order, Regulation or Rule made by the Minister under subsection (1), shall be published in two daily newspapers within forty-eight hours of the making thereof.

Licensing of aerodromes. [17 of 2003].

**34.** (1) The Authority shall licence annually, all private and public aerodromes, and issue certificates without or with such conditions and subject to the payment of such fees as may be prescribed under section 33.

(2) The Authority in considering the grant of a licence in relation to an aerodrome shall take into account, in addition to other things, the need to minimise so far as is reasonably practicable—

*(a)* any adverse effects on the environment; and

*(b)* any disturbance to the public, from noise, vibration, atmospheric pollution or any other cause attributable to the use of aircraft for the purpose of civil aviation.

Air operator certificates.

**35.** (1) The Authority shall issue Air Operator Certificates to persons qualified in the manner prescribed.

(2) A certificate issued under subsection (1) shall specify the minimum safety standards for the operation of the air operator.

Airman certificates.

**36.** (1) The Authority shall issue Airman Certificates to persons qualified in the manner prescribed under section 33.

(2) A certificate issued under subsection (1), shall specify the category in which the holder is authorised to serve as an airman in connection with an aircraft.

Access. [17 of 2003].

**37.** For the purpose of the issue of any licence or certificate under section 33 (1)*(a)*, *(b)*, *(c)*, *(d)* and *(e)*, the Director-General shall have access by an applicant or the holder of a licence or certificate at any place and time to conduct any tests or inspections in order to determine that their operations are conducted in accordance with prescribed safety or other standards.

Registration of aircraft. [17 of 2003].

**38.** (1) The Director-General shall establish and maintain a system for the national registration of aircraft in Trinidad and Tobago in accordance with Regulations made under section 33 (1)*(b)*.

*L.R.O.*

(1A) The Authority shall be responsible for the national registration of aircraft and shall cause a register to be kept in the form and manner prescribed.

(2) It shall be unlawful to operate a civil aircraft in Trinidad and Tobago unless it is registered in Trinidad and Tobago or is registered under the laws of another Contracting State.

Amendment, modification, suspension and revocation of aviation documents.

**39.** (1) The Director-General from time to time may, for any reason, re-inspect or re-examine, any civil aircraft, aircraft engine, propeller, appliance, air operator, school or repair station, or to re-examine any airman holding a certificate under this Part.

(2) Where, as a result of any re-examination, re-inspection or any other investigation made by the Director-General, it is determined that safety in civil aviation or in commercial air transport and the public interest requires, he may issue a recommendation to the Authority to amend, suspend or revoke in whole or in part, any airworthiness certificate, airman certificate, air operator certificate, or certificate for any airport, school or repair station, issued under this Act.

(3) The Director-General shall give written reasons for the determination made under subsection (2).

(4) Subject to section 42(2), the Authority shall act in accordance with the recommendation of the Director-General under subsection (2).

Right of access.

**40.** (1) In addition to the right of access granted under section 37, the Director-General shall have access to civil aircraft without restriction wherever they are operated in Trinidad and Tobago and to civil aircraft registered in Trinidad and Tobago wherever they are operated in the world for the purposes of ensuring that those aircraft are airworthy and being operated in accordance with this Act.

(2) In furtherance of subsection (1), the Director-General may—

*(a)* make such inspections of aircraft, aircraft engines, propellers and appliances used by any operator

of civil aircraft, as may be necessary to determine whether the operators are maintaining them in conditions which are safe for the operation in which they are used; and

*(b)* advise each operator of the inspection and maintenance of these items.

(3) Where the Director-General finds that any aircraft, aircraft engine, propeller, or appliance, used or intended to be used by any operator in civil aviation is not in a condition which is safe for use, the Director-General shall notify the operator and such aircraft, aircraft engine, propeller or appliance shall then not be used in civil aviation operations until and unless found by the Director-General to be in a condition which is safe for use.

Authority to prevent flight.

**41.** (1) The Authority shall direct the operator or airman of a civil aircraft that the aircraft is not to be operated in situations where—

*(a)* the aircraft is not airworthy;

*(b)* the airman may not be qualified or physically or mentally capable for the flight; or

*(c)* the operation would cause imminent danger to persons on the ground.

(2) In the circumstances of subclause (1), the Director-General may take steps to prevent the aircraft from being operated or the airman from operating an aircraft.

Appeals.

**42.** (1) Subject to subsection (2), where—

*(a)* a person is aggrieved by any recommendation of the Director-General under section 39 or action taken by the Authority under section 41;

*(b)* it is decided that it would be inexpedient in the public interest for an aircraft to be registered in Trinidad and Tobago; or

*(c)* an applicant for the grant, validation or variation of an aviation document has been refused or granted in terms other than those requested by the applicant,

the aggrieved person may, within 14 days after the date of service of the Director-General's decision, request that the case be reviewed by the Board.

(2) On the filing of an appeal with the Board, the effectiveness of the Director-General's recommendation shall be stayed, unless the Director-General informs the Board that an emergency exists and safety in civil aviation requires the immediate effectiveness of the recommendation, in which event the Board shall order that the Director-General's decision shall remain in effect.

(3) An appeal from a decision of the Board shall lie to an independent tribunal, appointed by the Minister from time to time and constituted in accordance with subsection 4.

(4) The Appeal Tribunal shall be constituted as follows:

*(a)* a pilot with at least ten years experience as an aircraft commander of an aircraft with a certified maximum gross take-off weight in excess of 20, 000 kilogrammes;

*(b)* an aviation engineer with at least ten years airline maintenance experience;

*(c)* an Attorney-at-law with at least five years practising experience in the Courts of Trinidad and Tobago;

*(d)* any other specialist person for the particular instance.

(5) Members of the tribunal shall be considered for their proven record of knowledge of the local and international aviation regulatory environment and their record of integrity.

(6) Section 14, subsections (2), (3), and (4) apply "*mutatis mutandis*" to the members of the Appeal Tribunal.

(7) The terms and conditions of the Appeal Tribunal will be set by the Board from time to time.

(8) Nothing in this section shall be construed as limiting the right of any person to apply to the High Court for judicial review, or for any remedy that may be available to that person.

## PART X

## SAFETY MEASURES

Protected Installation. [17 of 2003]. Fifth Schedule.

**43.** (1) For the purposes of this section, the Air Navigation installations described in the Fifth Schedule shall be deemed to be protected installations.

(2) No person may enter or remain in a protected installation except with general or written specific permission of the Authority and subject to such conditions as may be attached to the grant of such permission.

(3) No person shall tamper with, or interfere with any equipment, appliances, or machinery in a protected area.

(4) No person may without permission of the Authority remove or disturb in any way whatever any building, sign, fence, pipe, hose, coupling, post, gate, marker, or other structure within a protected installation.

(5) A person who contravenes subsections (2), (3) and (4) commits an offence.

Marking or removal of objects which constitute hazards to air navigation.

**44.** (1) Subject to subsection (2), whenever any object which is located on the surface constitutes obstruction or potential hazard to aircraft in navigable airspace in the vicinity of an airport or elsewhere, the Minister may cause a notice to be served on the owner of the property in which the object is located, directing the owner within such reasonable time as is specified in the notice—

*(a)* to remove the object or such portion of it specified in the notice as is practicable and necessary; or

*(b)* to install lights or other apparatus of approved types and mark it in accordance with the requirements of the Chicago Convention.

(2) Any person suffering damage or loss in consequence of or under a direction under subsection (1), shall be paid such compensation as is agreed between the Authority and the person, and in default of agreement, the amount of the compensation shall be fixed by the High Court.

(3) A person who, without reasonable excuse, fails to comply with a direction contained in a notice under subsection (1), commits an offence and is liable on summary conviction to a fine of fifty thousand dollars and imprisonment for two years.

(4) Notwithstanding the other provisions of this section, no compensation shall be payable for any loss or damage suffered as a consequence of a direction under this section where the object has been erected or planted in contravention of any Regulations made under section 45.

(5) In this section—

"navigable airspace" means the airspace above the minimum altitudes of flight prescribed by Regulations made under section 33 and includes airspace required to ensure safety in take-off and landing of aircraft;

"owner" includes occupier;

"object" includes any building, structure, erection, any tree or vegetation, any vehicle or vessel (whether stationary or otherwise) or anything.

Power to make Regulations for the use of land in vicinity of airports to ensure safety.

**45.** (1) For the purpose of ensuring the safety of aircraft in accordance with normal aviation practice the Minister may make Regulations restricting the use of land in the vicinity of airports including Regulations for the prohibition and restriction—

*(a)* structures or other things in any area specified;

*(b)* the planting of, or the limitation of the height of, any trees in any area specified;

*(c)* the sowing or growing of any plant or crop in any area specified;

*(d)* the bringing of vessels or vehicles into any area specified, or the anchoring, mooring or standing of any vessel or vehicle therein.

(2) Regulations made under subsection (1) shall be subject to negative resolution of Parliament.

(3) Subject to subsection (4) any owner or occupier of land who suffers loss or damage in respect of a public airport, in

consequence of any Regulations made under subsection (1), shall be eligible for compensation and he shall submit a claim to the Minister within a period of six months after the publication of those Regulations in the *Gazette*.

(4) In determining any compensation under subsection 3—

*(a)* the loss or damage shall be assessed, having regard only to circumstances in existence at the time of the publication of the Regulations; and

*(b)* the maximum amount of compensation payable shall not exceed the amount by which the market value of the land is reduced as a result of the making of the Regulations.

(5) In the event of disagreement as to the amount of compensation to be paid in respect of a claim under subsection (3) the amount shall be fixed by the High Court.

(6) Regulations made under this section may make provision for the imposition of fines not exceeding ten thousand dollars.

Use of airports by aircraft of Contracting States.

**46.** The person in charge of any airport in Trinidad and Tobago which is open to public use by aircraft registered in Trinidad and Tobago shall cause the airport and all air navigation facilities provided thereat to be available for use by aircraft registered in other Contracting States on the same terms and conditions as for use by aircraft registered in Trinidad and Tobago.

Duty to provide air navigation services.

**47.** It shall be the duty of the Authority to provide air navigation services—

*(a)* in Trinidad and Tobago; and

*(b)* for any area outside of Trinidad and Tobago for which the Contracting State has in pursuance of international arrangements, undertaken to provide air navigation services,

to the extent which it appears to the Authority that such services are necessary for the safety of air navigation and are not being provided by him or by some other person.

Charges for air navigation services.

**48.** (1) The Authority with the approval of the Minister may make Regulations for requiring the payment to the Authority of charges, of such amounts in such currencies as may be prescribed in respect of air navigation services which, either in pursuance of international arrangements or otherwise, are provided for aircraft by the Authority or any other person or by any persons jointly.

(2) The liability for any charges payable by virtue of the Regulations under subsection (1), may be imposed upon the operators or owners of aircraft for which the air navigation services in question are made available, whether or not they are actually used or could be used with the equipment installed in the aircraft or upon those operators or owners or upon the managers of airports used by such aircraft, or partly upon those operators and owners and partly upon those managers.

(3) Regulations made under subsection (1), may provide for the charges payable under the Regulations to be so recoverable in Trinidad and Tobago wherever they are payable without prejudice to the right of recovery elsewhere and liability for any charges under the Regulations may be imposed upon the operator of any aircraft whether or not it is registered in Trinidad and Tobago, whether or not it is in or over Trinidad and Tobago, at the time when the services to which the charges relate are provided and whether or not such services are provided from a place in Trinidad and Tobago.

(4) For the purposes of facilitating the assessment of charges payable by virtue of Regulations under this section, the Regulations may make provision for requiring operators of aircraft or managers of airports to make such records of the movements of aircraft, and such other particulars relating to aircraft, as may be prescribed and these requirements may be imposed upon the operator of any aircraft, whether or not it is in or over Trinidad and Tobago at the time when the services to which charges relate are provided and whether or not these services are provided from a place in Trinidad and Tobago.

(5) Any person who without reasonable cause, fails to comply with any requirement of any Regulations made under subsection (4), shall be liable on summary conviction to a fine of ten thousand dollars and to imprisonment for six months.

(6) Without prejudice to any other power conferred by this Act to detain aircraft, Regulations made under this section may make provision, in the case of default in the payment of any charges by an operator under the Regulations, for authorising the detention, pending payment, of the aircraft in respect of which the charge was incurred or of any other aircraft of which the person in default is the operator at the time the detention begins and such Regulations may make such further provision as appears to the Authority to be expedient for securing such detention.

(7) The High Court shall have jurisdiction to hear and determine a claim for charges or interest payable to the Authority by virtue of Regulations made under this section, notwithstanding that the person against whom the claim is made is not resident within the jurisdiction of the Court.

Interferences with navigational aids.

**49.** (1) Where the Director-General has reason to believe that an installation is or may be either actively or passively causing interference with navigational aids or with radio communications to or from aircraft, in circumstances that are likely to endanger the safety of aircraft in air navigation, he may cause a notice to be served on the owner directing him to permit the installation to be inspected and tested by an authorised person.

(2) Upon the service of the notice, an authorised person may enter the premises or place where the installation is installed, kept or operated and inspect or test the installation.

(3) An authorised person exercising powers under subsection (2), shall produce identification in writing if requested to do so.

(4) If as a result of such an inspection or otherwise, the Director-General considers it necessary to do so for the safety of the aircraft referred to in subsection (1), the Director-General may cause a notice to be served on the proprietor directing the proprietor to make such modifications to the installation, or to take such other action, as is necessary to eliminate the cause of the interference, within a reasonable time specified in the notice.

(5) If the installation has been installed and is used and operated in accordance with all applicable laws, the proprietor may recover from the Authority the amount of all reasonable expenses incurred and of loss actually suffered, in complying with a direction under subsection (4).

(6) A person who, without reasonable excuse, fails to comply with a direction contained in a notice under this section commits an offence and is liable on summary conviction to a fine of fifty thousand dollars and imprisonment for one year.

(7) In this section—

"installation" includes any electrical or other equipment or any metallic structure; and

"owner", in relation to an installation, means the owner or user of the installation or the owner and occupier of the premises or place where the installation is installed, kept or operated.

## PART XI

## AIRCRAFT

Liability in respect of trespass, nuisance damage.

**50.** (1) No action shall lie against any person in respect of trespass or nuisance, by reason of the flight of an aircraft over any property at a height above the ground which, having regard to wind, weather and all the circumstances of the case is reasonable, or the ordinary incidents of such flight, so long as the person is not guilty of dangerous flying within the meaning of section 58 and there has been no breach of Regulations made under section 45.

(2) Subject to subsection (3), where material loss or damage is caused to any person or property on land or water by, a person in, or an article, animal or person falling from an aircraft while in flight, taking off or landing, then unless the loss or damage was caused or contributed to by the negligence of the person by whom it was suffered, damages in respect of the loss or damage shall be recoverable without proof of negligence, intention or other cause of action, as if the loss or damage had been caused by the willful act, neglect, or default of the owner of the aircraft.

(3) Where the material loss or damage is caused aforesaid in circumstances in which—

*(a)* damages are recoverable in respect of the loss or damage by virtue only of subsection (2); and

*(b)* a legal liability is created in some person other than the owner to pay damages in respect of the said loss or damage,

the owner shall be entitled to be indemnified by that other person against any claim in respect of the said loss or damage.

(4) Where the aircraft concerned has been *bona fide* demised, let or hired out for any period exceeding fourteen days, to any other person by the owner thereof and no pilot, commander, navigator or operative member of the crew of the aircraft, is in the employment of the owner, this section shall have effect as if for references to the owner, there were substituted reference to the person to whom the aircraft has been so demised, let or hired out.

Power to provide for registration of mortgages of aircraft.

**51.** The Authority may, with the approval of the Minister, make Regulations for the establishment of a registry of all legal rights in an aircraft registered in Trinidad and Tobago or capable of being so registered.

Power to give effect to Convention on rights to aircraft.

**52.** (1) The Minister may make Regulations for giving effect to the Convention on the International Recognition of Rights in Aircraft as amended, the Convention on International Interest in Mobile Equipment and related Protocols.

(2) Regulations made under this section may, in particular, make provision—

*(a)* for the recognition in Trinidad and Tobago of rights of the kind specified in the Convention in or over aircraft registered in other States party to the Convention, being rights registered or recorded in those States in accordance with the Convention and recognised as valid by law of the State contracting party to the Convention in which the aircraft in question was registered when the rights were constituted;

*(b)* in respect of the operation, in relation to such aircraft of any of the enactments in force in Trinidad and Tobago relating to bills of sale or the registration of charges on the property or undertaking of companies;

*(c)* for prohibiting the sale in execution of any such aircraft without an order of a Court, and otherwise for safeguarding in the case of such a sale, any such rights as are mentioned in paragraph *(a)* above;

*(d)* for the recognition in Trinidad and Tobago of priority to other rights in or over any other aircraft or any aircraft registered in Trinidad and Tobago, of any charge consequent on salvage or similar operations in respect of the aircraft, being a charge arising in accordance with the law of any other such party to the Convention in which the operations terminated;

*(e)* for the application, in accordance with the Convention, of provisions corresponding to those made by virtue of paragraphs *(a)* to *(d)* to cases where a right such as is mentioned in paragraph *(a)* (being a right created as security for the payment of indebtedness) extends to any store of spare parts for the aircraft in question.

Application of law of wreck and salvage to aircraft.

**53.** (1) Any services rendered in assisting, or in saving life from, or in saving the cargo or equipment of an aircraft in, on or over the sea, or any tidal water, for on or over the shores of the sea or any tidal water shall be deemed to be salvage services in all cases in which they would have been salvage services if they had been rendered in relation to a vessel.

(2) Where salvage services are rendered by an aircraft to any property or person, the owner of the aircraft shall be entitled to the same reward for the services as he would have been entitled to if the aircraft had been a vessel.

(3) Subsections (1) and (2) shall have effect notwithstanding that the aircraft concerned is a foreign aircraft and notwithstanding that the services in question are rendered elsewhere than within the limits of the territorial waters adjacent to Trinidad and Tobago.

(4) The Authority with the approval of the Minister may make Regulations prescribing any provisions of the Shipping Act and of any other enactments which relate to wreck, to salvage of human life or property or to the duty of rendering assistance to vessels in distress shall, with such modifications if any, as may be prescribed, apply in relation to aircraft as those provisions apply in relation to vessels. Ch. 50:10.

## PART XII

## OFFENCES AND PENALTIES

**54.** (1) The jurisdiction of the Court shall extend to any offence under this Act, if the act constituting such offence took place on board— Jurisdiction of the Court. [17 of 2003].

*(a)* any civil aircraft registered in Trinidad and Tobago;

*(b)* any civil aircraft leased with or without crew to an operator whose principal place of business is in Trinidad and Tobago, or, if the operator does not have a principal place of business, whose permanent residence is in Trinidad and Tobago;

*(c)* any civil aircraft on or over the territory of Trinidad and Tobago;

*(d)* any other civil aircraft in flight outside Trinidad and Tobago if—

(i) the next landing of the aircraft is Trinidad and Tobago; and

(ii) the commander of the aircraft has delivered the suspected offender to the competent authorities of Trinidad and Tobago, requested its authorities to prosecute the suspected offender and affirmed that no similar request has been or will be made by the commander or the operator to any other State.

(2) In this section—

*(a)* "Court" means a Summary Court under the Summary Courts Act; and

Ch. 4:20.

*(b)* "territory of Trinidad and Tobago" means the islands of Trinidad and Tobago and includes the territorial sea as defined in the Territorial Sea Act and archipelagic waters of Trinidad and Tobago as defined in the Archipelagic Waters and Exclusive Economic Zone Act.

Ch. 1:51.

Ch. 51:06.

Prohibitions.

**55.** (1) No person shall—

*(a)* operate any civil aircraft, for which there is not in effect an airworthiness certificate or in violation of the terms of such certificate;

*(b)* serve in any capacity as an airman in connection with any civil aircraft or component or appliance used or intended for use in civil aviation, without the appropriate Airman Certificate, in violation of any Airman Certificate, or in violation of this Act;

*(c)* employ for service in connection with any aircraft used in civil aviation, an airman who does not carry the appropriate airman certificate governing his employment;

*(d)* operate as an air operator without an air operator's certificate or in violation of the terms of such certificate;

*(e)* while holding a certificate issued to a school or repair station, violate any term, condition or limitation thereof, or violate any Rule, Order or Regulation made under this Act, relating to the holder of such certificate; and

*(f)* operate an aerodrome without a valid licence issued by the Authority.

(2) Any person who contravenes this section is guilty of an offence and is liable on summary conviction to a fine of one hundred thousand dollars.

Penalties.

**56.** (1) Except as otherwise expressly provided in this Act, proceedings in respect of offences under this Act shall be prosecuted under the Summary Courts Act. Ch. 4:20.

(2) A person who commits an offence under this Act for which no specific penalty is provided, is liable to a fine of four thousand dollars and to imprisonment for six months.

(3) Where an offence under this Act is a continuing one, and no penalty is provided in respect of this continuance thereof elsewhere than in this section, every person who commits that offence, in addition to any other liability, is liable to a fine of five hundred dollars for every day or part thereof during which the offence continues.

Compounding of offences.

**57.** (1) Notwithstanding any other provisions of this Act, or any Regulation, Rules or Orders made hereunder, the Director-General may compound any offence under this Act, by accepting from the person reasonably suspected of having committed such offences, a fine not exceeding forty thousand dollars.

(2) On payment of any sum of money, under subsection (1)—

*(a)* the operator reasonably suspected of having committed the offence in respect of which the payment has been made shall, if in custody, be discharged;

*(b)* any aircraft detained in respect of such offence shall be released; and

*(c)* no further proceedings shall be taken against such person or aircraft in respect of such offence.

Dangerous flying.

**58.** (1) Where an aircraft is flown in such a manner as to be the cause of unnecessary danger to any person or property on land or water, the commander of the aircraft, and also the owner or operator thereof, unless he proved to the satisfaction of the Court that the aircraft was so flown without his actual fault or knowledge, shall be liable on summary conviction to a fine of one hundred and fifty thousand dollars and to imprisonment for one year.

(2) In this section the expression "owner" in relation to an aircraft includes any person by whom the aircraft is hired at the time of the offence.

(3) The provisions of this section shall be in addition to and not in derogation of the powers conferred on the Authority by section 7.

Prohibition of advertising.

**59.** (1) Except in such circumstances as may be prescribed, no aircraft in the air over Trinidad and Tobago shall be used, whether wholly or partly, for emitting or displaying any advertisement or other communication in such a way that the advertisement or communication is audible or visible from the ground.

(2) Any person who uses an aircraft, or knowingly causes or permits an aircraft to be used, in contravention of subsection (1), commits an offence and shall be liable on summary conviction—

*(a)* in the case of a first conviction of an offence under this section, to a fine of five thousand dollars;

*(b)* on subsequent convictions, to a fine of ten thousand dollars and to imprisonment for six months.

Disruptive behaviour on board.

**60.** (1) A person shall not, while in an aircraft—

*(a)* interfere with a crew member or passenger;

*(b)* do any act that threatens the safety of the aircraft or of persons on board the aircraft;

*(c)* use abusive language or insulting words towards a crew member or passenger;

*(d)* intentionally interfere with the performance of duty by a crew member.

(2) A person shall not tamper with an aircraft or an aircraft engine, on board the aircraft.

(3) A person on board an aircraft in flight who is intoxicated to such extent as to give rise to a reasonable apprehension that he or she is likely to endanger the safety of himself or herself or the safety of others on board the aircraft shall be guilty of an offence.

(4) A person on board an aircraft in flight who, without justification, engages in behaviour that is likely to cause serious offence or annoyance to any person on board the aircraft at any time after having been requested by a member of the crew of the aircraft to cease such behaviour, shall be guilty of an offence.

(5) Any person who commits an offence under this section shall be liable on summary conviction to a fine of twenty-five thousand dollars and imprisonment for one year.

(6) The term "in flight" for the purposes of this section shall mean the period from the moment when power is applied for the purpose of take-off until the moment when the landing run ends.

Maintenance of order on aircraft.

**61.** (1) The pilot in command of an aircraft, with such assistance as he requires, may—

*(a)* take such action, including the removal of a person from the aircraft, or the placing of a person under restraint or in custody, by force, as he considers necessary to ensure compliance with the provisions of this Part or the Regulations made under section 33 in relation to the aircraft; and

*(b)* detain the passengers, crew and cargo for such period as he considers reasonably necessary to ensure compliance with the provisions of this Part and the aforesaid Regulations, in or in relation to the aircraft.

(2) A person who, on an aircraft in flight, whether within or outside Trinidad and Tobago, is found committing, or is reasonably suspected of having committed, or having attempted to commit, or being about to commit, an offence against the provisions of this Part or the foresaid Regulations may be arrested without warrant by a member of the crew of the aircraft in the same manner as a person who is found committing a felony may, at common law, be arrested by a constable and shall be dealt with in the same manner as a person so arrested by a constable.

(3) The provisions of this section shall be in addition to and not in derogation of the provisions of the Civil Aviation (Tokyo Convention) Act. Ch. 11:21.

Investigation of accidents.

**62.** (1) The Authority shall with the approval of the Minister make Regulations—

*(a)* for the investigation of any accident arising out of or in the course of air navigation and either occurring in or over Trinidad and Tobago or occurring elsewhere to aircraft registered in Trinidad and Tobago; and

*(b)* for carrying out the provisions of any Annex to the Chicago Convention (being an Annex adopted in accordance with the Convention and relating to the investigation of accidents involving aircraft) as it has effect from time to time with any amendment made in accordance with the Convention (hereinafter in this section referred to as "the Annex").

(2) A person who contravenes any Regulations made under this section, commits an offence and is liable on summary conviction to a fine of five thousand dollars and to imprisonment for six months.

(3) The provision of Part XIX of the Shipping Act shall apply *mutatis mutandis* to the provisions of this section. Ch. 50:10.

Transportation of dangerous goods by air.

**63.** The Authority shall monitor and enforce compliance with the provisions of Annex 18 of the Chicago Convention and the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air, and is authorised to submit variations to the Technical Air Instructions on behalf of Trinidad and Tobago where necessary.

Offer or acceptance of dangerous goods.

**64.** Any person who offers or accepts dangerous goods for commercial air transport in violation of Annex 18 to the Chicago Convention or the ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air, or violates any duty

imposed thereunder, commits an offence and shall be liable to a penalty of five hundred thousand dollars for each part of the Technical Instructions that are violated.

Complaints to and investigations by the Director-General.

**65.** (1) Any person may file with the Director-General, a complaint in writing with respect to anything done or omitted to be done by any person in contravention of this Act or any requirement established pursuant hereto.

(2) Where the Director-General is of the opinion that there appears to be reasonable ground for investigating the complaint, the Director-General shall so investigate.

(3) Where the Director-General is of the opinion that a complaint does not state facts that warrant an investigation or action, he may dismiss the complaint without hearing, but shall give reasons for the dismissal.

(4) Notwithstanding subsection (1) the Director-General may institute an investigation at any time, in any case and as to any matter or thing within his jurisdiction under this Act, concerning—

*(a)* a complaint authorised to be made under this Act;

*(b)* any question arising under any of the provisions of this Act; and

*(c)* the enforcement of any of the provisions of this Act,

and the Director-General shall proceed with such investigation in the same manner as if it were made by complaint.

(5) Where the Director-General finds, after notice and hearing, in any investigation, that any person has failed to comply with any provision of this Act or any requirement established pursuant hereto, the Director-General shall issue an appropriate order to compel such person to comply therewith.

Evidence.

**66.** The Director-General may conduct hearings, and require the attendance of witnesses, and the production of all books, and documents in relation to any matter under investigation.

Service of documents.

**67.** (1) Any air operator in Trinidad and Tobago and any foreign air operator in Trinidad and Tobago shall designate in writing, an agent in Trinidad and Tobago upon which service of notices and process and all orders, decisions and requirements from the Director-General may be made, by that agent and the designation shall be filed with the Director-General.

(2) Service of all notices and process and of orders, decisions and requirements from the Director-General may be made upon any air operator or foreign air operator by service upon its designated agent at their office or place of residence in Trinidad and Tobago with the same effect as personal service upon such air operator or foreign air operator.

(3) For the purposes of this section, service of notices, processes, orders, Rules and Regulations on any person may be made by personal service, or on a designated agent, or by registered mail addressed to such person or agent.

Limitation of time as to summary proceedings.

**68.** (1) Neither a conviction for an offence nor an order for payment of money shall be made under this Act in any summary proceedings instituted in any Magistrate's Court—

*(a)* unless such proceedings are commenced within one year after the commission of the offence or after cause of the complaint arises, as the case may be; or

*(b)* where both or either of the parties to the proceedings happen or happens during the time to be out of Trinidad and Tobago, unless the proceedings are commenced in the case of —

(i) a conviction, within two months; and

(ii) an order, within two months after they both first happen to arrive or to be at one time, in Trinidad and Tobago.

(2) No other written law for the time being in force which limits the time within which proceedings may be instituted in any Magistrate's Court shall affect any proceedings under this Act.

**69.** (1) Subject to subsections (2) and (3), this Act does not apply to military aircraft. Application to military aircraft. [17 of 2003].

(2) Regulations made under section 33(1) which relate to the Rules of the Air may be applied to military aircraft.

(3) The Authority may apply the provisions of this Act with or without modifications, to aircraft of the Defence Force of Trinidad and Tobago on the civil aircraft register established under section 38.

(4) In this section "military aircraft" includes any other Aircraft in respect of which there is in force a certificate issued in accordance with Regulations under section 33 that the aircraft is to be treated as a military aircraft, and a certificate that any aircraft is or is not a military aircraft for the purpose of this Act shall be conclusive evidence of the fact certified.

## PART XIII

## MISCELLANEOUS AND GENERAL

**70.** The Authority is a Statutory Authority for the purposes of the Guarantee of Loans (Statutory Authorities) Act. Guarantee of loans. Ch. 76:03.

**71.** The Authority is hereby exempt from all taxes including value added tax and corporation tax, levies including the Green Fund Levy and Customs and Excise duties. Exemptions. [17 of 2003].

Section 11(1). [17 of 2003].

## FIRST SCHEDULE

## APPOINTMENT OF BOARD

Appointment of Members.

1. (1) The President shall appoint the members of the Board other than the Director-General, as follows:

*(a)* six suitably qualified persons with proven experience in the fields of civil aviation, law, financial management, economics or human resource management;

*(b)* a nominee of the Tobago House of Assembly;

*(c)* a nominee of the Environmental Management Authority; and

*(d)* ***(Deleted by Act No. 17 of 2003).***

(2) The President may appoint any two members excluding the *ex officio* member to be Chairman and Deputy Chairman of the Board.

Tenure of office.

2. (1) A member of the Board, other than the Director-General, shall hold office for such a term not exceeding three years, as shall be specified in the instrument of appointment and shall be eligible for reappointment.

(2) No member of the Board, other than the Director-General, shall hold office for more than two consecutive terms.

(3) The performance of the functions or the exercise of the powers of the Board is not invalidated by reason only of a vacancy in the membership of the Board.

(4) The appointment of a person is not invalidated and shall not be called into question, by reason of a defect or procedural irregularity in, or in connection with, his appointment.

(5) The performance of the functions or the exercise of the powers of the Board, is not invalidated by reason only that—

*(a)* there is a vacancy in the office of the Chairman or Director-General; or

*(b)* the number of persons appointed under subparagraph (1), falls below five for no longer than two months.

(6) A member who is absent without leave for three consecutive meetings of the Board is deemed to have resigned his membership of the Board.

(7) Any member of the Board other than an *ex officio* member may at any time resign his office by instrument in writing addressed to the Chairman of the Board who shall forthwith forward the same to the Minister and, from the date of the receipt by the secretary of such instrument, such member shall cease to be a member of the Board and the vacancy caused by such resignation or by the death of a member shall be filled by the President by the appointment of any other person.

(8) The President may terminate the appointment of a member appointed under section 11(1) where the member—

*(a)* becomes of unsound mind or incapable of carrying out his duties;

*(b)* becomes bankrupt or compounds with his creditors;

*(c)* is convicted of any offence which brings the Authority into disrepute;

*(d)* is guilty of misconduct in relation to his duties;

*(e)* is absent, except on leave granted by the Board, from all meetings of the Board held during two consecutive months or during any three months in any period of twelve months; or

*(f)* fails to carry out any of the duties or functions conferred or imposed on him under this Act.

(9) The appointment of any member and the termination of office of any member, whether by death, resignation, revocation, effluxion of time or otherwise, shall be notified in the *Gazette*.

Acting members of the Board.

3. (1) The President may appoint a suitably qualified person of the Board to act as a member—

*(a)* during a vacancy in the office of a member; or

*(b)* during the period when a member is absent from duty or from Trinidad and Tobago or is, for any reason, including the reason that a member is acting as Chairman, unable to perform the duties of the office of member, and a person appointed to act during a vacancy, shall not continue to act for more than six months.

(2) An appointment of a person under subparagraph (1), may be expressed to have effect only in such circumstances as are specified in the instrument of appointment.

(3) A person who is appointed to act as a member shall enjoy the same terms and conditions of a substantive member save that the appointment may be terminated before the vacancy is filled or re-occupied by the substantive member.

(4) Where a person is acting in an office under subparagraph (1)*(b)* and the office becomes vacant while the person is so acting, that person may continue so to act until the vacancy is filled or a period of six months from the date on which the vacancy occurred expires, whichever occurs first.

Remuneration of members of Board.

4. The Board shall pay to its members such remuneration and allowances as are approved by the Minister.

Leave of absence.

5. The Chairman may excuse a member from attending a meeting of the Board.

*L.R.O.*

Resignation of Chairman and members.

6. (1) The Chairman may resign by instrument in writing addressed to the President, through the Minister.

(2) A member, other than the Chairman and the Director-General, may resign by instrument in writing addressed to the Chairman, who shall cause the instrument to be forwarded to the President through the Minister.

(3) The Director-General may resign by instrument in writing addressed to the Board.

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Section 11(2).

## SECOND SCHEDULE

## CONDUCT OF PROCEEDINGS BY BOARD

Meeting of Board.

1. The Chairman or, where for any reason the Chairman is unable to act, the Deputy Chairman—

*(a)* shall, not less than once every two months convene such meetings of the Board as are necessary for the efficient conduct of its functions; and

*(b)* shall, on receipt of a written request signed by not fewer than four members, convene a meeting of the Board.

Convening of meeting.

2. The Minister may, at any time, convene a meeting of the Board by written notice to the Chairman.

Quorum.

3. The quorum of a meeting of the Board shall be five members.

Procedure at meetings.

4. (1) The Chairman shall preside at all meetings of the Board at which he is present.

(2) In the event of the absence of the Chairman from a meeting of the Board, the Deputy Chairman shall preside at the meeting.

(3) In the event of the absence of both the Chairman and the Deputy Chairman from a meeting of the Board, the members present shall elect one of their number to preside at that meeting.

(4) All questions arising at a meeting of the Board shall be decided by a majority of the votes of the members present and voting, including the member presiding.

(5) In the event of an equality of votes on a resolution proposed at a meeting of the Board, the resolution shall be taken not to be passed but where the same resolution is proposed at the first meeting of the Board held after the date of that first mentioned meeting and there is again an equality of votes, the member presiding has a casting vote on the resolution.

(6) The Board may, by resolution, determine rules for conduct of proceedings of meetings.

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## THIRD SCHEDULE

Section 26.

## OFFICES IN THE PUBLIC SERVICE ON ESTABLISHMENT OF THE CIVIL AVIATION DIVISION

Director of Civil Aviation
Deputy Director of Civil Aviation
Assistant Director of Civil Aviation
Air Traffic Service Instructor
Airworthiness Inspector
Air Traffic Controller IV
Chief Instructor
Instructor's Aide, Air Traffic Services
Administrative Officer IV
Air Traffic Controller III
Air Traffic Controller II
Air Traffic Controller I
Air Traffic Controller Assistant
Flight Operations/Licensing Officer
Administrative Assistant
Clerk IV
Clerk III
Clerk II
Clerk I
Clerk Stenographer III
Clerk Stenographer II
Clerk Stenographer I
Clerk Typist I
Male Airport Attendant III
Storekeeper I
Male Airport Attendant II
Female Airport Attendant II
Automotive Mechanic
Motor Vehicle Driver
Accounting Assistant
Male Airport Attendant I
Female Airport Attendant I
Messenger I
Electronic Engineer
Telecommunications and Electronics Technician III
Telecommunications and Electronics Technician II
Telecommunications and Electronics Technician I
Air Traffic Radar Systems Manager
Electronic Maintenance Engineer

*L.R.O.*

Section 32(7). [17 of 2003].

## FOURTH SCHEDULE

## ALL REAL AND PERSONAL PROPERTY TO BE VESTED

1. All land, buildings and structures owned or leased by the Civil Aviation Division situated and located as follows:

*(a)* Head Office, 2nd Floor, PSA Building, Abercromby Street, Port-of-Spain;

*(b)* Radar Centre, Caroni North Bank Road, Piarco;

*(c)* Flight Operations and Licensing Office, Golden Grove Road, Piarco;

*(d)* Aeronautical Information Services Centre, 3rd Floor, Piarco International Airport;

*(e)* Telecommunication Section, 2nd Floor, Piarco International Airport;

*(f)* Civil Aviation Training Centre, Mausica Road, Mausica;

*(g)* Civil Aviation Stores Warehouse, Caroni North Bank Road;

*(h)* Inspectorate Office, 1st Floor, Piarco International Airport;

*(i)* Piarco Air Traffic Control Tower;

*(j)* Radar Station, Morne Catherine, Chaguaramas;

*(k)* VOR/DME Transmitter and Transponder, Carlsen Field;

*(l)* ILS Outer Marker and POS Non-Directional Beacon, Caroni;

*(m)* ILS Glide Path Transmitter, Piarco International Airport;

*(n)* ILS Middle Path, Piarco International Airport;

*(o)* ILS Localiser Transmitter, Piarco International Airport;

*(p)* Tower Complex, Crown Point, Tobago;

*(q)* Directional Beacon Transmitter, Crown Point, Tobago;

*(r)* DME Transponder, Crown Point, Tobago; and

*(s)* Air Traffic Services Office, 1st Floor Terminal Building, Crown Point, Tobago.

2. All the books and records of the Civil Aviation Division that are maintained at the Division's head office in Trinidad and Tobago and elsewhere.

3. All computer and communications equipment located on any premises occupied by the Civil Aviation Division in Trinidad and Tobago or elsewhere.

4. All office furniture, fittings and equipment located on any premises occupied by the Civil Aviation Division in Trinidad and Tobago or elsewhere.

5. All maintenance and operating supplies situated at Piarco, Trinidad and Crown Point, Tobago.

## FIFTH SCHEDULE

Section 43.
[17 of 2003].

## PROTECTED INSTALLATIONS

*(a)* PSR/SSR:10° 42$^{1}$ 46″ N lat. 061° 37' 59″ W long. Primary Surveillance Radar/Secondary Surveillance Radar installation situated at Morne Catherine, in the Ward of Diego Martin, in the County of St. George, in the island of Trinidad.

*(b)* VOR/DME:10° 27$^{1}$ 52″ N lat. 061° 23' 37″ W long. Very High Frequency Omnidirectional Radio Range/Distance Measuring Equipment installation situated at Carlsen Field in the Ward of Chaguanas, in the County of Caroni, in the island of Trinidad.

*(c)* NDB:10° 35$^{1}$ 30″ N lat. 061° 25' 25″ W long. Non-directional Beacon Installation situated to the West of the Uriah Butler Highway, in the Ward of Cunupia, in the County of Caroni, in the island of Trinidad.

*(d)* HF/SSB:10° 35$^{1}$ 27″ N lat. 061° 20$^{1}$ 08″ W long. High Frequency /single Sideband installation situated to the South of the Caroni North Bank Road, in the Ward of Tacarigua, in the County of St. George, in the island of Trinidad.

*(e)* VHF/DF:10° 35$^{1}$ 20″ N lat. 061° 20$^{1}$ 50″ W long. Very High Frequency/Direction Finding installation situated to the South of the Golden Grove Road, in the Ward of Tacarigua, in the County of St. George, in the island of Trinidad.

*(f)* PIARCO ACC:10° 35$^{1}$ 25″ N lat. 061° 20$^{1}$ 23″ W long. Piarco Area Control Centre situated to the west of the Caroni North Bank Road, in the Ward of Tacarigua, in the County of St. George, in the island of Trinidad.

Reference points have been defined in accordance with the World Geodetic System (WGS 84).

*L.R.O.*

## SUBSIDIARY LEGISLATION

# CIVIL AVIATION [(NO. 1) GENERAL APPLICATION AND PERSONNEL LICENSING] REGULATIONS

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ARRANGEMENT OF REGULATIONS—*Continued*

**REGULATION**

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100/2004. [301/2004 273/2004 30/2005 222/2005 185/2006 284/2006 45/2007 29/2008 179/2008].

## CIVIL AVIATION [(NO. 1) GENERAL APPLICATION AND PERSONNEL LICENSING] REGULATIONS

*made under section 33*

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations.

Interpretation. [301/2004 185/2006 45/2007 179/2008].

**2.** In these Regulations —

"Act" means the Civil Aviation Act;

"aerodrome" means a defined area on land or water, including buildings, installations and equipment, intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft;

"aeronautical experience" means pilot time obtained in an aircraft, approved flight simulator or approved flight-training device for meeting the training and flight time requirements of these Regulations;

"aeronautical knowledge test" means a test on the aeronautical knowledge areas required for an airman licence or rating that can be administered in written form or by a computer;

"aeronautical product" means any aircraft engine, propeller, or sub-assembly, appliance, material, part or component to be installed on an aircraft, or any aircraft;

"aeroplane" means a power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight;

"aircraft" means any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface;

"aircraft category" means the classification of aircraft according to specified basic characteristics such as aeroplane, rotorcraft, glider or lighter-than-air;

"aircraft component" means any component part of an aircraft up to and including a complete power plant and any operational or emergency equipment;

"Aircraft Maintenance Programme" means a maintenance programme approved by the Authority;

"aircraft type" means all aircraft of the same basic design;

"airframe" means the fuselage, booms, nacelles, cowlings, fairings, airfoil surfaces, including rotors but excluding propellers and rotating airfoils of a power plant, landing gear of an aircraft and their accessories and controls;

"Aircraft Maintenance Engineer" means a person approved by the Authority to perform defined maintenance upon aeronautical products and includes persons similarly qualified by other Contracting States and referred to as "licensed mechanic", "certificated mechanic" or "certified mechanic", "aviation maintenance technician", "Aircraft Maintenance Technician Licence holder" or by any other term which means an Aircraft Maintenance Engineer;

"aircraft required to be operated with a co-pilot" means a type of aircraft that is required to be operated with a co-pilot as specified in the aircraft flight manual or under the air operator certificate;

"airman licence" means either a Pilot Licence, Flight Engineer Licence, an Air Traffic Control Licence, Aircraft Maintenance Licence issued in accordance with these Regulations;

"airmanship" means the consistent use of good judgment and well-developed knowledge, skill and attitude to accomplish flight objectives;

"air operator" means a person who undertakes to engage in domestic commercial air transport or international commercial air transport, whether directly or indirectly or by a lease or any other arrangement;

"airship" means a power-driven lighter-than-air aircraft;

"air transport service" means a service for the carriage by air of passengers, cargo or mail;

"Air Traffic Control" means a service that promotes the safe, orderly, and expeditious flow of air traffic at aerodromes and during the approach, departure and en route environments;

"Air Traffic Control Facility" means an area control centre, approach control unit and an aerodrome control tower;

"Air Traffic Services surveillance service" means a service provided directly by means of an Air Traffic Services surveillance system;

"Air Traffic Services surveillance system" means a ground-based system that enables the identification of aircraft such as Automatic Dependant Surveillance—Broadcast, Primary Surveillance Radar and Secondary Surveillance Radar;

"appliance" means any instrument, mechanism, equipment, part, apparatus, appurtenance or accessory, including communications equipment, that is used or intended to be used in operating or controlling an aircraft in flight, is installed in or attached to the aircraft and is not part of an airframe, power plant, or propeller;

"approved by the Authority" means approved by the Authority directly or in accordance with a procedure approved by the Authority;

"approved flight training device", means a flight training device that has—

*(a)* a cockpit that accurately replicates a specific make, model and type of aircraft cockpit; and

*(b)* handling characteristics that accurately model the aircraft handling characteristics;

"Approved Maintenance Organisation" means an organisation approved by the Authority or by a civil aviation authority of another Contracting State to perform specific aircraft maintenance activities by the Authority by a civil aviation authority of another Contracting State including the inspection, overhaul, maintenance, repair and modification and release to service of aircraft or aeronautical products;

"approved maintenance programme" means a maintenance programme approved by the State of Registry;

"approved standard" means a manufacturing, design, maintenance, or quality standard approved by the Authority;

"approved training" means training conducted under special curricula and supervision approved by the Authority that, in the case of flight crew members, is conducted within an approved training organisation;

"Approved Training Organisation" means an organisation approved by the Authority to perform flight crew training and other aviation training that is specified by the Authority, operating under the supervision of the Authority and has the same meaning as "Approved Aviation Training Organisation";

"authorised instructor" means a person who—

*(a)* holds a current Flight Instructor Rating issued under Part III of these Regulations; or

*(b)* is authorised by the Authority to provide ground training, flight simulator training or flight training under these Regulations;

"Authority" means the Trinidad and Tobago Civil Aviation Authority established under the Act;

"balloon" means a non-power driven, lighter-than-air aircraft;

"Category II operations" means with respect to the operation of aircraft, a straight-in instrument landing system approach to the runway of an airport under a Category II instrument landing system instrument approach procedure issued by the Authority or the appropriate authority of another Contracting State;

"Category III operations" means with respect to the operation of aircraft, an Instrument Landing System approach to, and landing on, the runway of an airport using a Category III Instrument Landing System instrument approach procedure issued by the Authority or the appropriate authority of another Contracting State;

"commercial air transport" means the transport by air of passengers, cargo or mail for remuneration or hire;

"competency" means a combination of knowledge, skill and attitude required to perform a task to the prescribed standard;

"competency element" means an action that constitutes a task that has a triggering event and a terminating event that clearly defines its limits and an observable outcome;

"competency unit" means a discrete function consisting of a number of competency elements;

"complex aeroplane" means an aeroplane having flaps, a controllable propeller and except in seaplanes, a retractable landing gear;

"co-pilot" means a licensed pilot serving in a piloting capacity other than as pilot in command, who is designated as co-pilot and who meets the requirements under these Regulations for such position;

"core curriculum" means a set of courses approved by the Authority, for use by an Approved Training Organisation and its satellite Approved Training Organisations consisting of training that is required for licensing or aircraft ratings but does not include training for tasks and circumstances unique to a particular user;

"course" means a programme of instruction to obtain—

*(a)* an airman licence; and

*(b)* rating, qualification or authorisation;

"course ware" means instructional material developed for each course or curriculum, including lesson plans, flight event descriptions, computer software programmes, audio-visual programmes, workbooks and handouts;

"credit" means the recognition of alternative means or prior qualifications;

"Crew Resource Management" means a programme designed to improve the safety of flight operations by optimising the safe, efficient and effective use of human resources, hardware and information through improved crew communications and co-ordination;

"cross-country" means a flight between a point of departure and a point of arrival following a pre-planned route using standard navigation procedures;

"currency" means a period of validity of a medical assessment required for an airman licence;

"Director-General" means the Director-General of Civil Aviation appointed under section 13 of the Act;

"error" means an action or inaction by an operational person that leads to deviations from organisational or the operational person's intentions or expectations;

"error management" means the process of detecting and responding to errors with countermeasures that reduce or eliminate the consequences of errors and mitigate the probability of further errors or undesired aircraft condition;

"examiner" means a person designated by the Authority to conduct an aeronautical knowledge and other tests for which he is qualified;

"flight crew member" means a licensed crew member charged with duties essential to the operation of an aircraft during flight time;

"flight dispatcher" means a person who holds a flight dispatcher licence or certificate from another Contracting State;

"flight operations officer" means a person designated by the operator to engage in the control and supervision of flight operations who is qualified in accordance with the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, and who supports, briefs and assists the pilot in command in the safe conduct of the flight; Sub. Leg.

"flight simulator" means a device that—

*(a)* is a full-size aircraft cockpit replica of a specific type, make, model and series of aircraft;

*(b)* includes the hardware and software necessary to represent the aircraft in ground operations and flight operations;

*(c)* uses a force cueing system that provides cues at least equivalent to those cues provided by a three- degree freedom of motion system;

*(d)* uses a visual system that provides at least a 45-degree horizontal field of view and a 30-degree vertical field of view simultaneously for each pilot; and

*(e)* has been approved or accepted by the Authority;

"flight simulation training device" means any one of the following three types of apparatus in which flight conditions are simulated on the ground:

*(a)* a flight simulator, which provides an accurate representation of the flight deck of a particular

aircraft type to the extent that the mechanical, electrical, electronic, aircraft systems control functions, the normal environment of flight crew members and the performance and flight characteristics of that type of aircraft are realistically simulated;

*(b)* a flight procedures trainer, which provides a realistic flight deck environment and which simulates instrument responses, simple control functions of mechanical, electrical, electronic aircraft systems, and the performance and flight characteristics of aircraft of a particular class; and

*(c)* a basic instrument flight trainer, which is equipped with appropriate instruments and which simulates the flight deck environment of an aircraft in flight in instrument flight conditions;

"Flight Test Examiner" means a person designated by the Authority to conduct an evaluation in an aircraft, flight simulator or a flight training device for a particular type of aircraft for an operator or Approved Training Organisation;

"flight time" means the total time from the moment an aeroplane first moves for the purpose of taking off until the moment it comes to rest at the end of the flight;

"flight time (helicopter)" means the total time from the moment a helicopter first moves under its own power for the purpose of taking off until the rotors are next stopped;

"flight training" means training other than ground training, received from an authorised instructor in flight in an aircraft;

"flight training device" means an instrument that—

*(a)* is a full-size replica of the instruments, equipment, panels, and controls of an aircraft, open or in an enclosed cockpit, including the hardware and software for the systems installed, that is necessary to simulate the aircraft in ground and flight operations;

*(b)* need not have a force cueing or visual system; and

*(c)* has been approved or accepted by the Authority;

"flight training equipment" means an aircraft, flight simulator or a flight training device;

"glider" means a non-power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight;

"gyroplane" means a heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors which rotate freely on substantially vertical axis;

"helicopter" means a heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axis;

"human performance" means human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations;

"inspection" means the examination of an aircraft or aeronautical product to establish compliance with a standard approved by the Authority;

"Inspector" means a person designated by the Director-General under regulation 3(4) to conduct an inspection, aeronautical knowledge test, skill test and proficiency check, as applicable, for an airman licence and ratings;

"instrument approach" means procedure for approach prescribed by the Authority having jurisdiction over an aerodrome;

"instrument training" means training that is received from an authorised instructor under actual or simulated instrument meteorological conditions;

"large aircraft" means an aeroplane having a maximum certified take-off mass of five thousand and seven hundred kilogrammes or more or a helicopter having a maximum certified take-off mass of three thousand, one hundred and seventy-five kilogrammes or more;

"likely" means, with respect to the medical provisions of these Regulations, with a probability of occurring that is unacceptable to the medical assessor;

"maintenance" means the performance of tasks required to ensure the continuing airworthiness of an aircraft or aeronautical product including any one or combination of overhaul, inspection, replacement, defect rectification and the embodiment of a modification or repair;

"medical assessment" means the evidence issued by the Authority or the relevant authority of a Contracting State that the licence holder meets specific requirements of medical fitness;

"medical assessor" means a physician qualified and experienced in the practise of aviation medicine who evaluates medical reports submitted to the Authority by medical examiners;

"medical certificate" means a Class 1, Class 2 or Class 3 medical certificate issued in accordance with Part VIII;

"medical examiner" means a physician with training in aviation medicine and practical knowledge and experience of the aviation environment, who is designated by the Authority to conduct medical examinations of fitness of applicants for licences or ratings for which medical requirements are prescribed;

"Minimum Equipment List" means a list approved by the Authority which provides for the operation of aircraft subject to specified conditions, with particular equipment inoperative, prepared by an air operator or operator of an aircraft, in compliance with, or more restrictive than, the Master Minimum Equipment List established for the aircraft type by the aircraft manufacturer and approved in the State of Design;

"national air operator" means a person who has been issued a Trinidad and Tobago Air Operator Certificate by the Authority under the Act;

"night" means the hours between the end of evening civil twilight, when the centre of the disc of the sun is 6° below the horizon and the beginning of the morning civil twilight, when the centre of the disc of the sun is 6° below the horizon;

"operating position" means an air traffic control function performed within or directly associated with an Air Traffic Control Facility;

"performance criteria" means a simple evaluative statement on the required outcome of the competency element and a description of the criteria used to judge if the required level of performance has been achieved;

"pilot" means a person holding a Student Pilot Licence, Private Pilot Licence, Commercial Pilot Licence or Airline Transport Pilot Licence issued in accordance with these Regulations;

"pilot in command" means the person responsible for the operation and safety of the aircraft during flight time;

"pilot in command under supervision" means a co-pilot performing, under supervision of the pilot in command, the duties and functions of a pilot in command, in accordance with a method of supervision acceptable to the Authority;

"pilot time" means that time in which a person—

*(a)* serves as a required pilot;

*(b)* receives training from an authorised instructor in an aircraft, flight simulator, or approved flight training device; or

*(c)* gives training as an authorised instructor in an aircraft, flight simulator, or approved flight training device;

"powered-lift" means a heavier-than-air aircraft capable of vertical take-off, vertical landing, low speed flight and depends principally on engine-driven lift devices or engine thrust for lift during these flight regimes and on non-rotating airfoil for lift during horizontal flight;

"power plant" means an engine that is used or intended to be used for propelling an aircraft and includes turbo superchargers, appurtenances, and accessories necessary for its functioning, but does not include propellers;

"proficiency check" means a competency test on areas of operation to assess continued skills for a licence, certificate, rating, or authorisation that is conducted by having the applicant respond to questions and demonstrate manoeuvres in flight, in a flight simulator, an approved flight training device or in a combination of these;

"propeller" means a device for propelling an aircraft that has blades on a power plant-driven shaft and that, when rotated, produces by its action on the air, a thrust approximately perpendicular to its plane of rotation and includes control components normally supplied by its manufacturer, but does not include main and auxiliary rotors or rotating airfoils of power plants;

"quality system" means documented organisational policies and procedures, internal audit of those policies and procedures, management review and recommendation for quality improvement;

"rating" means an authorisation entered on or associated with a licence or certificate and forming part thereof, stating special conditions, privileges or limitations pertaining to such licence or certificate;

"recency" means the prescribed period of time since an airman last exercised the privileges of his licence, rating or authorisation;

"release to service" means an aeronautical product is certified as either airworthy or serviceable and is permitted to return to normal operations;

"repair" means the restoration of an aircraft or aeronautical product to a serviceable condition in compliance with an approved standard;

"rotocraft" means a power-driven heavier-than-air aircraft supported in flight by the reactions of the air on one or more rotors;

"significant" means, with respect to the medical provisions of these Regulations, to a degree or of a nature that is likely to jeopardise flight safety;

"skill test" means a competency test on the areas of operations for the initial issue of a licence, certificate, rating, or authorisation that is conducted by having the applicant respond to questions

and demonstrate manoeuvres in flight, in a flight simulator, an approved flight training device or in a combination of these;

"small aeroplane" means an aeroplane having a maximum certified take-off mass of less than five thousand and seven hundred kilogrammes;

"solo flight" means flight time during which a Student Pilot is the sole occupant of the aircraft, or that flight time during which the Student acts as a pilot in command of a gas balloon or an airship requiring more than one flight crew member;

"State of Registry" means the Contracting State on whose register an aircraft is entered;

"threat" means an event or error that occur beyond the influence of an operational person, which increase operational complexity and must be managed to maintain a margin of safety;

"threat management" means the process of detecting and responding to the threats with countermeasures that reduce or eliminate the consequences of threats and mitigate the probability of errors or undesired aircraft condition;

"training programme" means a programme that consists of courses, courseware, facilities, flight training equipment, and qualified personnel necessary to accomplish a specific training objective and may include a core curriculum and a specialty curriculum;

"training time" means the time spent receiving, from an authorised instructor, flight training, ground training, or simulated flight training in a flight simulator or approved flight-training device;

"Trinidad and Tobago aircraft" means aircraft registered in Trinidad and Tobago;

"Trinidad and Tobago Air Operator Certificate" means an Air Operator Certificate issued by the Authority under the Act; and

"type rating" means a rating issued with respect to a specific type of aircraft.

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**PART I**

## GENERAL ADMINISTRATION PRACTICES FOR ALL AVIATION DOCUMENTS

Applicability of these Regulations. [301/2004 222/2005 45/2007].

**3.** (1) Regulations made under the Act shall apply to all persons—

*(a)* operating or maintaining—

(i) a Trinidad and Tobago aircraft;

(ii) an aircraft registered in another Contracting State that is operated by a person licensed in Trinidad and Tobago and maintained in accordance with the standards of the aircraft State of Registry, wherever that maintenance is performed; and

(iii) an aircraft of other Contracting States operating in Trinidad and Tobago;

*(b)* certified under these Regulations; and

*(c)* who engage in an operation governed by these Regulations who do not have the appropriate certificate, operations specification or similar document required as part of the certification.

(1A) Notwithstanding the requirements of the 18 of 2004. Meteorology Act, 2004, a person involved in the conduct of air and ground operations in domestic and international civil aviation activities in Trinidad and Tobago shall use the units Schedule A. specified in Schedule A for all aspects of his operations.

(2) Specific standards applicable to the holder of a certificate shall apply where they conflict with a more general regulation.

(3) Foreign air operators who conduct commercial air transport into, from or within Trinidad and Tobago, shall be

governed by the provisions of the Operations Specification issued by the Authority, and by those provisions and any other requirements under the Civil Aviation [(No. 10) Foreign Air Operator] Regulations, that specifically address commercial air transport operations. Sub. Leg.

(4) The Director-General may by Order designate such number of persons to be Inspectors for the purpose of carrying out the requirements of the Act.

(5) An Inspector designated under subregulation (4), is authorised to act as an Examiner in respect of the Act or Regulation made thereunder.

(6) The Director-General may for the purpose of the Act or Regulations made thereunder, recommend that the Authority—

*(a)* approve persons, processes, procedures, programmes and aviation documents in accordance with the Act or Regulations made thereunder;

*(aa)* issue instructions and directives for the carrying out of any function under the Act or Regulations made thereunder;

*(b)* validate or accept aviation data and aviation documents of another Contracting State with such limitations and restrictions as the Director-General may recommend;

*(c)* vary any procedures, processes, programmes or aviation document approved under the Act or Regulations made thereunder.

(7) No personal liability shall attach to any Inspector designated under subregulation (4) in respect of any act or omission done, permitted to be done or omitted in good faith for the purpose of carrying out the requirements of the Act.

**REQUIREMENT TO HAVE APPROVED LICENCE, RATING OR AUTHORISATION**

**4.** A person shall not perform any aviation related function requiring a licence, rating, authorisation, approval or certificate Prohibition on persons performing aviation related functions.

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unless that person has been issued with or has had validated his licence, rating, authorisation, approval or certificate, by the Authority for the performance of that function.

**SPECIFICATIONS OF AIRMEN LICENCES**

Airman Licence specification. [301/2004 45/2007].

**5.** (1) An airman licence issued by the Authority under this Part shall—

*(a)* be in the prescribed form on first quality paper or other suitable material including plastic cards;

*(b)* be in the English Language; and

*(c)* contain the following information clearly shown so that the privileges of the licence and validity of ratings can be easily determined:

(i) the words "Trinidad and Tobago";

(ii) the title of the licence;

(iii) the serial number of the licence, in arabic numerals;

(iv) the name of the holder in full;

(v) the date of birth of the holder;

(vi) the address of the holder;

(vii) the nationality of the holder;

(viii) the signature of the holder;

(ix) authority and, where necessary, the conditions under which the licence is issued;

(x) certification concerning the validity and authorisation for the holder to exercise such privileges appropriate to licence;

(xi) the signature of the officer issuing the licence and the date of such issue;

(xii) a seal or stamp of the authority issuing the licence;

(xiii) ratings, such as category, class, type of aircraft, airframe and aerodrome control instructor and radiotelephony privileges which may appear on the licence form or on a separate certificate;

(xiv) remarks, such as special endorsements relating to limitations and endorsements for privileges including from 5th March 2008, an endorsement of language proficiency, and a complete enumeration of the particulars in which the international standards are not satisfied;

(xv) where necessary, a photograph; and

(xvi) such other details as required by the Authority.

(2) Item headings on a licence shall be uniformly numbered in roman numerals as indicated in subregulation (1)*(c)*, so that on any licence the number will, under any arrangement, refer to the item heading.

(3) An airman licence issued in accordance with these Regulations shall be so issued without a specific expiration date.

(4) The exercise of any of the privileges of an airman licence issued under these Regulations shall be dependent upon the validity of such licence in respect of—

*(a)* the medical currency of such airman licence;

*(b)* the competency of the airman; and

*(c)* the recency of experience of the airman.

(5) Notwithstanding subregulation (4)*(a)*, a person is not required to hold a current medical certificate where he is exercising the privileges set out in Part A, Schedule 1. Schedule 1. Part A.

**DISPLAY OF AVIATION DOCUMENT**

**6.** (1) A person required by the Act or Regulations made thereunder, to have an airman licence or aviation document, shall have it in his physical possession or readily accessible in the aircraft or at his work site when exercising the privileges of such licence or aviation document. Display of aviation documents.

(2) A person under subregulation (1), shall produce the licence or aviation document for inspection by the Director-General or an Inspector upon request, or within a time to be determined by the Director-General or the Inspector.

(3) In order to act as a pilot or flight engineer of a Trinidad and Tobago aircraft and a civil aircraft of foreign registration within Trinidad and Tobago, a pilot shall have in his physical possession or readily accessible in the aircraft a valid pilot licence, or valid Flight Engineer Licence as applicable.

(4) A person who holds a Flight Instructor rating shall have the rating, or other documentation acceptable to the Authority, in his physical possession or readily accessible in the aircraft when exercising the privileges of that rating.

(5) A person required by these Regulations to have a current medical certificate shall have it in his physical possession or readily accessible in the aircraft or at his work site when exercising the privileges of the licence or authorisation which requires such current medical certificate for its validity.

(6) A holder of an Air Operator Certificate shall display such certificate in a place in the facility that is normally accessible to the public and that is not obscured.

(7) The owner or operator of an aircraft shall ensure that the Airworthiness Certificate of such aircraft and the Certificate of Aircraft Registration are carried in the cockpit of such aircraft.

(8) The holder of an Approved Maintenance Organisation Certificate shall prominently display that certificate in a place accessible to the public in the principal business office of the Approved Maintenance Organisation.

**AMENDMENT OF A LICENCE OR CERTIFICATE**

Change of name on licence or certificate.

**7.** (1) A holder of a licence or certificate issued under the Act or Regulations made thereunder may apply to change the name on such licence or certificate.

(2) An application under subregulation (1), shall be accompanied by—

*(a)* the current licence or certificate; and

*(b)* a copy of the marriage certificate, Court order or other document verifying the change in his name.

(3) The documents specified in subregulation (2), shall be returned to the airman by the Director-General, after they have been verified.

**CHANGE OF ADDRESS**

Change of address on licence or certificate.

**8.** A holder of an aviation document issued by the Authority, who has made a change of his permanent mailing address, shall not, after thirty days from that date, exercise the privileges of the licence or certificate unless he has notified the Authority in writing of the new permanent mailing address, or current residential address where the permanent mailing address includes a post office box number.

**REPLACEMENT OF AN AVIATION DOCUMENT**

Replacement of an aviation document. [196/2009].

**9.** (1) Where the holder of an aviation document issued under the Act or Regulations made thereunder—

*(a)* changes his name;

*(b)* changes his permanent address; or

*(c)* discovers that the aviation document is lost, damaged or destroyed,

he shall, within thirty days, thereafter, make a written application in the prescribed form to the Authority for its replacement.

(2) A person in making an application for the replacement of an aviation document under subregulation (1), shall—

*(a)* pay the prescribed fee; and

*(b)* provide such documentary evidence as may be required by the Authority in support of his application.

(3) Where the Director-General is satisfied that a person in making an application under subregulation (1), has met all the requirements for the replacement of an aviation document, he may recommend the Authority issue a duplicate aviation document to the applicant.

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(4) A person upon receiving notification by facsimile or other medium from the Authority confirming that a duplicate of the lost, damaged or destroyed aviation document has been re-issued, the facsimile or such other medium used by the Authority to confirm the issue of the aviation document may be used in lieu of the lost, damaged or destroyed aviation document for up to thirty days pending receipt of the duplicate aviation document.

**FALSIFICATION, REPRODUCTION OR ALTERATION OF AN AVIATION DOCUMENT, RECORD, REPORT AND APPLICATION**

Falsification, reproduction or alteration of an aviation document, record, report and application. [196/2009].

**10.** (1) A person shall not make or cause to be made, in relation to any aviation document, logbook, record, report or application required by the Act or Regulations made thereunder, any—

*(a)* fraudulent or intentionally false statement;

*(b)* fraudulent or intentionally false entry in such aviation document, logbook, record or report or application used to show compliance with the requirements of the Act or Regulations made thereunder; or

*(c)* reproduction or alteration for fraudulent purposes.

(2) A person who commits an act prohibited under this regulation may be liable to have his licences, ratings and authorisations issued under the Act or Regulations made thereunder, revoked or suspended by the Authority.

**ISSUE, SUSPENSION AND REVOCATION OF AVIATION DOCUMENT**

Suspension, revocation or limitation of licence, certificate or other aviation document. [185/2006].

**11.** (1) The Director-General may, where safety or security of flight is affected after due enquiry recommend that the Authority—

*(a)* deny issue of;

*(b)* suspend;

*(c)* revoke; or

*(d)* limit,

an aviation document where the Director-General is not satisfied that the holder—

*(e)* is a fit and proper person to hold such aviation document;

*(f)* continues to meet the conditions of issuance or the requirements prescribed under the Act or Regulations made thereunder.

(2) Before revoking or limiting an aviation document under subregulation (1), the affected party shall be—

*(a)* given at least twenty-eight days notice in writing of the intention so to do and of the reasons for such proposal; and

*(b)* offered an opportunity to make representations.

(3) Notwithstanding subregulation (2), where it is determined that the safe operation of the aircraft is adversely affected, the aviation document may be suspended in part or in whole without prior notice until the procedures set out in subregulation (2) are completed.

**EFFECTS OF SURRENDER, SUSPENSION OR REVOCATION OF AVIATION DOCUMENT**

Requirements of and effects of surrendered, suspended or revoked aviation document. [185/2006].

**12.** (1) An aviation document issued by the Authority shall cease to have effect where it is surrendered, suspended, or revoked.

(2) A holder of any licence or certificate issued under the Act or Regulations made thereunder which has been suspended or revoked shall return that licence or certificate to the Authority.

(3) Where an aviation document issued by the Authority has been revoked the Director-General shall cause a notice of such revocation to be published in two daily newpapers in Trinidad and Tobago.

**RE-APPLICATION AFTER REVOCATION**

Restriction on re-application after revocation.

**13.** A person whose aviation document has been revoked shall not apply for any licence, certificate, rating, or authorisation for one year from the date of revocation, unless otherwise authorised by the Authority.

### RE-APPLICATION AFTER SUSPENSION

Re-application after suspension.

**14.** A person whose aviation document has been suspended shall not apply for a licence, rating, or authorisation during the period of suspension, unless otherwise authorised by the Authority.

### VOLUNTARY SURRENDER OF AVIATION DOCUMENT

Voluntary surrender of aviation document.

**15.** (1) The holder of an aviation document issued under the Act or Regulations made thereunder may voluntarily surrender it for—

*(a)* cancellation;

*(b)* issuance of a lower grade licence; or

*(c)* another licence with specific ratings deleted.

(2) An applicant who voluntarily surrenders his aviation document shall submit a signed statement in the form set out in Part B of Schedule 1.

Schedule 1. Part B.

### PROHIBITION ON PERFORMANCE DURING MEDICAL DEFICIENCIES

Restriction on Performance due to medical deficiencies. [185/2006].

**16.** (1) A person who holds a current medical certificate issued under these Regulations shall not act in a capacity for which that medical certificate is required where he—

*(a)* knows or has suspicion of any medical condition that would make him unable to meet the requirements for the required medical certificate; or

*(b)* is taking medication or receiving other treatment for a medical condition that results in him being unable to meet the requirements for the required medical certificate.

(2) Where the holder of a licence issued under these Regulations—

*(a)* is pregnant;

*(b)* has any decrease in medical fitness of a duration of more than twenty days; or

*(c)* has any decrease in medical fitness which—

(i) requires continued treatment with prescribed medication; or

(ii) has required hospital treatment,

that person shall inform the Authority of the condition.

## TESTING FOR DRUGS AND ALCOHOL

Drug and alcohol testing and reporting.

**17.** (1) A person who performs any function requiring a licence, rating, qualification, or authorisation under the Act or Regulations made thereunder, directly or under contract for a certificate holder and who fails a drug or alcohol test may—

*(a)* be denied any licence, certificate, rating, qualification, or authorisation issued under the Act or Regulations made thereunder, for a period of up to one year after the date of final conviction; or

*(b)* have his licence, certificate, rating, qualification, or authorisation issued under the Act or Regulations made thereunder suspended or revoked.

(2) A person subject to the Act or Regulations made thereunder, who is convicted for the violation of any national or international statute relating to the growing, processing, manufacture, sale, disposition, possession, transportation, or importation of illegal narcotic drugs, marijuana, or depressant or stimulant drugs or substances, may—

*(a)* be denied any licence, certificate, rating, qualification, or authorisation issued under the Act or Regulations made thereunder for a period of up to one year after the date of final conviction; or

*(b)* have his licence, certificate, rating, qualification, or authorisation issued under the Act or Regulations made thereunder suspended or revoked.

(3) A person who is subject to these Regulations and who—

*(a)* refuses to submit to a drug or alcohol test, when requested by the Authority or its authorised representative; or

*(b)* refuses to furnish or to authorise the release of the test results requested by the Authority may—

(i) be denied any licence, certificate, rating, qualification, or authorisation issued under the Act or Regulations made thereunder, for a period of up to one year after the date of that refusal; or

(ii) have his licence, certificate, rating, qualification, or authorisation issued under the Act or Regulations made thereunder, suspended or revoked.

## EQUIVALENT SAFETY CASE AND DEVIATIONS

Restrictions on deviation from procedures.

**18.** (1) A person shall not introduce a procedure which is contrary to those prescribed in the Act or Regulations made thereunder.

(2) Notwithstanding subregulation (1), where circumstances warrant deviation from prescribed procedures, a certificate holder may apply to the Authority for a Deviation Certificate.

(3) Where the Authority determines that the deviation applied for under subregulation (2), is equivalent to what is required, it may approve the use of such procedure by granting a Deviation Certificate.

(4) An alternative procedure under subregulation (3) (hereinafter referred to as "an equivalent safety case"), shall only be considered on an individual case by case basis and would be conditional upon compliance with any supplementary conditions the Authority considers to be necessary to ensure equivalent safety.

(5) A request for a Deviation Certificate shall be made in a form and manner prescribed and submitted to the Authority at least sixty days before the date the deviation is necessary for the intended maintenance, preventive maintenance, modification or operation.

(6) A request for a Deviation Certificate under subregulation (5), shall contain a statement of the circumstances, justifications and alternate method proposed for the deviation

requested, and show that a level of safety shall be maintained equal to that provided by the rule from which the deviation is sought.

(7) A national air operator or person who receives a Deviation Certificate shall ensure that—

*(a)* the appropriate management;

*(b)* personnel authorised by an Approved Maintenance Organisation to certify aircraft or aircraft components for release to service; and

*(c)* other personnel,

are notified of the deviation, including the extent of the deviation and when the deviation is terminated or amended.

(8) Notwithstanding the sixty-day requirement for submission under subregulation (5), where the deviation required is one which necessitates immediate implementation, a national air operator may submit a request for such deviation within a shorter period and where he shows that such deviation is necessary in the interest of safety, the Director-General may recommend that the Authority authorise the use of such deviation for a prescribed period.

**LICENCES ISSUED**

Issue of airman licences. [185/2006 196/2009].

**19.** (1) The Director-General may recommend that the Authority issue the following licences under this Part:

*(a)* Student Pilot Licence;

*(b)* Private Pilot Licence;

*(c)* Commercial Pilot Licence;

*(d)* Airline Transport Pilot Licence;

*(e)* Flight Engineer Licence;

*(f)* Air Traffic Controller Licence; and

*(g)* Aircraft Maintenance Engineer Licence;

*(h)*
*(i)* } ***(Deleted by 196/2009).***

(2) An applicant for a licence under subregulation (1) shall be subject to initial and periodic background security checks prior to the issue or renewal of the licence.

**VALIDATION OF FOREIGN LICENCE CERTIFICATE**

Validation of licence or certificate. [45/2007 196/2009].

**20.** (1) The Director-General may recommend that the Authority validate a licence or certificate issued by another Contracting State, by issuing a suitable authorisation to be carried with the foreign licence or certificate with such limitations and restrictions as the Director-General may recommend, provided that the requirements under which the licence or certificate was issued are at least equal to the applicable standards made under the Act or Regulations made thereunder, and where he is satisfied that—

*(a)* the licence or certificate is not under an order of revocation or suspension by the State that issued the licence or certificate;

*(b)* the licence or certificate does not contain an endorsement, stating that the applicant has not met all of the standards of the Chicago Convention for that licence or certificate;

*(c)* the applicant does not currently hold a licence issued by the Authority under regulation 19 or any other certificate issued by the Authority;

*(d)* where applicable, the applicant holds a current medical certificate issued by the Contracting State which issued the licence or certificate;

*(e)* except as provided under regulation 189, the applicant is able to read, speak, write, and understand the English Language; and

*(f)* where applicable, the applicant has passed the aeronautical knowledge test in air law.

(2) The authorisation under subregulation (1) shall not —

*(a)* be issued or renewed beyond the period of validity of the foreign licence or certificate; and

*(b)* exceed a maximum period of twelve months from the initial date of issue.

(3) Where the Authority limits the authorisation to specific privileges, the authorisation shall specify the privileges of the licence or certificate which are to be accepted as its equivalent.

(4) The authorisation under subregulation (1) ceases to be valid where the licence or certificate upon which it is issued is revoked or suspended.

(5) The Director-General shall confirm the validity of the licence or certificate of the other Contracting State before recommending that the Authority issue an authorisation for use in commercial air transport operation.

(6) The Director-General shall, on request from another Contracting State, confirm the validity of a licence or certificate issued by the Authority.

**CONVERSION OF FOREIGN LICENCE**

Conversion of foreign licence.

**21.** The Director-General may recommend that the Authority issue a Trinidad and Tobago airman licence to an applicant who holds a valid airman licence issued by another Contracting State with such limitations and restrictions as the Director-General may recommend.

**GENERAL AIRMEN RATINGS**

Authority to issue ratings for pilots. [45/2007].

**22.** (1) The Authority may, in issuing a pilot licence under the Act, grant the following ratings for pilots:

*(a)* category rating in the following aircraft:

(i) aeroplane;

(ii) helicopter;

(iii) powered-lift;

(iv) airship of volume more than 4,600 cubic metres;

(v) glider; and

(vi) free balloon;

*(b)* class ratings in the following aeroplanes certificated for single pilot operations:

(i) single-engine, land;

(ii) single-engine, sea;

(iii) multi-engine, land; and

(iv) multi-engine, sea;

*(c)* class ratings in the following aircraft certified for single pilot operations:
(i) helicopter; and
(ii) powered-lift;
*(d)* class ratings in the following lighter-than-air aircraft:
(i) airship; and
(ii) free balloon;
*(e)* Type Ratings in the following aircraft:
(i) aircraft certificate for operation with at least two pilots;
(ii) helicopters and powered-lift aircraft certified for single-pilot operation except where a class rating has been issued under subparagraph *(b)*; and
(iii) any aircraft considered necessary by the Authority;
*(f)* Instrument Ratings in the following aircraft:
(i) aeroplane;
(ii) helicopter; and
*(g)* Flight Instructor Rating.

(2) The Director-General may recommend to the Authority the category, class, or Type Rating to be placed on a pilot licence when issuing that licence, provided the rating reflects the appropriate category, class, or type aircraft used to demonstrate aeronautical knowledge and skill for its issuance.

(3) The Director-General may recommend that the Authority issue the following ratings for Flight Engineers:
*(a)* Reciprocating engine powered Rating;
*(b)* Turbopropeller powered Rating; and
*(c)* Turbojet powered Rating.

(4) Until 10th March 2011, the Authority may endorse a Type Rating for aircraft of the powered-lift category on a Pilot Licence for an aeroplane or a Pilot Licence for a helicopter.

(5) The endorsement under subregulation (4) shall indicate that the aircraft is part of the powered-lift category.

(6) The training for the Type Rating in the powered-lift category shall be completed during the course of approved training and take into account the previous experience of the applicant in aeroplane or helicopter as appropriate and incorporating all relevant aspects of operating and aircraft of the powered-lift category.

**AIRMEN AUTHORISATIONS**

Authority may issue authorisations. [196/2009].

**23.** The Director-General may recommend that the Authority issue the following authorisations:

*(a)* Category II Pilot Authorisation;

*(b)* Category III Pilot Authorisation;

*(c)* Flight Test Examiner Authorisation;

*(d)* Ground Instructor Authorisation;

*(e)* Special Pilot Authorisation; and

*(f)* Flight Operations Officer Authorisation;

*(g)* ***(Deleted by LN 196/2007)***.

**PART II**

**PILOT LICENCES, RATINGS AND AUTHORISATIONS**

Applicability.

**24.** This Part sets out the requirements for licences, ratings and authorisations that may be issued by the Authority for pilots.

**STUDENT PILOT LICENCE GENERAL REQUIREMENTS**

Requirement for Student Pilot Licence.

**25.** (1) A person wishing to apply for a Student Pilot Licence shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be at least sixteen years of age;

*(d)* be able to read, speak, write and understand the English language; and

*(e)* hold a current Class 2 medical assessment in accordance with Part VIII.

(2) Notwithstanding subregulation (1)*(c)*, the minimum age for an applicant for a Student Pilot Licence for a glider or lighter-than-air aircraft shall be fourteen years.

**ISSUE AND VALIDITY OF STUDENT PILOT LICENCE**

Issue and validity of Student Pilot Licence.

**26.** (1) Where the Director-General is satisfied that the applicant for a Student Pilot Licence meets the requirements of this Part, he may recommend that the Authority issue the applicant with a Student Pilot Licence.

(2) Notwithstanding regulation 5(3) a Student Pilot Licence issued in accordance with subregulation (1), shall expire at the end of the last day of the—

*(a)* twenty-fourth month from the date of the medical examination shown on the certificate where the person has not reached his fortieth birthday on or before the date of such examination, for operations requiring a Student Pilot Licence; or

*(b)* twelfth month from the date of the medical examination shown on the certificate where the person has reached his fortieth birthday on or before the date of such examination, for operations requiring a Student Pilot Licence.

**STUDENT PILOT SOLO REQUIREMENTS**

Solo requirements for student pilot.

**27.** (1) A student pilot shall not operate an aircraft in solo flight unless he has met the requirements of these Regulations.

(2) A student pilot shall, in order to operate an aircraft in solo flight, satisfactorily pass an aeronautical knowledge test administered by the Authority in the following areas:

*(a)* air law;

*(b)* airspace rules and procedures for the airport where the student pilot will perform solo flight; and

*(c)* flight characteristics and operational limitations for the make and model of aircraft to be flown.

(3) The Director-General shall at the conclusion of the aeronautical knowledge test under subregulation (2) and before making a recommendation under subregulation (6), review all incorrect answers with the student.

(4) Prior to conducting a solo flight, a student pilot shall have—

*(a)* received and logged flight training for the manoeuvres and procedures set out in Part A of Schedule 2 that are appropriate to the make and model of aircraft to be flown; and

Schedule 2. Part A.

*(b)* demonstrated satisfactory proficiency and safety, as judged by an authorised instructor, on the manoeuvres and procedures required by this regulation in the make and model of aircraft or similar make and model of aircraft to be flown.

(5) A student pilot who is receiving solo flight training shall receive and log flight training for the additional manoeuvres and procedures, as applicable for each category and class rating in the areas set out in Part B of Schedule 2.

Schedule 2. Part B.

(6) Where the student pilot—

*(a)* passes the aeronautical knowledge test under subregulation (2); and

*(b)* meets the requirements of subregulations (4) and (5), the Director-General may recommend that the Authority authorise such Student Pilot to conduct a solo flight.

(7) A recommendation under subregulation (6), shall be endorsed on a Student Pilot Licence.

**STUDENT PILOT LICENCE GENERAL LIMITATIONS**

General limitation of a Student Pilot Licence and training requirements.

**28.** (1) A student pilot shall not act as pilot in command of an aircraft—

*(a)* that is carrying a passenger;

*(b)* that is carrying property for compensation or hire;

*(c)* that is operated for compensation or hire;

*(d)* in furtherance of a business;

*(e)* on an international flight;

*(f)* with a flight of surface visibility of less than 3 statute miles during daylight hours or 5 statute miles at night;

*(g)* when the flight cannot be made with visual reference to the surface; or

*(h)* in a manner contrary to any limitations placed in the logbook of the student pilot by an authorised Flight Instructor.

(2) A Flight Instructor conducting training of a student pilot shall not be considered a passenger under subregulation (1)*(a)*.

(3) A student pilot shall not act as a required pilot on any aircraft for which more than one pilot flight crew member is required by—

*(a)* the aircraft type certificate; or

*(b)* by the Act or Regulations made thereunder.

(4) Notwithstanding subregulation (3), a student pilot may act as a pilot flight crew member on an aircraft for which more than one pilot is required—

*(a)* when receiving flight training from an authorised Flight Instructor or on board an airship; and

*(b)* where no person other than a required flight crew member is carried on the aircraft.

(5) A student pilot shall not operate an aircraft in solo flight unless he has received and logged within the ninety days preceding the date of the flight, an endorsement from an authorised Flight Instructor for the specific make and model of the aircraft to be flown.

(6) A student pilot shall not operate an aircraft in solo flight at night unless the student pilot has received—

*(a)* flight training at night that includes take-offs, approaches, landings, and go-arounds at night at

the airport where the student pilot intends to conduct the solo flight;

*(b)* navigation training at night in the vicinity of the airport where the student pilot intends to conduct the solo flight; and

*(c)* an endorsement for night solo flight.

(7) A student pilot may operate the radio communication system of an aircraft for the purpose of a flight.

**SOLO CROSS-COUNTRY**

Solo cross-country requirements for student pilot.

**29.** (1) A student pilot shall before—

*(a)* conducting a solo cross-country flight, or any flight greater than 25 nautical miles from the aerodrome from where the flight originated; and

*(b)* making a solo flight and landing at any location other than the aerodrome of origin,

meet the requirements of these Regulations.

(2) A student pilot who seeks solo cross-country flight privileges shall—

*(a)* have received ground and flight training from an authorised Flight Instructor on the manoeuvres set out in Part A of Schedule 2 that are appropriate to the make and model of aircraft for which solo cross-country privileges are sought; Schedule 2 Part A.

*(b)* have demonstrated cross-country proficiency on the appropriate manoeuvres and procedures set out in Part C of Schedule 2, to an authorised Flight Instructor;

*(c)* have satisfactorily accomplished the pre-solo flight manoeuvres and procedures set out in Part C of Schedule 2, in the make and model of aircraft or similar make and model of aircraft for which solo cross-country privileges are sought; and Schedule 2 Part C.

*(d)* comply with any limitations included in the endorsement of the authorised Flight Instructor that are required by subregulations (6) and (7).

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(3) A student pilot shall obtain an endorsement from an authorised Flight Instructor before making certain solo and cross-country flights.

(4) Notwithstanding subregulations (1) and (2), a student pilot under subregulation (3), may make solo flights to another airport that is within 25 nautical miles from the airport where he normally receives training, where—

*(a)* the authorised flight instructor who makes the endorsement gave the student pilot flight training at the other airport, and that training included flight in both directions over the route, entering and exiting the traffic pattern, and take-offs and landings at the other airport;

*(b)* the student pilot has a current solo flight endorsement in accordance with subregulation 27(7);

*(c)* the authorised Flight Instructor has determined that the student pilot is proficient to make the flight; and

*(d)* the purpose of the flight is to practice take-offs and landings at that other airport.

(5) Notwithstanding subregulations (1) and (2), a student pilot under subregulation (3), may make repeated specific solo cross-country flights to another airport that is within 50 nautical miles of the airport from which the flight originated, provided—

*(a)* the authorised Flight Instructor who gave the endorsement gave the student pilot flight training in both directions over the route, including entering and exiting the traffic patterns, take-offs and landings at the airport to be used;

*(b)* the student pilot has current solo flight endorsements in accordance with regulation 27(7); and

*(c)* the student pilot has a current solo cross-country flight endorsement in accordance with subregulation (6), except that separate endorsements are not required for each flight made under this regulation.

(6) Notwithstanding subregulation (5), a student pilot shall have for each make and model aircraft which he will fly on each cross-country flight, a solo cross-country endorsement placed in his logbook by the authorised Flight Instructor who conducted the training.

(7) A licensed pilot who is receiving training for an additional aircraft category and class rating shall have an endorsement placed in his logbook by the authorised Flight Instructor who conducted the training.

**PRIVATE PILOT LICENCE GENERAL REQUIREMENTS**

Private Pilot Licence requirement.

**30.** (1) A person wishing to apply for a Private Pilot Licence shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be at least seventeen years of age;

*(d)* except as provided in regulation 189, be able to read, speak, write, and understand the English language;

*(e)* pass the required aeronautical knowledge test in the aeronautical knowledge areas as set out in regulation 31;

*(f)* receive flight instruction as set out in regulation 32 and a logbook endorsement from an authorised Flight Instructor who—

(i) conducted the training in the areas of operation that apply to the aircraft category and rating sought; and

(ii) certified that the person is prepared for the required skill test;

*(g)* meet the aeronautical experience requirements of these Regulations that apply to the aircraft rating sought before applying for the skill test;

*(h)* pass a skill test on the areas of operation listed in regulation 33 that apply to the aircraft rating sought;

*(i)* provide the Authority with evidence of having received training in the physiology of flight set out in Part D of Schedule 2;

Schedule 2. Part D.

*(j)* comply with the appropriate sections of these Regulations that apply to the aircraft category and class rating sought; and

*(k)* pass the skill test under regulation 33;

*(l)* hold a current Class 2 medical certificate in accordance with Part VIII of these Regulations.

(2) Notwithstanding subregulation (1)*(c)*, the minimum age for an applicant for a Private Pilot Licence for a balloon, glider or lighter-than-air aircraft shall be sixteen years.

(3) Where an applicant under this Part requires a Type Rating he shall satisfy the requirements of regulation 58.

(4) Where an applicant under this Part requires an Instrument Rating, the applicant under this regulation shall satisfy the requirements of regulation 60.

(5) Notwithstanding subregulation (1)*(i)* an applicant for a Private Pilot Licence with an Instrument Rating shall hold a current Class 1 medical certificate in accordance with Part VIII of these Regulations.

(6) The Authority may accept the Instrument Rating on the Commercial Pilot Licence or Airline Transport Pilot Licence issued by another Contracting State where it meets the requirement of regulation 60.

**PRIVATE PILOT LICENCE AERONAUTICAL KNOWLEDGE REQUIREMENTS**

Private Pilot Licence aeronautical knowledge requirements. [45/2007].

**31.** (1) An applicant for a Private Pilot Licence under regulation 26 shall provide the Authority with evidence that he has

received and logged ground training from an approved Aviation Training Organisation or an authorised instructor in the aeronautical knowledge areas and a recommendation from such approved Aviation Training Organisation or authorised instructor that he is prepared for the knowledge test under subregulation (2).

(2) An applicant under subregulation (1) shall have demonstrated through an aeronautical knowledge test a level of knowledge appropriate to the privileges granted to the holder of a Private Pilot Licence and appropriate to the category of aircraft intended to be included on the licence, in the areas set out in Part A of Schedule 3.

Schedule 3. Part A.

**PRIVATE PILOT FLIGHT INSTRUCTION REQUIREMENTS**

**32.** (1) The applicant for a Private Pilot Licence under regulation 30 shall provide the Authority with evidence that he has received and logged ground and dual flight instruction in an aircraft from an authorised Flight Instructor.

Private pilot flight instruction requirements. [45/2007].

(2) An applicant under subregulation (1), shall receive flight instruction to obtain operational experience in the following areas to the level of performance required for a private pilot:

*(a)* pre-flight operations, including mass and balance determination, aircraft inspection and servicing;

*(b)* aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

*(c)* control of the aircraft by external visual reference;

*(d)* flight at critically slow airspeeds, recognition of, and recovery from incipient and full stalls;

*(e)* flight at critically high airspeeds, recognition of, and recovery from, spiral dives;

*(f)* normal and cross-wind take-offs and landings;

*(g)* maximum performance take-offs in respect of short-field and obstacle clearance, short-field landings;

*(h)* flight reference solely to instruments, including the completion of a level 180° turn;

*(i)* cross-country flying using visual reference, dead reckoning and where available, radio navigational aids;

*(j)* emergency operations, including simulated aircraft equipment malfunctions; and

*(k)* operations to, from and transiting controlled aerodromes, compliance with Air Traffic Controls procedures, radiotelephony procedures and phraseology.

(3) Where the privileges of the licence specified in regulation 37 are to be exercised at night, the applicant shall have received dual instruction in aircraft within the appropriate aircraft category in night flying, including take-offs, landings and navigation.

(4) In addition to the requirements set out in subregulation (2), an applicant for a Private Pilot Licence under regulation 30, seeking—

*(a)* an aeroplane category rating with a multi-engine class rating shall have received and logged training in multi-engine operations;

*(b)* a rotorcraft category rating with a helicopter class rating shall have received and logged training in—

(i) airport and heliport operations; and

(ii) hovering manoeuvres;

*(c)* a rotorcraft category rating with a gyroplane class rating shall have received and logged training in flight at slow airspeeds;

*(d)* a powered-lift category rating shall have received and logged training in—

(i) airport and heliport operations; and

(ii) hovering manoeuvres;

*(e)* a glider category rating shall have received and logged training in—

(i) airport operations;

(ii) launches and landings;

(iii) performance speeds; and

(iv) soaring techniques; and

*(f)* lighter-than-air category rating with a balloon class rating shall have received and logged training in launches and landings.

**PRIVATE PILOT SKILL REQUIREMENTS**

**33.** (1) An applicant for a Private Pilot Licence under regulation 30, shall have demonstrated through a skill test, his ability to perform as pilot in command of an aircraft within the appropriate category, the relevant procedures and manoeuvres set out in Part B of Schedule 3 in the manner set out in Part C of Schedule 3, with a degree of competency appropriate to the privileges granted to the holder of a Private Pilot Licence.

Private Pilot skill requirement. [45/2007].

Schedule 3. Part B. Part C.

(2) The skill test under subregulation (1) shall be taken within six months of completing the flight instructions under regulation 32 unless further extended by the Authority.

**PRIVATE PILOT AERONAUTICAL EXPERIENCE REQUIREMENTS**

**34.** (1) An applicant for a Private Pilot Licence shall, in accordance with the requirements specified in Part D of Schedule 3, have received—

Private Pilot Licence aeronautical experience requirements for additional ratings. Schedule 3. Part D. [45/2007].

*(a)* forty hours of flight time as an aeroplane pilot appropriate to the category and class rating sought;

*(b)* forty hours of flight time as a helicopter pilot; or

*(c)* twenty-five hours of flight time as an airship pilot.

(2) Notwithstanding subregulation (1)*(a)* and *(b)*, an applicant for a Private Pilot Licence need to have only—

*(a)* thirty-five hours of flight time completed during a course of approved training as an aeroplane pilot appropriate to the class rating sought;

*(b)* thirty-five hours of flight time completed during a course of approved training as a helicopter pilot.

(3) The minimum flight training times listed in subregulation (1), shall include at least the experiences shown in Part D of Schedule 3.

Schedule 3. Part D.

(4) An applicant for a Private Pilot Licence may credit to the forty hours flight time under subregulation (1) or the thirty-five hours flight time under subregulation (2), one of the following in a flight simulation training device representing the category, class, and type, where applicable, of aircraft appropriate to the rating sought:

*(a)* a maximum of two and one half hours of training, where such training is received from an authorised instructor other than an approved Aviation Training Organisation; or

*(b)* a maximum of five hours of training where such training is accomplished in a course conducted by an approved Aviation Training Organisation.

(5) Where an applicant under this Part requires a Type Rating he shall satisfy the requirements of regulation 58.

(6) Where an applicant under this Part requires an Instrument Rating he shall satisfy the requirements of regulation 60.

(7) Where an applicant has logged flight time as a pilot of aircraft in other categories, the Director-General shall determine whether such experience is acceptable and recommend the Authority reduce the flight time requirement accordingly.

**CONVERSION OF A PRIVATE PILOT LICENCE FROM ANOTHER CONTRACTING STATE**

Conversion of a Private Pilot Licence based on qualifications of another Contracting State.

**35.** (1) Notwithstanding regulation 30, a person is also qualified to hold a Private Pilot Licence under these Regulations where he—

*(a)* holds a pilot licence issued by the civil aviation authority of another Contracting State that is equivalent to the Private Pilot Licence issued by the Authority;

*(b)* satisfies the requirements of regulation 30(1)*(c)*, *(d)* and *(l)*;

*(c)* provides the Authority with evidence of having successfully completed the aeronautical knowledge and skill test for the grant of a Private Pilot Licence; and

*(d)* passes the required knowledge test in air law.

(2) Where a Type Rating is required the applicant under this regulation shall satisfy the requirements of regulation 58.

(3) Where an Instrument Rating is required the applicant under this regulation shall satisfy the requirements of regulation 60.

(4) An applicant under this regulation may use only one foreign pilot licence as a basis for obtaining a Private Pilot Licence issued by the Authority.

(5) An applicant for a pilot licence under this regulation shall provide a foreign pilot licence and medical certification in the English Language or accompanied by an English Language transcription that has been signed by an official or representative of the foreign civil aviation authority that issued the foreign pilot licence.

### ISSUE OF PRIVATE PILOT LICENCE

Issue of Private Pilot Licence.

**36.** Where the Director-General is satisfied that an applicant for a Private Pilot Licence meets the requirements of this Part, he may recommend that the Authority issue the applicant with a Private Pilot Licence.

### PRIVILEGES AND LIMITATIONS OF A PRIVATE PILOT LICENCE

Private Pilot Licence privileges and limitations. [45/2007].

**37.** (1) The holder of a Private Pilot Licence (hereinafter referred to as "a Private Pilot") shall not act as a required crew member of an aircraft—

*(a)* carrying passengers or property for compensation or hire; or

*(b)* operated for compensation or hire.

(2) A Private Pilot may act as a required crew member of an aircraft within the appropriate category of aircraft in connection with any business or employment where—

*(a)* the flight is only incidental to that business or employment; and

*(b)* the aircraft does not carry passengers or property for compensation or hire.

(3) Notwithstanding subregulations (1) and (2), a Private Pilot may be reimbursed for aircraft operating expenses that are directly related to search and rescue operations, provided that—

*(a)* such expenses relate only to fuel, oil, airport charges or rental fees; and

*(b)* the operation is sanctioned and under the direction and control of—

(i) an agency of the Government of Trinidad and Tobago; or

(ii) an organisation that conducts search and rescue operations.

(4) A Private Pilot shall not act in any capacity as a pilot of an aircraft under Instrument Flight Rules unless he has an Instrument Rating appropriate to the category of aircraft in use.

**LIMITATIONS OF PRIVATE PILOT LICENCE WITH BALLOON RATING**

Limitations of Private Pilot with balloon rating.

**38.** (1) Where an applicant for a Private Pilot Licence with a balloon rating takes a skill test in a balloon with an airborne heater, the Director-General shall recommend that the Authority place upon the Private Pilot Licence a limitation restricting the exercise of the privileges of that licence to a balloon with an airborne heater.

(2) A Private Pilot may apply to have the limitation under subregulation (1), removed upon—

*(a)* obtaining the required aeronautical experience in a gas balloon; and

*(b)* receiving a logbook endorsement from an authorised instructor who attests to the accomplishment by the Private Pilot of the required aeronautical experience and ability to satisfactorily operate a gas balloon.

(3) Where an applicant for a Private Pilot Licence with a balloon rating takes a skill test in a gas balloon, the Director-General shall recommend that the Authority place upon the Private Pilot Licence a limitation restricting the exercise of the privilege of that licence to a gas balloon.

(4) A Private Pilot may apply to the Authority to have the limitation under subregulation (3), removed upon—

*(a)* obtaining the required aeronautical experience in a balloon with an airborne heater; and

*(b)* receiving a logbook endorsement from an authorised instructor who attests to the accomplishment by the Private Pilot of the required aeronautical experience and ability to satisfactorily operate a balloon with an airborne heater.

**COMMERCIAL PILOT GENERAL REQUIREMENTS**

General requirements for Commercial Pilot Licence and rating requirements.

**39.** (1) A person wishing to apply for a Commercial Pilot Licence shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be at least eighteen years of age;

*(d)* except as provided in regulation 189, be able to read, speak, write, and understand the English language;

*(e)* pass or provide the Authority with evidence of having passed the required aeronautical knowledge test under regulation 40;

*(f)* receive or provide the Authority with evidence of having received the instruction required by regulation 41 and a logbook endorsement from an authorised Flight Instructor who—

(i) conducted the training on the areas of operation that apply to the aircraft category and class rating sought; and

(ii) certified that the person is prepared for the required skill test check;

*(g)* meet the aeronautical experience requirements of regulation 39 that apply to the aircraft category and class rating sought before applying for the skill test check;

*(h)* pass or provide the Authority with evidence of having passed the skill test on the areas of operation set out in Part A of Schedule 4 that apply to the aircraft category and class rating sought;

Schedule 4. Part A.

*(i)* pass the skill test under paragraph *(h)* in the manner set out in Part B of Schedule 4;

Schedule 4. Part B.

*(j)* complete or provide the Authority with evidence of having completed the training in the physiology of flight set out in Part D of Schedule 2;

Schedule 2. Part D.

*(k)* hold a valid Private Pilot Licence issued under these Regulations;

*(l)* holds a military pilot licence which is certified by the issuing Contracting State as being equivalent to a Commercial Pilot Licence or an Airline Transport Pilot Licence;

*(m)* comply with the appropriate sections of these Regulations that apply to the aircraft category and class rating sought; and

*(n)* hold a current Class 1 medical certificate issued in accordance with Part VIII.

(2) Where a Type Rating is required for a Commercial Pilot Licence under this Part the applicant shall satisfy the requirements of regulation 58.

(3) Where an Instrument Rating is required for a Commercial Pilot Licence under this Part the applicant shall satisfy the requirements of regulation 60.

**COMMERCIAL PILOT AERONAUTICAL KNOWLEDGE REQUIREMENTS**

Aeronautical knowledge requirements for the issue of a Commercial Pilot Licence. Schedule 4. Part C. [45/2007].

**40.** An applicant for a Commercial Pilot Licence, under regulation 39, shall provide the Authority with evidence that he has received and logged ground training from an approved Aviation Training Organisation or an authorised instructor on the aeronautical knowledge areas appropriate to the category of aircraft intended to be included in the licence as set out in Part C of Schedule 4 and a recommendation from the authorised instructor that he is prepared for the knowledge test.

**COMMERCIAL PILOT FLIGHT INSTRUCTION REQUIREMENTS**

Commercial pilot flight instruction requirements. [45/2007].

**41.** (1) An applicant for a Commercial Pilot Licence, under regulation 39, shall provide the Authority with evidence of having received and logged ground and dual flight instruction appropriate to the class or type rating sought at an Approved Training Organisation or from an authorised instructor on the required flight instruction areas of operation.

(2) The instruction required under subregulation (1), shall be on the areas of operation in respect of the aircraft category and class rating sought to the level of performance required for a Commercial Pilot Licence set out in Part D of Schedule 4.

Schedule 4. Part D.

(3) Where the privileges of the Commercial Pilot Licence are to be exercised at night, the applicant shall have received dual instruction in aircraft within the appropriate category in night flying, including take-offs, landings and navigation.

(4) The instrument training and experience specified in Part E of Schedule 4, and the night-flying experience specified in subregulation (3), shall not entitle the holder of a Commercial Pilot Licence to pilot aircraft under Instrument Flight Rules.

Schedule 4. Part E.

**COMMERCIAL PILOT SKILL TEST**

Skill test for the issue of a Commercial Pilot Licence.

**42.** An applicant for a Commercial Pilot Licence, under regulation 39, shall provide the Authority with evidence of having successfully completed the skill test demonstrating his ability to perform as pilot in command of an aircraft, the relevant procedures and manoeuvres set out in Part A of Schedule 4 in the manner set out in Part B of Schedule 4, with a degree of competency appropriate to the privileges granted to the holder of a Commercial Pilot Licence.

Schedule 4. Part A. Schedule 4. Part B.

**COMMERCIAL PILOT AERONAUTICAL EXPERIENCE REQUIREMENTS**

Commercial Pilot Aeronautical Experience requirements. Schedule 4. Part E. [45/2007].

**43.** (1) An applicant for a Commercial Pilot Licence, under regulation 39, shall obtain two hundred and fifty flight hours of aeronautical experience as outlined in Part E of Schedule 4.

(2) An applicant who has satisfactorily completed a Commercial pilot course conducted by an approved Aviation Training Organisation need have only the following total aeronautical experience to meet aeronautical experience requirements:

*(a)* one hundred and ninety hours for an aeroplane or powered-lift rating; and

*(b)* one hundred and fifty hours for a helicopter rating.

(3) Notwithstanding subregulation (2), where an applicant has logged flight time as a pilot of aircraft in other categories the Director-General shall determine whether such experience is acceptable and recommend the Authority reduce the flight time requirement accordingly.

(4) An applicant for a Commercial Pilot Licence may credit to—

*(a)* the 250 hours required by subregulation (1);

*(b)* 190 hours required by subregulation (2)*(a)*; or

*(c)* 150 hours required by subregulation (2)*(b)*,

a maximum of 10 hours for training in a flight simulation training device representing the applicable category, class and type of aircraft appropriate to the rating sought.

**CONVERSION OF A COMMERCIAL PILOT LICENCE FROM ANOTHER CONTRACTING STATE**

Requirements for Commercial Pilot Licence where applicant holds equivalent licence.

**44.** (1) Notwithstanding regulation 39*(*1)*(e)* through *(k)*, a person is also qualified to hold a Commercial Pilot Licence issued by the Authority where he—

*(a)* holds a valid pilot licence issued by a civil aviation authority of another Contracting State that is equivalent to a Commercial Pilot Licence issued by the Authority; and

*(b)* passes the required knowledge test on the following knowledge areas:

(i) rules and regulations relevant to the holder of a Commercial Pilot Licence;

(ii) rules of the air, appropriate Air Traffic Control practices and procedures;

(iii) operating limitations of appropriate aircraft and power plants, relevant operational information from the flight manual or other appropriate document;

(iv) effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;

(v) use and practical application of take-off, landing and other performance data;

(vi) general aeronautical knowledge; and

(vii) aeronautical knowledge specific to the aircraft type.

(2) Where an applicant holds a pilot licence issued by the licensing authority of a Contracting State, the Authority may accept the results of a successful flight test conducted under such pilot licence as evidence that the applicant satisfies the requirements under this regulation.

(3) An applicant under this regulation may use only one foreign pilot licence as a basis for obtaining a Commercial Pilot Licence issued by the Authority.

(4) An applicant for a pilot licence under this regulation shall provide a foreign pilot licence and medical certification in the English Language or accompanied by an English Language transcription that has been signed by an official or representative of the foreign civil aviation authority that issued the foreign pilot licence.

(5) Where a Type Rating is required, the applicant under subregulation (2), shall satisfy or provide the Authority with evidence that he has met the requirements of regulation 58.

(6) Where an Instrument Rating is required the applicant shall satisfy or provide the Authority with evidence that he has met the requirements of regulation 60.

(7) The Authority may accept the Type Rating and Instrument Rating on a Commercial Pilot Licence issued by another Contracting State where it is equivalent to the requirement of these Regulations.

(8) The Authority may exempt the applicant from any requirement of this regulation, on proof of equivalent knowledge, qualifications, skills and recency of experience.

**ISSUE OF COMMERCIAL PILOT LICENCE**

Issue of Commercial Pilot Licence.

**45.** Where the Director-General is satisfied that the applicant for a Commercial Pilot Licence meets the requirements of this Part, he may recommend that the Authority issue the applicant with a Commercial Pilot Licence.

## COMMERCIAL PILOT LICENCE ADDITIONAL CATEGORY AND CLASS RATING REQUIREMENTS

Requirements for additional category, class and Type Rating for the holder of a Commercial Pilot Licence.

**46.** (1) An applicant for a Commercial Pilot Licence with an additional category rating who holds a Commercial Pilot Licence with another aircraft category rating shall—

*(a)* meet the applicable eligibility requirements;

*(b)* pass a knowledge test on the applicable aeronautical knowledge areas;

*(c)* meet the applicable aeronautical experience requirements; and

*(d)* pass the skill test proficiency check on the areas of operation.

(2) An applicant for a Commercial Pilot Licence with a Type Rating shall not be required to pass a knowledge test where his Commercial Pilot Licence lists the aircraft category and class rating that is appropriate to the type of rating sought.

## COMMERCIAL PILOT LICENCE PRIVILEGES

Commercial Pilot Licence privileges. [45/2007].

**47.** (1) The holder of a Commercial Pilot Licence (hereinafter referred to as "a commercial pilot") may—

*(a)* exercise all the privileges of the holder of a Private Pilot Licence in an aircraft within the appropriate aircraft category;

*(b)* act as pilot in command in an aircraft within the appropriate aircraft category engaged in operations other than commercial air transport;

*(c)* act as pilot in command in commercial air transport operations in an aircraft within the appropriate aircraft category certificated for single pilot operation; and

*(d)* act as co-pilot in an aircraft within the appropriate aircraft category for which he holds a Type Rating and which is required to be operated with a co-pilot.

(2) A Commercial Pilot with a lighter-than-air category rating may—

*(a)* give flight and ground training in an airship for the issuance of a licence or rating for an airship;

*(b)* endorse a pilot logbook for an airship; and

*(c)* Pilot an airship under Instrument Flight Rules;

*(d)* give flight and ground training in a balloon for the issuance of a licence or rating for a balloon; and

*(e)* endorse a pilot logbook for a balloon.

(3) A Commercial Pilot shall not act in any capacity as a pilot of an aircraft under Instrument Flight Rules unless he has an Instrument Rating appropriate to the category of aircraft in use.

**COMMERCIAL PILOT LICENCE LIMITATIONS**

Limitations of Commercial Pilot Licence.

**48.** (1) The Director-General may recommend that the Authority issue to an applicant for a Commercial Pilot Licence with an aeroplane category or powered-lift category rating who does not hold an Instrument Rating in the same category and class, a Commercial Pilot Licence that contains the limitation,

"The carriage of passengers for hire in (aeroplanes) (powered-lifts) on cross-country flights in excess of 50 nautical miles or at night is prohibited.".

(2) A Commercial Pilot may apply to the Authority to have the limitation under subregulation (1), removed by satisfactorily accomplishing the requirements of regulation 60 for an Instrument Rating in the same category and class that has the limitation.

(3) Where an applicant for a Commercial Pilot Licence with a balloon rating takes a skill test in a balloon with an airborne heater the Director-General shall recommend the Authority place upon the Commercial Pilot Licence, a limitation restricting the exercise of the privileges of that licence to a balloon with an airborne heater.

(4) A Commercial Pilot may remove the limitation specified in subregulation (3), by—

*(a)* obtaining the required aeronautical experience in a gas balloon; and

*(b)* receiving a logbook endorsement from an authorised instructor who attests to the accomplishment by the pilot of the required aeronautical experience and ability to satisfactorily operate a gas balloon.

(5) Where an applicant for a Commercial Pilot Licence with a balloon rating takes a skill test in a gas balloon the Director-General shall recommend the Authority place upon the Commercial Pilot Licence, a limitation restricting the exercise of the privileges of that licence to a gas balloon.

(6) A Commercial Pilot may remove the limitation specified in subregulation (5), by—

*(a)* obtaining the required aeronautical experience in a balloon with an airborne heater; and

*(b)* receiving a logbook endorsement from an authorised instructor who attests to the person's accomplishment of the required aeronautical experience and ability to satisfactorily operate a balloon with an airborne heater.

**AIRLINE TRANSPORT PILOT LICENCE GENERAL REQUIREMENTS**

Airline Transport Pilot Licence requirements. [45/2007].

**49.** (1) A person wishing to apply for an Airline Transport Pilot Licence appropriate to an aeroplane, helicopter and powered-lift category, shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be at least twenty-one years of age;

*(d)* except as provided in regulation 189, be able to read, speak, write, and understand the English Language;

*(e)* meet at least one of the following requirements:

(i) hold a valid and current Commercial Pilot Licence and an instrument rating;

(ii) hold a military pilot licence which is certified by the issuing Contracting State as being equivalent to a Commercial Pilot Licence or an Airline Transport Pilot Licence; or

*(f)* meet the aeronautical experience requirements of regulation 52 before applying for the skill test check;

*(g)* pass or provide the Authority with evidence of having passed an aeronautical knowledge test in the applicable knowledge areas appropriate to the category of aircraft intended to be included on the licence under regulation 50;

*(h)* pass or provide the Authority with evidence of having passed the skill test under regulation 51;

*(i)* provide the Authority with evidence of having received training on the physiology of flight set out in Part D of Schedule 2; and

Schedule 2. Part D.

*(j)* hold a current Class 1 medical certificate in accordance with Part VIII of these Regulations.

(2) Where a Type Rating is required for a Commercial Pilot Licence under this Part the applicant shall satisfy the requirements of regulation 58.

(3) Where an Instrument Rating is required for a Commercial Pilot Licence under this Part the applicant shall satisfy the requirements of regulation 60.

**AIRLINE TRANSPORT PILOT AERONAUTICAL KNOWLEDGE REQUIREMENTS**

Airline transport pilot aeronautical knowledge requirements. Schedule 5. Part A. [45/2007].

**50.** (1) An applicant for an Airline Transport Pilot Licence shall demonstrate a level of knowledge appropriate to the privileges granted to the holder of an Airline Transport Pilot Licence and appropriate to the category of aircraft intended to be included in the licence in the aeronautical knowledge areas set out in Part A of Schedule 5.

(2) In addition to the requirements of subregulation (1), the applicant for an Airline Transport Pilot Licence applicable to the aeroplane or powered-lift category shall have met the knowledge requirements for the instrument rating required by regulation 60(1)*(b)*(iii).

**AIRLINE TRANSPORT PILOT FLIGHT SKILL REQUIREMENTS**

Airline transport pilot flight skill requirements. [45/2007].

**51.** (1) An applicant for an Airline Transport Pilot Licence under regulation 49 shall provide evidence of having received the flight instruction required for the issue of a Commercial Pilot Licence and for the issue of an Instrument Rating under regulation 60, that apply to the category and class rating sought.

(2) An applicant for an Airline Transport Pilot Licence under regulation 49, shall provide the Authority with evidence that he has met the skills requirements of Part B of Schedule 5 in respect of his ability to perform as pilot in command of an aircraft of the appropriate category required to be operated with a co-pilot.

Schedule 5. Part B.

**AIRLINE TRANSPORT PILOT AERONAUTICAL EXPERIENCE FOR AEROPLANE CATEGORY RATING**

Airline transport pilot aeronautical experience for aeroplane category rating. [45/2007].

**52.** (1) An applicant for an Airline Transport Pilot Licence with an aeroplane category, shall have no less experience than the specified hours of total time as a pilot of aeroplanes that shall include no less than the hours specified for the relevant category in Part C of Schedule 5.

(2) Notwithstanding subregulation (1), where an applicant has logged flight time as a pilot of aircraft in other categories, the Director-General shall determine whether such experience is acceptable and recommend the Authority reduce the flight time requirement in accordance with Part C of Schedule 5 as applicable to the category and class rating.

Schedule 5. Part C.

(3) The Director-General may recommend that the Authority allow credit of up to 100 hours as part of the total flight time of 1,500 hours, for experience as a pilot under

instruction in a flight simulation training device which has been approved by the Authority and of which not more than 25 hours shall have been acquired as a flight procedure trainer or a basic instrument flight trainer.

### AIRLINE TRANSPORT PILOT AERONAUTICAL EXPERIENCE FOR ROTORCRAFT

Airline Transport Pilot Licence aeronautical experience for rotorcraft category and class rating. Schedule 5. Part C. [185/2006 45/2007].

**53.** (1) An applicant for an Airline Transport Pilot Licence with a rotorcraft category class rating or a power-lift category, shall have no less than the specified hours of total time as a pilot that shall include no less than the hours specified for the relevant category in Part C of Schedule 5.

(2) Notwithstanding regulation 52 and subregulation (1), where an applicant has logged flight time as a pilot of aircraft in other categories the Director-General shall determine whether such experience is acceptable and recommend the Authority reduce the flight time requirement accordingly.

(3) The Director-General may recommend that the Authority allow credit of up to 100 hours for experience as a pilot under instruction in a flight simulation training device which has been approved by the Authority of which not more than 25 hours shall have been acquired in a flight procedure trainer or a basic instrument flight trainer, as part of the total flight time of 1000 hours as helicopter pilot.

### CONVERSION OF AN AIRLINE TRANSPORT PILOT LICENCE FROM ANOTHER CONTRACTING STATE

Requirements for an Airline Transport Pilot Licence where applicant holds equivalent licence.

**54.** (1) Notwithstanding regulation 49, a person is also qualified to hold an Airline Transport Pilot Licence under these Regulations, where he—

*(a)* holds a valid pilot licence issued by the civil aviation authority of another Contracting State that is equivalent to the Airline Transport Pilot Licence issued by the Authority;

*(b)* satisfies the requirements of regulation 49*(c)*, *(d)* and *(e)*;

*(c)* passes the required knowledge test on the following knowledge areas:

(i) rules and regulations relevant to the holder of an Airline Transport Pilot Licence;

(ii) rules of the air; appropriate Air Traffic Controls, practices and procedures;

(iii) operating limitations of appropriate aircraft and power plants; relevant operational information from the flight manual or other appropriate document;

(iv) effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;

(v) use and practical application of take-off, landing and other performance data;

(vi) general aeronautical knowledge; and

(vii) aeronautical knowledge specific to the aircraft type;

*(d)* meets the Instrument Rating requirements of regulation 60.

(2) The Authority may accept the Instrument Rating on the Commercial Pilot Licence or Airline Transport Pilot Licence issued by another Contracting State where such Instrument Rating meets the requirement of regulation 60.

(3) An applicant under this regulation may use only one foreign pilot licence as a basis for obtaining an Airline Transport Pilot Licence issued by the Authority.

(4) Where a Type Rating is required an applicant under this regulation shall satisfy the Type Rating requirements set out in regulation 58.

(5) An applicant for a pilot licence under this regulation shall provide a foreign pilot licence and medical certification in the English Language or accompanied by an English Language transcription that has been signed by an official or representative of the foreign civil aviation authority that issued the foreign pilot licence.

**ISSUE AND VALIDITY OF AIRLINE TRANSPORT PILOT LICENCE**

Issue and validity of Airline Transport Pilot Licence.

**55.** Where the Director-General is satisfied that the applicant for an Airline Transport Pilot Licence meets the requirements of this Part, he may recommend that the Authority issue the applicant with an Airline Transport Pilot Licence.

**AIRLINE TRANSPORT PILOT ADDITIONAL CATEGORY, CLASS AND TYPE RATING**

Requirements for additional category, class and Type Rating for holder of an Airline Transport Pilot Licence.

**56.** (1) An applicant for an Airline Transport Pilot Licence with a category rating who holds an Airline Transport Pilot Licence with another aircraft category rating shall—

*(a)* meet the applicable eligibility requirements;

*(b)* pass a knowledge test on the applicable aeronautical knowledge areas;

*(c)* meet the applicable aeronautical experience requirements; and

*(d)* pass the skill test on the areas of operation.

(2) An applicant for an Airline Transport Pilot Licence with a Type Rating shall not be required to pass a knowledge test where the Airline Transport Pilot Licence of the pilot lists the aircraft category and class rating appropriate to the Type Rating sought.

**PRIVILEGES OF AIRLINE TRANSPORT PILOT LICENCE**

Airline Transport Pilot Licence privileges. [45/2007].

**57.** (1) The holder of an Airline Transport Pilot Licence (hereinafter referred to as "Airline Transport Pilot") may, subject to the continued validity of the licence including medical fitness requirements—

*(a)* exercise all the privileges of a Private Pilot Licence and Commercial Pilot Licence of an aircraft within

the appropriate aircraft category and in the case of a licence for the aeroplane and powered-lift categories, of the instrument rating; and

*(b)* act as pilot in command, in commercial air transportation, of an aircraft within the appropriate category and certified for operation with more than one pilot.

(2) An Airline Transport Pilot shall not act in any capacity as a pilot of an aircraft under Instrument Flight Rules unless he has an Instrument Rating appropriate to the category of aircraft in use.

(3) An Airline Transport Pilot may instruct—

*(a)* other pilots in command in air transportation operations in an aircraft of the category, class, and type, as applicable, for which the Airline Transport Pilot is rated, and in simulation of those aircraft, and endorse the logbook or other training record of the person to whom training has been given; and

*(b)* only as provided in this regulation, unless the Airline Transport Pilot also holds a Flight Instructor Rating, in which case the holder may exercise the instructor privileges of these Regulations for which he is rated.

(4) An Airline Transport Pilot shall not instruct in an aircraft, approved flight simulator or approved flight training device under this regulation where flight and duty times and rest requirements exceed those prescribed in the Act or Regulations made thereunder.

(5) Subregulation (4), shall not include briefing and debriefing.

(6) An Airline Transport Pilot shall not instruct in Category II or Category III operations unless he has completed successfully the training and testing requirements for Category II or Category III operations.

**REQUIREMENTS FOR GLIDER PILOT LICENCE**

Requirements for Glider Pilot Licence. [45/2007]. Schedule 6A.

**57A.** The requirements for the issue of a Glider Pilot Licence are set out in Schedule 6A.

**REQUIREMENTS FOR FREE BALLOON PILOT LICENCE**

Requirements for Free Balloon Pilot Licence. [45/2007]. Schedule 6B.

**57B.** The requirements for the issue of a Free Balloon Pilot Licence are set out in Schedule 6B.

**GENERAL REQUIREMENTS FOR TYPE RATINGS**

Type Rating requirements. [45/2007].

**58.** (1) A pilot shall hold an appropriate Type Rating for the aircraft when acting as a pilot in command of—

*(a)* an aircraft certified for operation with at least two pilots;

*(b)* a helicopter or a powered-lift aircraft certified for single-pilot operation except where such helicopter or powered-lift aircraft has been issued a class rating under regulation 22; and

*(c)* any other aircraft where it is considered necessary by the Authority.

(1A) The Director-General may recommend the Authority establish a common Type Rating for aircraft with similar characteristics in terms of operating procedures, systems and handling.

(2) A pilot seeking an aircraft Type Rating to be added on a pilot licence, or the addition of an aircraft Type Rating that is accomplished concurrently with an additional aircraft category or class rating shall—

*(a)* hold or concurrently obtain an Instrument Rating appropriate to the aircraft category, class, or type rating sought;

*(b)* have an endorsement in his logbook or training record from an authorised instructor that within the preceding six months the applicant has in respect of the pilot licence for the aircraft

category, class and Type Rating sought been found competent in the following areas:

(i) aeronautical knowledge areas;

(ii) areas of operation;

*(c)* pass the skill test in the manner set out in Part A of Schedule 6 on the areas set out in Part B of Schedule 5;

Schedule 6. Part A. Schedule 5. Part B.

*(d)* perform the skill test under instrument flight rules; and

*(e)* not be required to take an additional aeronautical knowledge test, where he holds an aeroplane, rotorcraft, powered-lift, or airship rating on his pilot licence.

(3) Notwithstanding subregulation 2*(d)* an applicant for a Type Rating in—

*(a)* a multi-engine aeroplane with a single pilot station may meet the requirements of subregulation 2*(b)* in a multi-seat version of that multi-engine aeroplane;

*(b)* a single engine single pilot station aeroplane may meet the requirements of subregulation 2*(b)*, in a multi-seat version of that single engine aeroplane.

(4) An applicant for a Type Rating who during testing for such rating provides an aircraft which is not capable of the instrument manoeuvres and procedures required by the appropriate requirements of regulation 60 for the skill test, may obtain a Type Rating limited to "Visual Flight Rules only".

(5) An applicant may remove the "Visual Flight Rules only" limitation for each aircraft type in which the applicant demonstrates compliance with the appropriate instrument requirements of these Regulations.

(6) Notwithstanding subregulation (3), the Director-General may recommend that the Authority issue to an applicant for a Type Rating, a licence with the limitation "Visual Flight Rules only" for each aircraft type not adequately equipped to allow the applicant to show instrument proficiency.

(7) A Flight Test Examiner who conducts a skill test under this regulation may waive any of the tasks for which the Authority has given waiver authority.

**SPECIAL PILOT AUTHORISATION**

Special Pilot Authorisation.

**59.** (1) The Director-General may recommend that the Authority issue a special Pilot Authorisation for the purpose of training, testing, or specific special purpose non-revenue, non-passenger carrying flights, in place of issuing the class or type rating required.

(2) The special Pilot Authorisation under subregulation (1) shall be limited in validity to the time needed to complete the specific flight.

**INSTRUMENT RATING REQUIREMENTS**

Instrument rating requirements. [45/2007].

**60.** (1) Where a pilot wishes to apply for an Instrument Rating for aeroplanes, helicopters, powered-lift and airship categories, he shall—

*(a)* hold a pilot licence with an aircraft category and class rating for the Instrument Rating sought;

*(b)* provide the Authority with evidence that he has—

(i) received aeronautical knowledge instruction on an approved instrument rating course at an organisation approved to conduct such courses;

(ii) received a logbook or training record endorsement from an authorised instructor certifying that the person is prepared to take the required skill test check;

(iii) passed an aeronautical knowledge test on the aeronautical knowledge areas set out in Part D of Schedule 6, unless the applicant already holds an Instrument Rating issued by another Contracting State or already holds an Instrument Rating in another category; and

Schedule 6. Part D.

(iv) the ability to perform the procedures and manoeuvres through the required skill test set out in Part B of Schedule 6 with a degree of competency appropriate to the privileges granted to the holder of an Instrument Rating and to— Schedule 6. Part B.

(A) recognise and manage threats and errors;

(B) operate the aircraft for the category being sought, within its limitations;

(C) complete all manoeuvres with smoothness and accuracy;

(D) exercise good judgment and airmanship;

(E) apply aeronautical knowledge; and

(F) maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured;

(v) a level of knowledge appropriate to the privileges granted to the holder of an instrument rating;

(vi) the experience set out in Part E of Schedule 6; Schedule 6. Part E.

(vii) gained not less than 10 hours of the instrument flight time while receiving dual instrument flight instruction in the aircraft category being sought, from an authorised flight instructor who shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the holder of an instrument rating:

(A) pre-flight procedures, including the use of the flight manual or equivalent document, and appropriate air traffic

services documents in the preparation of an Instrument Flight Rules flight plan;

(B) pre-flight inspection, use of checklists, taxiing and pre-take-off checks;

(C) procedures and manoeuvres for Instrument Flight Rules operation under normal, abnormal and emergency conditions covering at least transition to instrument flight on take-off, standard instrument departures and arrivals, en route Instrument Flight Rules procedures, holding procedures, instrument approaches to specified minima, missed approach procedures and landings from instrument approaches; and

(D) in-flight manoeuvres and particular flight characteristics;

*(c)* perform the skill test under paragraph *(b)*(iv) in the manner set out in Part C of Schedule 6;

Schedule 6. Part C.

Schedule 6. Part E.

*(d)* log the aeronautical experience set out in Part E of Schedule 6;

*(e)* hold a Class 1 medical certificate issued in accordance with Part VIII.

(2) A course under subregulation (1)*(b)*(i) should, wherever possible, be combined with an approved flight training programme.

(3) Where the instrument training was provided by an authorised Flight Instructor in approved or accepted flight training equipment, an applicant shall perform—

*(a)* a maximum of thirty hours in that flight training equipment where the training was accomplished in accordance with a training programme approved under these Regulations; or

*(b)* a maximum of twenty hours in that flight training equipment where the training was not accomplished in accordance with a training programme approved under these Regulations.

(4) Where the Instrument Rating is to be renewed, the holder shall meet the requirements set out in this regulation and any additional requirements as determined by the Authority.

(5) Where the privileges of the instrument rating are to be exercised on a multi-engined aeroplane, the applicant shall have received dual instrument flight instruction in such an aeroplane from an authorised flight instructor.

(6) The flight instructor under subregulation (5) shall ensure that the applicant has operational experience in the operation of the aircraft of the appropriate category solely by reference to instruments with one engine inoperative or simulated inoperative.

**VALIDITY AND REVALIDATION OF INSTRUMENT RATING**

Validity and revalidation of Instrument Ratings.

**61.** (1) An instrument rating shall be valid for one year.

(2) Where an instrument rating for a multi-engine aeroplane is to be revalidated, the holder shall complete the instrument requirements which may be conducted in approved or accepted flight training equipment appropriate to the required level of training.

(3) Where an instrument rating for single-engine aeroplane is to be revalidated, the holder shall provide the Authority with evidence that he has completed, as a proficiency check, the skill test set for a single-engine aeroplane.

(4) Where the instrument rating is valid for use in single pilot operations, the revalidation shall be completed in either multi-pilot operations or single-pilot operations.

(5) Where the instrument rating is restricted for use in multi-pilot operations only, the revalidation shall be completed in multi-pilot operations.

**RENEWAL OF INSTRUMENT RATING**

Renewal of expired Instrument Rating.

**62.** Where the instrument rating has not been revalidated within the preceding seven years of the date of expiration, the holder shall, where the Authority deems it necessary, retake some or all of the required skill test under regulation 60 and upon successful completion thereof such instrument rating shall be renewed.

**LIMITATIONS**

Limitation on Instrument Rating.

**63.** An applicant who fails to achieve a pass in all sections of a proficiency check before the expiry date of an Instrument Rating shall not exercise the privileges of that rating until the proficiency check has successfully been completed.

**CREDITS AND EXEMPTIONS**

Credits and exemptions applicable to theoretical knowledge for licences.

**64.** (1) The holder of a helicopter instrument rating shall be exempted from the aeronautical knowledge instruction and examination requirement under regulation 60 for an instrument rating.

(2) The holder of the following licences shall be exempted from the aeronautical knowledge instruction and examination requirements where he completes the relevant bridge instruction and passes the relevant examinations:

*(a)* a helicopter category rating for the issue of an aeroplane category rating;

*(b)* an aeroplane category rating for the issue of a helicopter category rating; or

*(c)* an Airline Transport Pilot Licence helicopter category rating not restricted to Visual Flight Rules for the issue of a Commercial Pilot Licence or Airline Transport Pilot Licence aeroplane category rating;

*(d)* Commercial Pilot Licence or Airline Transport Pilot Licence aeroplane category rating for the issue of an Airline Transport Pilot Licence helicopter category rating not restricted to Visual Flight Rules;

*(e)* an Airline Transport Pilot Licence helicopter category rating restricted to Visual Flight Rules or of a Commercial Pilot Licence helicopter category rating for the issue of a Commercial Pilot Licence aeroplane category rating; or

*(f)* a Commercial Pilot Licence aeroplane category rating for the issue of an Airline Transport Pilot Licence helicopter category rating restricted to Visual Flight Rules or of a Commercial Pilot Licence helicopter category rating.

(3) An applicant having passed the aeronautical knowledge examination for Commercial Pilot Licence aircraft category rating is credited with the aeronautical knowledge requirement for a Private Pilot Licence aircraft category.

**PRIVILEGES OF A HOLDER OF AN INSTRUMENT RATING**

**64A.** (1) The privileges of a holder of an instrument rating with a specific aircraft category shall be to pilot that category of aircraft under Instrument Flight Rules.

Privileges of a holder of an instrument rating. [45/2007].

(2) Before exercising the instrument rating privileges on multi-engined aircraft, the holder of the rating shall have demonstrated the ability to operate a multi-engined aircraft within the appropriate category by reference solely to instruments with one engine inoperative, or simulated inoperative, if the privileges of the instrument rating are to be exercised on such aircraft.

**GENERAL REQUIREMENTS FOR CATEGORY RATING**

**65.** A pilot seeking a category rating shall—

Category Rating requirements.

*(a)* have the required training and possess the aeronautical experience required by these Regulations for the aircraft category and, where applicable, class and Type Rating sought;

*(b)* have an endorsement in his logbook or training record from an authorised instructor that the applicant has in respect of the pilot licence for the aircraft category and, where applicable, class and Type Rating sought been found competent in the following areas, as appropriate to—

(i) aeronautical knowledge areas; and

(ii) areas of operation;

*(c)* pass the skill test applicable to the pilot licence for the aircraft category and, where applicable, class and Type Rating sought; and

*(d)* not be required to take an additional aeronautical knowledge test, where the applicant holds an aeroplane, rotorcraft, powered-lift, or airship rating appropriate to that pilot licence.

**GENERAL REQUIREMENTS FOR ADDITIONAL CLASS RATING**

Additional class rating requirements.

**66.** A pilot seeking an additional class rating shall—

*(a)* have an endorsement in his logbook or training record from an authorised instructor that the applicant has in respect of the pilot licence and for the aircraft class rating sought been found competent in the following areas:

(i) aeronautical knowledge areas; and

(ii) areas of operation;

*(b)* pass the skill test applicable to the pilot licence for the aircraft class rating sought;

*(c)* not be required to meet the training time requirements prescribed by these Regulations for the aircraft class rating sought; and

*(d)* not be required to take an additional knowledge test, provided the applicant holds an aeroplane, rotorcraft, powered-lift, or airship rating appropriate to that Pilot Licence.

**GENERAL REQUIREMENTS FOR CATEGORY II AND CATEGORY III PILOT AUTHORISATION**

Category II or III Pilot Authorisation requirements.

**67.** (1) An applicant for a Category II or Category III Pilot Authorisation shall—

*(a)* hold a pilot licence with an Instrument Rating or an Airline Transport Pilot Licence;

*(b)* hold a category, class and Type Rating, where applicable, for the aircraft for which the authorisation is sought; and

*(c)* complete the skill test requirements.

(2) An applicant for a Category II or Category III Pilot Authorisation shall have at least—

*(a)* fifty hours of night flight time as a pilot in command;

*(b)* seventy-five hours of instrument time under actual or simulated instrument conditions that may include not more than—

(i) a combination of twenty-five hours of simulated instrument flight time in approved or accepted flight training equipment; or

(ii) forty hours of simulated instrument flight time where accomplished in an approved course conducted by an approved Aviation Training Organisation certified to conduct Category II or Category III pilot training and testing; and

*(c)* two hundred and fifty hours of cross-country flight time as a pilot in command.

(3) Upon passing a skill test for a Category II or III Pilot Authorisation, a pilot may renew such Pilot Authorisation for each type of aircraft for which he holds a Pilot Authorisation.

(4) A Category II or Category III Pilot Authorisation for a specific type aircraft for which a Pilot Authorisation is held, shall not be renewed beyond six months from the month the applicant satisfactorily passed a skill test in that type aircraft.

(5) Where the holder of a Category II or Category III Pilot Authorisation passes the skill test for a renewal in the month before such Pilot Authorisation expires, the holder shall be deemed to have passed the skill test during the month the Pilot Authorisation expired.

### ISSUE OF CATEGORY II OR CATEGORY III PILOT AUTHORISATION

Issue of Category II or III Pilot Authorisation.

**68.** (1) Where an applicant for a Category II or Category III Pilot Authorisation under regulation 67, meeting the requirements of that rating the Director-General may recommend that the Authority issue such authorisation.

(2) Notwithstanding regulation 5(3) where a Category II or Category III Pilot Authorisation is issued in accordance with this Part shall expire at the end of the sixth month after the month in which it was issued or renewed.

### LIMITATIONS OF CATEGORY II AND CATEGORY III PILOT AUTHORISATION

Limitations of Category II and Category III Authorisation.

**69.** (1) An original Category II and Category III Pilot Authorisation shall contain the following limitations:

*(a)* for Category II operations, 1,600 feet Runway Visual Range and a 150 feet decision height; and

*(b)* for Category III operations, as specified in the authorisation document.

(2) In order to have the limitation at subregulation (1)*(a)* removed, a pilot with a Category II Pilot Authorisation issued in accordance with these Regulations, shall for six months preceding the exercise of each authorisation, make three Category II Instrument Landing System approaches with a 150 feet decision height to a landing under actual or simulated instrument conditions.

(3) A Category III Pilot Authorisation shall be exercised only in accordance with the specifications of such authorisation.

(4) A Category II or Category III Pilot Authorisation or an applicant for a Category II or Category III Pilot Authorisation may use flight training equipment where it is approved by the Authority for such use, to meet the experience requirement of subregulation (5), or for the skill test required under these Regulations for a Category II or a Category III Pilot Authorisation, as applicable.

(5) An applicant shall pass a skill test for the—

*(a)* issuance or renewal of—

(i) a Category II Pilot Authorisation;

(ii) a Category III Pilot Authorisation; and

*(b)* the addition of another type aircraft to—

(i) a Category II Pilot Authorisation;

(ii) a Category III Pilot Authorisation.

(6) To be eligible for the skill test for a Pilot Authorisation under this subregulation (5), an applicant shall—

*(a)* meet the requirements of regulation 67; and

*(b)* where the applicant has not passed a skill test for this Pilot Authorisation during the twelve months preceding the month of the test—

(i) meet the requirements of the Act and Regulations made thereunder; and

(ii) have performed at least six Instrument Landing System approaches—

(A) in respect of a Category II pilot authorisation under the conditions set out in Part A of Schedule 7; Schedule 7. Part A.

(B) in respect of a Category III Pilot Authorisation under the conditions set out in Part B of Schedule 7, Schedule 7. Part B.

during the six months preceding the month of the test, of which at least three of the approaches shall have been conducted without the use of an approach coupler.

(7) The flight time acquired in meeting the requirements of subregulation (6)*(b)*(ii), may be used to meet the requirements of subregulation (6)*(b)*(i).

(8) The skill test under subregulation (5)*(a)*(i) and *(b)*(i), shall consist of—

*(a)* an oral increment of the skill test where an applicant shall demonstrate knowledge in the areas specified in Part C of Schedule 7; and Schedule 7. Part C.

*(b)* a flight increment which shall have the components set out in Part D of Schedule 7.

Schedule 7. Part D.

(9) The skill test under subregulation (5)*(a)*(ii) and *(b)*(ii), shall consist of—

*(a)* a practical test of the knowledge in the areas specified in Part E of Schedule 7; and

Schedule 7. Part E.

*(b)* a flight test which shall have the components set out in Part F of Schedule 7.

Schedule 7. Part F.

**70.** ***(Deleted by LN 45/2007).***

**PILOT IN COMMAND AND CO-PILOT**

Restrictions in who may act as a pilot in command or co-pilot.

**71.** A person shall not act as the pilot in command or co-pilot of an aircraft unless that person holds the appropriate category, class, and Type Rating, where required for the aircraft to be flown, except where the pilot—

*(a)* is the sole occupant of the aircraft;

*(b)* is receiving training for the purpose of obtaining an additional pilot licence or rating that is appropriate to that aircraft while under the supervision of an authorised instructor, or

has received training required by this Part that is appropriate to the aircraft category, class, and Type Rating for the aircraft to be flown, and has received the required logbook endorsements from an authorised instructor.

**CATEGORY AND CLASS RATING OF PILOTS**

Pilot in command and co-pilot shall hold category, class and Type Rating.

**72.** A pilot shall not act as pilot in command or co-pilot of an aircraft that is—

*(a)* carrying another person; or

*(b)* operated for compensation or hire,

unless that pilot holds a category, class, and Type Rating that apply to the aircraft.

### FURTHER LIMITATIONS ON PILOTS

Further limitations for pilot in command or co-pilot.

**73.** A pilot shall not act as pilot in command or co-pilot—

*(a)* of a complex aeroplane, high-performance aeroplane, or a pressurised aircraft capable of flight above 25,000 feet above mean sea level; or

*(b)* of an aircraft that the Authority has determined requires aircraft type specific training,

unless the person has—

*(c)* received and logged ground and flight training from an authorised instructor on the applicable aircraft type, or in approved or accepted flight training equipment that is representative of that aircraft, and he is proficient in the operation of the systems of that aircraft; and

*(d)* received a one-time endorsement in his logbook from an authorised instructor who certifies him as proficient to operate that aircraft.

### EXCEPTIONS TO REQUIREMENTS FOR TRAINING AND ENDORSEMENTS

Exceptions to requirements for training and endorsement.

**74.** Notwithstanding regulation 73, the training and endorsement required under that regulation shall not be required where the person has logged flight time as pilot in command or co-pilot of that type of aircraft, or in approved or accepted flight training equipment that is representative of such an aircraft, prior to these Regulations coming into effect.

### TAIL-WHEEL AEROPLANE RESTRICTIONS

Restrictions on acting as pilot in command or co-pilot of tail-wheel aeroplane.

**75.** (1) A pilot shall not act as pilot in command or co-pilot of a tail-wheel aeroplane unless that person has—

*(a)* received and logged flight training from an authorised instructor in a tail-wheel aeroplane on the manoeuvres and procedures listed in paragraph *(b)*;

*(b)* received an endorsement in his logbook from an authorised instructor who found the person proficient in the operation of a tail-wheel aeroplane, to include at least—

(i) normal and crosswind take-offs and landings; and

(ii) wheel landings,

unless the manufacturer has recommended against such landings, and go-around procedures; and

*(c)* passed the human factors knowledge test.

(2) The training and endorsement required by subregulation (1)*(b)* shall not be required where the person logged pilot in command or co-pilot time in a tail-wheel aeroplane before the coming into force of these Regulations.

**LIMITATIONS ON RATING**

Endorsement on limitations. [301/2004].

**76.** Where a Type Rating is issued, limiting the privileges to act as co-pilot or limiting the privileges to act as pilot only during the cruise phase of flight, such limitation shall be endorsed on the rating.

**PART III**

**PILOT TRAINING PERSONNEL**

Applicability. [45/2007].

**77.** This Part prescribes the requirements for the issuance of flight instructor ratings appropriate to aeroplanes, helicopters, powered-lifts and airships, the conditions under which such ratings are necessary, and the limitations on those ratings.

**PROHIBITION ON INSTRUCTORS IN FLIGHT TRAINING**

Prohibition on instructors in flight training. [45/2007].

**78.** (1) A person shall not carry out flight instructions required for the issue of a pilot licence or rating unless he holds a Flight Instructor Rating issued by the Authority in accordance with these Regulations.

(2) A person shall not carry out instructions on a flight simulation training device required for the issue of a pilot licence

or rating unless he holds an appropriate licence or has appropriate flight training and flight experience and has received proper authorisation from the Authority.

**FLIGHT INSTRUCTOR RATINGS REQUIREMENTS**

Flight Instructor Ratings requirements. [45/2007].

**79.** (1) A person wishing to apply for a Flight Instructor Rating shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be at least eighteen years of age;

*(d)* except as provided in regulation 189, be able to read, speak, write, and understand the English Language;

*(e)* hold either a Commercial Pilot Licence or an Airline Transport Pilot Licence with an aircraft category and class rating that is appropriate to the Flight Instructor Rating sought;

*(f)* demonstrate or provide the Authority with evidence of meeting the aeronautical ground training and knowledge requirements of regulation 80;

*(g)* receive a logbook endorsement from an authorised instructor on the areas of operation listed in regulation 81, appropriate to the Flight Instructor Rating sought;

*(h)* have demonstrated, in the category and class of aircraft for which flight instructor privileges are sought, the ability to instruct in those areas in which flight instruction is to be given, including pre-flight, post-flight and ground instructions as appropriate;

*(i)* log at least fifteen hours as pilot in command in the category and class of aircraft that is appropriate to the Flight Instructor Rating sought;

*(j)* comply with the appropriate regulations that apply to the Flight Instructor Rating sought;

*(k)* provide the Authority with evidence that he has received instruction in flight instructional techniques including demonstration, student pilot practices, recognition and correction of common student pilot errors under the supervision of an authorised Flight Instructor; and

*(l)* has practised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction under the supervision of an authorised instructor.

(2) A Flight Instructor Rating under subregulation (1), is not required by—

*(a)* a commercial pilot with a lighter than air rating, where the training is to be conducted in a lighter than air aircraft;

*(b)* an Airline Transport Pilot with appropriate ratings where the training is to be conducted in accordance with an approved air operator training programme;

*(c)* a person who is qualified in accordance with these Regulations where the training is to be conducted in accordance with an approved training programme; or

*(d)* a Ground Instructor where the training is to be conducted in accordance with the privileges of his authorisation.

(3) Where an applicant under subregulation (1), is seeking a rating in an aeroplane or a glider he shall—

*(a)* receive a logbook endorsement for a Flight Instructor Rating from an authorised Flight Instructor indicating that the applicant is competent and possesses instructional proficiency in stall awareness, spin entry, spins, and spin recovery procedures after receiving flight training in those training areas in an aeroplane or glider, as appropriate, that is certified for spins; and

*(b)* demonstrate instructional proficiency for a Flight Instructor Rating in stall awareness, spin entry, spins, and spin recovery procedures with an aeroplane or glider rating.

(4) A Flight Test Examiner designated under regulation 91, may accept the endorsement specified in subregulation (3)*(a)*, as satisfactory evidence of instructional proficiency in stall awareness, spin entry, spins, and spin recovery procedures for the skill test check, where the skill test is not a re-test as a result of the applicant failing the previous test for deficiencies in those knowledge or skill areas.

(5) Where a re-test is the result of deficiencies in the ability of an applicant to demonstrate the requisite knowledge or skill, the applicant shall demonstrate such knowledge or skill to a Flight Test Examiner in an aeroplane or glider, as appropriate, which is certified for spins.

**AERONAUTICAL GROUND TRAINING AND KNOWLEDGE REQUIREMENTS FOR FLIGHT INSTRUCTOR**

Flight Instructor Rating aeronautical ground training requirements. [45/2007].

**80.** (1) An applicant for a Flight Instructor Rating under regulation 79, shall receive and log ground training from an authorised instructor on—

*(a)* techniques of applied instruction;

*(b)* assessment of Student Pilot performance in those subjects in which ground instruction is given;

*(c)* the learning process;

*(d)* elements of effective teaching;

*(e)* Student Pilot evaluation and testing training philosophies;

*(f)* training programme development;

*(g)* lesson planning;

*(h)* classroom instructional techniques;

*(i)* use of training aids including flight simulation training device as appropriate;

*(j)* analysis and correction of Student Pilot errors;

*(k)* human performance relevant to flight instruction including principles of threat and error management;

*(l)* hazards involved in simulating system failures and malfunctions in the aircraft;

*(m)* the aeronautical knowledge areas for a Private Pilot Licence and a Commercial Pilot Licence applicable to the aircraft category for which Flight Instructor privileges are sought; and

*(n)* the aeronautical knowledge areas for the rating applicable to the category for which Flight Instructor privileges are sought.

(2) The following applicants are not required to comply with subregulation (1)*(a)* to *(j)*:

*(a)* the holder of a Ground Instructor Authorisation issued in accordance with this Part;

*(b)* the holder of a current teacher's certificate that authorises that person to teach at secondary level or higher; and

*(c)* a person who provides evidence of an equivalent level of experience acceptable to the Authority.

**AREAS OF OPERATION FOR FLIGHT PROFICIENCY FOR FLIGHT INSTRUCTOR**

Flight Instructor's areas of operation for flight proficiency.

**81.** (1) An applicant for a Flight Instructor Rating shall receive and log flight and ground training.

(2) Where an applicant under subregulation (1), receives flight and ground training he shall receive an endorsement from an authorised Flight Instructor that he is proficient to pass a skill test in the areas set out in Schedule 8 for the Flight Instructor Rating sought.

Schedule 8.

(3) An applicant under subregulation (1), may accomplish the flight training required by this regulation—

*(a)* in an aircraft that is representative of the category and class of aircraft for the rating sought; or

*(b)* in a flight training equipment representative of the category and class of aircraft for the rating sought, and used in accordance with an approved course at an approved Aviation Training Organisation approved to conduct such courses.

### ISSUE OF FLIGHT INSTRUCTOR RATING

Director-General to recommend issue of Flight Instructor Rating.

**82.** (1) Where an applicant under regulation 79, meets the requirements for the grant of such Flight Instructor Rating the Director-General may recommend that the Authority issue such Flight Instructor Rating.

(2) A Flight Instructor Rating issued in accordance with this Part shall expire twenty-four months from the month in which it was issued or renewed and shall be effective only while the holder has a valid Pilot Licence.

### ADDITIONAL FLIGHT INSTRUCTOR RATING

Additional Flight Instructor Ratings requirements.

**83.** (1) An applicant for an additional Flight Instructor Rating shall meet the eligibility requirements listed in regulation 79, that apply to the Flight Instructor Rating sought.

(2) Notwithstanding subregulation (1), an applicant for an additional rating on a Flight Instructor Rating is not required to pass the aeronautical knowledge test on the areas listed in regulation 80.

(3) An applicant for a further Flight Instructor Rating may be credited with the teaching and learning skills already demonstrated for the Flight Instructor Rating.

### FLIGHT INSTRUCTOR RECORDS

Flight Instructor records requirements.

**84.** A holder of a Flight Instructor Rating (hereinafter referred to as "Flight Instructor") shall—

*(a)* sign the logbook of each person to whom that Flight Instructor has given flight training or ground training;

*(b)* maintain a record in a logbook or a separate document that contains the following:

(i) the name of each person whose logbook or Student Pilot licence that Flight Instructor has endorsed for solo flight privileges, and the date of the endorsement; and

(ii) the name of each person that Flight Instructor has endorsed for an aeronautical knowledge test or skill test check, and a record of the kind of test, the date, and the results; and

*(c)* retain the records required by this regulation for at least three years.

**FLIGHT INSTRUCTOR PRIVILEGES**

Privileges of Flight Instructor.

**85.** A flight instructor is authorised within the limitations of his Flight Instructor Rating, and pilot licence and ratings, to give training and endorsements that are required to—

*(a)* supervise solo flights by student pilots;

*(b)* carry out flight instruction for the issue of—

(i) a private pilot licence;

(ii) a flight instructor rating;

(iii) a ground instructor authorisation;

(iv) an aircraft rating;

(v) an instrument rating; and

(vi) a flight review, operating privilege, or recency of experience requirement,

provided that the flight instructor—

*(c)* holds at least the licence and rating for which instruction is being given, in the appropriate aircraft category;

*(d)* holds the licence and rating necessary to act as the pilot in command of the aircraft on which the instruction is given; and

*(e)* has the flight instructor privileges granted entered on the licence.

**LIMITATIONS ON FLIGHT INSTRUCTOR RATING**

Flight Instructor limitation.

**86.** (1) A Flight Instructor shall observe the following limitations:

*(a)* he shall not exceed the flight and duty times limitation and rest requirements prescribed under the Act or Regulations made thereunder;

*(b)* he shall not conduct flight training in any aircraft for which he does not hold—

(i) a pilot licence and Flight Instructor Rating with the applicable category and class rating; and

(ii) where appropriate, a Type Rating;

*(c)* for instrument flight training or for training for a Type Rating not limited to Visual Flight Rules he shall have an appropriate Instrument Rating on his Flight Instructor Rating and pilot licence;

*(d)* a Flight Instructor shall not endorse a logbook of—

(i) a student pilot for solo flight privileges;

(ii) a student pilot for solo cross-country flight;

(iii) a student pilot for solo flight in a controlled airspace or at an airport within controlled airspace;

(iv) a pilot for a flight review, (unless that Flight Instructor has conducted a review of that pilot in accordance with the requirements of regulation 111); or

(v) a pilot for an instrument proficiency check,

unless that instructor has trained that pilot in accordance with the Act or Regulations made thereunder.

(2) A Flight Instructor shall not give training required for the issuance of a licence or a rating in a multi-engine aircraft,

a helicopter, or a powered-lift unless he has at least five flight hours of pilot in command time in the specific make and model of multi-engine aircraft, helicopter, or powered-lift, as appropriate.

(3) Notwithstanding subregulation (1)*(d)*(i), a Flight Instructor may endorse the licence or logbook of a student pilot for solo flight privileges where the Flight Instructor has—

*(a)* given that student pilot, the flight training required for solo flight privileges required by this regulation;

*(b)* determined that the student pilot is prepared to conduct the flight safely under known circumstances, subject to any limitations listed in the logbook of the student pilot that the Flight Instructor considers necessary for the safety of the flight;

*(c)* given the Student Pilot training in the make and model of aircraft or a similar make and model of aircraft in which the solo flight is to be flown; and

*(d)* endorsed the logbook of the Student Pilot for the specific make and model aircraft to be flown.

(4) Notwithstanding subregulation (1)*(d)*(ii), a Flight Instructor may endorse the logbook of a Student Pilot for solo cross-country flight where the Flight Instructor has determined—

*(a)* the flight preparation, planning, equipment, and proposed procedures of the Student Pilot are adequate for the proposed flight under the existing conditions and within any limitations listed in the logbook that the instructor considers necessary for the safety of the flight; and

*(b)* the Student Pilot has the appropriate solo cross-country endorsement for the make and model of aircraft to be flown.

(5) Notwithstanding subregulation (1)*(d)*(ii), a Flight Instructor may endorse the logbook of the Student Pilot for solo

flight in a controlled airspace or at an airport within a controlled airspace where the Flight Instructor has—

*(a)* given that Student Pilot ground and flight training in such controlled airspace or airport; and

*(b)* determined that the Student Pilot is proficient to operate the aircraft safely.

(6) A Flight Instructor shall not provide instruction to another pilot who has never held a Flight Instructor Rating unless that Flight Instructor—

*(a)* holds a current Flight Instructor Rating with the appropriate Type Rating for at least twenty-four months, and has given at least forty hours of ground training; or

*(b)* holds a current Flight Instructor Rating and has given at least one hundred hours of ground training in a course which has been approved by the Authority;

*(c)* meets the eligibility requirements prescribed in regulation 79;

*(d)* has given at least two hundred hours of flight training as a Flight Instructor for training in preparation for an aeroplane, rotorcraft, or powered-lift rating; and

*(e)* has given at least eight hours of flight training as a Flight Instructor for training in preparation for a glider rating.

(7) A Flight Instructor shall not make any self-endorsement for a licence, rating, flight review, authorisation, operating privilege, skill test check, or knowledge test that are required by this Part.

(8) A Flight Instructor shall not give training in Category II or Category III operations unless the Flight Instructor has been trained and tested in Category II or Category III operations.

**RENEWAL OF FLIGHT INSTRUCTOR RATING**

Renewal of Flight Instructor Rating. [185/2006].

**87.** A Flight Instructor Rating that has not expired may be renewed for an additional twenty-four months where the Flight Instructor—

*(a)* passes a skill test for—

(i) renewal of the Flight Instructor Rating; or

(ii) an additional Flight Instructor Rating; or

*(b)* presents to the Authority—

(i) a record of training that shows that during the preceding twenty-four months, the Flight Instructor has endorsed at least five students for a skill test for a licence or rating, and at least eighty per cent of those students have passed that test on the first attempt;

(ii) a record that shows that within the preceding twenty-four months, he served in the position of either a company check airman, chief Flight Instructor, or Flight Instructor for an air operator or in a position involving the regular evaluation of pilots;

(iii) a record that shows that he has passed as a proficiency check, the skill test set out in Part B of Schedule 6, within the twelve months preceding the expiry date of the Flight Instructor Rating; or

Schedule 6. Part B.

(iv) a graduation certificate or equivalent document showing that the pilot has successfully completed an approved Flight Instructor refresher course consisting of ground training, flight training or both, within the ninety days preceding the expiration month of his Flight Instructor Rating;

*(c)* where a flight instructor accomplishes the renewal requirements within the 90 days preceding the expiration month of his flight instructor licence—

(i) this shall be considered by the Authority as having been accomplished in the month due; and

(ii) the Flight Instructor Rating shall be renewed for an additional 24 months from its expiration date;

*(d)* a flight instructor may accomplish the skill test required by paragraph *(a)* of this subregulation in an approved course conducted by an Aviation Training Organisation under the Act or Regulations made thereunder.

**EXPIRED FLIGHT INSTRUCTOR RATING**

Expired Flight Instructor Rating.

**88.** A Flight Instructor whose Flight Instructor Rating has expired may apply to the Authority for a new rating or a renewal of the expired rating upon—

*(a)* attending a Flight Instructor refresher seminar, as approved by the Authority within the twelve months preceding the expiry date of the Flight Instructor Rating or presenting a graduation certificate showing that the pilot has successfully completed an approved Flight Instructor refresher course consisting of ground training or flight training within the ninety days preceding the expiration month of the Flight Instructor Rating; and

*(b)* having passed, as a proficiency check, the skill test set out in Part C of Schedule 6 within the twelve months preceding the expiration of the Flight Instructor Rating.

Schedule 6. Part C.

**FLIGHT TEST EXAMINER AUTHORISATION**

Application for a Flight Test Examiner Authorisation.

**89.** Where a person wishes to be designated as a Flight Test Examiner he shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee; and

*(c)* hold a current Flight Instructor Rating.

**REQUIREMENTS FOR FLIGHT TEST EXAMINER**

Flight Test Examiner Requirements.

**90.** (1) An applicant for a Flight Test Examiner authorisation under this Part shall—

*(a)* hold a licence and rating at least equal to the licence or rating for which he is authorised to conduct skill test or proficiency checks and, unless specified otherwise, the privilege to instruct for this licence or rating;

*(b)* be qualified to act as pilot in command of the aircraft during a skill test and shall meet the applicable experience requirements set out in these Regulations;

*(c)* be assessed an examiner authorisation test prescribed by the Authority and supervised by an Inspector of the Authority or by a Flight Test Examiner specifically authorised by the Authority for this purpose in the role of an examiner for which authorisation is sought, including—

(i) briefing;

(ii) conduct of the skill test check;

(iii) assessment of the applicant to whom the skill test is given; and

(iv) debriefing and recording or documentation;

*(d)* a check airman of an air operator or a check instructor of an Aviation Training Organisation who has undergone the full training programme of the air operator or Aviation Training Organisation may not be required to be assessed under subregulation (1)*(c)*.

(2) A Flight Test Examiner shall comply with appropriate standardisation procedures for examiners, made or approved by the Authority.

(3) A Flight Test Examiner Authorisation shall be valid for not more than one year and may be re-authorised at the discretion of the Authority.

## DESIGNATION OF INSTRUCTORS AS FLIGHT TEST EXAMINERS

Designation of Instructors as Flight Test Examiners.

**91.** (1) The Director-General shall upon receipt of an application under regulation 89 and where he is satisfied that the applicant is a suitably qualified person of integrity to conduct on behalf of the Authority, skill test checks, recommend the Authority designate such applicant to be a Flight Test Examiner.

(2) The Flight Test Examiner under subregulation (1), shall be a person who holds an approved Flight Instructor Rating under regulation 82.

(3) A Flight Test Examiner shall be notified in writing by the Authority, of his responsibilities and privileges.

(4) The Authority shall notify each approved Aviation Training Organisation and national air operator of the Flight Test Examiners who have been designated to conduct skill test for the issue of pilot licence and ratings.

(5) A Flight Test Examiner shall, as far as practicable, not test an applicant to whom he has given flight instruction for that licence or rating except with the expressed consent in writing of the Authority.

## FLIGHT TEST EXAMINER PRIVILEGES

Privileges of Flight Test Examiner.

**92.** (1) Where a Flight Test Examiner under this Part may where his licence and ratings permits conduct—

*(a)* skill test checks for the issue of Type Ratings;

*(b)* proficiency checks for revalidation or renewal of multi-pilot type and Instrument Ratings;

*(c)* skill test checks for the initial issue and proficiency checks for the revalidation or renewal of Instrument Ratings;

*(d)* type and Instrument Rating proficiency checks on multi-pilot aircraft in a flight simulator.

(2) Where a Flight Test Examiner meets the licence qualification, authorisation and experience requirements set out

in this regulation for each role undertaken, he may exercise a number of roles as Type Rating Examiner, Instrument Rating Examiner or Simulator Flight Test Examiner.

**GENERAL REQUIREMENTS FOR GROUND INSTRUCTOR AUTHORISATION**

Ground Instructor Authorisation requirements.

**93.** (1) An applicant for a Ground Instructor Authorisation shall—

*(a)* apply to the Authority on the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be at least eighteen years of age;

*(d)* except as provided in regulation 189, be able to read, speak, write, and understand the English Language;

*(e)* provide to the Authority evidence of training on the fundamentals of instructing which shall include—

(i) the learning process;

(ii) elements of effective teaching;

(iii) student evaluation and testing;

(iv) course development;

(v) lesson planning;

(vi) classroom training techniques;

(vii) assessment of student performance in those subjects in which ground instructions is given; and

(viii) analysis and correction of student errors; and

*(f)* provide evidence to the Authority of having sufficient depth of knowledge in the aeronautical areas as prescribed by the Authority.

(2) The requirements of subregulation (1)*(e)* shall not apply to an applicant who—

*(a)* holds a Ground Instructor Authorisation or Flight Instructor Rating issued under this Part;

*(b)* holds a current teacher's certificate that authorises him to teach at secondary level or higher;

*(c)* provides evidence of an equivalent level of experience acceptable to the Authority.

**GROUND INSTRUCTOR AUTHORISATION**

Issue of Ground Instructor Authorisation.

**94.** (1) Where the Director-General is satisfied that an applicant for a Ground Instructor Authorisation satisfies the requirements of this Part he may recommend that the Authority issue a Ground Instructor Authorisation to the applicant.

(2) A Ground Instructor Authorisation issued in accordance with this Part shall expire twenty-four months from the month in which it was issued or renewed.

**PRIVILEGES OF GROUND INSTRUCTOR**

Ground Instructor privileges.

**95.** (1) A person who holds a Ground Instructor Authorisation (hereinafter referred to as a "Ground Instructor"), is authorised to provide—

*(a)* ground training in the aeronautical knowledge areas required for the issuance of a pilot licence in the associated category or class rating;

*(b)* ground training required for a pilot flight review;

*(c)* a recommendation for a knowledge test required for the issuance of any licence issued in accordance with these Regulations; and

*(d)* ground training in the aeronautical knowledge areas required for the issuance of an Instrument Rating.

(2) A Ground Instructor is authorised to endorse the logbook or other training record of a person to whom the Ground Instructor has provided the training or recommendation specified in this regulation.

**RECENCY REQUIREMENTS FOR GROUND INSTRUCTOR**

Ground Instructor recency requirements.

**96.** A person shall not perform the duties of a Ground Instructor unless, within the preceding twelve months—

*(a)* he has served as a Ground Instructor; or

*(b)* the Director-General has determined that the person meets the standards prescribed under this Part for the authorisation.

### EXPIRED GROUND INSTRUCTOR AUTHORISATION

Renewal of expired Ground Instructor Authorisation.

**97.** Where a Ground Instructor seeking to exercise the privileges of his authorisation, has not exercised the privileges of such authorisation within the preceding twelve months, he may apply for a new Ground Instructor Authorisation or renewal of his expired Ground Instructor Authorisation upon attending a seminar for instructors acceptable to the Authority.

## PART IV

## FLIGHT ENGINEER CERTIFICATE

Applicability.

**98.** This Part prescribes the requirements for the issue of a Flight Engineer Licence and rating.

### GENERAL REQUIREMENTS FOR FLIGHT ENGINEER LICENCE

General requirements of Flight Engineer Licence and Rating. [45/2007].

**99.** A person wishing to apply for a Flight Engineer Licence, shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be at least eighteen years of age;

*(d)* except as provided in regulation 189, be able to read, speak, write, and understand the English Language;

*(e)* hold a Class 2 medical certificate issued under Part VIII; and

*(f)* comply with the requirements of this Part that apply to the rating sought.

### FLIGHT ENGINEER KNOWLEDGE REQUIREMENTS

Flight Engineer Licence knowledge requirements. Schedule 9.

**100.** (1) An applicant for a Flight Engineer Licence under regulation 99 shall pass an aeronautical knowledge test on the subjects listed in Schedule 9.

(2) Before taking the aeronautical knowledge test required under subregulation (1), an applicant for a Flight Engineer Licence shall present satisfactory evidence of having completed one of the aeronautical experience requirements of regulation 101.

(3) An applicant for a Flight Engineer Licence or rating shall have passed the knowledge test required under subregulation (1) within twenty-four months of the skill test required under regulation 102.

(4) Notwithstanding subregulation (3), an applicant who within twenty-four months of passing the knowledge test, is employed as a flight crew member or mechanic by a national air operator, need not comply with the time limit prescribed under subregulation (3), where he is employed—

*(a)* by such national air operator at the time of the skill test check; and

*(b)* as a flight crew member and has completed initial training and where appropriate, transition, upgrade and recurrent training.

## AERONAUTICAL EXPERIENCE REQUIREMENTS FOR FLIGHT ENGINEER

Flight Engineer Licence aeronautical experience requirements.

**101.** (1) An applicant for a Flight Engineer Licence under regulation 99, shall obtain and log the flight time used to satisfy the aeronautical experience requirements of subregulation (2) on an aeroplane on which a Flight Engineer is required by the Act or Regulations made thereunder.

(2) In addition to the skill and experience requirements, an applicant for a Flight Engineer Licence with a Type Rating shall present, for the class rating sought, satisfactory evidence of having one of the following:

*(a)* at least three years of skill and experience in aircraft and aircraft engine maintenance and at least five hours of flight training in the duties of a Flight Engineer;

*(b)* graduation from a specialised aeronautical training course in maintaining aircraft and aircraft engines for a period of at least two years and at least five hours of flight training in the duties of a Flight Engineer;

*(c)* a degree in aeronautical, electrical, or mechanical engineering from a recognised college, university, or engineering school, at least six months of skill experience in maintaining aircraft and at least five hours of flight training in the duties of a Flight Engineer;

*(d)* a Commercial Pilot Licence with an Instrument Rating and at least five hours of flight training in the duties of a Flight Engineer;

*(e)* at least two hundred hours of flight time in a transport category aeroplane as pilot in command or co-pilot performing the functions of a pilot in command under the supervision of a pilot in command;

*(f)* at least one hundred hours of flight time as a Flight Engineer; or

*(g)* successful completion, within the ninety-day period before application, of an approved Flight Engineer ground and flight course of instruction.

(3) The Director-General shall determine whether experience as a flight engineer in a flight simulator, approved by the Authority, is acceptable as part of the total flight time of one hundred hours and credit for such experience shall be limited to a maximum of fifty hours.

(4) The applicant shall have operational experience in the performance of the duties of a Flight Engineer, under the supervision of a Flight Instructor or Flight Engineer approved by the Authority for that purpose, in at least the following areas:

*(a)* pre-flight inspections;

*(b)* fuelling procedures, fuel management;

*(c)* inspection of maintenance documents;

*(d)* normal flight deck procedures during all phases of flight;

*(e)* crew co-ordination and procedures in case of crew incapacitation;

*(f)* defect reporting;

*(g)* recognition of abnormal functioning of aircraft systems;

*(h)* use of abnormal and alternate or standby procedures;

*(i)* recognition of emergency conditions; or

*(j)* use of appropriate emergency procedures.

**SKILL REQUIREMENTS OF FLIGHT ENGINEER**

Flight Engineer Licence skill requirements. [45/2007].

**102.** (1) The applicant for a Flight Engineer Licence shall have demonstrated the ability to—

*(a)* perform as flight engineer of an aircraft;

*(b)* perform the duties and procedures prescribed in regulation 101(4) with a degree of competency appropriate to the privileges granted to the holder of a flight engineer licence;

*(c)* recognise and manage threats and errors;

*(d)* use aircraft systems within the aircraft's capabilities and limitations;

*(e)* exercise good judgment and airmanship;

*(f)* apply aeronautical knowlege;

*(g)* perform all the duties as part of an integrated crew with the successful outcome assured; and

*(h)* communicate effectively with the other flight crew members.

(2) The Director-General may recommend the Authority approve the use of a flight simulation training device for performing any of the procedures required during the demonstration of skill required by this regulation, where the flight simulation training device is appropriate to the task.

### ISSUE OF FLIGHT ENGINEER LICENCE

Issue of Flight Engineer Licence.

**103.** Where the Director-General is satisfied that an applicant for a Flight Engineer Licence meets the requirements of regulations 98 through 102, he may recommend that the Authority issue a Flight Engineer Licence to the applicant.

### CONVERSION OF FLIGHT ENGINEER LICENCE ISSUED BY ANOTHER CONTRACTING STATE

Flight Engineer Licence issued on the basis of a Flight Engineer Licence issued in another Contracting State.

**104.** (1) The Director-General may recommend that the Authority issue a Flight Engineer Licence on the basis of a Flight Engineer Licence issued by another Contracting State.

(2) A Flight Engineer Licence issued in accordance with these Regulations, expires at the end of the twenty-fourth month after the month in which the licence was issued or renewed.

(3) The Director-General may recommend that the Authority add to a licence issued in accordance with these Regulations, those aircraft class ratings listed on the Flight Engineer Licence of the applicant, in addition to any ratings issued after testing under the provisions of these Regulations.

(4) A Flight Engineer may apply for renewal of his Flight Engineer Licence issued under regulation 103, and the Director-General may recommend that the Authority renew that licence and the ratings placed thereon where, at the time of application for renewal, the foreign Flight Engineer Licence on which that licence is based, is in effect.

(5) Notwithstanding subregulation (4) an application for renewal of a Flight Engineer Licence shall be submitted before expiration of the current licence or authorisation issued under this regulation.

(6) Where on the basis of a Flight Engineer Licence issued by another Contracting State a Flight Engineer is issued a Flight Engineer Licence under this regulation, he may perform the duties of a Flight Engineer of a Trinidad and Tobago aircraft, within and outside Trinidad and Tobago, subject to the limitations of this Part and any additional limitations placed on the licence by the Authority.

### FLIGHT ENGINEER REQUIREMENTS FOR AN ADDITIONAL AIRCRAFT RATING

Flight Engineer Licence requirements for additional aircraft rating.

**105.** (1) An applicant under regulation 99 may have another aircraft class rating added to his Flight Engineer Licence, where he—

*(a)* passes the knowledge test in the areas set out in regulation 100(1) and skill test that is appropriate to the class of aeroplane for which an additional rating is sought; or

*(b)* satisfactorily completes an approved Flight Engineer training programme that is appropriate to the additional class rating sought.

(2) An applicant may take the knowledge tests before acquiring the flight training required by subregulation (1).

(3) A national air operator may, when authorised by the Authority, provide as part of an approved training programme, a knowledge test that he may administer to satisfy the test required for an additional rating under subregulation (1).

## PART V

## TESTING AND TRAINING

Applicability.

**106.** This Part prescribes the testing and training procedures for airmen and training equipment requirements.

### GENERAL TRAINING AND TESTING FOR AIRMEN

General training and testing for airmen.

**107.** (1) A test prescribed by or under this Part shall be administered at the times, places and by the persons designated by the Authority.

(2) A person wishing to obtain a licence or rating may be required to take—

*(a)* an aeronautical knowledge test; and

*(b)* a skill test.

### SKILL TEST FOR AIRMEN

Requirements to take skill test.

**108.** (1) An applicant for a Pilot Licence, Flight Engineer Licence or Flight Instructor Rating who is required to take a skill

test, shall meet all applicable requirements for the licence or rating sought, with the last flight under instruction having been completed within the preceding six months of the application.

(2) Where an applicant under this regulation, does not complete all the increments of a skill test for a licence or rating on one date, he shall complete all remaining increments of the skill test not more than sixty days after that date.

(3) Where an applicant under this regulation, does not satisfactorily complete all increments of the skill test for a licence or a rating within sixty days after beginning the skill test, he shall complete the entire skill test again, including those increments satisfactorily completed.

(4) Except as provided in subregulation (5), to be eligible for a skill test for a licence or rating issued in accordance with these Regulations, an applicant shall—

*(a)* pass the required knowledge test within the twenty-four month period preceding the month the applicant completes the skill test, where a aeronautical knowledge test is required;

*(b)* present the aeronautical knowledge report at the time of application for the skill test, where an aeronautical knowledge test is required;

*(c)* have satisfactorily accomplished the required instruction and obtained the aeronautical experience prescribed under these Regulations for the licence or rating sought;

*(d)* meet the prescribed age requirement for the issuance of the licence or rating sought; and

*(e)* have an endorsement in his logbook or training record that has been signed by an authorised instructor who certifies that the applicant—

(i) has received and logged training time within sixty days preceding the date of application in preparation for the skill test;

(ii) is prepared for the required skill test; and

(iii) has demonstrated satisfactory aeronautical knowledge of the subject areas in which the applicant was deficient on the previous aeronautical knowledge test.

(5) An applicant for an Airline Transport Pilot Licence or an additional rating to an Airline Transport Pilot Licence may take the skill test for that licence or rating with an expired aeronautical knowledge test report, provided that the applicant—

*(a)* is employed as a flight crew member by a national air operator at the time of the skill test and has satisfactorily accomplished the approved pilot in command aircraft qualification training programme of the national air operator appropriate to the airman licence and rating sought; and

*(b)* has qualification training requirements appropriate to the airman licence and rating sought.

**PROCEDURES FOR SKILL TESTS FOR AIRMEN**

General procedures for skill test.

**109.** (1) The ability of an applicant to hold a licence or rating issued under these Regulations shall be based upon the ability of the applicant as assessed by the Flight Test Examiner to safely meet the following requirements during a skill test:

*(a)* perform the tasks specified in the areas of operation for the licence or rating sought within the prescribed standards;

*(b)* demonstrate mastery of the aircraft in accordance with Part C of Schedule 3 for the Private Pilot Licence and Part C of Schedule 4 for the Commercial Pilot Licence and Airline Transport Pilot Licence with the successful outcome of each task never seriously in doubt;

Schedule 3. Part C. Schedule 4. Part C.

*(c)* demonstrate reasonable judgment in airmanship;

*(d)* complete all manoeuvres with smoothness and accuracy;

*(e)* operate the aircraft within its limitations; and

*(f)* demonstrate single pilot competence where the aircraft is type certified for single pilot operations.

(2) Where an applicant does not demonstrate proficiency without the aid of a co-pilot, the Director-General shall recommend the Authority place the limitation, "Co-pilot Required" on the airman licence of the applicant.

(3) An applicant under subregulation (2), may upon passing the appropriate skill test and by demonstrating single pilot competency in that aircraft, apply to have the limitation removed—

*(a)* the failure by an applicant for an airman licence or rating of any area of operation, shall be treated as a failure of the skill test;

*(b)* where an applicant under these Regulations fails a skill test, he shall be issued with a "Notice of Disapproval" in the prescribed form;

*(c)* an applicant for an airman licence or rating, is not eligible for such airman licence or rating until all the areas of operation are passed.

(4) The Flight Test Examiner or the applicant for an airman licence or rating under this Part may discontinue a skill test at any time—

*(a)* when the applicant fails one or more of the areas of operation, or

*(b)* due to inclement weather conditions, aircraft airworthiness, or any other safety of flight concern.

(5) Where a skill test is discontinued the applicant shall be issued a "Letter of Discontinuance" in the prescribed form and the Director-General may recommend that the applicant be given credit for those areas of operation already passed, but only where the applicant—

*(a)* passes the remainder of the skill test within the sixty-day period after the date the test began;

*(b)* presents to the Flight Test Examiner for the retest the original Notice of Disapproval or the Letter of Discontinuance Form; and

*(c)* satisfactorily accomplishes any additional training needed and obtains the appropriate instructor endorsements, where additional training is required.

**EQUIPMENT REQUIRED FOR SKILL TESTS**

Equipment required for skill test.

**110.** (1) An applicant for a licence or rating issued under these Regulations shall furnish an aircraft with the necessary equipment and controls, unless he is permitted to accomplish the entire flight increment of the skill test in approved or accepted flight training equipment.

(2) An applicant for a licence or rating undergoing a skill test under these Regulations shall—

*(a)* provide a Trinidad and Tobago aircraft registry for each required skill test that—

(i) is of the category, class, and type, applicable to the licence or rating sought; and

(ii) has a current Airworthiness Certificate;

*(b)* at the discretion of the Flight Test Examiner who administers the skill test, provide an aircraft of the same category, class and type, where applicable, of foreign registry that is properly certified by the State of Registry.

(3) Subregulation (2), shall not apply where the applicant is permitted to accomplish the entire flight increment of the skill test in an approved or accepted flight training equipment.

(4) An applicant for a skill test shall use an aircraft that has—

*(a)* the equipment for each area of operation;

*(b)* no prescribed operating limitations that prohibit its use in any of the areas of operation;

*(c)* except as provided in subregulation (6), at least two pilot stations with adequate visibility for each person to operate the aircraft safely; and

*(d)* cockpit and outside visibility adequate to evaluate the performance of the applicant when an additional observer seat is provided for the Flight Test Examiner.

(5) An applicant for a skill test shall use an aircraft, other than a lighter-than-air aircraft, that has engine power controls and flight controls that are easily reached and operable in a conventional manner by both pilots, unless the Flight Test Examiner determines that the skill test can be conducted safely in the aircraft without the controls being easily reached.

(6) An applicant for a skill test that involves manoeuvring an aircraft solely by reference to instruments shall furnish—

*(a)* equipment on board the aircraft that permits the applicant to be assessed in the areas of operation that apply to the rating sought; and

*(b)* a device that prevents the applicant from having visual reference outside the aircraft, but does not prevent the Flight Test Examiner from having visual reference outside the aircraft, and is otherwise acceptable to the Authority.

(7) An applicant may complete a skill test in an aircraft having a single set of controls, provided the—

*(a)* Flight Examiner agrees to conduct the test;

*(b)* test does not involve a demonstration of instrument skills; and

*(c)* proficiency of the applicant can be observed by a Flight Test Examiner who is in a position to observe the applicant.

**RE-TESTING AFTER FAILURE**

Procedure for re-testing after failure.

**111.** (1) An applicant who fails an aeronautical knowledge test, skill test may reapply to the Authority only after he has received—

*(a)* the necessary training from an authorised instructor who has determined that the applicant is prepared for such test; and

*(b)* an endorsement from an authorised instructor who gave the applicant the additional training.

(2) An applicant for a Flight Instructor Rating—

*(a)* with an aeroplane category rating; or

*(b)* with a glider category rating,

who has failed the skill test due to deficiencies in instructional proficiency on stall awareness, spin entry, spins, or spin recovery shall—

(i) receive the necessary training from an authorised instructor who has determined that the applicant is proficient to pass the test before being re-tested;

(ii) furnish an aircraft for the re-test that is of the appropriate aircraft category for the rating sought and is certified for spins; and

(iii) demonstrate satisfactory instructional proficiency on stall awareness, spins entry, spins, and spin recovery to a Flight Test Examiner during the re-test.

**FLIGHT TRAINING AND AERONAUTICAL EXPERIENCE RECORDS**

Flight training and aeronautical experience to be recorded. [45/2007].

**112.** (1) A person shall record and credit the flight time for—

*(a)* flight training and aeronautical experience used to meet the requirements for a licence, rating, qualification, authorisation, or flight review of these Regulations; and

*(b)* the aeronautical experience required to show recent flight experience requirements of these Regulations,

in a manner acceptable to the Authority.

(2) Notwithstanding the generality of subregulation (1), a pilot shall enter in his logbook, the following information for each flight or lesson:

*(a)* general information which shall include as applicable the—

(i) date;

(ii) total flight time;

(iii) location where the aircraft departed and arrived, or the location where the lesson occurred, where the training was conducted in an approved flight simulator or an approved flight training device;

(iv) type and identification of aircraft, approved flight simulator, or approved flight training device, as appropriate; and

(v) name of a safety pilot, where required by the Act or Regulations made thereunder;

*(b)* type of pilot experience or training which shall include as applicable—

(i) solo;

(ii) pilot in command;

(iii) co-pilot;

(iv) flight and ground training received from an authorised instructor; or

(v) training received in an approved flight simulator or approved flight training device from an authorised instructor;

*(c)* conditions of flight which shall include as applicable—

(i) day or night;

(ii) actual instrument; or

(iii) simulated instrument conditions in flight, an approved flight simulator, or an approved flight training device.

(3) The pilot time described in this regulation may be used to—

*(a)* apply for a licence or rating under these Regulations; or

*(b)* satisfy the recent flight experience requirements of the Act or Regulations made thereunder.

(4) Except for a Student Pilot acting as pilot in command of an airship requiring more than one flight crew member, a pilot may log as solo flight time only that flight time when the pilot is the sole occupant of the aircraft.

(5) A Student Pilot or a pilot shall be entitled to be credited in full with all solo, flight instruction and pilot in command flight time towards the total flight time required for the initial issue of a pilot licence or the issue of the higher grade of pilot licence.

(6) A Private Pilot or Commercial Pilot may log pilot in command time only for that flight time during which that person is—

*(a)* the sole manipulator of the controls of an aircraft for which the pilot is rated;

*(b)* operating as pilot in command of an aircraft on which more than one pilot is required under the Type Rating of the aircraft or the regulations under which the flight is conducted; or

*(c)* the sole occupant of the aircraft.

(7) An Airline Transport Pilot may log as pilot in command time all of the flight time while acting as pilot in command of an operation requiring an Airline Transport Pilot Licence.

(8) A Flight Instructor may log as pilot in command time all flight time while performing as a Flight Instructor.

(9) A Student Pilot may log pilot in command time all of the flight time when operating as a student pilot—

*(a)* is the sole occupant of the aircraft or is performing functions of the pilot in command of an airship requiring more than one flight crew member; or

*(b)* has a current solo flight endorsement as required under regulation 27; or

*(c)* is undergoing training for a pilot licence or rating.

(10) A pilot, when acting as a co-pilot at a pilot station of an aircraft certified for operation by a single pilot but required by the Authority to be operated with a co-pilot, shall be entitled to be credited with not more than fifty per cent of the co-pilot flight time towards the total flight time required for a higher grade of pilot licence.

(10A) Notwithstanding subregulation (10) where the aircraft is equipped to be operated by a co-pilot and the aircraft is operated in multi-crew operation, the pilot acting as co-pilot may be credited in full with that flight time towards the total flight time required for a higher grade of pilot licence.

(10B) The holder of a pilot licence, when acting as co-pilot at a pilot station of an aircraft certified to be operated with a co-pilot, shall be entitled to be credited in full with that flight time towards the total flight time required for a higher grade of pilot licence.

(10C) The holder of a pilot licence, when acting as pilot in command under supervision, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.

(11) A pilot may log co-pilot flight time only for that flight time during which that pilot—

*(a)* is qualified in accordance with the co-pilot requirements of regulation 71 and occupies a crew member station in an aircraft that requires more than one pilot by the type certificate of the aircraft; or

*(b)* holds the appropriate category, class, and Instrument Rating, where an Instrument Rating is required for the flight, for the aircraft being flown, and more than one pilot is required under the type certification of the aircraft or the regulations under which the flight is being conducted.

(12) A pilot may log instrument flight time only for that flight time when he operates the aircraft solely by reference to instruments under actual or simulated instrument flight conditions.

(13) A Flight Instructor may log instrument flight time under subregulation (13), when conducting instrument flight instruction in actual instrument flight conditions.

(14) For the purposes of logging instrument flight time under subregulations (12) and (13) to meet the recent instrument experience requirements of the Act or Regulations made thereunder, the following information shall be recorded in the logbook of such person:

*(a)* the location and type of each instrument approach accomplished; and

*(b)* the name of the safety pilot, where required.

(15) Approved or accepted flight training equipment may be used by a person to log instrument flight time under subregulations (12), (13) and (14), provided an authorised instructor is present during the simulated flight.

(16) A pilot may record training time when he receives training from an authorised instructor in an aircraft, approved flight simulator, or approved flight training device.

(17) The training time under subregulation (16), shall be recorded in a logbook and shall—

*(a)* be endorsed in a legible manner by the authorised instructor; and

*(b)* include a description of the training given, the length of the training lesson, and the instructor's signature, licence number, and licence expiration date.

(18) ***(Deleted by LN 45/2007).***

**LIMITATION ON THE USE OF FLIGHT SIMULATION TRAINING DEVICE FOR ACQUISITION OF EXPERIENCE AND DEMONSTRATIONS OF SKILL**

**113.** (1) A pilot shall not receive credit for any flight simulation training device for satisfying any training, testing or checking

Limitation on the use of flight simulation training devices. [45/2007].

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requirements of this Part or for the acquisition of experience unless that flight simulation training device is appropriate to the task and is—

*(a)* approved by the civil aviation authority of another Contracting State and accepted by the Authority; or

*(b)* approved by the Authority for—

(i) training, testing and checking for which it is used;

(ii) each particular manoeuvre, procedure, or crew member function performed; and

(iii) the representation of the specific category and class of aircraft, type of aircraft, particular variation within the type of aircraft, or set of aircraft for certain flight simulation training devices.

(2) An approval or acceptance under subregulation (1) of a flight training equipment shall be on an annual basis.

(3) The Director-General may recommend that the Authority consider as a flight simulation training device, any device used for flight training, testing, or checking which has been accepted or approved by it prior to these Regulations coming into force and which performs as originally designed, where it is used for the same purposes for which it was originally approved or accepted and only to the extent of such approval or acceptance.

(4) The Director-General may recommend that the Authority approve or accept a device other than a flight simulation training device for specific purposes.

**FLIGHT TRAINING EQUIPMENT FOR AEROPLANE CATEGORY TO BE CONDUCTED IN ACCORDANCE WITH APPROVED COURSE**

Flight training equipment for aeroplane category to be conducted in accordance with approved course.

**114.** (1) Where approved or accepted flight training equipment is used to accomplish any of the training and required skill test for a pilot licence with an aeroplanes category, class, and Type Rating, such training and skill test in flight training equipment shall be conducted in accordance with an approved course at an approved Aviation Training Organisation.

(2) Where flight training equipment is used to accomplish any of the training and the required skill test for an additional aeroplane category, class, and Type Rating for a pilot licence, such training and skill test in flight training equipment shall be conducted in accordance with an approved course at an organisation approved to conduct such courses.

(3) In order to complete all training and testing under subregulation (2), with the exception of pre-flight inspection, for an additional aeroplane rating without limitations when using a flight simulator—

*(a)* the flight simulator shall be approved as Level C or Level D; and

*(b)* the applicant for an additional rating under these Regulations shall meet any one of the following experience and qualification requirements:

(i) hold a Type Rating for a turbojet or turbofan aeroplane of the same class of aeroplanes for which the Type Rating is sought;

(ii) hold a Type Rating for a turbo propeller aeroplane of the same class of aeroplanes for which the Type Rating is sought;

(iii) have at least two thousand hours of flight time, of which five hundred hours is in turbine-powered aeroplanes of the same class of aeroplanes for which the Type Rating is sought;

(iv) have at least five hundred hours of flight time in the same type of aeroplane as the aircraft for which the rating is sought; and

(v) have at least one thousand hours of flight time in at least two different aeroplanes requiring a Type Rating.

(4) Subject to the limitations set out in subregulation (5), an applicant who does not meet the requirements of subregulation (3),

may complete all training and testing for a pilot licence or rating when using a flight simulator where—

*(a)* the flight simulator is approved as a Level C or Level D; and

*(b)* the applicant for an additional rating under this regulation meets at least one of the following requirements:

(i) holds a Type Rating in a propeller-driven aeroplane where a Type Rating in a turbojet or turbofan aeroplanes is sought, or holds a Type Rating in a turbojet or turbofan aeroplanes where a Type Rating in a propeller-driven aeroplane is sought; or

(ii) since the beginning of the twelfth month before the month in which the applicant completes the skill test for an additional aeroplane rating, has logged—

(A) at least one hundred hours of flight time in aeroplanes of the same class for which the Type Rating is sought and which requires a Type Rating;

(B) (Not incuded in these Regulations); and

(C) at least twenty-five hours of flight time in aeroplanes of the same type for which the rating is sought.

(5) An applicant meeting only the requirements of subregulation (3), shall be issued a rating with a limitation which shall state the following, "This licence is subject to pilot in command limitations for the additional rating".

(6) An applicant under this regulation who has been issued a pilot licence with the limitation specified in subregulation (5)—

*(a)* shall not act as pilot in command of aeroplanes for which the rating was obtained under the provisions of this regulation until the limitation is removed from his pilot licence; and

*(b)* may have the limitation removed by accomplishing fifteen hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in the same type of aeroplane to which the limitation applies.

(7) An applicant under this regulation, who does not meet the requirements of subregulation (3) or (4), may be issued a rating, where he complies with—

*(a)* subregulation (2), and the following tasks, which shall be successfully completed on a static aeroplane or in flight, as appropriate—

(i) pre-flight inspection;

(ii) normal take-off;

(iii) normal Instrument Landing System approach;

(iv) missed approach; and

(v) normal landing; and

*(b)* subregulations (8) and (9).

(8) An applicant who does not meet the requirements of subregulation (3), (4) or (7)*(a)* shall be issued a licence or rating with a limitation which shall state, "This licence is subject to pilot in command limitations for the additional rating".

(9) An applicant under this regulation who has been issued a pilot licence with the limitation specified in subregulation (8)—

*(a)* shall not act as pilot in command of that aeroplane for which the rating was obtained under the provisions of this regulation until the limitation is removed from the pilot licence; and

*(b)* may have the limitation removed by accomplishing twenty-five hours of supervised

operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in that aeroplanes of the same type to which the limitation applies.

**APPROVED OR ACCEPTED FLIGHT TRAINING EQUIPMENT**

Applicant, approved flight simulator and approved or accepted flight training devices for rotorcraft, helicopter class and Type Rating.

**115.** (1) Where approved or accepted flight training equipment is used for accomplishing any of the training and the required skill test for the initial issue of a pilot licence with a rotorcraft-helicopter class and Type Rating, such training and skill test in such approved or accepted flight training device shall be conducted in accordance with an approved course at an approved Aviation Training Organisation.

(2) Where approved or accepted flight training equipment is used for accomplishing any of the training and the required skill test for an additional rotorcraft-helicopter class and Type Rating, such training and skill test in such approved or accepted flight training device shall be conducted in accordance with an approved course at an approved Aviation Training Organisation or in an approved or accepted flight simulator.

(3) Where an applicant seeks an additional Type Rating in a turbine-powered helicopter he shall meet at least one of the following requirements:

*(a)* hold a Type Rating in a turbine-powered helicopter;

*(b)* have at least two thousand hours of flight time that includes at least five hundred hours in turbine-powered helicopters;

*(c)* have at least five hundred hours of flight time in turbine-powered helicopters; or

*(d)* have at least one thousand hours of flight time in at least two different turbine-powered helicopters.

(4) Subject to the limitation of subregulation (5), an applicant under this regulation who does not meet the requirements of subregulation (3) may complete all training and testing, with the exception of pre-flight inspection, for a pilot licence or rating when using a flight simulator where—

*(a)* the flight simulator is approved as Level C or Level D; and

*(b)* he meets at least one of the following requirements:

(i) holds a Type Rating in a turbine-powered helicopter where a Type Rating in a turbine-powered helicopter is sought; or

(ii) since the beginning of the twelfth month before the month in which the applicant completes the skill test for an additional helicopter rating, has logged at least twenty-five hours of flight time in helicopters of the same type for which the rating is sought.

(5) An applicant meeting only the requirements of subregulation (2) shall be issued a rating with a limitation which shall state, "This licence is subject to pilot in command limitations for the additional rating".

(6) An applicant under this regulation who is issued a pilot licence with the limitation specified in subregulation (5)—

*(a)* shall not act as pilot in command of a helicopter for which the rating was obtained under the provisions of this regulation until the limitation is removed from the pilot licence; and

*(b)* may have the limitation removed by accomplishing fifteen hours of supervised operating experience as pilot in command under the supervision of a qualified and current pilot in command, in the seat normally occupied by the pilot in command, in the same type of helicopter to which the limitation applies.

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(7) An applicant under this regulation who does not meet the requirements of subregulations (3) or (4), may be issued a rating upon—

*(a)* compliance with subregulation (1) and the following tasks, which must be successfully completed on a static helicopter or in flight, as appropriate:

(i) pre-flight inspection;

(ii) normal take-off;

(iii) normal Instrument Landing System approach;

(iv) missed approach; and

(v) normal landing;

*(b)* compliance with subregulation (1).

(8) An applicant who does not meet the requirements of subregulation (3), (4) or (7)*(a)* shall be issued a rating with a limitation which shall state, "This licence is subject to pilot in command limitations for the additional rating".

(9) An applicant who has been issued a pilot licence with the limitation specified in subregulation (8)—

*(a)* shall not act as pilot in command of that helicopter for which the rating was obtained under the provisions of this regulation until the limitation is removed from the pilot licence; and

*(b)* may have the limitation removed by accomplishing twenty-five hours of supervised operating experience as pilot in command under the supervision of a qualified pilot in command with recency of experience in the seat normally occupied by the pilot in command, in that helicopter of the same type to which the limitation applies.

**APPROVED OR ACCEPTED FLIGHT TRAINING EQUIPMENT FOR POWERED-LIFT**

Applicant approved flight simulator or flight training device for powered-lift category and Type Rating to meet certain requirements.

**116.** (1) Where approved or accepted flight training equipment is used for accomplishing any of the training and the required skill test for a pilot licence with a powered-lift category and Type Rating, such training is subject to the following requirements:

*(a)* requirements of regulations 114;

*(b)* the applicant shall meet at least one of the following if a Type Rating is sought in a turbine powered-lift:

(i) hold a Type Rating in a turbine powered-lift;

(ii) have at least two thousand hours of flight time that includes at least five hundred hours in a turbine powered-lift;

(iii) have at least five hundred hours of flight time in a turbine powered-lift;

(iv) have at least one thousand hours of flight time in a turbine powered-lift.

(2) Where approved or accepted flight training equipment is used for accomplishing any of the training and the required skill test for an additional powered-lift category and Type Rating, such training and skill test in such approved or accepted flight training device shall be conducted in accordance with an approved course at an approved Aviation Training Organisation or in an approved or accepted flight simulator.

(3) Subject to the limitation described in subregulation 114(9), an applicant who does not meet the requirements of subregulation 114(2), may complete all training and testing, with the exception of pre-flight inspection, for a rating when using a flight simulator where—

*(a)* the flight simulator is approved as Level C or Level D; and

*(b)* the applicant meets at least one of the following:

(i) holds a Type Rating in a turbine powered-lift if a Type Rating in a turbine powered-lift is sought; or

(ii) since the beginning of the twelfth month before the month in which the applicant completes the skill test for an additional powered-lift rating, has logged at least twenty-five hours of flight time in powered-lifts of the same type for which the rating is sought.

**GRADUATES OF AN APPROVED TRAINING PROGRAMME**

Graduation certificate to be sufficient evidence of training and experience.

**117.** (1) A graduation certificate issued by an approved Aviation Training Organisation, and presented to the Authority within sixty days of such graduation shall be sufficient evidence that the applicant has met the applicable aeronautical experience, aeronautical knowledge and areas of operation training requirements of these Regulations.

(2) Where the Director-General is satisfied that an application submitted after sixty days from the date of issue of a graduation certificate, still meet the requirements of subregulation (1) he may recommend that the Authority accept such application.

**PART VI**

## AIR TRAFFIC CONTROL CERTIFICATION

Applicability.

**118.** This Part prescribes the requirements for the issue of Air Traffic Control Licences.

**LIMITATIONS**

Restrictions on persons to exercise air traffic control privileges. [179/2008].

**119.** (1) A person shall not exercise air traffic control privileges under this Part unless he—

*(a)* holds an Air Traffic Controller Licence issued to him by the Authority under these Regulations; and

*(b)* holds an appropriate rating for the particular Air Traffic Control Facility or has qualified for the operating position and acts under the supervision of the holder of Air Traffic Control Rating for that Air Traffic Control Facility.

(2) A person shall not perform any duty as an air traffic controller—

*(a)* within eight hours after consumption of alcohol; or

*(b)* while under the influence of any drug or other substances that would impair his ability to perform his duties and thereby jeopardise aviation safety.

**ISSUE OF AIR TRAFFIC CONTROL LICENCES**

**120.** The Director-General may, where an applicant meets the requirements of this Part, recommend the Authority issue the following Air Traffic Control licences, ratings and authorisation: Issue of Air Traffic control Licences. [179/2008].

*(a)* Air Traffic Trainee Licence;

*(b)* Air Traffic Controller Licence;

*(c)* Air Traffic Controller Ratings—

(i) Aerodrome Control Rating;

(ii) Approach Control Procedural Rating;

(iii) Approach Control Surveillance Rating;

(iv) Approach Precision Radar Control Rating;

(v) Area Control Procedural Rating; and

(vi) Area Control Surveillance Rating;

*(d)* Air Traffic Instructor Authorisation; and

*(e)* Air Traffic Examiner Authorisation.

**AIR TRAFFIC TRAINEE LICENCE REQUIREMENTS**

**121.** (1) Where a person wishes to apply for an Air Traffic Trainee Licence he shall— Air Traffic Trainee Licence Requirements.

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be at least eighteen years of age;

*(d)* except as provided in regulation 189 be able to read, write, and understand the English Language and speak it without impediment of speech that would adversely affect two-way radio conversation; and

*(e)* have completed an approved training course in the areas specified in regulations 122 and 123;

*(f)* have passed an approved aeronautical knowledge tests in respect of the training courses under paragraph *(e)*;

*(g)* hold a current Class 3 medical certificate in accordance with Part VIII of these Regulations.

(2) The training required to be completed by subregulation (1)*(e)* shall be conducted by the holder of an Air Traffic Instructor Authorisation issued in accordance with regulation 135.

**AERONAUTICAL KNOWLEDGE REQUIREMENTS**

Air Traffic Controller Licence, aeronautical knowledge requirements. Schedule 10. Part A.

**122.** An applicant for an Air Traffic Trainee Licence shall pass an aeronautical knowledge test referred to in regulation 121(1)*(f)*, on the areas set out in Part A of Schedule 10.

**AIR TRAFFIC TRAINEE KNOWLEDGE REQUIREMENTS**

Applicant for Air Traffic Trainee Licence to demonstrate knowledge and ability in air traffic control procedures. Schedule 10. Part B.

**123.** In completing a training course under regulation 121(1)*(e)*, an applicant for an Air Traffic Trainee Licence shall demonstrate to an Air Traffic Instructor through a skill test, general knowledge of and ability to perform completely, the normal and emergency air traffic control procedures and practices in the areas of operation set out in Part B of Schedule 10.

**RECOMMENDATION BY AIR TRAFFIC INSTRUCTOR**

Instructor to recommend applicant to take tests under regulation 121(1)*(e)* and *(d)*.

**124.** Where an Air Traffic Instructor is conducting courses under regulation 121(1)*(e)* is satisfied that the applicant for an Air Traffic Trainee Licence is ready to take the tests required under regulations 122 and 123 he may make such recommendation to the Director-General.

**DESIGNATION OF AIR TRAFFIC EXAMINER**

Director-General to designate examiner to administer test to applicant for Air Traffic Trainee Licence.

**125.** The Director-General on receiving a recommendation under regulation 124 shall assign an Air Traffic Examiner to administer the tests under regulations 122 and 123.

**ISSUE OF AIR TRAFFIC TRAINEE LICENCE**

Examiner to recommend issue of Air Traffic Trainee Licence.

**126.** The Director-General shall recommend the Authority issue the Air Traffic Trainee Licence where an applicant has passed the test under regulation 124.

**PRIVILEGES OF AIR TRAFFIC TRAINEE**

Privileges of an Air Traffic Trainee Licence.

**127.** The holder of an Air Traffic Trainee Licence, (hereinafter referred to as "an Air Traffic Trainee") while training may perform air traffic control duties under the direct supervision of the holder of an Air Traffic Instructor Authorisation, for the purpose of obtaining the necessary skill and experience in air traffic control duties to—

*(a)* qualify for the issue of an Air Traffic Controller Licence or rating; and

*(b)* regain recency of experience for an Air Traffic Controller Licence or rating.

**REQUIREMENTS FOR AIR TRAFFIC CONTROLLER LICENCE**

Air Traffic Controller Licence Requirements. [196/2009].

**128.** (1) Where a person wishes to apply for an Air Traffic Controller Licence he shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* be at least eighteen years of age;

*(c)* except as provided in regulation 189 be able to read, write, and understand the English Language and speak it without impediment of speech that would adversely affect two-way radio conversation;

*(d)* hold a current Air Traffic Trainee Licence issued in accordance with this Part, or a current Air Traffic Controller Licence issued by another Contracting State; and

*(e)* have at least—

(i) three months experience under the supervision of an appropriately rated Air Traffic Instructor, exercising the privileges

of an Air Traffic Trainee Licence issued in accordance with this Part; or

(ii) two years experience, exercising the privileges of an Air Traffic Controller Licence in another Contracting State where the licence was issued;

*(f)* have met the necessary training and experience and have passed the required test for at least one Air Traffic Control Rating issued in accordance with these Regulations; and

*(g)* hold a current Class 3 medical certificate in accordance with Part VIII of these Regulations.

(2) The experience specified in subregulation (1)*(e)* shall have been completed within the six-month period immediately preceding the application.

**REQUIREMENTS FOR AIR TRAFFIC CONTROLLER RATING**

Requirements for Air Traffic Controller Ratings.

**129.** (1) Where an initial rating is to be issued an applicant under regulation 128 shall provide evidence of having—

Schedule 10. Part C.

*(a)* satisfactorily completed a training course in the areas set out in Part C of Schedule 10, in respect of the rating sought;

Schedule 10. Part D.

*(b)* completed the experience requirements set out in Part D of the Schedule 10; and

*(c)* passed the test relevant to the privileges of the rating, in the subject areas specified in subregulation (1)*(a)*, conducted by an Air Traffic Examiner;

*(d)* demonstrated to the holder of an air traffic instructor rating, through a skill test the skill, judgment and performance required to provide a safe, orderly and expeditious control service at an Air Traffic Control Facility appropriate to the rating sought.

(2) The training required to be completed under subregulation (1)*(a)*, shall be conducted by an Air Traffic Instructor.

(3) A person who wishes to have his existing Air Traffic Controller rating for an additional Air Traffic Control Facility, shall—

*(a)* have completed the training required by subregulation (1)*(a)*, for such Air Traffic Control Facility; and

*(b)* have complied with the requirement of subregulations (1) and (2), for such Air Traffic Control Facility.

**ISSUE OF AIR TRAFFIC CONTROLLER RATINGS**

Issue of Air Traffic Controller Ratings.

**130.** (1) Where an Air Traffic Instructor is satisfied that an applicant for an Air Traffic Controller Rating is ready to be tested under regulation 129, he shall recommend to the Director-General that the applicant is prepared for such test.

(2) An Air Traffic Instructor under subregulation (1) shall, in making a recommendation under that subregulation—

*(a)* certify the record of training in the logbook of the applicant; and

*(b)* enter the following information in the prescribed form:

(i) the name and date of birth of applicant;

(ii) the air traffic control rating to be issued and any conditions on the use of the rating;

(iii) the location of the Air Traffic Control Facility for which the rating has been certified;

(iv) the following statement:

"(name of Air Traffic Controller) has satisfied the requirements of Part VI of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, for the issue of the Air Traffic Controller Rating specified above;" and

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(v) signature, name and licence number of the instructor.

(3) The Director-General on receipt of a recommendation under subregulation (1), shall assign an Air Traffic Examiner to administer the tests under regulation 129.

(4) An Air Traffic Examiner under subregulation (3), shall forward to the Director-General on the prescribed form the results of the tests administered in respect of the training received.

(5) Where the Director-General is satisfied that the applicant has passed the required tests under regulation 129 he shall recommend the Authority issue the Air Traffic Controller Licence with an Air Traffic Controller Rating.

**ADDITIONAL RATINGS FOR AIR TRAFFIC CONTROLLER**

Requirements for additional ratings for Air Traffic Controller.

**131.** Where the holder of an Air Traffic Controller Licence (hereinafter referred to an "Air Traffic Controller") with an Air Traffic Controller Rating wishes to apply for an additional rating he shall meet the requirements of regulation 129.

**PRIVILEGES AND LIMITATIONS OF RATINGS**

Privileges and limitations of Air Traffic Controller. [301/2004 179/2008].

**132.** (1) Subject to subregulations (2), (3) and (4), an Air Traffic Controller holding—

*(a)* an Aerodrome Control Rating shall provide aerodrome control service at the aerodrome or aerodromes for which the rating is validated;

*(b)* an Approach Control Procedural Rating shall provide approach control service for the aerodrome or aerodromes for which the rating is certified;

*(c)* an Approach Control Surveillance Rating shall provide approach control service with the use of applicable Air Traffic Services surveillance system, for the aerodrome or aerodromes for which the rating is certified;

*(d)* an Area Control Procedural Rating shall provide area control service within the control area or areas for which the rating is certified; and

*(e)* an Area Control Surveillance Rating shall provide area control service with the use of radar or other surveillance systems within the control area or areas for which the rating is certified.

(2) Where an Air Traffic Controller wishes to obtain an additional rating, he may perform the Air Traffic Controller duties for that rating while under the direct supervision of an Air Traffic Instructor for the purpose of obtaining the skills and experience in air traffic control duties for that rating.

(3) Where the privileges of an Air Traffic Controller Licence or rating issued under this Part have not been exercised without direct supervision for at least five hours of operational duty during a single shift within the preceding twenty-eight days, the holder shall demonstrate his ability to perform unsupervised duty to an Air Traffic Instructor, before the privileges of that rating may be exercised again.

(4) Where the privileges of an Air Traffic Controller Licence or rating issued under this Part have not been exercised within the preceding six months, the holder shall before exercising the privileges of that rating, apply to the Authority and demonstrate to a Air Traffic Examiner his proficiency under his licence or rating.

(5) Where the privileges of an Air Traffic Controller Licence issued under these Regulations have not been exercised within the preceding five years, the licence holder shall meet the requirement of regulations 121 and 128, before the privileges of that licence may be exercised again.

(6) A person shall not exercise the privileges of a rating at any Air Traffic Facility or with any type of radar equipment, unless—

*(a)* since the beginning of the twelfth month before that service, that person has passed a proficiency check prescribed by the Authority; and

*(b)* such person is familiar with all pertinent and current information.

**REST AND DUTY LIMITATIONS**

Rest and duty limitation for Air Traffic Controllers.

**133.** (1) Except where the Director-General determines that an emergency air traffic situation has arisen, an Air Traffic Controller shall have a minimum of twenty-four consecutive hours free from duty within each seven consecutive days off duty.

(2) Except where the Director-General determines that an emergency air traffic situation has arisen, an Air Traffic Controller shall not work or be required to work for more than twelve consecutive hours.

(3) An Air Traffic Controller shall be required to take a rest period of at least eight consecutive hours before each duty period.

(4) Notwithstanding subregulation (3), where the duty period is more than ten consecutive hours the rest period of the Air Traffic Controller shall be no less than the preceding duty period.

**REQUIREMENT FOR ISSUE OF AIR TRAFFIC INSTRUCTOR AUTHORISATION**

Air Traffic Instructor Authorisation requirements.

**134.** Where a person wishes to apply for an Air Traffic Instructor Authorisation he shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

*(c)* hold an Air Traffic Controller Licence issued in accordance with this Part with a rating for the relevant service;

*(d)* except as provided in regulation 189 be able to read, write and understand the English Language and speak it without impediment of speech that would adversely affect two-way radio conversation;

*(e)* have at least two years experience exercising the privileges of an Air Traffic Controller Licence; and

*(f)* provide the Authority with evidence of having satisfactorily completed an approved training course in the theory and practice of instruction.

**INSTRUCTOR AUTHORISATION**

Issue of Air Traffic Control Instructor Authorisation.

**135.** Where an applicant meets the requirements of regulation 134, the Director-General may recommend that the Authority issue the Air Traffic Instructor Authorisation.

**PRIVILEGES AND LIMITATIONS OF AIR TRAFFIC CONTROLLER INSTRUCTOR RATING**

Privileges and Limitations of Air Traffic Control Instructor Rating.

**136.** (1) Subject to subregulation (2), the holder of an Air Traffic Instructor Authorisation (hereinafter referred to as "an Air Traffic Instructor") may—

*(a)* instruct Air Traffic Control personnel;

*(b)* directly supervise Air Traffic Control personnel undergoing training or regaining recency or who are performing Air Traffic Control duties;

*(c)* assess the preparedness of an applicant for the issue of an Air Traffic Controller Licence or rating.

(2) Subject to subregulation (4), an Air Traffic Instructor in exercising the privileges under his rating shall hold a current Air Traffic Controller Licence with a valid rating for the relevant service.

(3) Where Air Traffic Instructor is not exercising the privileges of an Air Traffic Controller Licence, he shall not be required to hold a current medical certificate.

(4) In exercising the privileges under subregulation (1), an air traffic instructor shall within the preceding thirteen months have demonstrated to an air traffic examiner his ability to exercise such privileges by passing an examination and a skill test based on the exercise of such privileges.

**REQUIREMENTS FOR AIR TRAFFIC EXAMINER AUTHORISATION**

Air Traffic Examiner Authorisation Requirements.

**137.** Where an Air Traffic Instructor has at least three years experience exercising the privileges of an Air Traffic Instructor Authorisation and such person is of good character he may be designated by the Director-General, as an Air Traffic Examiner for aeronautical knowledge, skills and proficiency testing.

**PRIVILEGES AND LIMITATIONS OF AIR TRAFFIC EXAMINERS AUTHORISATIONS**

Privileges and Limitations of Air Traffic Examiner Authorisation.

**138.** (1) Subject to subregulation (2), the holder of an Air Traffic Examiner Authorisation (hereinafter referred to as "an Air Traffic Examiner") shall conduct aeronautical knowledge and skill tests for initial issue or continued validity of air traffic licences and ratings.

(2) An Air Traffic Examiner in exercising the privileges of his Air Traffic Examiner Authorisation shall—

*(a)* hold a current Air Traffic Service Licence with a rating for the relevant service; and

*(b)* conduct the tests at an Air Traffic Control Facility or an Aviation Training Organisation approved for Air Traffic Control training;

*(c)* as far as practicable, not test an applicant to whom he has given instruction for that licence or rating except with the expressed consent in writing of the Authority.

**AIR TRAFFIC CONTROLLER LOGBOOKS**

Air Traffic Controller logbook requirements.

**139.** (1) The holder of an Air Traffic Control Licence under this Part shall—

*(a)* maintain a record in ink of his Air Traffic Control training and experience in a logbook acceptable to the Authority;

*(b)* have the logbook entries countersigned by his shift supervisor to validate the correctness of such entries; and

*(c)* submit his logbook in support of any application for a licence, rating or authorisation.

(2) An Air Traffic Controller shall be credited with the total Air Traffic Control time during which he is carrying out the duties of an Air Traffic Controller.

## PART VII

## FLIGHT OPERATIONS OFFICER CERTIFICATION

Applicability.

**140.** This Part prescribes the requirements for the issue of a Flight Operations Officer Authorisation.

### FLIGHT OPERATIONS OFFICER AUTHORISATION

Flight Operations Officer Authorisation application.

**141.** (1) A person wishing to perform the duties of a Flight Operations Officer Authorisation shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be at least twenty years of age; and

*(d)* except as provided in regulation 189, be able to read, speak, write, and understand the English Language.

(2) An applicant for a Flight Operations Officer Authorisation under subregulation (1), shall—

*(a)* pass a knowledge test;

*(b)* provide the Authority with a certificate of competency from a national air operator as evidence of having successfully met the knowledge and skill requirements of an approved flight operations officer training programme; or

*(c)* meet or provide evidence of having met the knowledge requirements set out in Part A of the Schedule 11.

Schedule 11. Part A.

### TRAINING PROGRAMME OF NATIONAL AIR OPERATOR

Training programme of national air operator to be approved.

**142.** (1) A national air operator in conducting knowledge and skill test under regulation 141(2)*(a)* shall submit to the Authority for approval a flight operations officer training programme for the initial issue, qualification and recurrent training of a flight operations officer.

(2) The training syllabus for a Flight Operations Officer approved programme under regulation 141, shall include the aeronautical knowledge requirements and skill requirements set out in Part B of the Schedule 11.

Schedule 11. Part B.

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**EXPERIENCE OR TRAINING REQUIREMENTS FOR FLIGHT OPERATIONS OFFICER**

Experience areas for an applicant under regulation 143.

**143.** (1) The applicant for Flight Operations Officer under regulation 141 shall have the following experience:

*(a)* a total of two years of service in any one or in any combination for at least one year of the following capacities:

(i) a flight crew member in air transportation; or

(ii) a meteorologist in an organisation dispatching aircraft in air transportation; or

(iii) an Air Traffic Controller; or

(iv) a technical supervisor of flight operations officers or air transportation flight operations systems;

*(b)* at least one year as an assistant in the dispatching of air transport; or

*(c)* have satisfactorily completed a course of approved training.

(2) The applicant shall have served under the supervision of a flight operations officer for at least ninety working days within the six months immediately preceding the application.

(3) Where an applicant is required to pass a knowledge test under regulation 141, he shall be tested by an Examiner assigned by the Authority for such purpose.

**EXEMPTIONS WHERE FLIGHT DISPATCHER COURSE IS COMPLETED**

Exemption where applicant completed flight dispatcher course.

**144.** Notwithstanding regulation 141(2), where an applicant for a Flight Operations Officer Authorisation provides the Authority with evidence of having successfully completed an approved flight dispatcher course from a Contracting State, he shall be deemed to have met the requirements for the issue of a Flight Operations Officer Authorisation.

**CERTIFICATE OF COMPETENCY**

Requirements of applicant who does not have a certificate of competency.

**145.** (1) An applicant for a Flight Operations Officer Authorisation shall demonstrate to the Director-General the skills and ability to—

*(a)* make an accurate and operationally acceptable weather analysis from a series of daily weather maps and weather reports, provide an operationally valid briefing on weather conditions prevailing in the general neighbourhood of a specific air route, forecast weather trends pertinent to air transportation with particular reference to destination and alternates;

*(b)* determine the optimum flight path for a given route segment, and create accurate manual and computer generated flight plans; and

*(c)* provide operating supervision and all other assistance to a flight in actual or simulated adverse weather conditions, as appropriate to the duties of the flight operations officer.

**ISSUE OF FLIGHT OPERATIONS OFFICER AUTHORISATION**

Issue of a Flight Operations Officer Authorisation.

**146.** (1) Where an applicant for a Flight Operations Officer Authorisation under regulation 141 meets the requirements of this Part, the Director-General may recommend that the Authority issue to the applicant such Flight Operations Officer Authorisation.

(2) An authorisation issued under subregulation (1), shall be valid for one year and may upon application to the Authority be renewed upon successful completion of a competency test.

**PRIVILEGES AND LIMITATIONS OF AUTHORISATION**

Flight Operations Officer Authorisation, Privileges and limitations.

**147.** (1) The Flight Operations Officer Authorisation shall authorise the holder to exercise the following privileges:

*(a)* assist the pilot in command in flight preparation and provide the relevant information required;

*(b)* assist the pilot in command in preparing the operational and air traffic service flight plans, sign and file the air traffic service flight plan with the appropriate Air Traffic Control Facility;

*(c)* furnish the pilot in command while in flight by the most appropriate means with information, which may be necessary for the safe conduct of the flight;

*(d)* in the event of an emergency initiate such procedures as may be outlined in the Operations Manual.

(2) A Flight Operations Officer shall avoid taking any action that would conflict with the procedures established by—

*(a)* Air Traffic Control;

*(b)* the meteorological service; or

*(c)* the communications service.

**PART VIII**

## MEDICAL STANDARDS AND CERTIFICATION

### CIVIL AVIATION MEDICAL EXAMINER

Applicant to be designated as Civil Aviation Medical Examiner. [185/2006].

**148.** Where a person wishes to be designated as a Civil Aviation Medical Examiner he shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

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*(c)* be registered as a medical practitioner under the Medical Board Act;

*(d)* have received training in aviation medicine and refresher training at regular intervals by an organisation acceptable to the Authority; and

*(e)* provide the Authority with evidence of adequate competency in aviation medicine.

### DESIGNATION OF MEDICAL EXAMINER

Designation of Civil Aviation Medical Examiner.

**149.** The Director-General shall where he is satisfied that an applicant meets the requirements of regulation 148, recommend the Authority designate such applicant to be Civil Aviation Medical Examiner.

**DUTIES OF MEDICAL EXAMINER**

Duties of a Civil Aviation Medical Examiner.

**150.** (1) Where a person has been designated a Civil Aviation Medical Examiner under regulation 149, he shall—

*(a)* examine an applicant in accordance with medical practice recognised by the medical profession and the personnel licensing medical standards under regulation 158;

*(b)* record in a medical examination report his clinical findings and submit the signed medical assessment to the Authority; and

*(c)* report to the Authority any individual cases where, in the judgment of the Civil Aviation Medical Examiner, an applicant for an airman licence fails to meet any requirement which could jeopardize flight safety.

(2) A Civil Aviation Medical Examiner shall be designated by the Authority for a maximum period of thirty months, and shall be eligible for further designation upon the completion of the appropriate refresher training programme as prescribed by the Authority.

(3) Where a person has been designated a Civil Aviation Medical Examiner under regulation 149, he shall attend an indoctrination training programme prescribed by the Authority which shall include training in the practical knowledge and experience in the conditions in which the holders of licences and ratings carry out their duties.

**REQUIREMENTS FOR MEDICAL RECORDS FOR AIRMEN**

Medical record requirements. [185/2006].

**151.** (1) An applicant for a medical assessment in pursuance of an airman licence shall provide to the Civil Aviation Medical Examiner in the prescribed form and duly signed—

*(a)* a statement of medical facts concerning his personal, familial and hereditary history that is as complete and accurate as his knowledge permits; and

*(b)* a declaration stating—

(i) whether he has previously undergone such an examination;

(ii) the date, place and results of the last examination; and

(iii) whether a medical certificate has previously been refused, revoked or suspended and the reason for such refusal, revocation or suspension.

(2) Where the Civil Aviation Medical Examiner finds that additional medical information or history is needed of the applicant, he shall require the applicant to—

*(a)* furnish that information; or

*(b)* authorise any clinic, hospital, physician, or other person to release to him all available information or records concerning that history.

(3) Where the Director-General receives a written report from a Civil Aviation Medical Examiner that an applicant or holder of a medical certificate fails to provide the requested medical information or history, or fails to authorise the release so requested or makes any false declaration to the Civil Aviation Medical Examiner, the Director-General may recommend that the Authority—

*(a)* suspend, modify, or revoke all medical certificates the airman holds; or

*(b)* in the case of an applicant, deny the application for an airman medical certificate.

(4) Where an airman medical certificate is suspended or modified under subregulation (3)*(a)* that suspension or modification remains in effect until—

*(a)* the holder or applicant provides the requested information, history, or authorisation to the Civil Aviation Medical Examiner; and

*(b)* the Civil Aviation Medical Examiner determines that the holder or applicant meets the medical standards.

(5) The Authority retains the right to have any recommendation or finding of a Civil Aviation Medical Examiner re-evaluated.

(6) The Director-General may recommend that the Authority employ the services of a medical assessor, to evaluate reports submitted by a Civil Aviation Medical Examiner.

(7) Accessibility of all medical reports and records shall be restricted to authorised personnel only and they shall ensure that these medical reports and records are securely kept at all times.

(8) Any person who is responsible for the handling of medical documents shall ensure that the confidentiality of the medical documents are maintained at all times.

**MEDICAL CERTIFICATION**

Medical certification procedures.

**152.** The Director-General shall recommend the Authority issue the applicable medical certificate in the prescribed form to any person who meets the medical standards prescribed under regulation 158, based on medical examination, assessment and evaluation of the history and condition of the applicant by Civil Aviation Medical Examiner.

**MEDICAL CERTIFICATION REQUIREMENTS**

Medical certification requirements. [45/2007].

**153.** (1) An airman shall be assessed by a Civil Aviation Medical Examiner for a Class 1 medical certificate to exercise the privileges of—

*(a)* an Airline Transport Pilot Licence;

*(b)* a Commercial Pilot Licence; and

*(c)* an Instrument Rating.

(2) An airman shall be assessed by a Civil Aviation Medical Examiner for a Class 2 medical certificate to exercise the privileges of—

*(a)* a Student Pilot Licence;

*(b)* a Private Pilot Licence;

*(c)* a Flight Engineer Licence;

*(d)* Glider Pilot Licence; and

*(e)* Free Balloon Pilot Licence.

*(3) An airman shall be assessed by a Civil Aviation Medical Examiner for a Class 3 medical certificate to exercise the privileges of an Air Traffic Controller Licence.

**VALIDITY OF MEDICAL CERTIFICATE**

Validity of medical assessment. [45/2007].

**154.** (1) A Medical Assessment issued by the Authority under regulation 152 shall be valid from the date of the medical examination for a period not greater than—

*(a)* sixty months for a private pilot licence for aeroplane, airship, helicopter and powered-lift;

*(b)* twelve months for a commercial pilot licence for aeroplane, airship, helicopter and powered-lift;

*(c)* twelve months for multi-crew pilot licence for aeroplane;

*(d)* twelve months for airline transport licence for aeroplane, helicopter and powered-lift;

*(e)* sixty months for glider pilot licence;

*(f)* sixty months for free balloon pilot licence;

*(g)* twelve months for flight engineer licence; and

*(h)* forty-eight months for air traffic controller licence.

(2) Notwithstanding the requirements of subregulation (1), the Director-General may recommend the Authority—

*(a)* reduce the period of validity of a medical certificate when clinically indicated; or

*(b)* extend the period of validity of a medical certificate for up to forty-five days.

(3) Where the holder of—

*(a)* an airplane transport pilot licence for aeroplane, helicopter or powered-lift; or

*(b)* a commercial air transport licence for aeroplane, airship, helicopter or powered-lift,

**See* Regulation 190 for operation of Regulation 153 (3).

who is engaged in single-crew commercial air transport operations carrying passengers, has passed his fortieth birthday, the period of validity specified in subregulation (1), shall be reduced to six months.

(4) Where a holder of—

*(a)* an airline transport pilot licence for aeroplane, helicopter or powered-lift;

*(b)* a commercial air transport licence for aeroplane, airship, helicopter or powered-lift; or

*(c)* a multi-crew pilot licence engaged in commercial air transport operations,

has passed his sixtieth birthday, the period of validity specified in subregulation (1) shall be reduced to six months.

(5) Where a holder of private pilot licence for aeroplane, airship, helicopter and powered-lift, free balloon pilot licence, glider pilot licence and air traffic controller licence has passed his fortieth birthday, the period of validity specified in subregulation (1) shall be reduced to twenty-four months.

(6) Where a holder of private pilot licence for aeroplane, airship, helicopter and powered-lift, free balloon pilot licence, glider pilot licence and air traffic controller licence has passed his fiftieth birthday, the period of validity specified in subregulation (1) shall be further reduced to twelve months.

### LIMITATION ON MEDICAL CERTIFICATE

Limitation on medical certificate.

**155.** The Director-General may recommend that the Authority place a limitation on a medical certificate where an applicant does not meet the applicable standards for the medical certificate sought and where the Director-General determines that—

*(a)* the duties authorised by the medical certificate can be performed without jeopardising flight safety; and

*(b)* relevant ability, skill, and experience of the applicant and operational conditions have been given due consideration.

**MEDICAL CERTIFICATES RENEWAL**

Renewal of a medical certificate.

**156.** The requirements for the renewal of a medical certificate are the same as those for the initial issue of the medical certificate under this Part except where otherwise specifically stated.

**DEFERRAL OF MEDICAL EXAMINATION**

Deferral of medical examination.

**157.** (1) The prescribed re-examination of a licencee operating in an area which is remote or distant from designated medical examination facilities may be deferred at the discretion of the Authority, and shall not exceed—

*(a)* a single period of six months in the case of a flight crew member of an aircraft engaged in non-commercial operations;

*(b)* two consecutive periods each of three months in the case of a flight crew member of an aircraft engaged in commercial operations, provided that in each case a favourable medical report is obtained after examination by a designated medical examiner of the area concerned, or, in cases where such designated medical examiner is not available, by a physician qualified to practice medicine in that area; or

*(c)* in the case of a private pilot, a single period not exceeding twenty-four months where the medical examination is carried out by medical examiner designated under regulation 149, in which the applicant is temporarily located.

(2) A report of a medical examination referred in subregulation (1), shall be sent to the Authority where the licence was issued.

(3) In this regulation—

"remote" means difficulty in accessing regular transportation to and from; and

"distant" means geographical distance from Trinidad and Tobago.

### MEDICAL EXAMINATIONS STANDARDS

**158.** The physical and mental standards required for all medical examinations and assessments referred to in regulation 152 are set out in Schedule 12.

Physical and mental standards for all medical examinations. Schedule 12.

## PART IX

## AIRCRAFT MAINTENANCE ENGINEER LICENCE

### REQUIREMENTS OF PART IX

**159.** This Part sets out the requirements for an Aircraft Maintenance Engineer Licence issued by the Authority.

Requirements of Part IX. [196/2009].

### GENERAL REQUIREMENTS FOR AN AIRCRAFT MAINTENANCE ENGINEER LICENCE CATEGORY OR RATING

**160.** (1) A person wishing to obtain an Aircraft Maintenance Engineer Licence category or rating shall—

General requirements for an Aircraft Maintenance Engineer Licence Category or Rating. Schedule 13. Part A. [196/2009].

*(a)* apply to the Authority in the prescribed form, for a category or rating set out in Part A of Schedule 13;

*(b)* pay the prescribed fee;

*(c)* be eighteen years of age or over;

*(d)* except as provided in regulation 189, be able to read, write, speak, and understand the English Language;

*(e)* provide evidence of having received training in the knowledge areas set out in Part B of Schedule 13;

Schedule 13. Part B.

*(f)* provide evidence of having attained the required level of experience set out in Part C of Schedule 13; and

Schedule 13. Part C.

*(g)* provide evidence of having satisfactorily met the skills requirements set out in Part D of Schedule 13.

Schedule 13. Part D.

(2) In providing evidence of the knowledge training required under subregulation (1)*(e)*, an applicant shall submit—

*(a)* an official document issued by an Aviation Training Organisation approved by the

Authority to conduct training in Aircraft Maintenance, stating that the applicant has successfully completed the knowledge training appropriate to the Aircraft Maintenance Engineer Licence category or rating sought; or

*(b)* a document issued by an Aircraft Maintenance Engineer stating that the applicant, under his guidance and supervision has successfully completed a structured programme of self-study using such material as may be specified for a student on an approved course conducted by an Aviation Training Organisation, appropriate to the Aircraft Maintenance Engineer Licence category or rating sought.

(3) In providing evidence of the experience required under subregulation (1)*(f)*, an applicant shall submit—

*(a)* an official document issued by an Aviation Training Organisation approved by the Authority to conduct training in Aircraft Maintenance; or

*(b)* a document issued by an appropriately qualifed Aircraft Maintenance Engineer,

stating that the applicant has met the required level of experience appropriate to the Aircraft Maintenance Engineer Licence category or rating sought.

(4) In providing evidence of the skills required under subregulation (1)*(g)*, an applicant shall submit—

*(a)* an official document issued by an Aviation Training Organisation approved by the Authority to conduct training in Aircraft Maintenance; or

*(b)* a satisfactorily documented on-the-job training programme completed under the guidance and supervision of an Aircraft Maintenance Engineer,

stating that the applicant has met the skills requirements appropriate to the Aircraft Maintenance Engineer Licence category or rating sought.

(5) A structured programme of self-study under subregulation (2)*(b)* shall not be valid unless, prior to its commencement—

*(a)* the programme of self-study was approved by the Director-General; and

*(b)* an Aircraft Maintenance Engineer was approved by the Director-General for the supervision and guidance of the programme of self-study.

**KNOWLEDGE TEST**

Knowledge test. [196/2009].

**161.** Where an applicant satisfies the requirements of regulation 160 for an Aircraft Maintenance Engineer Licence category, the Director-General shall ensure that such person is given a written knowledge test in the areas set out in Part B of Schedule 13, appropriate to the category sought.

Schedule 13. Part B.

**INTERVIEW TO TEST KNOWLEDGE AND PRACTICAL APPLICATION**

Interview to test knowledge and practical application. [196/2009].

**162.** (1) Where an applicant passes a written knowledge test required under regulation 161 for an Aircraft Maintenance Engineer Licence category, the Director-General shall ensure that such applicant is interviewed to test his knowledge and practical application of such knowledge in the category sought.

(2) Where an applicant satisfies the requirements of regulation 160 for an Aircraft Maintenance Engineer Licence type rating, the Director-General shall ensure that such applicant is interviewed, to test his knowledge and practical application of such knowledge in the type rating sought.

(3) Notwithstanding the requirements of subregulation (2), where the Director-General is satisfied that an applicant has met the necessary requirements for an Aircraft Maintenance Engineer Licence type rating, he may at his discretion, waive the interview.

### ISSUE OF AIRCRAFT MAINTENANCE ENGINEER LICENCE

Issue of Aircraft Maintenance Engineer Licence. [196/2009].

**163.** (1) Where an applicant is successful in the interview required under regulation 162(1), the Director-General may recommend the Authority issue the applicant an Aircraft Maintenance Engineer Licence in the category sought.

(2) Where an applicant is successful in the interview required under regulation 162(2), or where the Director-General exercises his discretion and waives the interview in accordance with regulation 162(3), the Director-General may recommend the Authority issue the applicant an Aircraft Maintenance Engineer Licence in the type rating sought.

(3) A person who fails—

*(a)* a written knowledge test for a category; or

*(b)* an interview required under regulation 162 for a category or type rating,

is eligible to take the test or interview after such time period as specified in Part E of Schedule 13.

Schedule 13. Part E.

### PRIVILEGES OF A PERSON HOLDING AN AIRCRAFT MAINTENANCE ENGINEER LICENCE OR RATING

Privileges of a person holding an Aircraft Maintenance Engineer Licence or Rating. [196/2009]. Schedule 13. Part F.

**164.** The privileges of a person holding an Aircraft Maintenance Engineer Licence shall be in accordance with Part F of Schedule 13, as appropriate to the category and rating held.

### PERIOD OF VALIDITY OF AN AIRCRAFT MAINTENANCE ENGINEER LICENCE

Period of validity of an Aircraft Maintenance Engineer Licence. [196/2009].

**165.** The period of validity of an Aircraft Maintenance Engineer Licence shall be two years from the date of issue or renewal of the licence unless the licence is surrendered by the holder or suspended or revoked by the Authority before the expiration of the two-year period.

### COMPASS COMPENSATION AND ADJUSTMENT RATING

Compass Compensation and Adjustment Rating. [196/2009].

**166.** (1) An applicant for a Compass Compensation and Adjustment Rating shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

*(c)* hold an Aircraft Maintenance Engineer Licence—

(i) E1 or E2—Avionics Systems category; or

(ii) A—Airframe category with a type rating;

*(d)* provide documented evidence of training in direct-reading compass compensation, given by the holder of a valid Aircraft Maintenance Engineer Licence endorsed for such direct-reading compass compensation rating, or by a qualified instructor; and

*(e)* provide evidence of having completed at least two supervised compass swings carried out on more than one aircraft during the preceding six months.

(2) Where the requirements of subregulation (1) have been satisfied, the Director-General may recommend the Authority include the Compass Compensation and Adjustment Rating in the applicant Aircraft Maintenance Engineer Licence.

**APPLICATION FOR RENEWAL OF AN AIRCRAFT MAINTENANCE ENGINEER LICENCE**

Application for renewal of an Aircraft Maintenance Engineer Licence. [196/2009].

**167.** The Holder of an Aircraft Maintenance Engineer Licence who wishes to renew his Aircraft Maintenance Engineer Licence shall—

*(a)* apply to the Authority on the prescribed form;

*(b)* pay the prescribed fee; and

*(c)* provide evidence of having satisfied the standards for renewal of his licence set out in Part G of Schedule 13, applicable to the category or rating held.

Schedule 13. Part G.

**RENEWAL OF AN AIRCRAFT MAINTENANCE ENGINEER LICENCE**

Renewal of an Aircraft Maintenance Engineer Licence. [196/2009].

**168.** (1) Where the Director-General is satisfied that the holder of an Aircraft Maintenance Engineer Licence has met the requirements for renewal of his Aircraft Maintenance Engineer

Licence under regulation 167, he may recommend the Authority renew such Aircraft Maintenance Engineer Licence for two years.

(2) In renewing an Aircraft Maintenance Engineer License under subregulation (1), the determination of the expiry date of the renewed Aircraft Maintenance Engineer Licence shall be in accordance with the standards set out in Part G of Schedule 13.

Schedule 13. Part G.

**APPLICATION FOR VALIDATION OF AN AIRCRAFT MAINTENANCE ENGINEER LICENCE OR CERTIFICATE ISSUED BY ANOTHER CONTRACTING STATE**

Application for validation of an Aircraft Maintenance Engineer Licence or Certificate issued by another Contracting State. [196/2009].

**169.** The holder of an Aircraft Maintenance Engineer Licence or Certificate issued by another Contracting State, who wishes to have his Aircraft Maintenance Engineer Licence or Certificate validated by the Authority shall—

*(a)* apply to the Authority on the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be able to read, speak, write and understand the English language;

*(d)* provide evidence that the—

(i) requirements under which the foreign Aircraft Maintenance Engineer Licence or Certificate was issued are at least equal to the applicable standards under this Part and Schedule 13;

Schedule 13.

(ii) foreign Aircraft Maintenance Engineer Licence or Certificate is not under an order of revocation or suspension by the State that issued such Aircraft Maintenance Engineer Licence or Certificate; and

(iii) foreign Aircraft Maintenance Engineer Licence or Certificate does not contain an endorsement, stating that the applicant has

not met all the standards of the Chicago Convention for that Aircraft Maintenance Engineer Licence or Certificate.

**KNOWLEDGE TEST REQUIREMENTS FOR VALIDATION OF AN AIRCRAFT MAINTENANCE ENGINEER LICENCE OR CERTIFICATE ISSUED BY ANOTHER CONTRACTING STATE**

**170.** Where the Director-General is satisfied that the requirements for the application for validation of a foreign Aircraft Maintenance Engineer Licence or Certificate have been met, he shall ensure that the applicant is given a written knowledge test in the areas of civil aviation requirements, laws and regulations set out in Part B of Schedule 13.

Knowledge test requirements for validation of an Aircraft Maintenance Engineer Licence or Certificate issued by another Contracting State. Schedule 13. Part B. [196/2009].

**VALIDATION OF AN AIRCRAFT MAINTENANCE ENGINEER LICENCE OR CERTIFICATE ISSUED BY ANOTHER CONTRACTING STATE**

**171.** (1) Where an applicant under regulation 170 passes the knowledge test in civil aviation requirements, laws and regulations as set out in Part B of Schedule 13, the Director-General may recommend the Authority issue a suitable authorisation in accordance with the provisions of regulation 20.

Validation of an Aircraft Maintenance Engineer Licence or Certificate issued by another Contracting State. Schedule 13. Part B. Part E. [196/2009].

(2) A person who fails a written knowledge test required under regulation 170 for a validation is eligible to take the test after such time period as specified in Part E of Schedule 13.

**APPLICATION FOR CONVERSION OF AN AIRCRAFT MAINTENANCE ENGINEER LICENCE OR CERTIFICATE ISSUED BY ANOTHER CONTRACTING STATE**

**172.** The holder of an Aircraft Maintenance Engineer Licence or Certificate issued by another Contracting State, who wishes to have an Aircraft Maintenance Engineer Licence issued by the Authority based on such licence or certificate shall—

Application for conversion of an Aircraft Maintenance Engineer Licence or Certificate issued by another Contracting State. [196/2009].

*(a)* apply to the Authority on the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be able to read, speak, write and understand the English Language; and

*(d)* provide evidence that—

(i) the standards under which the foreign Aircraft Maintenance Engineer Licence or Certificate was issued are at least equal to the applicable standards under this Part;

(ii) the foreign Aircraft Maintenance Engineer Licence or Certificate is not under an order of revocation or suspension by the Contracting State that issued such Aircraft Maintenance Engineer Licence or Certificate; and

(iii) the foreign Aircraft Maintenance Engineer Licence or Certificate does not contain an endorsement, stating that the applicant has not met all the standards of the Chicago Convention for that Aircraft Maintenance Engineer Licence or Certificate.

**KNOWLEDGE TEST FOR CONVERSION OF AN AIRCRAFT MAINTENANCE ENGINEER LICENCE OR CERTIFICATE ISSUED BY ANOTHER CONTRACTING STATE**

Knowledge test for conversion of an Aircraft Maintenance Engineer Licence or Certificate issued by another Contracting State. Schedule 13. Part B. [196/2009].

**173.** Where the Director-General is satisfied that the application requirements for conversion of an Aircraft Maintenance Engineer Licence or Certificate issued by another Contracting State have been met, he shall ensure that the applicant is given a written knowledge test in the areas set out in Part B of Schedule 13 which were not covered by the Aircraft Maintenance Engineer Licence or Certificate issued by such Contracting State.

**INTERVIEW TO TEST KNOWLEDGE AND PRACTICAL APPLICATION FOR CONVERSION OF AN AIRCRAFT MAINTENANCE ENGINEER LICENCE**

Interview to test knowledge and practical application for conversion of an Aircraft Maintenance Engineer Licence. [196/2009].

**174.** (1) Where an applicant passes a written knowledge test required by regulation 173, the Director-General shall ensure that such applicant is interviewed to test his knowledge and practical application of such knowledge in the category or rating sought.

(2) Notwithstanding the requirements of subregulation (1), where the Director-General is satisfied with the application for a conversion, he may at his discretion, waive the interview requirement.

**CONVERSION OF AN AIRCRAFT MAINTENANCE ENGINEER LICENCE OR CERTIFICATE OF ANOTHER CONTRACTING STATE**

Conversion of an Aircraft Maintenance Engineer Licence or Certificate of another Contracting State. [196/2009].

**175.** (1) Where an applicant is successful in the interview required under regulation 174(1) or where the Director-General exercises his discretion and waives the interview in accordance with regulation 174(2), the Director-General may recommend the Authority issue the applicant an appropriate Aircraft Maintenance Engineer Licence with or without limitations in the category or type rating sought.

(2) A person who fails—

*(a)* a written knowledge test required under regulation 173; or

*(b)* an interview required by regulation 174,

is eligible to take the test or interview after such time period as specified in Part E of Schedule 13.

Schedule 13. Part E.

**AIRCRAFT MAINTENANCE ENGINEER REST AND DUTY LIMITATIONS**

Aircraft Maintenance Engineer Rest and Duty Limitations. Sub. Leg. [196/2009].

**176.** The holder of an Aircraft Maintenance Engineer Licence shall ensure that he complies with the rest and duty limitations set out in regulation 23 of the Civil Aviation [(No. 6), Approved Maintenance Organisation] Regulations.

**AIRCRAFT MAINTENANCE PERSONAL RECORD**

Aircraft Maintenance Personal Record. [196/2009].

**177.** (1) An aircraft maintenance mechanic or technician shall keep a personal record of all aircraft maintenance work he accomplished which shall include the following details:

*(a)* Date;

*(b)* Aircraft Registration;

*(c)* Aircraft Maintenance Manual Reference;

*(d)* Description of work performed; and

*(e)* Name, Licence Number and Signature of Person authenticating the entry.

(2) The holder of an Aircraft Maintenance Engineer Licence shall keep a detailed personal record of all aircraft maintenance work he accomplished or certify which shall include the following details:

*(a)* Date;

*(b)* Aircraft Registration;

*(c)* Aircraft Maintenance Manual Reference;

*(d)* Description of work performed or certified; and

*(e)* Name, Licence Number and Signature of Person authenticating the entry.

(3) The following persons may authenticate entries as required under subregulations (1)*(e)* and (2)*(e)*:

*(a)* an Aircraft Maintenance Engineer who certified the aircraft maintenance work;

*(b)* an Aircraft Maintenance Engineer who supervised the aircraft maintenance work;

*(c)* an approved instructor of an Aviation Training Organisation who supervised the aircraft maintenance work; and

*(d)* an authorised engineer, shift supervisor, shift manager, quality manager or senior manager of an Approved Maintenance Organisation.

**PARACHUTE RIGGER LICENCE REQUIREMENTS**

Requirements for Parachute Rigger Licence.

**178.** Where a person wishes to apply for a Parachute Rigger Licence with a rating shall—

*(a)* apply to the Authority on the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be at least eighteen years of age;

*(d)* except as provided in section 189, be able to read, speak, write, and understand the English Language; and

*(e)* comply with this Part in respect of the licence and Type Rating being sought.

**ISSUE OF PARACHUTE RIGGER LICENCE**

Issue of Parachute Rigger Licence.

**179.** Where the Director-General is satisfied that an applicant for a Parachute Rigger Licence under regulation 178 (hereinafter referred to as a "Parachute Rigger") meets the requirements of the issue of such licence, he may recommend that the Authority issue the applicant with a Parachute Rigger Licence.

**RESTRICTIONS ON PARACHUTE RIGGER LICENCE**

Restrictions on Parachute Rigger Licence.

**180.** (1) A person shall not pack, maintain, or modify any personal-carrying parachute intended for emergency use in connection with a Trinidad and Tobago aircraft unless he holds an appropriate current Parachute Rigger Licence and Type Rating issued under this Part.

(2) Except as provided by subregulation (3), a person shall not pack, maintain, or modify any main parachute of a dual parachute pack to be used for intentional jumping from a Trinidad and Tobago aircraft unless he has an appropriate Parachute Rigger Licence issued under this Part.

(3) A person who does not hold a licence may pack the main parachute of a dual parachute pack that is to be used by him for intentional jumping.

(4) A person who holds a Parachute Rigger Licence shall present it for inspection upon the request of the Director-General.

**EXPERIENCE, KNOWLEDGE AND SKILL REQUIREMENTS FOR PARACHUTE RIGGER**

Experience, knowledge and skill requirements for a Parachute Rigger Licence.

**181.** An applicant for a Parachute Rigger Licence shall—

*(a)* present evidence to the Authority that he has packed at least twenty parachutes of each type for which he seeks a rating, in accordance with the instructions of the manufacturer and under the supervision of a licensed Parachute Rigger

holding a rating for that type or a person holding an appropriate military rating; and

*(b)* provide the Authority with evidence of having passed a knowledge test, with respect to a parachute applicable to at least one type parachute appropriate to the Type Rating sought, on—

(i) construction, packing, and maintenance;

(ii) the manufacturer's instructions; and

(iii) the regulations of this Part;

*(c)* pass an oral and skill test demonstrating the ability to pack and maintain at least one type of parachute appropriate to the type of rating sought.

**TYPE RATINGS FOR A PARACHUTE RIGGER**

Type Ratings.

**182.** The Type Ratings under regulation 178 may be either—

*(a)* a Seat Rating;

*(b)* a Back Rating;

*(c)* a Chest Rating; or

*(d)* a Lap Rating.

**ADDITIONAL TYPE RATINGS FOR A PARACHUTE RIGGER**

Requirements for additional Type Ratings for parachute rigger.

**183.** A Parachute Rigger who applies for an additional Type Rating shall—

*(a)* present evidence satisfactory to the Authority of having packed at least twenty parachutes of the Type Rating sought, in accordance with the manufacturer's instructions and under the supervision of a licenced Parachute Rigger holding a rating for that type or a person holding an appropriate military rating; and

*(b)* provide the Authority with evidence of having passed a practical test, to the satisfaction of the Authority, showing the ability to pack and maintain the type of parachute for which the applicant seeks a rating.

**PRIVILEGES OF PARACHUTE RIGGER LICENCE**

Privileges of a parachute rigger.

**184.** A Parachute Rigger may—

*(a)* pack or maintain, except for major repair any type of parachute for which he is rated; and

*(b)* supervise other persons in packing any type of parachute for which he is rated.

**FACILITIES AND EQUIPMENT**

Facilities and equipment.

**185.** A Parachute Rigger shall not exercise the privileges of his licence unless he has at least the following facilities and equipment available—

*(a)* a smooth top table at least 3 feet wide by 40 feet long;

*(b)* suitable housing that is adequately heated, lit and ventilated for drying and airing parachutes;

*(c)* enough packing tools and other equipment to pack and maintain the types of parachutes serviced; and

*(d)* adequate housing facilities to perform applicable duties and to protect tools and equipment.

**PERFORMANCE STANDARDS FOR PARACHUTE RIGGERS**

Performance standards for parachute riggers.

**186.** A Parachute Rigger shall not—

*(a)* pack, maintain, or modify any parachute unless he or she is rated for that type;

*(b)* pack a parachute that is not safe for emergency use;

*(c)* pack a parachute unless it has been thoroughly dried and aired;

*(d)* pack, maintain, or modify a parachute in any manner that deviates from procedures approved or accepted by the Authority or the manufacturer of the parachute; or

*(e)* exercise the privileges of the licence and Type Rating unless he understands the current

manufacturer's instructions for the operation involved and has—

(i) performed duties under the licence for at least ninety days within the preceding twelve months; or

(ii) demonstrate to the Authority the ability to perform those duties.

**RECORDS TO BE KEPT BY PARACHUTE RIGGER**

Parachute Rigger Records.

**187.** (1) A Parachute Rigger shall keep a record of the packing and maintenance of parachutes or supervision of those activities.

(2) A Parachute Rigger who packs a parachute shall enter on the parachute packing record attached to the parachute, the date and place of the packing, a notation of any defects found during any inspection and shall sign that record with his or her name and licence number.

(3) A Parachute Rigger shall sign the record required by subregulation (2), with the name and the number of his licence.

(4) The record required by subregulation (1), shall contain, with respect to each parachute worked on, a statement of—

*(a)* its type and make;

*(b)* its serial number;

*(c)* the name and address of its owner or user;

*(d)* the kind and extent of the work performed;

*(e)* the date when and place where the work was performed; and

*(f)* the results of any drop tests made with it.

(5) A person who makes a record under subregulation (1), shall keep such record for at least two years after the date it is made.

**SEAL OF PARACHUTE RIGGER**

Seal of Parachute Rigger.

**188.** (1) A Parachute Rigger shall have a seal and a seal press with an identifying mark prescribed by the Authority.

(2) After packing a parachute, a Parachute Rigger shall seal the pack with his seal in accordance with the manufacturer's recommendation for that type of parachute.

## PART X

## MISCELLANEOUS

### GENERAL EXEMPTIONS

Exemptions from requirements for licensing, ratings and authorisations.

**189.** (1) An applicant under these Regulations who cannot comply with certain eligibility requirements or areas of operations required for the issue of an airman licence because of physical limitations or for other reasons, may be issued a licence, rating, or authorisation with an appropriate limitation where—

*(a)* the applicant is able to meet all other certification requirements for the licence, rating, or authorisation sought;

*(b)* the physical limitation, has been recorded with the Authority on the medical records of the applicant; and

*(c)* the Director-General determines that the inability of the applicant to perform the particular area of operation will not adversely affect safety.

(2) A limitation placed on a licence under this regulation may be on the recommendation of the Director-General, be removed where the licensee demonstrates to an examiner, satisfactory proficiency in the area of operation to which the limitation applies, or otherwise shows compliance with conditions to remove the limitation, as applicable.

(3) A person shall not act as a required pilot of a civil aircraft of foreign registry within Trinidad and Tobago, unless the pilot licence issued to such person in accordance with these Regulations was issued or validated by the country in which the aircraft is registered.

(4) A person shall not act as a Pilot, Flight Instructor, required flight crew member, or Air Traffic Controller unless that

person holds an appropriate and current medical certificate issued in accordance with these Regulations or other documentation acceptable to the Authority.

**LANGUAGE PROFICIENCY**

Language Proficiency. [301/2004 45/2007].

**189A.** (1) An aeroplane, airship, helicopter and powered-lift pilot who is required to use the radio-telephone equipment aboard an aircraft, shall demonstrate the ability to speak and understand the language used for radio-telephony communication.

(2) An air traffic controller and aeronautical station operator shall demonstrate the ability to speak and understand the language used for radio-telephony communication.

(3) From 5th March 2008, an aeroplane, airship, helicopter and powered-lift pilot, air traffic controller and aeronautical station operator, shall demonstrate the ability to speak and understand the language used for radiotelephony communication to the level specified in the language proficiency requirements set out in Schedule 14.

Schedule 14.

(4) From 5th March 2008, the language proficiency of an aeroplane, airship, helicopter and powered-lift pilot, air traffic controller and aeronautical station operator who demonstrate language proficiency below the expert level rating, shall be formally evaluated at intervals according to the language proficiency level demonstrated by that individual as follows:

*(a)* a person demonstrating a language proficiency at the operational level rating, shall be evaluated at least once every three years; and

*(b)* a person demonstrating a language proficiency at the extended level rating, shall be evaluated at least once every six years.

**TRANSITIONAL PROVISIONS**

Transitional provisions. [273/2004 30/2005 222/2005 284/2006 29/2008].

**190.** (1) Regulation 153(3) of the Regulations shall come into effect on 1st October 2009.

(2) Notwithstanding the requirements for Licences, Ratings and Authorisations under Part IX of these Regulations, a person exercising the privileges of such Licence, Rating or Authorisation on the commencement of these Regulations may continue to do so under the conditions of his existing Licence, Rating or Authorisation until 30th September 2009 and thereafter shall meet the requirements of Part IX.

(3) Renewal of existing Aircraft Maintenance Licences and Ratings under subregulation (2), shall be in accordance with the applicable Implementing Standard to this regulation under Schedule 14.

**IMPLEMENTING STANDARDS**

**191.** The holder of an airman licence under these Regulations in meeting the requirements of regulations 5, 31, 33, 40, 42, 50, 58, 60, 100, 107, 108, 109, 112, 122, 141, *190(3) and 194(2), shall ensure that he complies with the minimum implementing standards set out in Schedule 14.

Requirements to comply with minimum standards. [222/2005].

Schedule 14.

**DIRECTOR-GENERAL MAY AMEND SCHEDULES**

**192.** The Director-General may, by Order amend any of the Schedules.

Director-General to amend Schedule.

**COMMENCEMENT OF PART VI**

**193.** Part VI of these Regulations shall come into effect on 1st October 2009.

Commencement of Part VI. [30/2005 222/2005 284/2006 29/2008].

**COMMENCEMENT OF PART IX**

**194.** (1) Part IX of these Regulations shall come into effect on 1st October 2009.

Commencement of Part IX. [222/2005 284/2006 29/2008].

(2) Until such time as Part IX comes into effect, the minimum standards for the issue of an Aircraft Maintenance Engineer Licence and Ratings are set out in the applicable Implementing Standards to this regulation under Schedule 14.

* Implementing Standards under Schedule 14 with respect to regulation 190(3) was deleted by LN 196/2009.

*L.R.O.*

45/2007.

## SCHEDULE A

| Quantity | Units | |
|---|---|---|
| altitude | foot | ft |
| distance (long) | Nautical mile | NM |
| elevation | foot | ft |
| height | foot | ft |
| airspeed | knot | kt |
| ground speed | knot | kt |
| vertical speed | Foot/minute | ft/min |
| wind speed | knot | kt |

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## SCHEDULE 1

Regulation 5(5).

### PART A

### EXEMPTION FROM HOLDING CURRENT MEDICAL CERTIFICATE

A person is not required to hold a current and appropriate medical certificate required if that person—

*(a)* is exercising the privileges of a student pilot licence while seeking a pilot licence with a glider category rating or balloon rating;

*(b)* is piloting or providing training in a balloon;

*(c)* is piloting or providing training in a glider;

*(d)* is exercising the privileges of a flight instructor rating, provided a flight instructor is not acting as pilot in command or as a required crew member;

*(e)* is exercising the privileges of a ground instructor authorisation;

*(f)* is operating an aircraft within a foreign country using a pilot licence issued by that country and possesses evidence of current medical qualification for that licence;

*(g)* is operating an aircraft with a pilot licence, issued by the Authority on the basis of a foreign pilot licence and holds a current medical certificate issued by the country that issued the pilot licence; or

*(h)* is taking a test or check for a licence, rating or authorisation conducted under an approved course by an Aviation Training Organisation.

**PART B**

Regulation 15(2).

## VOLUNTARY SURRENDER OF LICENCE

I…..... voluntarily surrender my licence for my own
*(State name)*
reasons, with full knowledge that my…….....……
*(Insert name of licence or rating, as appropriate)*
may not be re-issued to me unless I again pass the tests prescribed for its issuance.

.....
*(Signature of licensee).*

## SCHEDULE 2

**PART A**

Regulation 27(4) and 29(2)*(a)*.

The following training in manoeuvres and procedures is required for student pilots receiving training for solo flight:

*(a)* proper flight preparation procedures, including pre-flight planning and preparation, power plant operation, and aircraft systems;

*(b)* taxiing or surface operations, including runups;

*(c)* take-offs and landings, including normal and crosswind;

*(d)* straight and level flight, and turns in both directions;

*(e)* climbs and climbing turns;

*(f)* airport traffic patterns, including entry and departure procedures;

*(g)* collision avoidance, wind shear avoidance, and wake turbulence avoidance;

*(h)* descents, with and without turns, using high and low drag configurations;

*(i)* flight at various airspeeds from cruise to slow flight;

*(j)* stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall;

*(k)* emergency procedures and equipment malfunctions;

*(l)* ground reference manoeuvres;

*(m)* approaches to a landing area with simulated engine malfunctions;

*(n)* slips to a landing;

*(o)* go-arounds.

Regulation 27(5).

**PART B**

The following additional manoeuvres and procedures, are required for student pilots for solo flights in respect of each category and class rating:

In a helicopter—

*(a)* approaches to the landing area;

*(b)* hovering and hovering turns;

*(c)* simulated emergency procedures, including auto-rotational descents with a power recovery and power recovery to a hover;

*(d)* rapid decelerations; and

*(e)* simulated one-engine-inoperative approaches and landings for multi-engine helicopters.

In a gyroplane—

*(a)* approaches to the landing area;

*(b)* high rates of descent with power on and with simulated power off and recovery from those flight configurations; and

*(c)* simulated emergency procedures, including simulated power-off landing as simulated power failure during departures.

In a powered-lift—

*(a)* approaches to the landing area;

*(b)* hovering and hovering turns; and

In a glider—

*(a)* the applicable manoeuvres and procedures shown in paragraph *(a)* of this subregulation;

*(b)* launches, including normal and crosswind;

*(c)* inspection of towline rigging and review of signals and release procedures;

*(d)* aerotow, ground tow, or self-launch procedures;

*(e)* procedures for disassembly and assembly of the glider;

*(f)* slips to a landing;

*(g)* procedures and techniques for thermalling; and

*(h)* emergency operations, including towline break procedures.

In an airship—

*(a)* rigging, ballasting and controlling pressure in the ballonets and superheating; and

*(b)* landings with positive and with negative static trim.

In a balloon—

*(a)* layout and assembly procedures;

*(b)* ascents and descents;

*(c)* landing and recovery procedures;

*(d)* operation of hot air or gas source, ballast, valves, vents and rip panels, as appropriate;

*(e)* use of deflation valves or rip panels for simulating an emergency;

*(f)* the effects of wind on climb and approach angles; and

*(g)* obstruction detection and avoidance techniques.

**PART C**

Regulation 29(2)*(b)*.

The following are the manoeuvres and procedures for student pilot who is receiving training for cross-country flight training:

In an aeroplane or rotorcraft—

*(a)* use of aeronautical charts the Visual Flight Rules navigation using pilotage and dead reckoning with the aid of a magnetic compass;

*(b)* use of aircraft performance charts pertaining to cross-country flight;

*(c)* procurement and analysis of aeronautical weather reports and forecasts, including recognition of critical weather situations and estimating visibility while in flight;

*(d)* recognition, avoidance, and operational restrictions of hazardous terrain features in the geographical area where the student pilot will conduct cross-country flight;

*(e)* use of radios for Visual Flight Rules navigation and two-way communications;

*(f)* climbs at best angle and best rate; and

*(g)* control and manoeuvring solely by reference to flight instruments, including straight and level flight, turns, descents, climbs, use of radio aids and Air Traffic Control directives;

In a powered-lift—

*(a)* those specified in paragraph *(a)*(i), as applicable; and

*(b)* take-off, approach, and landing procedures that include high-altitude, steep, and shallow take-offs, approaches, and landings;

In a glider—

*(a)* those specified in paragraph *(a)*(1), as applicable;

*(b)* landings accomplished without the use of the altimeter from at least 2,000 feet above the surface; and

*(c)* recognition of weather and upper air conditions favourable for cross-country soaring, ascending flight, descending flight, and altitude control;

In an airship—

*(a)* those specified in paragraph *(a)*(i), as applicable; and

*(b)* control of air pressure with regard to ascending and descending flight and altitude control;

*(c)* control of the airship solely by reference to flight instruments; and

*(d)* recognition of weather and upper air conditions conducive for the direction of cross-country flight.

Regulation 30(1)*(i)*, 39(1)*(j)* and 49(1)*(i)*.

**PART D**

Applicants for Pilot Licences under regulations 30(1)*(i)*, 39(1)*(j)* and 49(1)*(i)* shall receive training in the following areas in respect of the human physiology of flight:

*(a)* high-altitude aerodynamics and meteorology;

*(b)* respiration;

*(c)* effects, symptoms, and causes of hypoxia and any other high-altitude sickness;

*(d)* duration of consciousness without supplemental oxygen;

*(e)* effects of prolonged usage of supplemental oxygen;

*(f)* causes and effects of gas expansion and gas bubble formation;

*(g)* preventive measures for eliminating gas expansion, gas bubble formation and high-altitude sickness;

*(h)* physical phenomena and incidents of decompression; and

*(i)* any other physiological aspects of high-altitude flight.

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## SCHEDULE 3

### PART A

Regulations 31(2) and 34(1)*(a)*. [45/2007].

An applicant for a Private Pilot Licence shall demonstrate aeronautical knowledge in at least the following subjects appropriate to the privileges of the licence being sought and appropriate to the category of aircraft intended to be included in the licence:

*Air Law*

*(a)* rules and regulations relevant to the holder of a private pilot licence, rules of the air, altimeter setting procedures and appropriate air traffic services practices and procedures;

*Aircraft General Knowledge for Aeroplane, Helicopter, Powered-Lift and Airship*

*(b)* principles of operation and function of power-plants, systems and instruments;

*(c)* operating limitations of the relevant category of aircraft and power-plants, relevant operational information from the flight manual or other appropraite documents;

*(d)* for helicopter and powered-lift, transmission or power-trains, as applicable;

*(e)* for airship, physical properties and practical application of gases;

*Flight performance, planning and loading*

*(f)* effects of loading and mass distribution on flight characteristics, mass and balance calculations;

*(g)* use and practical application of take-off, landing and other performance data;

*(h)* preflight and en route flight planning appropriate to private operations under Visual Flight Rules, preparation and filing of air traffic services flight plans, appropriate air traffic services procedures, position reporting procedures, altimeter setting procedures, operation in areas of high-density traffic;

*Human performance*

*(i)* human performance including principles of threat and error management;

*Meteorology*

*(j)* application of elementary aeronautical meteorology, use of and procedures for obtaining meteorological information, altimetry, hazardous weather conditions;

*Navigation*

*(k)* practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;

*Operational Procedures*

*(l)* application of threat and error management principles to operational performance;

*(m)* altimeter setting procedures;

*(n)* use of aeronautical documentation such as AIP, NOTAM, aeronautical chart and abbreviations;

*(o)* appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards;

*(p)* in the case of helicopter, and where applicable, powered-lift, settling with power, ground resonance, retreating blade stall, dynamic roll-over and other operation hazards, safety procedures associated with flight in Visual Meteorological Conditions;

*(q)* principles of flight; and

*Radiotelephony*

*(r)* communication procedures and phraseology as applied to Visual Flight Rules operations, action to be taken in case of communication failure.

Regulation 33(l).

**PART B**

## FLIGHT INSTRUCTION

1. Aeroplanes

The applicant shall have received dual instruction in aeroplanes appropriate to the class rating sought, from an authorised flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:

*(a)* recognise and manage threats and errors;

*(b)* pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;

*(c)* aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

*(d)* control of the aeroplane by external visual reference;

*(e)* flight at critically slow airspeeds; recognition of, and recovery from, incipient and full stalls;

*(f)* flight at critically high airspeeds; recognition of, and recovery from, spiral dives;

*(g)* normal and crosswind take-offs and landings;

*(h)* maximum performance (short field and obstacle clearance) take-offs; short-field landings;

*(i)* flight by reference solely to instruments, including the completion of a level 180° turn;

*(j)* cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids;

*(k)* emergency operations, including simulated aeroplane equipment malfunctions;

*(l)* operations to, from and transiting controlled aerodromes; compliance with air traffic services procedures; and

*(m)* communication procedures and phraseology.

2. Helicopters

The applicant shall have received not less than 20 hours of dual instruction time in helicopters from an authorised flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:

*(a)* recognise and manage threats and errors;

*(b)* pre-flight operations, including mass and balance determination, helicopter inspection and servicing;

*(c)* aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

*(d)* control of the helicopter by external visual reference;

*(e)* recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;

*(f)* ground manoeuvring and run-ups; hovering; take-offs and landings—normal, out of wind and sloping ground;

*(g)* take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;

*(h)* cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids, including a flight of at least one hour;

*(i)* emergency operations, including simulated helicopter equipment malfunctions; auto-rotative approach;

*(j)* operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and

*(k)* communication procedures and phraseology.

3. Airship

The applicant shall have received dual instruction in airships from an authorised flight instructor. The instructor shall ensure that the applicant has received instruction in at least the following areas:

*(a)* recognise and manage threats and errors;

*(b)* pre-flight operations, including mass and balance determination, airship inspection and servicing;

*(c)* ground reference manoeuvres;

*(d)* aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

*(e)* techniques and procedures for the take-off, including appropriate imitations, emergency procedures and signals used;

*(f)* control of the airship by external visual reference;

*(g)* take-offs, landings and go-arounds;

*(h)* maximum performance (obstacle clearance) take-offs;

*(i)* flight by reference solely to instruments, including the completion of a level 180° turn;

*(j)* navigation, cross-country flying using visual reference, dead reckoning and radio navigation aids;

*(k)* emergency operations (recognition of leaks), including simulated airship equipment malfunctions; and

*(l)* communication procedures and phraseology.

Regulation 33(1).

**PART C**

*Flight Test Tolerances:*

An applicant shall demonstrate the ability to—

*(a)* recognise and manage threats and errors;

*(b)* operate the aircraft within its limitations;
*(c)* complete all manoeuvres with smoothness and accuracy;
*(d)* exercise good judgement and airmanship;
*(e)* apply aeronautical knowledge; and
*(f)* maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

**PART D**

Regulation 34(3).

The aeronautical experience required for the issue of a Private Pilot Licence shall include the following for the category and class of aircraft for each category and class rating sought, as applicable:

1. Specific experience requirements for the issue of the aeroplane category rating.

The applicant shall have completed—

*(a)* not less than 40 hours of flight time, or 35 hours if completed during a course of approved training, as an aeroplane pilot appropriate to the class rating sought. Credit shall be limited to a maximum of 5 hours for experience as a pilot under instruction in a flight simulation training device as part of the total flight time of 40 hours or 35 hours, as the case may be;

*(b)* in aeroplanes, not less than 10 hours of solo flight time appropriate to the class rating sought under the supervision of an authorised flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight, totalling not less than 270 km (150 NM) in the course of which full stop landings at two different aerodromes shall be made.

2. Specific experience requirements for the issue of the helicopter category rating.

The applicant shall have completed—

*(a)* not less than 40 hours of flight time or 35 hours if completed during a course of approved training, as a helicopter pilot. Credit shall be limited to a maximum of 5 hours for experience as a pilot under instruction in a flight simulation training device as part of the total flight time of 40 hours or 35 hours, as the case may be;

*(b)* in helicopters, not less than 10 hours of solo flight time under the supervision of an authorised flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 180 km (100 NM) in the course of which landings at two different points shall be made.

3. Specific experience requirements for the issue of the airship category rating.

The applicant shall have completed not less than 25 hours of flight time as an airship pilot, including at least—

*(a)* 3 hours of cross-country flight training in an airship with a cross-country flight totalling not less than 45 km (25 NM);

*(b)* 5 take-offs and 5 landings to a full stop at an aerodrome with each landing involving a flight in the traffic pattern at an aerodrome;

*(c)* 3 hours of instrument time; and

*(d)* 5 hours as pilot assuming the duties of the pilot in command under the supervision of the pilot in command.

## SCHEDULE 4

Regulation 42. [45/2007].

### PART A

The applicant shall have demonstrated the ability to perform as pilot in command of an aircraft within the appropriate category of aircraft, the procedures and manoeuvres for the issue of a Commercial Pilot Licence as follows:

1. Aeroplane

The applicant shall have received dual instruction in aeroplanes appropriate to the class and type rating sought from an authorised flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

*(a)* recognise and manage threats and errors;

*(b)* pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;

*(c)* aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

*(d)* control of the aeroplane by external visual reference;

*(e)* flight at critically slow airspeeds; spin avoidance; recognition of, and recovery from, incipient and full stalls;

*(f)* flight with asymmetrical power for multi-engine class or type ratings;

*(g)* flight at critically high airspeeds, recognition of, and recovery from, spiral dives;

*(h)* normal and crosswind take-offs and landings;

*(i)* maximum performance (short field and obstacle clearance) take-offs; short-field landings;

*(j)* basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;

*(k)* cross-country flying using visual reference, dead reckoning and radio navigation aids, diversion procedures;

*(l)* abnormal and emergency procedures and manoeuvres including simulated aeroplane equipment malfunctions;

*(m)* operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and

*(n)* communication procedures and phraseology.

2. Helicopter

The applicant shall have received dual instruction in helicopters from an authorised flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

*(a)* recognise and manage threats and errors;
*(b)* pre-flight operations, including mass and balance determination, helicopter inspection and servicing;
*(c)* aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
*(d)* control of the helicopter by external visual reference;
*(e)* recovery at the incipient stage from settling with power, recovery techniques from low-rotor rpm within the normal range of engine rpm;
*(f)* ground manoeuvring and run-ups, hovering; take-offs and landings—normal, out of wind and sloping ground, steep approaches;
*(g)* take-offs and landings with minimum necessary power, maximum performance take-off and landing techniques, restricted site operations; quick stops;
*(h)* hovering out of ground effect, operations with external load, if applicable; flight at high altitude;
*(i)* basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
*(j)* cross-country flying using visual reference, dead reckoning and radio navigation aids, diversion procedures;
*(k)* abnormal and emergency procedures, including simulated helicopter equipment malfunctions, autorotative approach and landing;
*(l)* operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
*(m)* communication procedures and phraseology.

3. Airship

The applicant shall have received dual instruction in airships from an authorised flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

*(a)* recognise and manage threats and errors;
*(b)* pre-flight operations, including mass and balance determination, airship inspection and servicing;
*(c)* aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
*(d)* techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;
*(e)* control of the airship by external visual reference;
*(f)* recognition of leaks;

*(g)* normal take-offs and landings;
*(h)* maximum performance (short field and obstacle clearance) take-offs; short-field landings;
*(i)* flight under Instrument Flight Rules;
*(j)* cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids;
*(k)* emergency operations, including simulated airship equipment malfunctions;
*(l)* operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
*(m)* communication procedures and phraseology.

Regulations 39(1), 42.

**PART B**

Flight test tolerances

An applicant shall demonstrate the ability to—

*(a)* recognise and manage threats and errors;
*(b)* operate the aircraft within its limitations;
*(c)* complete all manoeuvres with smoothness and accuracy;
*(d)* exercise good judgement and airmanship;
*(e)* apply aeronautical knowledge; and
*(f)* maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

Regulation 40.

**PART C**

The following are the general aeronautical knowledge requirements for a Commercial Pilot Licence appropriate to the aeroplane, helicopter, powered-lift and airship categories:

*Air law*

*(a)* rules and regulations relevant to the holder of a Commercial Pilot Licence; rules of the air; appropriate air traffic services practices and procedures;

*Aircraft General Knowledge for Aeroplanes, Airships, Helicopters and Powered-Lifts*

*(b)* principles of operation and functioning of power plants, systems and instruments;
*(c)* operating limitations of the relevant category of aircraft and power plants; relevant operational information from the flight manual or other appropriate document;
*(d)* use and serviceability checks of equipment and systems of appropriate aircraft;
*(e)* maintenance procedures for airframes, systems and power plants of appropriate aircraft;

*(f)* for helicopters and powered-lifts, transmission (power trains) where applicable;

*(g)* for airships, physical properties and practical application of gases;

*Flight performance, planning and loading*

*(h)* effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;

*(i)* use and practical application of take-off, landing and other performance data;

*(j)* pre-flight and en route flight planning appropriate to commercial operations under Visual Flight Rules; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures, altimeter setting procedures;

*(k)* in the case of airships, helicopters and powered-lifts, effects of external loading on handling;

*Human performance*

*(l)* human performance including principles of threat and error management;

*Meteorology*

*(m)* interpretation and application of aeronautical meteorological reports, charts and forecasts; use of, and procedures for obtaining meteorological information, pre-flight and in-flight; altimetry;

*(n)* aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation, the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en route and landing conditions;

*(o)* causes, recognition and effects of icing, frontal zone penetration procedures, hazardous weather avoidance;

*Navigation*

*(p)* air navigation, including the use of aeronautical charts, instruments and navigation aids, an understanding of the principles and characteristics of appropriate navigation systems, operation of airborne equipment;

*(q)* in the case of airships—

(i) use, limitation and serviceability of avionics and instruments necessary for control and navigation;

(ii) use, accuracy and reliability of navigation systems used in departure, en route, approach and landing phases of flight, identification of radio navigation aids;

(iii) principles and characteristics of self-contained and external referenced navigation systems, operation of airborne equipment;

*Operational procedures*

*(r)* application of threat and error management to operational performance;

*(s)* use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

*(t)* altimeter setting procedures;

*(u)* appropriate precautionary and emergency procedures;

*(v)* operational procedures for carriage of freight; potential hazards associated with dangerous goods;

*(w)* requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft;

*(x)* in the case of helicopters, and if applicable, powered-lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in Visual Meteorological Conditions;

*Principles of flight*

*(y)* principles of flight;

*Radiotelephony*

*(z)* communication procedures and phraseology as applied to Visual Flight Rules operations, action to be taken in case of communication failure.

Regulation 41(2).

**PART D**

## FLIGHT INSTRUCTION REQUIREMENTS FOR COMMERCIAL PILOT LICENCE

1. Aeroplane

The applicant shall have received dual instruction in aeroplanes appropriate to the class and type rating sought from an authorised flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

*(a)* recognise and manage threats and errors;

*(b)* pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;

*(c)* aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

*(d)* control of the aeroplane by external visual reference;
*(e)* flight at critically slow airspeeds; spin avoidance; recognition of, and recovery from, incipient and full stalls;
*(f)* flight with asymmetrical power for multi-engine class or type ratings;
*(g)* flight at critically high airspeeds, recognition of, and recovery from, spiral dives;
*(h)* normal and crosswind take-offs and landings;
*(i)* maximum performance (short field and obstacle clearance) take-offs, short-field landings;
*(j)* basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
*(k)* cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures;
*(l)* abnormal and emergency procedures and manoeuvres including simulated aeroplane equipment malfunctions;
*(m)* operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
*(n)* communication procedures and phraseology.

2. Helicopter

The applicant shall have received dual instruction in helicopters from an authorised flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

*(a)* recognise and manage threats and errors;
*(b)* pre-flight operations, including mass and balance determination, helicopter inspection and servicing;
*(c)* aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
*(d)* control of the helicopter by external visual reference;
*(e)* recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
*(f)* ground manoeuvring and run-ups; hovering; take-offs and landings—normal, out of wind and sloping ground; steep approaches;
*(g)* take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
*(h)* hovering out of ground effect; operations with external load, if applicable; flight at high altitude;
*(i)* basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
*(j)* cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures;

*(k)* abnormal and emergency procedures, including simulated helicopter equipment malfunctions, autorotative approach and landing;

*(l)* operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and

*(m)* communication procedures and phraseology.

3. Airships

The applicant shall have received dual instruction in airships from an authorised flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:

*(a)* recognise and manage threats and errors;

*(b)* pre-flight operations, including mass and balance determination, airship inspection and servicing;

*(c)* aerodrome and traffic pattern operations, collision avoidance precautions and procedures;

*(d)* techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;

*(e)* control of the airship by external visual reference;

*(f)* recognition of leaks;

*(g)* normal take-offs and landings;

*(h)* maximum performance (short field and obstacle clearance) take-offs; short-field landings;

*(i)* flight under Instrument Flight Rules;

*(j)* cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids;

*(k)* emergency operations, including simulated airship equipment malfunctions;

*(l)* operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and

*(m)* communication procedures and phraseology.

Regulation 43(1).

**PART E**

## EXPERIENCE REQUIREMENTS FOR COMMERCIAL PILOT LICENCE

1. Specific experience requirements for the issue of an aeroplane category rating.

The applicant shall have completed not less than 250 hours of flight time, or 190 hours if completed during a course of approved training; as an aeroplane pilot. Credit shall be limited to a maximum of 10 hours for experience as a pilot under instruction in a flight simulation training device as part of the total flight time of 250 hours or 190 hours, as the case may be.

The applicant shall have completed in aeroplanes not less than—

*(a)* 150 hours as pilot in command or, in the case of a course of approved training, 100 hours as pilot in command;

*(b)* 20 hours of cross-country flight time as pilot in command including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full stop landings at two different aerodromes shall be made;

*(c)* 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time; and

*(d)* if the privileges of the licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as pilot in command.

When the applicant has flight time as a pilot of aircraft in other categories, the Authority shall determine whether such experience is acceptable and, if so, the extent to which the flight time experience requirements for aeroplanes can be reduced.

2. Specific experience requirements for the issue of the helicopter category rating.

The applicant shall have completed not less than 150 hours of flight time, or 100 hours if completed during a course of approved training, as a helicopter pilot. Credit shall be limited to a maximum of 10 hours for experience as a pilot under instruction in a flight simulation training device as part of the total flight time of 150 hours or 100 hours, as the case may be.

The applicant shall have completed in helicopters not less than—

*(a)* 35 hours as pilot in command;

*(b)* 10 hours of cross-country flight time as pilot in command including across-country flight in the course of which landings at two different points shall be made;

*(c)* 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time; and

*(d)* if the privileges of the licence are to be exercised at night, 5 hours of night flight time, including 5 take-offs and 5 landing patterns as pilot in command.

When the applicant has flight time as a pilot of aircraft in other categories, the Authority shall determine whether such experience is acceptable and, if so, the extent to which the flight time experience requirements for helicopters can be reduced.

3. Specific experience requirements for the issue of the airship category rating—

*(a)* the applicant shall have completed not less than 200 hours of flight time as a pilot;

*(b)* the applicant shall have completed not less than—

(i) 50 hours as an airship pilot;

(ii) 30 hours in airships as pilot in command or pilot in command under supervision, to include not less than—
(A) 10 hours of cross-country flight time; anD
(B) 10 hours of night flight;

(iii) 40 hours of instrument time, of which 20 hours shall be in flight and 10 hours in flight in airships; and

(iv) 20 hours of flight training in airships in the areas of operation listed in clause 3 of Part D of Schedule 4.

Schedule 4. Part D.

Regulation 50(1). [45/2007].

## SCHEDULE 5

### PART A

The following are the required knowledge areas for an Airline Transport Pilot Licence:

*(a)* rules and regulations relevant to the holder of an airline transport pilot licence; rules of the air; appropriate air traffic services practices and procedures;

*Aircraft general knowledge for aeroplanes, helicopters and powered-lifts*

*(b)* general characteristics and limitations of electrical, hydraulic, pressurisation and other aircraft systems, flight control systems, including autopilot and stability augmentation;

*(c)* principles of operation, handling procedures and operating limitations of aircraft power plants, effects of atmospheric conditions on engine performance, relevant operational information from the flight manual or other appropriate document;

*(d)* operating procedures and limitations of the relevant category of aircraft; effects of atmospheric conditions on aircraft performance in accordance with the relevant operational information from the flight manual;

*(e)* use and serviceability checks of equipment and systems of appropriate aircraft;

*(f)* flight instruments; compasses, turning and acceleration errors gyroscopic instruments, operational limits and precession effects, practices and procedures in the event of malfunctions of various flight instruments and electronic display units;

*(g)* maintenance procedures for airframes, systems and power plants of appropriate aircraft;

*(h)* for helicopters and powered-lifts, transmission (power trains) where applicable;

*Flight performance, planning and loading*

*(i)* effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;

*(j)* use and practical application of take-off, landing and other performance data, including procedures for cruise control;

*(k)* pre-flight and en route operational flight planning; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures;

*(l)* in the case of helicopters and powered-lifts, effects of external loading on handling;

*Human performance*

*(m)* human performance including principles of threat and error management;

*Meteorology*

*(n)* interpretation and application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations, use of, and procedures for obtaining, meteorological information, pre-flight and in-flight, altimetry;

*(o)* aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation, the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en route and landing conditions;

*(p)* causes, recognition and effects of icing, frontal zone penetration procedures, hazardous weather avoidance;

*(q)* in the case of aeroplanes and powered-lifts, practical high altitude meteorology, including interpretation and use of weather reports, charts and forecasts; jetstreams;

*Navigation*

*(r)* air navigation, including the use of aeronautical charts, radio navigation aids and area navigation systems; specific navigation requirements for long-range flights;

*(s)* use, limitation and serviceability of avionics and instruments necessary for the control and navigation of aircraft;

*(t)* use, accuracy and reliability of navigation systems used in departure, en route, approach and landing phases of flight, identification of radio navigation aids;

*(u)* principles and characteristics of self-contained and external-referenced navigation systems; operation of airborne equipment;

*Operational procedures*

*(v)* application of threat and error management to operational performance;

*(w)* interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

*(x)* precautionary and emergency procedures; safety practices;

*(y)* operational procedures for carriage of freight and dangerous goods;

*(z)* requirements and practices for safety briefing to passengers, including, precautions to be observed when embarking and disembarking from aircraft;

*(aa)* in the case of helicopters, and if applicable, powered-lifts, settling with power; ground resonance, retreating blade stall, dynamic rollover and other operating hazards, safety procedures, associated with flight in VMC;

*Principles of flight*

*(bb)* principles of flight;

*Radiotelephony*

*(cc)* communication procedures and phraseology; action to be taken in case of communication failure.

Regulation 51(2).

**PART B**

1. The applicant for an Airline Transport Pilot Licence shall have demonstrated—

*(a)* the ability to perform, as pilot in command of an aircraft of the appropriate category required to be operated with a co-pilot, the following procedures and manoeuvres:

(i) pre-flight procedures, including the preparation of the operational flight plan and filing of the air traffic services flight plan;

(ii) normal flight procedures and manoeuvres during all phases of flight;

(iii) abnormal and emergency procedures and manoeuvres related to failures and malfunctions of equipment, such as power plant, systems and airframe;

(iv) procedures for crew incapacitation and crew co-ordination, including allocation of pilot tasks, crew co-operation and use of checklists; and

(v) in the case of aeroplanes and powered-lifts, procedures and manoeuvres for instrument flight described in regulation 60(1)*(b)*(vii), including simulated engine failure;

*(b)* the ability to perform the procedures and manoeuvres described in paragraph 1*(a)* with a degree of competency appropriate to the privileges granted to the holder of an airline transport pilot licence and to—

(i) recognise and manage threats and errors;

(ii) smoothly and accurately, manually control the aircraft within its limitations at all times, such that the successful outcome of a procedure or manoeuvre is assured;

(iii) operate the aircraft in the mode of automation appropriate to the phase of flight and to maintain awareness of the active mode of automation;

(iv) perform, in an accurate manner, normal, abnormal and emergency procedures in all phases of flight;

(v) exercise good judgement and airmanship, to include structured decision making and the maintenance of situational awareness; and

(vi) communicate effectively with other flight crew members and demonstrate the ability to effectively perform procedures for crew, incapacitation, crew co-ordination, including allocation of pilot tasks, crew co-operation, adherence to standard operating procedures (SOPs) and use of checklists.

2. In the case of aeroplanes, the applicant shall have demonstrated the ability to perform the procedures and manoeuvres specified in paragraph 1*(a)* as pilot in command in a multi-engine aeroplane.

**PART C**

Regulations 52 and 53.

## AERONAUTICAL EXPERIENCE REQUIREMENT FOR AIRLINE TRANSPORT PILOT LICENCE WITH AN AEROPLANE CATEGORY AND CLASS RATING

1. The applicant for an Airline Transport Pilot Licence with an aeroplane category and class rating shall have no less than 1500 hours of total time as a pilot of aeroplanes that includes no less than—

*(a)* 500 hours as pilot in command under supervision or 250 hours, either as pilot in command or made up of not less than 70 hours as pilot in command and the necessary additional flight time as pilot in command under supervision;

*(b)* 200 hours of cross-country flight time, of which not less than 100 hours shall be as pilot in command or as pilot in command under supervision;

*(c)* 75 hours of instrument time, of which not more than 30 hours may be instrument ground time; and

*(d)* 100 hours of night flight as pilot in command or as co-pilot.

2. Notwithstanding paragraph 1, a pilot who has performed at least twenty night take-offs and landings to a full stop, may substitute each additional night take-off and landing to a full stop, for 1 hour of night flight time to satisfy the requirements of clause 1*(d)*, but not exceeding 25 hours of night flight time.

3. Notwithstanding paragraph 1*(a)*, an applicant for an Airline Transport Pilot Licence who holds a Commercial Pilot Licence, may credit the following acquired flight times toward the 1500 hours of total time as a pilot required under pargraph 1:

*(a)* co-pilot time acquired in an aeroplane—

(i) where it is required to have more than one pilot by the aeroplane flight manual or type certificate; or

Sub. Leg.

(ii) engaged in operations under the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, for which a co-pilot is required;

*(b)* Flight Engineer time to a maximum of 300 hours—

(i) in an aeroplane required to have a Flight Engineer by the aeroplane flight manual or Type Certificate;

(ii) while engaged in operations under the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, for which a Flight Engineer is required; and

(iii) while the pilot is participating in a pilot training programme approved by the Authority;

*(c)* in calculating the Flight Engineer time to be credited under subparagraph *(b)*, every three hours of flight time recorded shall count as one credit hour.

**Aeronautical experience requirement for Airline Transport Pilot Licence with a helicopter category and class rating**

4. The applicant for an Airline Transport Pilot Licence with a helicopter category and class rating shall have no less than 1000 hours of total time as a pilot of helicopters that includes no less than—

*(a)* 250 hours, either as pilot in command, or made up by not less than 70 hours as pilot in command and the necessary additional flight time as pilot in command under supervision;

*(b)* 200 hours of cross-country flight time, of which not less than 100 hours shall be as pilot in command or as pilot in command under supervision;

*(c)* 30 hours of instrument time, of which not more than 10 hours may be instrument ground time;

*(d)* 50 hours of night flight as pilot in command or as co-pilot;

*(e)* 25 hours of night flight as pilot in command or as co-pilot.

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## SCHEDULE 6

Regulation 58(2)*(c)*. [45/2007].

### PART A

### PROCEDURES FOR THE CONDUCT OF AIRLINE TRANSPORT PILOT LICENCE AEROPLANE TYPE OR CLASS RATING SKILL TEST

#### General

1. The applicant shall have completed the required instruction in accordance with the syllabus. The administrative arrangements for confirming the applicant's suitability to take the test, including disclosure of the applicant's training record to the examiner, shall be determined by the Authority.

2. Items to be covered in skill tests are shown on the applicable forms authorised by the Authority. With the approval of the Authority, several different skill scenarios may be developed containing simulated line operations. The examiner will select one of these scenarios. Flight simulators, where available and other training devices as approved shall be used.

3. The applicant shall pass all paragraphs of the skill test. Where any item in a paragraph is failed, that paragraph is failed. Failure in more than one paragraph will require the applicant to take the entire test again. Any applicant failing only one paragraph shall take the failed paragraph again. Failure in any paragraph of the re-test including those paragraphs that have been passed at a previous attempt will require the applicant to take the entire test again.

4. Further training may be required after a failed test. Failure to achieve a valid pass in all paragraphs in two attempts shall require further training as determined by the examiner. There is no limit to the number of skill tests that may be attempted.

5. The Authority will provide the examiner with safety criteria to be observed in the conduct of the test.

6. Should an applicant choose not to continue with a test for reasons considered inadequate by the examiner, the applicant will be regarded as having failed those items not attempted. If the test is terminated for reasons considered adequate by the examiner, only those items not completed shall be tested in a further flight.

7. At the discretion of the examiner any manoeuvre or procedure of the test may be repeated once by the applicant. The examiner may stop the test at any stage if it is considered that the applicant's competency requires a complete re-test.

8. Checks and procedures shall be carried out or completed in accordance with the authorised check list for the aircraft used in the test and, if applicable, with the Multi-Crew Co-ordination concept. Performance data for take-off, approach and landing shall be calculated by the applicant in compliance with the operations manual or flight manual for the aircraft used and should be agreed with the Flight Test Examiner. Decision heights or altitude, minimum descent heights or altitudes and missed approach point shall be determined by the applicant in advance and agreed by the examiner.

**Special Requirements for the Skill Test for Multi-Pilot Aeroplane and for the Skill Test Required for the Airline Transport Pilot Licence**

9. The test for a multi-pilot aircraft shall be performed in a multi-crew environment. Another applicant or another pilot, may function as second pilot. If an aircraft, rather than a simulator, is used for the test, the second pilot shall be an instructor.

10. An applicant for the initial issue of a multi-pilot aircraft type rating or Airline Transport Pilot Licence shall be required to operate as "pilot flying" during all paragraphs of the test. The applicant shall also demonstrate the ability to act as "pilot not flying". The applicant may choose either the left hand or the right hand seat for the test.

11. The following matters shall be specifically checked when testing applicants for the Airline Transport Pilot Licence or a type rating for multi-pilot aircraft extending to the duties of a pilot in command, irrespective of whether the applicant acts as a pilot flying:

*(a)* management of crew co-operation;

*(b)* maintaining a general survey of the aircraft operation by appropriate supervision; and

*(c)* setting priorities and making decisions in accordance with safety aspects and relevant rules and regulations appropriate to the operational situation, including emergencies.

12. The test should be accomplished under Instrument Flight Rules and as far as possible in a simulated commercial air transport environment. An essential element is the ability to plan and conduct the flight from routine briefing material.

**Flight Test Tolerance**

13. The applicant shall demonstrate the ability to—

*(a)* operate the aircraft within its limitations;

*(b)* complete all manoeuvres with smoothness and accuracy;

*(c)* exercise good judgment and airmanship;

*(d)* apply aeronautical knowledge;

*(e)* maintain control of the aircraft at all times in such a manner that the successful outcome of a procedure or manoeuvre is never in doubt;

*(f)* understand and apply crew co-ordination and incapacitation procedures, if applicable; and

*(g)* communicate effectively with the other crew members, if applicable.

14. The limits shown below are for general guidance. The examiner shall make allowance for turbulent conditions and the handling qualities and performance of the type of aircraft used.

| | |
|---|---|
| *Height* | |
| Generally … … … … … | ±100 feet |
| Starting a go-around at decision height … … | + 50 feet/-0 feet |
| Minimum descent height/altitude … … | + 50 feet/-0 feet |
| *Tracking* | |
| on radio aids … … … … … | ± 5° |
| Precision approach … … … … | half scale deflection, azimuth and glide path |
| *Heading* | |
| all engines operating … … … … | ± 5° |
| with simulated engine failure … … | ±10° |
| *Speed* | |
| all engines operating … … … … | ± 5 knots |
| with simulated engine failure … … | +10 knots/-5 knots |

*L.R.O.*

| | |
|---|---|
| *Ground Drift (Helicopters)* | |
| T.O. hover I.G.E. … … … … | +/- 3 feet |
| Landing … … … … … | +/- 2 feet (with 0 feet rearward or lateral flight) |

Regulations 60(1)*(b)*(iv), 87*(b)*(iii).

**PART B**

## CONTENT OF SKILL TEST FOR THE ISSUE OF AN INSTRUMENT RATING (AEROPLANE)

### Contents of Test

The skill test contents and paragraphs set out in the standard below—Contents of the Skill Test for the issue of an Instrument Rating—shall be used for the skill test. The format and application form for the skill test may be determined by the Authority. Paragraph 2 item *(d)*, and paragraph 6 of the skill test and the proficiency check may, for safety reasons, be performed in a flight simulator or approved training device.

Paragraph 1—Pre-Flight Operations and Departure:

*Use of checklist, airmanship, anti-icing and de-icing procedures, etc., apply in all paragraphs.*

*(a)* use of flight manual (or equivalent) especially aircraft performance calculation, mass and balance;

*(b)* use of Air Traffic Services document, weather document;

*(c)* preparation of Air Traffic Control flight plan, Instrument Flight Rules, flight plan or log;

*(d)* pre-flight inspection;

*(e)* weather minima;

*(f)* taxiing

*(g)* pre-take off briefing;

*(h)* take-off Transition to instrument flight;

*(i)* instrument departure procedures, altimeter setting; and

*(j)* Air Traffic Control liaison-compliance, R/T procedures.

Paragraph 2—*General Handling:

*(a)* control of the aircraft by reference solely to instruments, including: level flight at various speeds, trim;

*(b)* climbing and descending turns with sustained Rate 1 turn;

*(c)* recoveries from unusual attitudes, including sustained 45° bank turns and steep descending turns;

*(d)* recovery from approach to stall in level flight, climbing or descending turns and in landing configuration; and

*(e)* limited panel, stabilised climb or descent at Rate 1 turn onto given headings, recovery from unusual attitudes.

Paragraph 3—En route Instrument Flight Rules Procedures:

*(a)* Tracking, including interception, e.g., NDB, VOR, RNAV;

*(b)* Use of radio aids Level flight, control of heading, altitude and airspeed, power setting, trim technique;

*(c)* Altimeter settings;

*(d)* Timing and revision of Estimated Times of arrivals (En route hold—if required);

*(e)* Monitoring of flight progress, flight log, fuel usage, systems management;

*(f)* Ice protection procedures, simulated if necessary; and

*(g)* Air Traffic Control liaison and compliance, Radio-Telephony procedures.

Paragraph 4—Precision Approach Procedures:

*(a)* Setting and checking of navigational aids, identification of facilities;

*(b)* Arrival procedures, altimeter checks;

*(c)* Approach and landing briefing, including descent/approach/landing checks;

*(d)* †Holding procedure;

*(e)* Compliance with published approach procedure;

*(f)* Approach timing;

*(g)* Altitude, speed heading control, (stabilised approach);

*(h)* †Go-around action;

*(i)* †Missed approach procedure/landing; and

*(j)* ATC liaison—compliance, Radio-Telephony procedures.

Paragraph 5—Non-precision approach Procedures:

*(a)* Setting and checking of navigational aids, identification of facilities;

*(b)* Arrival procedures, altimeter settings;

*(c)* Approach and landing briefing, including descent or approach or landing checks;

*(d)* †Holding procedure;

*(e)* Compliance with published approach procedure;

*(f)* Approach timing;

*(g)* Altitude, speed, heading control, (stabilised approach);

*(h)* †Go-around action;

*(i)* †Missed approach procedure/landing; and

*(j)* Air Traffic Control liaison—compliance, Radio-Telephony procedures.

Paragraph 6—Simulated Asymmetric(if applicable):

*(a)* Simulated engine failure after take-off or on go-around;

*(b)* Asymmetric approach and procedural go-around;

*(c)* Asymmetric approach and landing, missed approach procedure; and

*(d)* Air Traffic Control liaison: compliance, Radio-Telephony procedures.

*May be performed in a Flight Simulator or Approved Flight Training Device.

†May be performed in either paragraph 4 or paragraph 5.

Regulations 60(1)*(c)* and 88*(b)*.

**PART C**

## PROCEDURES FOR THE CONDUCT OF INSTRUMENT RATING, SKILL TEST AND PROFICIENCY CHECK

1. An applicant for a skill test for the Instrument Rating shall have received instruction on the same class or type of aircraft to be used for the skill test. The aircraft used for the skill test shall meet the requirements for training aircraft as set out in the Act or Regulations made thereunder. The instrument rating course shall be provided by an approved organisation or authorised instructor approved to conduct such courses.

2. The administrative arrangements for confirming the applicant's suitability to take the test, including disclosure of the applicant's training record to the examiner, will be determined by the Authority which approved the applicant's training.

3. An applicant shall pass paragraphs 1 through 5 of the test below, and paragraph 6 if a multi-engine aircraft is used. If any item in a paragraph is failed, that paragraph is failed. Failure in more than one paragraph will require

the applicant to take the entire test again. An applicant failing only one paragraph shall take the failed paragraph again. Failure in any paragraph of the re-test, including those paragraphs that have been passed on a previous attempt, will require the applicant to take the entire test again. All paragraphs of the skill test shall be completed within six months.

4. Further training may be required following any failed test. Failure to achieve a pass in all paragraphs of the test in two attempts shall require further training as determined by the Authority. There is no limit to the number of skill tests that may be attempted.

**Conduct of the Test**

5. The test is intended to simulate a practical flight. The route to be flown shall be chosen by the examiner. An essential element is the ability of the applicant to plan and conduct the flight from routine briefing material. The applicant shall undertake the flight planning and shall ensure that all equipment and documentation for the execution of the flight are on board. The duration of the flight shall be at least one hour.

6. The Authority will provide the examiner with safety advice to be observed in the conduct of the test.

7. Should the applicant choose to terminate a skill test for reasons considered inadequate by the examiner, the applicant shall retake the entire skill test. If the test is terminated for reasons considered adequate by the examiner, only those paragraphs not completed shall be tested in a further flight.

8. At the discretion of the examiner, any manoeuvre or procedure of the test may be repeated once by the applicant. The examiner may stop the test at any stage if it is considered that the applicant's demonstration of flying skill requires a complete re-test.

9. An applicant shall normally be required to fly the aircraft from a position where the pilot in command functions can be performed and to carry out the test as if there is no other crew member. The examiner shall take no part in the operation of the aircraft, except when intervention is necessary in the interests of safety or to avoid unacceptable delay to other traffic. Whenever the examiner or another pilot functions as a co-pilot during the test, the privileges of the instrument rating will be restricted to multi-pilot operations. This restriction may be removed by the applicant carrying out another initial instrument rating skill test acting as if there was no other crew member on a single-pilot aircraft. Responsibility for the flight shall be allocated in accordance with national regulations.

10. Decision heights, altitude, minimum descent heights/altitudes and missed approach point shall be determined by the applicant and agreed by the examiner.

11. An applicant for Instrument Rating shall indicate to the examiner the checks and duties carried out, including the identification of radio facilities. Checks shall be completed in accordance with the authorised checklist for the aircraft on which the test is being taken. During pre-flight preparation for the test the applicant is required to determine power settings and speeds. Performance data for take-off, approach and landing shall be calculated by the applicant in compliance with the operations manual or flight manual for the aircraft used.

Note: *During the proficiency check for revalidation or renewal of the Instrument Rating, the licence holder has to demonstrate the same as above to the examiner involved.*

**Flight Test Tolerances**

12. The applicant shall demonstrate the ability to—

*(a)* operate the aircraft within its limitations;

*(b)* complete all manoeuvres with smoothness and accuracy;

*(c)* exercise good judgment and airmanship;

*(d)* apply aeronautical knowledge; and

*(e)* maintain control of the aircraft at all times in such a manner that the successful outcome of a procedure or manoeuvre is never in doubt.

13. The following limits are for general guidance. The examiner shall make allowance for turbulent conditions and the handling qualities and performance of the aircraft used:

| | |
|---|---|
| *Height* | |
| Generally … … … … … | ±100 feet |
| Starting a go-around at decision height … … | +50 feet/-0 feet |
| Minimum descent height/MAP/altitude … … | +50 feet/-0 feet |
| *Tracking* | |
| On radio aids …… … … … … | ±5° |
| Precision approach … … … … | half scale deflection, azimuth and glide path |

*Heading*

| | |
|---|---|
| all engines operating … … … … | ±5° |
| with simulated engine failure … … … | ±10° |

*Speed*

| | |
|---|---|
| all engines operating … … … | ±5 knots |
| with simulated engine failure … … | +10 knots/-5 knots |

**PART D**

Regulation 60(1)*(b)*(iii).

The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of an instrument rating in at least the following areas:

*Air law*

*(a)* rules and regulations relevant to flight under Instrument Flight Rules, related air traffic services practices and procedures;

*Aircraft general knowledge for the aircraft category being sought*

*(b)* use, limitation and serviceability of avionics, electronic devices and instruments necessary for the control and navigation of aircraft under Instrument Flight Rules and in instrument meteorological conditions; use and limitations of autopilot;

*(c)* compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects, practices and procedures in the event of malfunctions of various flight instruments;

*Flight performance and planning for the aircraft category being sought*

*(d)* preflight preparations and checks appropriate to flight under Instrument Flight Rules;

*(e)* operational flight planning; preparation and filing of air traffic services flight plans under Instrument Flight Rules; altimeter setting procedures;

*Human performance for the aircraft category being sought*

*(f)* human performance relevant to instrument flight in aircraft including principles of threat and error management;

*Meteorology for the aircraft category being sought*

*(g)* application of aeronautical meteorology; interpretation and use of reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information; altimetry;

*(h)* causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;

*(i)* in the case of helicopters and powered-lifts, effects of rotor icing;

*Navigation for the aircraft category being sought*

*(j)* practical air navigation using radio navigation aids;

*(k)* use, accuracy and reliability of navigation systems used in departure, en route, approach and landing phases of flight; identification of radio navigation aids;

*Operational procedures for the aircraft category being sought*

*(l)* application of threat and error management to operational performance;

*(m)* interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en route, descent and approach;

*(n)* precautionary and emergency procedures, safety practices associated with flight under Instrument Flight Rules; obstacle clearance criteria;

*Radiotelephony*

*(o)* communication procedures and phraseology as applied to aircraft operations under Instrument Flight Rules, action to be taken in case of communication failure.

Regulation 60(1)*(b)*(vi) and *(d)*.

**PART E**

The following experience meets the requirements for the Instrument Rating sought:

*(a)* the applicant shall hold a pilot licence for the aircraft category being sought;

*(b)* the applicant shall have completed not less than—

(i) 50 hours of cross-country flight time as pilot in command of aircraft in categories acceptable to the Authority, of which not less than 10 hours shall be in the aircraft category being sought; and

(ii) 40 hours of instrument time in aircraft of which not more than 20 hours, or 30 hours where a flight simulator is used, may be instrument ground time;

*(c)* the ground time under subparagraph *(b)*(ii), shall be under the supervision of an authorised instructor.

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## SCHEDULE 6A

Regulation 57A. [45/2007].

## GLIDER PILOT LICENCE

1. Requirements for the issue of the Glider Pilot Licence are as follows:

*(a)* the applicant shall be not less than 16 years of age;

*(b)* the applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a glider pilot licence, in at least the following subjects:

*Air law*

(i) rules and regulations relevant to the holder of a glider pilot licence; rules of the air; appropriate air traffic services practices and procedures;

*Aircraft general knowledge*

(ii) principles of operation of glider systems and instruments;

(iii) operating limitations of gliders; relevant operational information from the flight manual or other appropriate document;

*Flight performance, planning and loading*

(iv) effects of loading and mass distribution on flight characteristics; mass and balance considerations;

(v) use and practical application of launching, landing and other performance data;

(vi) pre-flight and en route flight planning appropriate to operations under Visual Flight Rules; appropriate air traffic services procedures; altimeter setting procedures; operations in areas of high-density traffic;

*Human performance*

(vii) human performance relevant to the glider pilot including principles of threat and error management;

*Meteorology*

(viii) application of elementary aeronautical meteorology, use of, and procedures for obtaining meteorological information; altimetry;

*Navigation*

(ix) practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;

*Operational procedures*

(x) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

(xi) different launch methods and associated procedures;

(xii) appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards;

*Principles of flight*

(xiii) principles of flight relating to gliders;

(xiv) communication procedures and phraseology as appropriate to Visual Flight Rules operations and on action to be taken in case of communication failure;

*(c)* the applicant shall have completed not less than six hours of flight time as a pilot of gliders including two hours of solo flight time, during which not less than 20 launches and landings have been performed;

*(d)* when the applicant has flight time as a pilot of aeroplanes, the Authority shall determine whether such experience is acceptable and, if so, the extent to which the flight time requirements of subparagraph *(c)* can be reduced;

*(e)* the applicant shall have gained, under appropriate supervision, operational experience in gliders in at least the following areas:

(i) pre-flight operations, including glider assembly and inspection;

(ii) techniques and procedures for the launching method used, including appropriate airspeed limitations, emergency procedures and signals used;

(iii) traffic pattern operations, collision avoidance precautions and procedures;

(iv) control of the glider by external visual reference;

(v) flight throughout the flight envelope;

(vi) recognition of, and recovery from, incipient and full stalls and spiral dives;

(vii) normal and crosswind launches, approaches and landings;

(viii) cross-country flying using visual reference and dead-reckoning;

(ix) emergency procedures;

*(f)* the applicant shall have demonstrated the ability to perform as pilot in command of a glider, the procedures and manoeuvres described in subparagraph *(d)* with a degree of competency appropriate to the privileges granted to the holder of a glider pilot licence, and to—

(i) recognise and manage threats and errors;

(ii) operate the glider within its limitations;

(iii) complete all manoeuvres with smoothness and accuracy;

(iv) exercise good judgement and airmanship;

(v) apply aeronautical knowledge; and

(vi) maintain control of the glider at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured; and

*(g)* the applicant shall hold a current Class 2 Medical Assessment.

2. *(a)* The privileges of the holder of a Glider Pilot Licence shall be to act as pilot in command of any glider, provided the licence holder has operational experience in the launching method used.

*(b)* If passengers are to be carried, the holder of the Glider Pilot Licence shall have completed not less than 10 hours of flight time as a pilot of gliders.

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## SCHEDULE 6B

Regulation 57B. [45/2007].

## FREE BALLOON PILOT LICENCE

1. Requirements for the issue of the Free Balloon Pilot Licence are as follows:

*(a)* the applicant shall be not less than 16 years of age;

*(b)* the applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a free balloon pilot licence, in at least the following subjects:

*Air law*

(i) rules and regulations relevant to the holder of a free balloon pilot licence; rules of the air; appropriate air traffic services practices and procedures;

*Aircraft general knowledge*

(ii) principles of operation of free balloon systems and instruments;

(iii) operating limitations of free balloons, relevant operational information from the flight manual or other appropriate document;

(iv) physical properties and practical application of gases used in free balloons;

*Flight performance, planning and loading*

(v) effects of loading on flight characteristics; mass calculations;

(vi) use and practical application of launching, landing and other performance data, including the effect of temperature;

(vii) pre-flight and en route flight planning appropriate to operations under Visual Flight Rules; appropriate air traffic services procedures; altimeter setting procedures; operations in areas of high-density traffic;

*Human performance*

(viii) human performance relevant to the free balloon pilot including principles of threat and error management;

*Meteorology*

(ix) application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry;

*Navigation*

(x) practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;

*Operational procedures*

(xi) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;

(xii) appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards;

*Principles of flight*

(xiii) principles of flight relating to free balloons;

(xiv) communication procedures and phraseology as appropriate to Visual Flight Rules operations and on action to be taken in case of communication failure;

*(c)* the applicant shall have completed not less than 16 hours of flight time as a pilot of free balloons including at least eight launches and ascents of which one must be solo;

*(d)* the applicant shall have gained, under appropriate supervision, operational experience in free balloons in at least the following areas:

(i) pre-flight operations, including balloon assembly, rigging, inflation, mooring and inspection;

(ii) techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used;

(iii) collision avoidance precautions;

(iv) control of the free balloon by external visual reference;

(v) recognition of, and recovery from, rapid descents;

(vi) cross-country flying using visual reference and dead-reckoning;

(vii) approaches and landings, including ground handling; and

(viii) emergency procedures;

*(e)* where the privileges of the Free Balloon Pilot Licence are to be exercised at night, the applicant shall have gained, under appropriate supervision, operational experience in free balloons in night flying;

*(f)* where passengers are to be carried for remuneration or hire, the holder of the Free Balloon Pilot Licence shall have completed not less than 35 hours of flight time including 20 hours as a pilot of a free balloon;

*(g)* the applicant shall have demonstrated the ability to perform as pilot in command of a free balloon, the procedures and

manoeuvres described in paragraph *(d)* with a degree of competency appropriate to the privileges granted to the holder of a free balloon pilot licence, and to—

(i) recognise and manage threats and errors;

(ii) operate the free balloon within its limitations;

(iii) complete all manoeuvres with smoothness and accuracy;

(iv) exercise good judgement and airmanship;

(v) apply aeronautical knowledge; and

(vi) maintain control of the free balloon at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured; and

*(h)* the applicant shall hold a current Class 2 Medical Assessment.

2. *(a)* The privileges of the holder of a Free Balloon Pilot Licence shall be to act as pilot in command of any free balloon provided that the licence holder has operational experience in hot air or gas balloons as appropriate.

*(b)* Before exercising the privileges at night, the licence holder shall have complied with the requirements specified in paragraph 1*(e)*.

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## SCHEDULE 7

Regulation 69(6)*(b)*(ii)(A).

### PART A

The following are the conditions for Instrument Landing System approaches for Category II Pilot Authorisations:

*(a)* under actual or simulated instrument flight conditions;

*(b)* to the minimum decision height for the Instrument Landing System approach in the type aircraft in which the practical test is to be conducted, except that the approaches need not be conducted to the decision height authorised for Category II operations;

*(c)* to the decision height authorised for Category II operations only where conducted in an approved flight simulator or an approved flight training device; and

*(d)* in an aircraft of the same category and class, and type, as applicable, as the aircraft in which the practical test is to be conducted or in an approved flight simulator that—

(i) represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(ii) is used in accordance with an approved course conducted by an Approved Training Organisation certified by the Authority.

**PART B**

Regulation 69(6)*(b)*(ii)(B).

The following are the conditions for Instrument Landing System approaches for Category III Pilot authorisations:

*(a)* under actual or simulated instrument flight conditions;

*(b)* to the alert height or decision height for the Instrument Landing System approach in the type aircraft in which the practical test is to be conducted;

*(c)* not necessarily to the decision height authorised for Category III operations;

*(d)* to the alert height or decision height, as applicable, authorised for Category III operations only if conducted in an approved flight simulator or approved flight training device; and

*(e)* in an aircraft of the same category and class, and type, as applicable, as the aircraft in which the practical test is to be conducted or in an approved flight simulator that—

(i) represents an aircraft of the same category and class, and type, as applicable, as the aircraft for which the authorisation is sought; and

(ii) is used in accordance with an approved course conducted by an Aviation Training Organisation certified by the Authority.

**PART C**

Regulation 69(8)*(a)*.

In the oral increment of the skill test, an applicant shall demonstrate knowledge of the following:

*(a)* required landing distance;

*(b)* recognition of the decision height;

*(c)* missed approach procedures and techniques using computed or fixed attitude guidance displays;

*(d)* use and limitations of Runway Visual Range;

*(e)* use of visual clues, their availability or limitations, and altitude at which they are normally discernible at reduced Runway Visual Range readings;

*(f)* procedures and techniques related to transition from non-visual to visual flight during a final approach under reduced Runway Visual Range;

*(g)* effects of vertical and horizontal windshear;

*(h)* characteristics and limitations of the Instrument Landing System and runway lighting system;

*(i)* characteristics and limitations of the flight director system, auto approach coupler (including split axis type if equipped), auto throttle system (if equipped), and other required Category II equipment;

*(j)* assigned duties of the Co-pilot during Category II approaches, unless the aircraft for which authorisation is sought does not require a Co-pilot; and

*(k)* instrument and equipment failure warning systems.

Regulation 69(8)*(b)*.

**PART D**

The following requirements apply to the flight increment of the skill test:

*(a)* the flight increment shall be conducted in an aircraft of the same category, class, and type, as applicable, as the aircraft in which the authorisation is sought or in an approved flight simulator that—

(i) represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

(ii) is used in accordance with an approved course conducted by an Aviation Training Organisation certified under Civil Aviation [(No. 9) Approved Training Organisation] Regulations;

Sub. Leg.

*(b)* the flight increment shall consist of at least two Instrument Landing System approaches to 100 feet above ground level including at least one landing and one missed approach;

*(c)* all approaches performed during the flight increment shall be made with the use of an approved flight control guidance system, except if an approved auto approach coupler is installed, at least one approach shall be hand flown using flight director commands;

*(d)* if a multi-engine aircraft with the performance capability to execute a missed approach with one engine inoperative is used for the practical test, the flight increment shall include the performance of one missed approach with an engine, which shall be the most critical engine, if applicable, set at idle or zero thrust before reaching the middle marker;

*(e)* if an approved multi-engine flight simulator or approved multi-engine flight training device is used for the practical

test, the applicant shall execute a missed approach with the most critical engine, if applicable, failed;

*(f)* for an authorisation for an aircraft that requires a type rating, the applicant shall pass a practical test in co-ordination with a co-pilot who holds a type rating in the aircraft in which the authorisation is sought; and

*(g)* an inspector or evaluator may conduct oral questioning at any time during a practical test.

**PART E**

Regulation 69(9)*(a)*.

An applicant for Category III authorisation shall demonstrate knowledge of the following:

*(a)* required landing distance;

*(b)* determination and recognition of the alert height or decision height, as applicable, including use of a radar altimeter;

*(c)* recognition of and proper reaction to significant failures encountered prior to and after reaching the alert height or decision height, as applicable;

*(d)* missed approach procedures and techniques using computed or fixed attitude guidance displays and expected height loss as they relate to manual go-around or automatic go-around, and initiation altitude, as applicable;

*(e)* use and limitations of Runway Visual Range, including determination of controlling Runway Visual Range and required transmissometers;

*(f)* use, availability, or limitations of visual cues and the altitude at which they are normally discernible Runway Visual Range at reduced readings including—

(i) unexpected deterioration of conditions to less than minimum Runway Visual Range during approach, flare and rollout;

(ii) demonstration of expected visual references with weather at minimum conditions:

(A) the expected sequence of visual cues during an approach in which visibility is at or above landing minima; and

(B) procedures and techniques for making a transition from instrument reference flight to visual flight during a final approach under reduced Runway Visual Range;

*(g)* effects of vertical and horizontal windshear;

*(h)* characteristics and limitations of the Instrument Landing System and runway lighting system;

*(i)* characteristics and limitations of the flight director system, auto approach coupler (including split axis type if equipped), auto throttle system (if equipped), and other Category III equipment;

*(j)* assigned duties of the co-pilot during Category III operations, unless the aircraft for which authorisation is sought does not require a co-pilot;

*(k)* recognition of the limits of acceptable aircraft position and flight path tracking during approach, flare, and, if applicable, rollout; and

*(l)* recognition of, and reaction to, airborne or ground system faults or abnormalities, particularly after passing alert height or decision height, as applicable.

Regulation 69(9)*(b)*.

**PART F**

## FLIGHT SKILL REQUIREMENTS

1. An applicant may conduct the skill test in an aircraft of the same category and class, and type, as applicable, as the aircraft for which the authorisation is sought, or in an approved flight simulator that—

*(a)* represents an aircraft of the same category and class, and type, as applicable, as the aircraft in which the authorisation is sought; and

*(b)* is used in accordance with an approved course conducted by an organisation approved for that purpose.

2. The skill test shall consist of at least two Instrument Landing System approaches to 100 feet above ground level, including one landing and one missed approach initiated from a very low altitude that may result in a touchdown during the go around manoeuvre.

3. The applicant shall perform all approaches during the skill test with the approved automatic landing system or an equivalent landing system approved by the Authority.

4. Where a multi-engine aircraft with the performance capability to execute a missed approach with one engine inoperative is used for the practical test, the practical test shall include the performance of one missed approach with the most critical engine, where applicable, set at idle or zero thrust before reaching the middle or outer marker.

5. Where an approved multi-engine flight simulator or approved multi-engine flight training device is used, the applicant shall execute a missed approach with an engine, which shall be the most critical engine, if applicable, failed.

6. For an authorisation for an aircraft that requires a type rating, the applicant shall pass a practical test in co-ordination with a co-pilot who holds a type rating in the aircraft in which the authorisation is sought.

7. Subject to the limitations of this paragraph, for Category III operations predicated on the use of a fail passive rollout control system, the applicant shall execute at least one manual rollout using visual reference or a combination of visual and instrument references. The applicant shall initiate this manoeuvre by a fail passive disconnect of the rollout control system—

*(a)* after main gear touchdown;

*(b)* prior to nose gear touchdown; and

*(c)* in conditions representative of the most adverse lateral touchdown displacement allowing a safe landing on the runway.

8. In weather conditions anticipated in Category III operations an inspector or Flight Test Examiner may conduct oral questioning at any time during the skill test.

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## SCHEDULE 8

Regulation 81(2).

## FLIGHT INSTRUCTOR AREAS OF OPERATION SKILL TEST FOR FLIGHT PROFICIENCY

1. An applicant for a Flight Instructor rating shall receive and log flight and ground training in each category rating and class rating, in the following areas:

*(a)* fundamentals of instructing;

*(b)* technical subject areas;

*(c)* pre-flight preparation;

*(d)* pre-flight lesson on a manoeuvre to be performed in flight;

*(e)* pre-flight procedures;

*(f)* airport and seaplane base operations;

*(g)* take-offs, landings, and go-arounds;

*(h)* fundamentals of flight;

*(i)* performance manoeuvres;

*(j)* ground reference manoeuvres;

*(k)* slow flight, stalls, and spins;

*(l)* basic instrument manoeuvres;

*(m)* emergency operations; and

*(n)* post-flight procedures.

*L.R.O.*

2. In addition to paragraph 1, aeroplane category rating with a multi-engine class rating—for a multi-engine operations.

3. In addition to paragraph 1, rotorcraft category rating with a helicopter class rating—

*(a)* airport and heliport operations;

*(b)* hovering manoeuvres; and

*(c)* special operations.

4. In addition to paragraph 1, for a rotorcraft category rating with a gyroplane class rating—flight at slow airspeeds.

5. In addition to paragraph 1, for a powered-lift category rating—

*(a)* hovering manoeuvres; and

*(b)* special operations.

6. In addition to paragraph (1) for a glider category rating—

*(a)* airport and gliderport operations;

*(b)* launches, landings, and go-arounds;

*(c)* performance speeds;

*(d)* soaring techniques; and

*(e)* slow flight, stalls and spins.

7. In addition to paragraph (1) for an instrument rating with the appropriate aircraft category and class rating—

*(a)* air traffic control clearances and procedures;

*(b)* flight by reference to instruments;

*(c)* navigation aids; and

*(d)* instrument approach procedures.

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Regulation 100. [45/2007].

## SCHEDULE 9

## FLIGHT ENGINEER LICENCE KNOWLEDGE REQUIREMENTS

1. The applicant for a Flight Engineer Licence shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a Flight Engineer Licence, in at least the following areas:

*Air law*

*(a)* rules and regulations relevant to the holder of a flight engineer licence; rules and regulations governing the operation of civil aircraft pertinent to the duties of a flight engineer;

*Aircraft general knowledge*

*(b)* basic principles of power plants, gas turbines and piston engines; characteristics of fuels, fuel systems including fuel control; lubricants and lubrication systems, afterburners and injection systems, function and operation of engine ignition and starter systems;

*(c)* principles of operation, handling procedures and operating limitations of aircraft power plants, effects of atmospheric conditions on engine performance;

*(d)* airframes, flight controls, structures, wheel assemblies, brakes and anti-skid units, corrosion and fatigue life, identification of structural damage and defects;

*(e)* ice and rain protection systems;

*(f)* pressurisation and air-conditioning systems, oxygen systems;

*(g)* hydraulic and pneumatic systems;

*(h)* basic electrical theory, electric systems (AC and DC), aircraft wiring systems, bonding and screening;

*(i)* principles of operation of instruments, compasses, autopilots, radio communication equipment, radio and radar navigation aids, flight management systems, displays and avionics;

*(j)* limitations of appropriate aircraft;

*(k)* fire protection, detection, suppression and extinguishing systems;

*(l)* use and serviceability checks of equipment and systems of appropriate aircraft;

*Flight performance, planning and loading*

*(m)* effects of loading and mass distribution on aircraft handling, flight characteristics and performance, mass and balance calculations;

*(n)* use and practical application of performance data including procedures for cruise control;

*Human performance*

*(o)* human performance relevant to the flight engineer including principles of threat and error management;

*Operational procedures*

*(p)* principles of maintenance, procedures for the maintenance of airworthiness, defect reporting, pre-flight inspections, precautionary procedures for fuelling and use of external power; installed equipment and cabin systems;

*(q)* normal, abnormal and emergency procedures;

*(r)* operational procedures for carriage of freight and dangerous goods;

*Principles of flight*

*(s)* fundamentals of aerodynamics;

*Radio-telephony*

*(t)* communication procedures and phraseology.

2. In addition to paragraph 1, the applicant should have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight engineer licence in at least the following subjects:

*(a)* fundamentals of navigation; principles and operation of self-contained systems; and

*(b)* operational aspects of meteorology.

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## SCHEDULE 10

Regulation 122. [179/2008 196/2009].

### PART A

An applicant for an Air Traffic Controller Licence under regulation 122 shall satisfactorily complete a training course and demonstrate a level of knowledge appropriate to the holder of an Air Traffic Controller Licence, in at least the following subjects:

*(a)* air law which includes rules and regulations relevant to the air traffic controller;

*(b)* air traffic control equipment which includes principles, use and limitations of equipment used in air traffic control;

*(c)* general knowledge which includes—

(i) principles of flight;

(ii) principles of operation and functioning of aircraft, power plants and systems; and

(iii) aircraft performance relevant to air traffic control operations;

*(d)* human performance which includes principles of threat and error management;

*(e)* meteorology which includes—

(i) aeronautical meteorology;

(ii) use and appreciation of meteorological documentation and information;

(iii) origin and characteristics of weather phenomena affecting flight operations and safety; and

(iv) altimetry;

*(f)* navigation, which includes—

(i) principles of air navigation; and

(ii) principle, limitation and accuracy of navigation systems and visual aids; and

*(g)* operational procedures which includes—

(i) air traffic control;

(ii) communication, radio-telephony and phraseology procedures used in routine, non-routine and emergency situations;

(iii) use of the relevant aeronautical documentation; and

(iv) safety practices associated with flight.

**PART B**

Regulation 123.

The following are the areas of operation required to be performed for the skills test for an Air Traffic Trainee Licence:

*(a)* safety of operation;

*(b)* separation;

*(c)* expedition and orderliness;

*(d)* method and application of Air Traffic Procedures and Practices;

*(e)* standard Chicago Convention phraseology;

*(f)* co-ordination and communication;

*(g)* correct use of equipment;

*(h)* emergency and abnormal situations; and

*(i)* impact of weather conditions on aircraft operations.

**PART C**

Regulation 129(1)*(a)*. [179/2008].

An applicant for an Air Traffic Controller Licence and Rating under regulation 129 shall demonstrate a level of knowledge appropriate to the Rating sought, in at least the following subjects, in so far as they affect the area of responsibility:

*(a)* Aerodrome Control Rating—

(i) aerodrome layout, physical characteristics and visual aids;

(ii) airspace structure;

(iii) applicable rules, procedures and source of information;

(iv) air navigation facilities;

(v) air traffic control equipment and its use;

(vi) terrain and prominent landmarks;

(vii) characteristics of air traffic;
(viii) weather phenomena; and
(ix) emergency and search and rescue plans;

*(b)* Approach Control Procedural Rating and Area Control Procedural Rating—
(i) airspace structure;
(ii) applicable rules, procedures and source of information;
(iii) air navigation facilities;
(iv) air traffic control equipment and its use;
(v) terrain and prominent landmarks;
(vi) characteristics of air traffic and traffic flow;
(vii) weather phenomena; and
(viii) emergency and search and rescue plans; and

*(c)* Approach Control Surveillance Rating, Approach Precision Radar Control Rating and Area Control Surveillance Ratings—
(i) the subjects specified in paragraph *(b)*, in so far as they affect the area of responsibility; and
(ii) demonstrated a level of knowledge appropriate to the privileges granted, in at least the following additional subjects:
(A) principles, use and limitations of applicable ATS surveillance systems and associated equipment; and
(B) procedures for the provision of ATS surveillance services, as appropriate, including procedures to ensure appropriate terrain clearance.

Regulation 129(1)*(b)*. [179/2008 196/2009].

**PART D**

An applicant for an Air Traffic Controller Licence and Rating under regulation 129 shall have met the following experience requirements in respect of the specific rating sought:

*(a)* Aerodrome Control Rating—
(i) satisfactorily completed an approved training course; and
(ii) provided, satisfactorily, under the supervision of an appropriate rated Air Traffic Controller, within the previous six months, aerodrome control service, for a period of not less than 90 hours or one month, whichever is greater, at the unit for which the rating is sought or a minimum of 12 hours providing the service at an aerodrome within the control zone for which the licence holder already holds an approach rating;

*(b)* Approach Control Procedural Rating, Approach Control Surveillance Rating, Area Control Procedural Rating or Area Control Surveillance Rating—

(i) satisfactorily completed an approved training course; and

(ii) provided, satisfactorily, under the supervision of an appropriate rated Air Traffic Controller, within the previous six months, the control service for which the rating is sought, for a period of not less than 180 hours or three months, whichever is greater, at the unit for which the rating is sought; and

*(c)* Approach Precision Radar Control Rating—

(i) satisfactorily completed an approved training course; and

(ii) provided, satisfactorily, under the supervision of an appropriate rated Air Traffic Controller, within the previous six months, not less than 200 precision approaches of which not more than 100 shall have been carried out on a radar simulator approved for that purpose by the Authority and not less than 50 of those precision approaches shall have been carried out at the unit and on the equipment for which the rating is sought; and

*(d)* where the privileges of the Approach Control Surveillance Rating in paragraph *(b)* include surveillance radar approach duties, the experience shall include not less than twenty-five plan position indicator approaches on the surveillance equipment of the type in use at the unit for which the rating is sought and under the supervision of an appropriately rated controller.

## SCHEDULE 11

### PART A

Regulation 141(2)*(c)*.

An applicant for a Flight Operations Officer Authorisation under regulation 141 shall meet the following aeronautical knowledge requirements:

*(a)* rules and regulations relevant to the holder of a flight operations officer licence; and

*(b)* appropriate Air Traffic Control practices and procedures;

*(c)* aircraft general knowledge including—

(i) principles of operation of aeroplane power plants, systems and instruments;

(ii) operating limitations of aeroplanes and power plants; and

(iii) minimum equipment list;

*(d)* flight performance calculation and planning procedures including—
  (i) effects of loading and mass distribution on aircraft performance and flight characteristics;
  (ii) mass and balance calculations;
  (iii) operational flight planning;
  (iv) fuel consumption and endurance calculations;
  (v) alternate airport selection procedures; and
  (vi) en route cruise control;

*(e)* operational procedures including—
  (i) use of aeronautical documentation;
  (ii) operational procedures for the carriage of freight and dangerous goods;
  (iii) procedures relating to aircraft accidents, incidents and emergency flight procedures; and
  (iv) procedures relating to unlawful interference and sabotage of aircraft;

*(f)* navigation, including principles of air navigation with particular reference to instrument flight;

*(g)* principles of flight relating to the appropriate category of aircraft; and

*(h)* radio communication, including procedures for communicating with aircraft and relevant ground stations.

Regulation 142(2).

**PART B**

The training syllabus for an applicant for a Flight Operations Officer Authorisation shall include the following:

PHASE 1—BASIC AERONAUTICAL KNOWLEDGE

*(a)* civil air law and regulations—
  (i) certification of operators;
  (ii) the Convention on International Civil Aviation (The Chicago Convention);
  (iii) international air transport issues addressed by the Chicago Convention;
  (iv) the International Civil Aviation Organisation (ICAO);
  (v) responsibility for aircraft airworthiness;
  (vi) regulatory provisions of the flight manual;
  (vii) the aircraft minimum equipment list; and
  (viii) the operations manual;

*(b)* aviation indoctrination—
  (i) regulatory;
  (ii) aviation terminology and terms of reference;
  (iii) theory of flight and flight operations;

(iv) aircraft propulsion systems; and
(v) aircraft systems;

*(c)* aircraft mass (weight) and performance—
(i) basic principles for flight safety;
(ii) basic mass (weight) and speed limitations;
(iii) take-off runway requirements;
(iv) climb performance requirements;
(v) landing runway requirements; and
(vi) buffet boundary speed limitations;

*(d)* navigation—
(i) position and distance time;
(ii) true, magnetic and compass direction; gyro heading reference and grid direction;
(iii) introduction to chart projection: the Mercator projection; great circles on Mercator charts; other cylindrical projections; Lambert conformal conic projections; the polar stereographic projection;
(iv) International Civil Aviation Organisation chart requirements;
(v) charts used by a typical operator;
(vi) measurement of airspeed; track and ground speed;
(vii) use of slide-rules, computers and scientific calculators;
(viii) measurement of aircraft altitude;
(ix) point of no return; critical point; general determination of aircraft position;
(x) introduction to radio navigation; ground-based radar and direction-finding stations; relative bearings; VOR/DME-type radio navigation; instrument landing systems;
(xi) navigation procedures; and
(xii) International Civil Aviation Organisation Communications Navigation Surveillance and Air Traffic Management Systems (an overview);

*(e)* air traffic management—
(i) introduction to air traffic management;
(ii) controlled airspace;
(iii) flight rules;
(iv) Air Traffic Clearance; Air Traffic Control requirements for flight plans; aircraft Reports;
(v) flight information service (FIS);
(vi) alerting service and search and rescue;
(vii) communications services (mobile, fixed);
(viii) aeronautical information service (AIS); and
(ix) aerodrome and airport services;

*(f)* meteorology—
- (i) atmosphere; atmospheric temperature and humidity;
- (ii) atmospheric pressure; pressure-wind relationships;
- (iii) winds near the Earth's surface; wind in the free atmosphere turbulence;
- (iv) vertical motion in the atmosphere; formation of clouds and precipitation;
- (v) thunderstorms; aircraft icing;
- (vi) visibility and runway visual range; volcanic ash;
- (vii) surface observations; upper-air observations; station model;
- (viii) air masses and fronts; frontal depressions;
- (ix) weather at fronts and other parts of the frontal depression; other types of pressure systems;
- (x) general climatology; weather in the tropics;
- (xi) aeronautical meteorological reports; analysis of surface and upper-air charts;
- (xii) prognostic charts; aeronautical forecasts;
- (xiii) meteorological service for international air navigation; and
- (xiv) Field trip to local meteorological office;

*(g)* mass (weight) and balance control—
- (i) introduction to mass and balance;
- (ii) load planning;
- (iii) calculation of payload and load sheet preparation;
- (iv) aircraft balance and longitudinal stability;
- (v) moments and balance;
- (vi) the structural aspects of aircraft loading;
- (vii) dangerous goods and other special cargo; and
- (viii) issuing loading instructions;

*(h)* transport of dangerous goods by air—
- (i) introduction;
- (ii) dangerous goods, emergency and abnormal situations;
- (iii) source documents;
- (iv) responsibilities; and
- (v) emergency procedures;

*(i)* flight planning—
- (i) introduction to flight planning;
- (ii) turbo-jet aircraft cruise control methods;
- (iii) flight planning charts and tables for turbo-jet aircraft;
- (iv) calculation of flight time and minimum fuel for turbo-jet aircraft;
- (v) route selection;
- (vi) flight planning situations;

(vii) re-clearance;
(viii) the flight phases;
(ix) documents to be carried on flights;
(x) flight planning exercises;
(xi) threats and hijacking; and
(xii) ETOPS;

*(j)* flight monitoring—
(i) position of aircraft;
(ii) effects of Air Traffic Control re-routing;
(iii) flight equipment failures;
(iv) en route weather changes;
(v) emergency situations;
(vi) flight monitoring resources;
(vii) position reports; and
(viii) ground resource availability;

*(k)* communications—Radio—
(i) international aeronautical telecommunications service;
(ii) elementary radio theory;
(iii) aeronautical fixed service;
(iv) aeronautical mobile service;
(v) radio navigation service;
(vi) radio-telephony procedures and phraseology; action to be taken in case of communication failure; and
(vii) automated aeronautical service;

*(l)* human factors—
(i) the meaning of Human Factors;
(ii) dispatch resource management;
(iii) awareness;
(iv) practice and feedback;
(v) reinforcement;

*(m)* security (emergencies and abnormal situations)—
(i) familiarity;
(ii) security measures taken by operators;
(iii) procedures for handling threats, bomb scares, etc.;
(iv) emergency due to dangerous goods;
(v) hijacking;
(vi) emergency procedures; and
(vii) personal security for the Flight Operations Officer.

PHASE 2—APPLIED PRACTICAL TRAINING AND TESTING—

*(a)* applied Practical Training and Demonstration of Skills—
(i) applied practical flight operations;
(ii) simulator Line Orientation Flight Training observation and synthetic flight training;

(iii) flight dispatch practices (on-the-job training);

(iv) the candidate shall demonstrate to the operator, knowledge of—

(A) the contents of the operations manual;

(B) the radio and navigation equipment in the aircraft used;

(v) the candidate shall demonstrate to the operator knowledge of the following details concerning operations for which he will be responsible and areas in which he will be authorised to exercise flight supervision:

(A) the seasonal meteorological conditions and the sources of meteorological information;

(B) the effects of meteorological conditions on radio reception in the aircraft used;

(C) the peculiarities and limitations of each navigation system which is used in the operations; and

(D) the aircraft loading instructions;

(vi) the candidate shall demonstrate to the operator the ability to perform the duties specified in the regulations;

*(b)* competency testing the candidate shall demonstrate by passing a knowledge and skills test based on this syllabus, his competency to operate as Flight Operations Officer;

*(c)* to make an accurate and operationally acceptable weather analysis from a series of daily weather maps and weather reports; provide an operationally valid briefing on weather conditions prevailing in the general neighbourhood of a specific air route; particular reference to destination and alternates;

*(d)* to determine the optimum flight path for a given segment, and create accurate manual and computer generated flight plans; and

*(e)* to provide operating supervision and all other assistance to a flight in actual or simulated adverse weather conditions, as appropriate to the duties of the holder of a flight operations officer licence;

*(f)* assignment to duty—

(i) before assignment to duty, the candidate will be required to obtain Flight Operations Officer authorisation from the Authority, based on the requirements of the Regulations and submission of his competency certificate as proof of having successfully completed an approved course of training and testing; and

(ii) Flight Operations Officer shall not be assigned to duty unless within the preceding twelve months he has made at least a one-way qualification flight on the flight deck of an aircraft over an area in which he is authorised to exercise supervision.

# SCHEDULE 12

Regulation 158.
[185/2006
284/2006].

| 158(1) Medical Class 1 | 158(2) Medical Class 2 | 158(3) Medical Class 3 |
|---|---|---|
| **158(1). 1** | **158(2). 1** | **158(3). 1** |
| This class applies to the issue or revalidation of Airline Transport Pilot Licence, Commercial Pilot Licence and Flight Engineer Licence. | This class applies to the issue or revalidation of Student Pilot Licence and Private Pilot Licence. | This class applies to the issue or revalidation of Air Traffic Controller Licence. |
| *NOTE: The holder of Medical Class 1 shall be considered fit for any licence for its respective duration of validity unless otherwise specified.* | *NOTE: The holder of Medical Class 2 shall be considered fit for any licence for its respective duration of validity unless otherwise specified.* | *NOTE: The requirements of the Air Traffic Controller licence must be interpreted in respect to the applicant's working environment and the flight safety responsibilities involved.* |
| **158(1). 2** | **158(2). 2** | **158(3). 2** |
| The medical examination and assessment shall be based upon the following requirements of physical and mental fitness. | The medical examination and assessment shall be based on the following requirements of physical and mental fitness. | The medical examination and assessment shall be based on the following requirements of physical and mental fitness. |
| **158(1). 3** | **158(2). 3** | **158(3). 3** |
| The applicant shall be free from—<br>*(a)* Any abnormality, congenital or acquired; or<br>*(b)* Any active, latent, acute or chronic disability; or<br>*(c)* Any wound, injury or sequelae from operation;<br>*(d)* Any effect or side effect of any prescribed or non-prescribed therapeutic, diagnostic or preventive medication taken,<br>such as would entail a degree of functional incapacity which accredited medical conclusion indicates would interfere with the safe operation of an aircraft or with the safe performance of duties during the period of validity of the licence. | The applicant shall be free from—<br>*(a)* Any abnormality, congenital or acquired; or<br>*(b)* Any active, latent, acute or chronic disability; or<br>*(c)* Any wound, injury or sequelae from operation;<br>*(d)* Any effect or side effect of any prescribed or non-prescribed therapeutic, diagnostic or preventive medication taken,<br>such as would entail a degree of functional incapacity which accredited medical conclusion indicates would interfere with the safe operation of an aircraft or with the safe performance of duties during the period of validity of the licence. | The applicant shall be free from—<br>*(a)* Any abnormality, congenital or acquired; or<br>*(b)* Any active, latent, acute or chronic disability; or<br>*(c)* Any wound, injury or sequelae from operation; or<br>*(d)* Any effect or side effect of any prescribed or non-prescribed therapeutic, diagnostic or preventive medication taken,<br>such as would entail a degree of functional incapacity which accredited medical conclusion indicates would interfere with reliable performance of duties within the period of validity of the licence. |

## SCHEDULE 12—*Continued*

NOTE: *Use of herbal medication and alternative treatment modalities requires particular attention to possible side effects.*

**158(1).4**

The applicant shall not suffer from any disease or disability which may render the applicant liable to become unable to operate an aircraft safely or to perform assigned duties safely.

NOTE: *Use of herbal medication and alternative treatment modalities requires particular attention to possible side effects.*

**158(2).4**

The applicant shall not suffer from any disease or disability which may render the applicant liable to become unable to handle an aircraft safely or to perform assigned duties safely.

NOTE: *Use of herbal medication and alternative treatment modalities requires particular attention to possible side effects.*

**158(3).4**

The applicant shall not suffer from any disease or disability which may render the applicant liable to a sudden or insidious degradation of performance within the period of validity of the licence.

### Nervous System

**158(1).5**

The applicant shall have no established medical history or clinical diagnosis of—

*(a)* An organic mental disorder;

*(b)* A mental or behavioural disorder due to the use of psychoactive substance which includes dependence syndrome induced by alcohol or other psychoactive substances;

*(c)* Schizophrenia or a schizotypal or delusional disorder;

*(d)* A mood (affective) disorder;

*(e)* a neurotic, stress-related or somatoform disorder;

*(f)* a behavioural syndrome associated with physiological disturbances or physical factors;

*(g)* a disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;

*(h)* mental retardation;

*(i)* a disorder or psychological development;

*(j)* a behavioural or emotional disorder, with onset in childhood or adolescence; or

*(k)* a mental disorder not otherwise specified,

such as might render the applicant unable to safely exercise the privileges of the licence applied for or held.

**158(2).5**

The applicant shall have no established medical history or clinical diagnosis of—

*(a)* An organic mental disorder;

*(b)* A mental or behavioural disorder due to the use of psychoactive substance which includes dependence syndrome induced by alcohol or other psychoactive substances;

*(c)* Schizophrenia or a schizotypal or delusional disorder;

*(d)* A mood (affective) disorder;

*(e)* a neurotic, stress-related or somatoform disorder;

*(f)* a behavioural syndrome associated with physiological disturbances or physical factors;

*(g)* a disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;

*(h)* mental retardation;

*(i)* a disorder or psychological development;

*(j)* a behavioral or emotional disorder, with onset in chilhood or adolescence; or

*(k)* a mental disorder not otherwise specified,

such as might render the applicant unable to safely exercise the privileges of the licence applied for or held.

**158(3).5**

The applicant shall have no established medical history or clinical diagnosis of—

*(a)* An organic mental disorder;

*(b)* A mental or behavioural disorder due to the use of psychoactive substance which includes dependence syndrome induced by alcohol or other psychoactive substances;

*(c)* Schizophrenia or a schizotypal or delusional disorder;

*(d)* A mood (affective) disorder;

*(e)* a neurotic, stress-related or somatoform disorder;

*(f)* a behavioural syndrome associated with physiological disturbances or physical factors;

*(g)* a disorder of adult personality or behaviour, particularly if manifested by repeated overt acts;

*(h)* mental retardation;

*(i)* a disorder or psychological development;

*(j)* a behavioural or emotional disorder, with onset in childhood or adolescence; or

*(k)* a mental disorder not otherwise specified,

such as might render the applicant unable to safely exercise the privileges of the licence applied for or held.

**158(1).6**

*(a)* The applicant shall not suffer from any disease or disability which could render him likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.

*(b)* The applicant shall have no established medical history or clinical diagnosis of any of the following:

(i) A progressive or non-progressive disease of the nervous system, the effects of which, are likely to interfere with the safe operation of an aircraft;

(ii) A convulsive disorder such as epilepsy;

(iii) Any disturbance of consciousness without satisfactory medical explanation of cause; or

(iv) Any history of head injury the effects of which, are likely to interfere with the safe operation of an aircraft.

**158(2).6**

*(a)* The applicant shall not suffer from any disease or disability which could render him likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.

*(b)* The applicant shall have no established medical history or clinical diagnosis of any of the following:

(i) A progressive or non-progressive disease of the nervous system, the effects of which, are likely to interfere with the safe operation of an aircraft;

(ii) A convulsive disorder such as epilepsy;

(iii) Any disturbance of consciousness, without satisfactory medical explanation of cause; or

(iv) Any history of head injury the effects of which, are likely to interfere with the safe operation of an aircraft.

**158(3).6**

*(a)* The applicant shall not suffer from any disease or disability which could render him likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely.

*(b)* The applicant shall have no established medical history or clinical diagnosis of any of the following:

(i) A progressive or non-progressive disease of the nervous system, the effects of which, are likely to interfere with the reliable performance of duties;

(ii) A convulsive disorder such as epilepsy;

(iii) Any disturbance of consciousness without satisfactory medical explanation of cause; or

(iv) Any history of head injury the effects of which, are likely to interfere with reliable performance of duties.

**Cardiovascular System**

**158(1).7**

The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

**158(2).7**

The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

**158(3).7**

The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

**158(1).8**

*(a)* An applicant who has undergone coronary by-pass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarcation or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit

**158(2).8**

*(a)* An applicant who has undergone coronary by-pass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarcation or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit

**158(3).8**

*(a)* An applicant who has undergone coronary by-pass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarcation or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit

## SCHEDULE 12—*Continued*

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|---|---|---|
| unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence and rating privileges.<br>*(b)* An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is not likely to interfere with the safe exercise of the applicant's licence and rating privileges. | unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence and rating privileges.<br>*(b)* An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is not likely to interfere with the safe exercise of the applicant's licence and rating privileges. | unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence and rating privileges.<br>*(b)* An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is not likely to interfere with the safe exercise of the applicant's licence and rating privileges. |
| **158(1).9**<br>Electrocardiography shall—<br>*(a)* form part of the heart examination for the first issue of a medical assessment;<br>*(b)* be included in re-examination of applicants between the ages of 30 and 50 years no less frequent than every two years; and<br>*(c)* be included in re-examination of applicants over the age of 50 years no less frequent than annually. | **158(2).9**<br>Electrocardiography shall—<br>*(a)* form part of the heart examination for the issue of a medical assessment; and<br>*(b)* be included in re-examination of applicants over the age of 50 years no less frequent than every two years. | **158(3).9**<br>Electrocardiography shall—<br>*(a)* form part of the heart examination for the issue of a medical assessment; and<br>*(b)* be included in re-examination of applicants over the age of 50 years no less frequent than every two years. |
| NOTE: *The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.* | NOTE: *The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.* | NOTE: *The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence to justify disqualification without further thorough cardiovascular investigation.* |
| **158(1).10**<br>*(a)* The systolic and diastolic blood pressure shall be within normal limits; and<br>*(b)* The use of drugs for control of high blood pressure shall be disqualifying except for those drugs the use of which, are compatible with the safe performance of duties and can be closely monitored by the aviation medical examiner. | **158(2).10**<br>*(a)* The systolic and diastolic blood pressure shall be within normal limits; and<br>*(b)* The use of drugs for control of high blood pressure shall be disqualifying except for those drugs the use of which, are compatible with the safe performance of duties and can be closely monitored by the aviation medical examiner. | **158(3).10**<br>*(a)* The systolic and diastolic blood pressure shall be within normal limits; and<br>*(b)* The use of drugs for control of high blood pressure shall be disqualifying except for those drugs the use of which, are compatible with the safe performance of duties and can be closely monitored by the aviation medical examiner. |

**158(1).11**
There shall be no functional or structural abnormality of the circulatory system. The presence of varicosities does not necessarily entail unfitness.

**158(2).11**
There shall be no functional or structural abnormality of the circulatory system. The presence of varicosities does not necessarily entail unfitness.

**158(3).11**
There shall be no functional or structural abnormality of the circulatory system. The presence of varicosities does not necessarily entail unfitness.

**Respiratory System**

**158(1).12**
*(a)* There shall be no acute disability of the lungs nor any active disease of the structures of the lungs, mediastinum or pleurae likely to result in the incapacitating symptoms during normal or emergency operations.
*(b)* Chest radiography shall form a part of the initial examination.

NOTE: *Periodic chest radiography is usually not necessary but may be a necessity in situations where asymptomatic pulmonary disease can be expected.*

**158(1).13 (Reserved)**

**158(1).14**
*(a)* Applicants with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
*(b)* An applicant with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.
*(c)* The use of drugs for control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

**158(2).12**
*(a)* There shall be no acute disability of the lungs or any active disease of the lungs, mediastinum or pleurae likely to result in the incapacitating symptoms during normal or emergency operations.
*(b)* Chest radiography shall form a part of the initial examinations.

NOTE: *Periodic chest radiography is usually not necessary but may be a necessity in situations where asymptomatic pulmonary disease can be expected.*

**158(2).13 (Reserved)**

**158(2).14**
*(a)* Applicants with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
*(b)* An applicant with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.
*(c)* The use of drugs for control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

**158(3).12**
*(a)* There shall be not acute disability of the lungs or any active disease of the structures of the lungs, mediastinum or pleurae likely to result in the incapacitating symptoms during normal or emergency operations.

NOTE: *Periodic chest radiography is usually not necessary but may be a necessity in situations where asymptomatic pulmonary disease can be expected.*

**158(3).13 (Reserved)**

**15S(3).14**
*(a)* Applicants with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges.
*(b)* An applicant with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit.
*(c)* The use of drugs for control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

## SCHEDULE 12—*Continued*

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| **158(1).15**<br>*(a)* Applicants with active pulmonary tuberculosis shall be assessed as unfit.<br>*(b)* Applicants with quiescent or healed lesions which are known to be tuberculous or are presumably tuberculous in origin, may be assessed as fit. | **58(2). 15**<br>*(a)* Applicants with active pulmonary tuberculosis shall be assessed as unfit.<br>*(b)* Applicants with quiescent or healed lesions which are known to be tuberculous or are presumably tuberculous in origin, may be assessed as fit. | **158(3).15**<br>*(a)* Applicants with active pulmonary tuberculosis shall be assessed as unfit.<br>*(b)* Applicants with quiescent or healed lesions which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit. |
| **158(1).16**<br>An applicant with significant impairment function of the gastrointestinal tract or its adnexa shall be assessed as unfit. | **158(2).16**<br>An applicant with significant impairment function of the gastrointestinal tract or its adnexa shall be assessed as unfit. | **158(3).16**<br>An applicant with significant impairment function of the gastrointestinal tract or its adnexa shall be assessed as unfit. |
| **158(1).17**<br>An applicant shall be completely free of those hernias that might give rise to incapacitating symptoms. | **158(2).17**<br>An applicant shall be completely free of those hernias that might give rise to incapacitating symptoms. | **158(3).17 (Reserved)** |
| **158(1).18**<br>*(a)* An applicant with sequelae of disease of, or surgical intervention on, any part of the digestive tract or its adnexa, likely to cause incapacitation in flight, in particular any obstruction due to stricture or compression, shall be assessed as unfit.<br>*(b)* An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa with a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation in flight. | **158(2).18**<br>*(a)* Applicant with sequelae of disease of, or surgical intervention on, any part of the digestive tract or its adnexa, likely to cause incapacitation in flight, in particular any obstruction due to stricture or compression, shall be assessed as unfit.<br>*(b)* An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa with a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation in flight. | **158(3).18**<br>*(a)* An applicant with sequelae of disease of, or surgical intervention on, any part of the digestive tract or its adnexa, likely to cause incapacitation, in particular any obstruction due to stricture or compression, shall be assessed as unfit.<br>*(b)* An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa with a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation. |

**Other Medical Conditions**

**158(1).19**

An applicant with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of his licence and rating privileges shall be assessed as unfit.

**158(1).20**

*(a)* Applicants with insulin treated diabetes mellitus shall be assessed as unfit.

*(b)* An applicant with non-insulin treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

**158(1).21**

*(a)* An applicant with diseases of the blood and or the lymphatic system shall be assessed as unfit unless adequately investigated and his condition found to be unlikely to interfere with the safe exercise of his licence and rating privileges.

NOTE: *Sickle cell trait or other haemoglobinopatic traits are usually compatible with a fit assessment.*

*(b)* An applicant with renal or genito-urinary disease shall be assessed as unfit, unless adequately investigated and his condition is found unlikely to interfere with the safe exercise of his licence and rating privileges.

*(c)* Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

**158(2). 19**

An applicant with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of his licence and rating privileges shall be assessed as unfit.

**158(2).20**

*(a)* Applicants with insulin treated diabetes mellitus shall be assessed as unfit.

*(b)* An applicant with non-insulin treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.

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NOTE: *Sickle cell trait or other haemoglobinopatic traits are usually compatible with a fit assessment.*

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**158(3).19**

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NOTE: *Sickle cell trait or other haemoglobinopatic traits are usually compatible with a fit assessment.*

*(b)* An applicant with renal or genito-urinary disease shall be assessed as unfit, unless adequately investigated and his condition is found unlikely to interfere with the safe exercise of his licence and rating privileges.

*(c)* Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated.

## SCHEDULE 12—*Continued*

### Genito-urinary System

**158(1).22**

*(a)* An applicant with acquired immunodeficiency syndrome (AIDS) shall be assessed as unfit.

*(b)* An applicant who is seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless full investigation provides no evidence of clinical disease.

NOTE: *When conducting an evaluation of an applicant who is seropositive for human immunodeficiency virus it is required that particular attention be given to his mental state, including the psychological effects of the diagnosis.*

**158(1).23**

*(a)* An applicant with sequelae of disease of or surgical procedures on the kidneys or the genito-urinary tracts, in particular obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the licence and rating privileges.

*(b)* An applicant who has undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

**158(1).24**

An applicant with gynaecological disorders that are likely to interfere with the safe exercise of her licence and rating privileges shall be assessed as unfit.

**158(2).22**

*(a)* An applicant with acquired immunodeficiency syndrome (AIDS) shall be assessed as unfit.

*(b)* An applicant who is seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless full investigation provides no evidence of clinical disease.

NOTE: *When conducting an evaluation of an applicant who is seropositive for human immunodeficiency virus it is required that particular attention be given to his mental state, including the psychological effects of the diagnosis.*

**158(2).23**

*(a)* An applicant with sequelae of disease of or surgical procedures on the kidneys or the genito-urinary tracts, in particular obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the licence and rating privileges.

*(b)* An applicant who has undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

**158(2).24**

An applicant with gynaecological disorders that are likely to interfere with the safe exercise of her licence and rating privileges shall be assessed as unfit.

**158(3).22**

*(a)* An applicant with acquired immunodeficiency syndrome (AIDS) shall be assessed as unfit.

*(b)* An applicant who is seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless full investigation provides no evidence of clinical disease.

NOTE: *When conducting an evaluation of an applicant who is seropositive for human immunodeficiency virus it is required that particular attention be given to her mental state, including the psychological effects of the diagnosis.*

**158(3).23**

*(a)* An applicant with sequelae of disease of or surgical procedures on the kidneys or the genito-urinary tracts, in particular obstructions due to stricture or compression, shall be assessed as unfit unless the applicant's condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the licence and rating privileges.

*(b)* An applicant who has undergone nephrectomy shall be assessed as unfit unless the condition is well compensated.

**158(3).24**

An applicant with gynaecological disorders that are likely to interfere with the safe exercise of her licence and rating privileges shall be assessed as unfit.

**158(1).25**

*(a)* An applicant who is pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk uncomplicated pregnancy.

*(b)* An applicant with a low-risk uncomplicated pregnancy determined by an obstetrical evaluation and continued medical supervision, the fit assessment shall be limited to the period from the end of the 12th week until the end of the 26th week of gestation.

*(c)* Following confinement or termination of the pregnancy, an applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings.

**158(2).25**

*(a)* An applicant who is pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk uncomplicated pregnancy.

*(b)* An applicant with low-risk uncomplicated pregnancy determined by an obstetrical evaluation and continued medical supervision, the fit assessment shall be limited to the period from the end of the 12th week until the end of the 26th week of gestation.

*(c)* Following confinement or termination of the pregnancy, an applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings.

**158(3).25**

*(a)* An applicant who is pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk uncomplicated pregnancy.

*(b)* An applicant with a low-risk uncomplicated pregnancy determined by an obstetrical evaluation and continued medical supervision, the fit assessment shall be limited to the period until the end of the 34th week of gestation.

*(c)* During the gestational period precaution should be taken for the timely relief of an air traffic controller in the event of early onset of labour or other complications.

*(d)* Following confinement or termination of a pregnancy, an applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings.

## Musculoskeletal System

**158(1).26**

An applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

NOTE: *Any sequelae after lesions affecting the bones, joints, muscles or tendons, and certain anatomical defects will normally require functional assessment to determine fitness.*

**158(2).26**

An applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

NOTE: *Any sequelae after lesions affecting the bones, joints, muscles or tendons, and certain anatomical defects will normally require functional assessment to determine fitness.*

**158(3).26**

An applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

NOTE: *Any sequelae after lesions affecting the bones, joints, muscles or tendons, and certain anatomical defects will normally require functional assessment to determine fitness.*

## SCHEDULE 12—*Continued*

### Ear, Nose and Throat Conditions

**158(1).27**

*(a)* An applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

*(b)* There shall be—

(i) no disturbance of the vestibular function;

(ii) no significant dysfunction of the Eustachian tubes; and

(iii) no unhealed perforation of the tympanic membranes.

*(c)* A single dry perforation of the tympanic membrane need not render the applicant unfit.

**158(2).27**

*(a)* An applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

*(b)* There shall be—

(i) no disturbance of the vestibular function;

(ii) no significant dysfunction of the Eustachian tubes; and

(iii) no unhealed perforation of the tympanic membranes.

*(c)* A single dry perforation of the tympanic membrane need not render the applicant unfit.

**158(3).27**

*(a)* An applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

*(b)* There shall be—

(i) no disturbance of the vestibular function;

(ii) no significant dysfunction of the Eustachian tubes; and

(iii) no unhealed perforation of the tympanic membranes.

*(c)* A single dry perforation of the tympanic membrane need not render the applicant unfit.

**158(1).28**

There shall be—

*(a)* no nasal obstruction; and

*(b)* no malformation or any disease of the buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

**158(2).28**

There shall be—

*(a)* no nasal obstruction; and

*(b)* no malformation or any disease of the buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

**158(3).28**

There shall be no malformation or any disease of the nose, buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.

**158(1).29**

An applicant with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

**158(2).29**

An applicant with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

**158(3).29**

An applicant with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit.

### Hearing Requirement

**158(1).30**

The applicant shall be required to demonstrate a hearing performance sufficient for the safe exercise of the applicant's licence and rating privileges.

**158(2).30**

The applicant shall demonstrate a hearing performance sufficient for the safe exercise of the applicant's licence and rating privileges.

**158(3).30**

The applicant shall be required to demonstrate a hearing performance sufficient for the safe exercise of the applicant's licence and rating privileges.

**158(1).31**

*(a)* An applicant shall be tested by pure-tone audiometry—

(i) at first issue of the assessment;

(ii) not less than once every five years up to the age of 40 years; and

(iii) not less than once every two years above the age of 40 years.

NOTE: *The reference zero for calibration of pure-tone audiometry is that of the pertinent Standards of the current edition of the Audiometric Test Methods published in the International Organisation for Standardisation (ISO).*

*(b)* Other methods providing equivalent results may be used as an alternative.

*(c)* The applicant, when tested on a pure-tone audiometer, shall not have a hearing loss, in either ear separately of more than 35dB at any of the frequencies, 500 Hz, or 2000 Hz, or more than 50dB at 3000 Hz.

*(d)* An applicant with a hearing loss greater than that specified in paragraph *(c)* may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates the masking properties of flight deck noise upon speech and beacon signals.

NOTE 1: *It is important that the background noise is representative of the noise in the cockpit of the type of aircraft for which the applicant's licence and ratings are valid.*
NOTE 2: *In the speech material for discrimination testing, both aviation phrases and phonetically balanced words are normally used.*

**158(2).31**

*(a)* An applicant shall be tested by pure-tone audiometry—

(i) at first issue of the assessment; and

(ii) not less than once every two years above the age of 50 years.

*(b)* The applicant when tested on a pure-tone audiometer, shall not have a hearing loss, in either ear separately, of more than 35dB at any of the frequencies, 500 Hz, 1000 Hz or 2000 Hz, or more than 50dB at 3000 Hz.

*(c)* An applicant with a hearing loss greater than that specified in paragraph *(a)* may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates the masking properties of flight deck noise upon speech and beacon signals.

NOTE 1: *It is important that the background noise is representative of the noise in the cockpit of the type of aircraft for which the applicant's licence and ratings are valid.*
NOTE 2: *In the speech material for discrimination testing, both aviation phrases and phonetically balanced words are normally used.*

*(d)* A practical hearing test conducted in flight in the cockpit of an aircraft of the type for which the applicant's licence and ratings are valid, may be used as an alternative to paragraph *(c)*.

*(e)* At medical examinations other than those specified in paragraph *(a)*, an applicant shall be tested in a quiet room by whispered and spoken voice tests.

**158(3).31**

*(a)* An applicant shall be tested by pure-tone audiometry—

(i) at first issue of the assessment;

(ii) not less than once every four years up to the age of 40 years; and

(iii) not less than once every two years above the age of 40 years.

*(b)* Other methods providing equivalent results may be used as an alternative.

*(c)* The applicant, when tested on a pure-tone audiometer, shall not have a hearing loss, in either ear separately, of more than 35dB at any of the frequencies, 500 Hz, 1000 Hz or 2000 Hz, or more than 50 dB at 3000 Hz.

*(d)* An applicant with a hearing loss greater than that specified in paragraph *(c)* may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates that experienced in a typical air traffic control working environment.

NOTE 1: *The frequency composition of the background noise is defined only to the extent that the frequency range 600 Hz to 4800 Hz (the speech range) is adequately represented.*
NOTE 2: *In the speech material for discrimination testing, both aviation phrases and phonetically balanced words are normally used.*

*(e)* A practical hearing test conducted in an air traffic control environment representative of the one for which the applicant's licence and ratings are valid may be used as an alternative to paragraph *(d)*.

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## SCHEDULE 12—*Continued*

*(f)* A practical hearing test conducted in flight in the cockpit of an aircraft of the type for which the applicant's licence and ratings are valid may be used as an alternative to paragraph (4)

*(g)* At medica1 examinations other than those specified in paragraph *(a)*, an applicant shall be tested in a quiet room by whispered and spoken voice tests.

NOTE 1: *For the purpose of testing hearing in accordance with the requirements a quiet room is a room in which the intensity of the background noise is less than 35dB (A).*
NOTE 2: *For the purpose of testing hearing in accordance with the requirements, the sound level of an average conversational voice at 1 m from the point of output (lower lips of the speaker) is c. 60dB (A) and a whispered voice is c. 45dB (A). At 2 m from the speaker, the sound level is 6dB (A) lower.*

NOTE 1: *For the purpose of testing hearing in accordance with the requirements, a quiet room is a room in which the intensity of the background noise is less than 35dB (A).*
NOTE 2: *For the purpose of testing hearing in accordance with the requirements, the sound level of an average conversational voice at 1 m from the point of output (lower lips of the speaker) is c. 60dB (A) and a whispered voice is c. 45dB (A). At 2 m from the speaker, the sound level is 6 dB (A) lower.*

*(f)* At medical examinations other than those specified in paragraph *(a)* an applicant shall be tested in a quiet room by whispered and spoken voice test.

NOTE 1: *For the purpose of testing hearing in accordance with the requirements, a quiet room is a room in which the intensity of the background noise is less than 35dB (A).*
NOTE 2: *For the purpose of testing hearing in accordance with the requirements, the sound level of an average conversational voice at 1 m from the point of output (lower lips of the speaker) is c. 60dB (A) and a whispered voice c. 45dB (A). At 2 m from the speaker, the sound level is 6dB (A) lower.*

**158(1).32**

Demonstrate a hearing performance in each ear separately equivalent to that of a normal person, against a background noise that will simulate the masking properties of flight deck noise upon speech and audio tones.

**158(2).32 (RESERVED)**

**158(3).32**

Demonstrate a hearing performance in each ear separately equivalent to that of a normal person, against a background noise that will simulate that experienced in a typical air traffic control working environment.

**Visual Acuity Test Requirement**

**158(1).33**

*(a)* Visual acuity shall be conducted in an environment with a level of illumination which corresponds to ordinary office illumination (30-60 cd/$m^2$).

*(b)* Visual acuity shall be measured by means of a series of Landolt rings or similar optotypes, placed at a distance from the applicant appropriate to the method of testing adopted.

**158(2).33**

*(a)* Visual acuity shall be conducted in an environment with a level of illumination which corresponds to ordinary office illumination (30-60 cd/$m^2$).

*(b)* Visual acuity shall be measured by means of a series of Landolt rings or similar optotypes, placed at a distance from the applicant appropriate to the method of testing adopted.

**158(3).33**

*(a)* Visual acuity shall be conducted in an environment with a level of illumination which corresponds to ordinary office illumination (30-60 cd/$m^2$).

*(b)* Visual acuity shall be measured by means of a series of Landolt rings or similar optotypes, placed at a distance from the applicant appropriate to the method of testing adopted.

| **158(1).34** | **158(2).34** | **158(3).34** |
|---|---|---|
| *(a)* The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties. | *(a)* The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties. | *(a)* The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties. |
| *(b)* The applicant shall be tested for the ability to correctly identify a series of pseudoisochromatic plates in daylight or in artificial light of the same colour temperature such as that provided by CIE standard illuminants C or D65 as specified by the International Commission on Illumination (CIE). | *(b)* The applicant shall be tested for the ability to correctly identify a series of pseudoisochromatic plates in daylight or in artificial light of the same colour temperature such as that provided by CIE standard illuminants C or D65 as specified by the International Commission on Illumination (CIE). | *(b)* The applicant shall be tested for the ability to correctly identify a series of pseudoisochromatic plates in daylight or in artificial light of the same colour temperature such as that provided by CIE standard illuminants C or D65 as specified by the International Commission on Illumination (CIE). |
| *(c)* An applicant obtaining a satisfactory result as prescribed by the Authority shall be assessed as fit. An applicant failing to obtain a satisfactory result in such a test shall be assessed as unfit unless able to readily distinguish the colours used in air navigation and correctly identify aviation coloured lights. Applicants who fail to meet these criteria shall be assessed as unfit. | *(c)* An applicant obtaining a satisfactory result as prescribed by the Authority shall be assessed as fit. An applicant failing to obtain a satisfactory result in such a test shall be assessed as unfit unless able to readily distinguish the colours used in air navigation and correctly identify aviation coloured lights. Applicants who fail to meet these criteria shall be assessed as unfit:<br>**"valid daytime only"** | *(c)* An applicant obtaining a satisfactory result as prescribed by the Authority shall be assessed as fit. An applicant failing to obtain a satisfactory result in such a test shall be assessed as unfit unless able to readily distinguish the colours used in air navigation and correctly identify aviation coloured lights. Applicants who fail to meet these criteria shall be assessed as unfit. |
| *(d)* Sunglasses worn during the exercise of the privilege of the licence or rating held should be non-polarizing and of neutral grey tint. | *(d)* Sunglasses worn during the exercise of the privilege of the licence or rating held should be non-polarizing and of neutral grey tint. | *(d)* Sunglasses worn during the exercise of the privilege of the licence or rating held should be non-polarizing and of neutral grey tint. |

| **158(1).35** | **158(2).35** | **158(3).35** |
|---|---|---|
| The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges. | The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges. | The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant's licence and rating privileges. |

## SCHEDULE 12—*Continued*

**158(1).36**

*(a)* Distant visual acuity with or without correction shall be 6/9 or better in each eye separately and binocular visual acuity shall be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses the applicant shall be assessed fit provided that—

(i) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

(ii) in addition a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

NOTE: *An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the Authority. Both uncorrected and corrected visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity and the occurrence of eye disease, eye injury or eye surgery.*

*(b)* Applicants may use contact lenses to meet this requirement provided that:

(i) the lenses are monofocal and non-tinted;

(ii) the lenses are well tolerated; and

(iii) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

**158(2).36**

*(a)* Distant visual acuity with or without correction shall be 6/12 or better in each eye separately and binocular visual acuity shall be 6/9 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses the applicant shall be assessed fit provided that—

(i) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

(ii) in addition a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

NOTE: *An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the Authority. Both uncorrected and corrected visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity and the occurrence of eye disease, eye injury or eye surgery.*

*(b)* Applicants may use contact lenses to meet this requirement provided that:

(i) the lenses are monofocal and non-tinted;

(ii) the lenses are well tolerated; and

(iii) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

**158(3).36**

*(a)* Distant visual acuity with or without correction shall be 6/9 or better in each eye separately and binocular visual acuity shall be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses the applicant shall be assessed fit provided that—

(i) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

(ii) in addition a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant's licence.

NOTE: *An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the Authority. Both uncorrected and corrected visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity and the occurrence of eye disease, eye injury or eye surgery.*

*(b)* Applicant may use contact lenses to meet this requirement provided that:

(i) the lenses are monofocal and non-tinted;

(ii) the lenses are well tolerated; and

(iii) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges.

NOTE 1: *Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each re-examination provided the history of their contact lens prescription is known.*

NOTE 2: *Applicants with a large refractive error shall use contact lenses or high index spectacle lenses.*

*(c)* Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full satisfactory ophthalmic report prior to initial Medical Assessment and every five years thereafter.

NOTE: *The purpose of the required ophthalmic examination is to ascertain normal visual performance, and to identify any significant pathology.*

**158(1).37**

Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.

**158(1).38**

*(a)* The applicant shall have the ability to read, while wearing the correcting lenses, if any, required under paragraph 158(1).36 the N5 Chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 centimetres and the ability to read the N14 Chart or its equivalent at a distance of 100 centimetres. If this requirement is met only by the use of near correction,

NOTE 1: *Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each re-examination provided the history of their contact lens prescription is known.*

NOTE 2: *Applicants with a large refractive error shall use contact lenses or high index spectacle lenses.*

*(c)* Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full satisfactory ophthalmic report prior to initial Medical Assessment and every five years thereafter.

NOTE: *The purpose of the required ophthalmic examination is to ascertain normal visual performance, and to identify any significant pathology.*

**158(2).37**

Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.

**158(2).38**

*(a)* The applicant shall have the ability to read, while wearing the correcting lenses, if any, required under paragraph 158(2).36 the N5 Chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 centimetres and the ability to read the N14 chart or its equivalent at a distance of 100 centimetres. If this requirement is met only by the use of near correction,

NOTE 1: *Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each re-examination provided the history of their contact lens prescription is known.*

NOTE 2: *Applicants with a large refractive error shall use contact lenses or high index spectacle lenses.*

NOTE 3: *If spectacles are used, high index lenses are needed to minimize peripheral field of vision.*

*(c)* Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full satisfactory ophthalmic report prior to initial Medical Assessment and every five years thereafter.

NOTE: *The purpose of the required ophthalmic examination is to ascertain normal visual performance, and to identify any significant pathology.*

**158(3).37**

Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges.

**158(3).38**

*(a)* The applicant shall have the ability to read, while wearing the correcting lenses, if any, required under paragraph 158(3)36 the N5 Chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 centimetres and the ability to read the N14 chart or its equivalent at a distance of 100 centimetres. If this requirement is met only by the use of near correction,

## SCHEDULE 12—*Continued*

| | | |
|---|---|---|
| the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with paragraph 158(1).36(1); if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements. | the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with paragraph 158(2).36(1); if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements. | the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with paragraph 158(3)36; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements. |
| NOTE 1: *N5 and N14 refer to the size of typeface used.* | NOTE 1: *N5 refer to the size of typeface used.* | NOTE 1: *N5 and N14 refer to the size of typeface used.* |
| NOTE 2: *An applicant who needs near correction to meet this requirement will require "look-over", bifocal or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision through the windscreen without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not accpetable.* | NOTE 2: *An applicant who needs near correction to meet this requirement will require "look-over", bifocal or perhaps multi-focal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision through the windscreen without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not accpetable.* | NOTE 2: *An applicant who needs near correction to meet this requirement will require "look-over", bifocal or perhaps multi-focal lenses in order to read radar screens, visual displays and written or printed material and also to make use of distant vision through the windows without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) may be acceptable for certain air traffic control duties. However, it should be realized that single-vision near correction significantly reduces distant visual acuity.* |
| NOTE 3: *Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the visual flight deck tasks relevant to the type of aircraft in which he is likely to function.* | NOTE 3: *Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the visual flight deck tasks relevant to the type of aircraft in which he is likely to function.* | NOTE 3: *Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the air traffic control duties the applicant is likely to perform.* |
| *(b)* When near correction is required in accordance with paragraph 158(1).38(1) a second pair of near correction spectacles shall be kept available for immediate use. | *(b)* When near correction is required in accordance with paragraph 158(2).38(1) a second pair of near correction spectacles shall be kept available for immediate use. | *(b)* When near correction is required in accordance with paragraph 158(3).38(1) a second pair of near correction spectacles shall be kept available for immediate use. |

**158(1).39**

*(a)* The applicant shall be required to have normal fields of vision.

*(b)* The applicant shall be required to have normal binocular function.

*(c)* Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying.

**158(2).39**

*(a)* The applicant shall be required to have normal fields of vision.

*(b)* The applicant shall be required to have normal binocular function.

NOTE: *Defective stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia may not be disqualifying.*

**158(3).39**

*(a)* The applicant shall be required to have normal fields of vision.

*(b)* The applicant shall be required to have normal binocular function.

NOTE: *Defective stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia may not be disqualifying.*

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## SCHEDULE 13

### PART A

Regulation 160*(a)*. [196/2009].

An Aircraft Maintenance Engineer Licence may be issued with or without limitations in the following categories or ratings:

1. Categories:
   - *(a)* A—Airframe, fixed wing;
   - *(b)* A—Airframe, rotary wing;
   - *(c)* C—Engine, piston;
   - *(d)* C—Engine, turbo-jet, turbo-prop and turbo-shaft;
   - *(e)* E1—Avionics Systems, Electrical, Instruments and Radio; and
   - *(f)* E2—Avionics Systems, Electrical, Instruments, Radio, Auto Flight and Flight Management.

2. Ratings:
   - *(a)* A—Airframe Type Rating issued specific to an—
     - (i) aeroplane type of 5 700 kg or less, maximum certified take-off mass; or

(ii) a helicopter type of 2 730 kg or less, maximum certified take-off mass;

*(b)* C—Engine Type Rating issued specific to an engine type certified for—

(i) an aeroplane type of 5 700 kg or less, maximum certified take-off mass;

(ii) a helicopter type of 2 730 kg or less, maximum certified take-off mass;

*(c)* E1—An Avionics Systems group rating issued generally for the electrical systems, radio systems and instrument systems, for—

(i) an aeroplane of 5 700 kg or less, maximum certified take-off mass; and

(ii) a helicopter of 2 730 kg or less, maximum certified take-off mass;

*(d)* E2—An Avionics Systems group rating issued generally for the electrical systems, radio systems, instrument systems, auto flight systems and flight management systems for—

(i) an aeroplane of 5 700 kg or less, maximum certified take-off mass; and

(ii) a helicopter of 2 730 kg or less, maximum certified take-off mass;

*(e)* E1—An Avionics Systems Type Rating issued specifically for the electrical systems, radio systems and instrument systems, for—

(i) an aeroplane over 5 700 kg maximum certified take-off mass; or

(ii) a helicopter over 2 730 kg maximum certified take-off mass; and

*(f)* E2—An Avionics Systems Type Rating issued specifically for the electrical systems, radio systems, instrument systems, auto flight systems and flight management systems for—

(i) an aeroplane over 5 700 kg maximum certified take-off mass; or

(ii) a helicopter over 2 730 kg maximum certified take-off mass.

**PART B**

Regulation 160*(e)*.

The following are the knowledge training areas for the Aircraft Maintenance Engineer Licence categories:

*(a)* A—Airframe, Fixed wing:

| *Civil aviation requirements, laws and regulations* | *Hours* | *Level* |
|---|---|---|
| 1. International and State aviation law | 10 | 3 |
| 2. Airworthiness requirements | 10 | 3 |
| 3. Civil aviation operating regulations | 10 | 3 |
| 4. Air transport operations | 10 | 3 |
| 5. Organisation and management of the operator | 10 | 3 |
| 6. Operator economics related to maintenance | 10 | 3 |
| 7. Approved maintenance organisations (AMOs) | 30 | 3 |
| 8. Aircraft maintenance licence requirements | 10 | 3 |
| 9. The role of the State aviation regulatory body | 10 | 3 |
| 10. Aircraft certification, documents and maintenance | 10 | 3 |
| *Natural science and general principles of aircraft* | | |
| 1. Mathematics | 75 | 1 |
| 2. Physics | 70 | 1 |
| 3. Technical drawing | 70 | 1 |
| 4. Chemistry | 30 | 1 |
| 5. Fixed wing aerodynamics and flight control | 100 | 2 |
| *Aircraft engineering and maintenance: Airframe* | | |
| 1. Maintenance practices and materials: Airframe/ Power plant | 200 | 3 |
| 2. Aircraft systems and structures: Fixed wing | 250 | 3 |
| 3. Airship systems and structures | 100 | 3 |
| *Human performance and limitations—Required knowledge, skills and attitudes* | | |
| 1. General programme overview | 3 | 3 |
| 2. Human factors knowledge | 3 | 3 |
| 3. Communications skills | 3 | 3 |
| 4. Teamwork skills | 3 | 3 |
| 5. Performance management | 3 | 3 |
| 6. Situation awareness | 3 | 3 |
| 7. Human error | 3 | 3 |
| 8. Reporting and investigating errors | 3 | 3 |
| 9. Monitoring and auditing | 3 | 3 |
| 10. Document design | 3 | 3 |

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*(b)* A—Airframe, Rotary wing:

| *Civil aviation requirements, laws and regulations* | *Hours* | *Level* |
|---|---|---|
| 1. International and State aviation law | 10 | 3 |
| 2. Airworthiness requirements | 10 | 3 |
| 3. Civil aviation operating regulations | 10 | 3 |
| 4. Air transport operations | 10 | 3 |
| 5. Organisation and management of the operator | 10 | 3 |
| 6. Operator economics related to maintenance | 10 | 3 |
| 7. Approved maintenance organisations (AMOs) | 30 | 3 |
| 8. Aircraft maintenance licence requirements | 10 | 3 |
| 9. The role of the State aviation regulatory body | 10 | 3 |
| 10. Aircraft certification, documents and maintenance | 10 | 3 |
| *Natural science and general principles of aircraft* | | |
| 1. Mathematics | 75 | 1 |
| 2. Physics | 70 | 1 |
| 3. Technical drawing | 70 | 1 |
| 4. Chemistry | 30 | 2 |
| 5. Rotary wing aerodynamics and flight control | 100 | 2 |
| *Human performance and limitations—Required knowledge, skills and attitudes* | | |
| 1. General programme overview | 3 | 3 |
| 2. Human Factors knowledge | 3 | 3 |
| 3. Communications skills | 3 | 3 |
| 4. Teamwork skills | 3 | 3 |
| 5. Performance management | 3 | 3 |
| 6. Situation awareness | 3 | 3 |
| 7. Human error | 3 | 3 |
| 8. Reporting and investigating errors | 3 | 3 |
| 9. Monitoring and auditing | 3 | 3 |
| 10. Document design | 3 | 3 |

*(c)* C—Engine, Piston:

| *Civil aviation requirements, laws and regulations* | | |
|---|---|---|
| 1. International and State aviation law | 10 | 3 |
| 2. Airworthiness requirements | 10 | 3 |
| 3. Civil aviation operating regulations | 10 | 3 |
| 4. Air transport operations | 10 | 3 |
| 5. Organisation and management of the operator | 10 | 3 |
| 6. Operator economics related to maintenance | 10 | 3 |
| 7. Approved maintenance organisations (AMOs) | 30 | 3 |
| 8. Aircraft maintenance licence requirements | 10 | 3 |
| 9. The role of the State aviation regulatory body | 10 | 3 |
| 10. Aircraft certification, documents and maintenance | 10 | 3 |

| *Natural science and general principles of aircraft* | *Hours* | *Level* |
|---|---|---|
| 1. Mathematics | 75 | 1 |
| 2. Physics | 70 | 1 |
| 3. Technical drawing | 70 | 1 |
| 4. Chemistry | 30 | 1 |
| *Aircraft engineering and maintenance: Engines /Power plants* | | |
| 1. Piston engines | 250 | 3 |
| 2. Propellers | 100 | 3 |
| 3. Fuel systems | 100 | 3 |
| *Human performance and limitations—Required knowledge, skills and attitudes* | | |
| 1. General programme overview | 3 | 3 |
| 2. Human Factors knowledge | 3 | 3 |
| 3. Communications skills | 3 | 3 |
| 4. Teamwork skills | 3 | 3 |
| 5. Performance management | 3 | 3 |
| 6. Situation awareness | 3 | 3 |
| 7. Human error | 3 | 3 |
| 8. Reporting and investigating errors | 3 | 3 |
| 9. Monitoring and auditing | 3 | 3 |
| 10. Document design | 3 | 3 |

*(d)* C—Engine, Turbo-jet, turbo-shaft and turbo-propeller:

| *Civil aviation requirements, laws and regulations* | *Hours* | *Level* |
|---|---|---|
| 1. International and State aviation law | 10 | 3 |
| 2. Airworthiness requirements | 10 | 3 |
| 3. Civil aviation operating regulations | 10 | 3 |
| 4. Air transport operations | 10 | 3 |
| 5. Organisation and management of the operator | 10 | 3 |
| 6. Operator economics related to maintenance | 10 | 3 |
| 7. Approved maintenance organisations (AMOs) | 30 | 3 |
| 8. Aircraft maintenance licence requirements | 10 | 3 |
| 9. The role of the State aviation regulatory body | 10 | 3 |
| 10. Aircraft certification, documents and maintenance | 10 | 3 |
| *Natural science and general principles of aircraft* | | |
| 1. Mathematics | 75 | 1 |
| 2. Physics | 70 | 1 |
| 3. Technical drawing | 70 | 1 |
| 4. Chemistry | 30 | 1 |

| *Aircraft engineering and maintenance: Engines /Power plants* | *Hours* | *Level* |
|---|---|---|
| 1. Propellers | 100 | 3 |
| 2. Gas turbine engines | 300 | 3 |
| 3. Fuel systems | 100 | 3 |

| *Human performance and limitations—Required knowledge, skills and attitudes* | | |
|---|---|---|
| 1. General programme overview | 3 | 3 |
| 2. Human Factors knowledge | 3 | 3 |
| 3. Communications skills | 3 | 3 |
| 4. Teamwork skills | 3 | 3 |
| 5. Performance management | 3 | 3 |
| 6. Situation awareness | 3 | 3 |
| 7. Human error | 3 | 3 |
| 8. Reporting and investigating errors | 3 | 3 |
| 9. Monitoring and auditing | 3 | 3 |
| 10. Document design | 3 | 3 |

*(e)* E1—Avionics Systems, Electrical, Instruments and Radio Systems:

| *Civil aviation requirements, laws and regulations* | *Hours* | *Level* |
|---|---|---|
| 1. International and State aviation law | 10 | 3 |
| 2. Airworthiness requirements | 10 | 3 |
| 3. Civil aviation operating regulations | 10 | 3 |
| 4. Air transport operations | 10 | 3 |
| 5. Organisation and management of the operator | 10 | 3 |
| 6. Operator economics related to maintenance | 10 | 3 |
| 7. Approved maintenance organisations (AMOs) | 30 | 3 |
| 8. Aircraft maintenance licence requirements | 10 | 3 |
| 9. The role of the State aviation regulatory body | 10 | 3 |
| 10. Aircraft certification, documents and maintenance | 10 | 3 |

| *Natural science and general principles of aircraft* | | |
|---|---|---|
| 1. Mathematics | 75 | 1 |
| 2. Physics | 70 | 1 |
| 3. Technical drawing | 70 | 1 |
| 4. Chemistry | 30 | 1 |

| *Aircraft engineering and maintenance: Avionics—Electrical and instrument* | | |
|---|---|---|
| 1. Maintenance practices and materials | 200 | 3 |
| 2. Electrical and electronic fundamentals | 450 | 2 |
| 3. Digital techniques, computers and associated devices | 200 | 2 |
| 4. Aircraft electrical systems | 250 | 3 |
| 5. Aircraft instrument systems | 250 | 3 |

| *Aircraft engineering and maintenance: Avionics—Navigation/Radio* | *Hours* | *Level* |
|---|---|---|
| 1. Aircraft inertial navigation systems (INS) | 60 | 3 |
| 2. Aircraft radio and radio navigation systems | 450 | 3 |

| *Human performance and limitations—Required knowledge, skills and attitudes* | | |
|---|---|---|
| 1. General programme overview | 3 | 3 |
| 2. Human Factors knowledge | 3 | 3 |
| 3. Communications skills | 3 | 3 |
| 4. Teamwork skills | 3 | 3 |
| 5. Performance management | 3 | 3 |
| 6. Situation awareness | 3 | 3 |
| 7. Human error | 3 | 3 |
| 8. Reporting and investigating errors | 3 | 3 |
| 9. Monitoring and auditing | 3 | 3 |
| 10. Document design | 3 | 3 |

*(f)* E2—Avionics Systems, Electrical, Instruments Auto -Flight, Flight Management and Radio Systems:

| *Civil aviation requirements, laws and regulations* | *Hours* | *Level* |
|---|---|---|
| 1. International and State aviation law | 10 | 3 |
| 2. Airworthiness requirements | 10 | 3 |
| 3. Civil aviation operating regulations | 10 | 3 |
| 4. Air transport operations | 10 | 3 |
| 5. Organisation and management of the operatcr | 10 | 3 |
| 6. Operator economics related to maintenance | 10 | 3 |
| 7. Approved maintenance organisations (AMOs) | 30 | 3 |
| 8. Aircraft maintenance licence requirements | 10 | 3 |
| 9. The role of the State aviation regulatory body | 10 | 3 |
| 10. Aircraft certification, documents and maintenance | 10 | 3 |

| *Natural science and general principles of aircraft* | | |
|---|---|---|
| 1. Mathematics | 75 | 1 |
| 2. Physics | 70 | 1 |
| 3. Technical drawing | 70 | 1 |
| 4. Chemistry | 30 | 1 |

| *Aircraft engineering and maintenance: Avionics—Electrical and instrument* | | |
|---|---|---|
| 1. Maintenance practices and materials | 200 | 3 |
| 2. Electrical and electronic fundamentals | 450 | 2 |
| 3. Digital techniques, computers and associated devices | 200 | 2 |
| 4. Aircraft electrical systems | 250 | 3 |
| 5. Aircraft instrument systems | 250 | 3 |

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| *Aircraft engineering and maintenance: Avionics—AFCS/Navigation/Radio* | *Hours* | *Level* |
|---|---|---|
| 1. Automatic flight control systems (AFCS): Fixed wing | 200 | 3 |
| 2. Automatic flight control systems (AFCS): Rotary wing | 75 | 3 |
| 3. Aircraft inertial navigation systems (INS) ..... | 60 | 3 |
| 4. Aircraft radio and radio navigation systems ..... | 450 | 3 |

| *Human performance and limitations—Required knowledge, skills and attitudes* | | |
|---|---|---|
| 1. General programme overview ..... | 3 | 3 |
| 2. Human Factors knowledge ..... | 3 | 3 |
| 3. Communications skills ..... | 3 | 3 |
| 4. Teamwork skills ..... | 3 | 3 |
| 5. Performance management ..... | 3 | 3 |
| 6. Situation awareness ..... | 3 | 3 |
| 7. Human error ..... | 3 | 3 |
| 8. Reporting and investigating errors ..... | 3 | 3 |
| 9. Monitoring and auditing ..... | 3 | 3 |
| 10. Document design ..... | 3 | 3 |

Regulation 160(*f*).

**PART C**

1. The following are the experience requirements for the Aircraft Maintenance Engineer Licence categories and ratings:

*(a)* A—Airframe, Fixed wing—without type rating:

Forty-eight months minimum experience of which twelve months experience shall be on fixed wing aircraft.

*(b)* A—Airframe, Fixed wing—type rating:

Six months experience on the fixed wing airframe type sought which may be obtained simultaneously within the forty-eight months minimum experience requirement of subclause *(a)*.

*(c)* A—Airframe, Rotary wing—without type rating:

Forty-eight months minimum experience of which twelve months experience shall be on rotary wing aircraft.

*(d)* A—Airframe, Rotary wing—type rating:

Six months experience on the rotary wing airframe type sought which may be obtained simultaneously within the forty-eight months minimum experience requirement of subclause *(c)*.

*(e)* C—Engine, Piston—without type rating:

Forty-eight months experience of which twelve months experience shall be on piston engines.

*(f)* C—Engine, Piston—type rating:

Six months experience on the piston engine type sought which may be obtained simultaneously within the forty-eight months minimum experience requirement of subclause *(e)*.

*(g)* C—Engine, Turbo-jet, Turbo-prop and Turbo-shaft—without type rating:

Forty-eight months minimum experience of which twelve months experience shall be on turbo-jet, turbo-prop or turbo-shaft engines.

*(h)* C—Engine, Turbo-jet, Turbo-prop and Turbo-shaft—type rating:

Six months experience on the turbo-jet, turbo-prop and turbo-shaft engine type sought which may be obtained simultaneously within the forty-eight months minimum experience requirement of subclause *(g)*.

*(i)* E1—Avionics Systems without type rating limited to electrical, instruments and radio systems:

Forty-eight months minimum experience working on aircraft electrical systems, radio systems and instrument systems.

*(j)* E2—Avionics Systems without type rating:

Forty-eight months minimum experience working on aircraft electrical systems, radio systems, instrument systems, auto-flight systems and flight management systems.

*(k)* E1—Avionics Systems with group rating for an aeroplane of 5 700 kg or less maximum certified take-off mass and a helicopter of 2 730 kg or less maximum certified take-off mass:

Twelve months working experience on aircraft electrical systems, radio systems and instrument systems which may be acquired simultaneously with the experience required by paragraph *(i)*.

*L.R.O.*

*(l)* E2—Avionics Systems with group type rating for an aeroplane of 5 700 kg or less maximum certified take-off mass and a helicopter of 2 730 kg or less maximum certified take-off mass:

Twenty-four months working experience on aircraft electrical, instrument, radio, auto-flight and flight management systems which may be acquired simultaneously with the experience required by paragraph *(j)*.

*(m)* E2—Avionics Systems type rating limited to a specific aeroplane type over 5 700 kg certified take-off mass or a helicopter over 2 730 kg maximum certified take-off mass:

Successful completion of the aircraft manufacturer's type avionics systems course for electrical, radio, instrument, auto flight and flight management systems and twelve months working experience on the aircraft type which may be acquired simultaneously with the experience required in paragraph *(j)*.

2. An applicant for a type rating shall provide a record of work he performed over the time period specified as evidence of the maintenance work performed in support of the type rating sought.

**PART D**

Regulation 160*(g)*.

The following are the skills training areas for the Aircraft Maintenance Engineer Licence categories:

| *(a) Practical Maintenance Skills—Airframe* | *Hours* | *Level* |
|---|---|---|
| 1. Basic workshop and maintenance practices—Airframe | 725 | 3 |
| 2. Basic workshop and maintenance practices—Repair, maintenance and function testing of aircraft systems and components | 1000 | 3 |
| 3. Job and task documentation and control practices | 100 | 3 |

*(b)* C—Engine, Piston and Turbo-jet, Turbo-prop and Turbo-shaft:

| *Practical Maintenance Skills—Engine and Propeller* | *Hours* | *Level* |
|---|---|---|
| 1. Basic workshop and maintenance practices—Engine and propeller | 450 | 3 |
| 2. Basic workshop and maintenance practices—Engine, propeller systems, component and function testing | 450 | 3 |
| 3. Job and task documentation and control practices | 100 | 3 |
| *Practical Maintenance Skills—Electrical, Instruments and Radio* | | |
| 1. Basic workshop and maintenance practices—Avionics Electrical | 775 | 3 |
| 2. Basic workshop and maintenance practices—Avionics Instruments | 1000 | 3 |
| 3. Basic workshop and maintenance practices—Avionics Radio | 875 | 3 |
| 4. Repair, maintenance and function testing of aircraft avionics systems and components | 100 | 3 |
| 5. Job and task documentation and control practices | 100 | 3 |
| *Practical Maintenance Skills—Electrical, Instruments, Auto-flight and Radio* | | |
| 1. Basic workshop and maintenance practices—Avionics Electrical | 775 | 3 |
| 2. Basic workshop and maintenance practices—Avionics Instruments | 1000 | 3 |
| 3. Basic workshop and maintenance practices—Avionics Auto-Flight | 225 | 3 |
| 4. Basic workshop and maintenance practices—Avionics Radio | 875 | 3 |
| 5. Repair, maintenance and function testing of aircraft avionics systems and components | 100 | 3 |
| 6. Job and task documentation and control practices | 100 | 3 |

E2—Avionics Systems.

*L.R.O.*

Regulation 163(3).

**PART E**

1. The pass mark for an Aircraft Maintenance Engineer Licence written test shall be 75 per cent.

2. A person who fails a written test for an Aircraft Maintenance Engineer Licence is eligible to retake such test after the time period specified in the following Table from the date of notification:

| *Percentage Scored* | *Examination may be rewritten—* |
|---|---|
| 70—74.99% | no sooner than one week; |
| 65—69% | no sooner than two weeks; |
| 60—64% | no sooner than four weeks; |
| 50—59% | no sooner than three months; |
| 30—50% | no sooner than six months; and |
| less than 30% | no sooner than twelve months. |

3. Where an applicant was not successful at an interview for an Aircraft Maintenance Engineer Licence, the Director General may, at his discretion, determine the minimum time period after which such applicant may return for another interview.

Regulation 164.

**PART F**

1. A holder of an Aircraft Maintenance Engineer Licence—

*(a)* in the Airframe and Engine categories without a type rating shall have no certification privileges; and

*(b)* in the Airframe, Engine and Avionics Systems categories with type rating shall have no certification privileges for an aircraft engaged in commercial air transport operations.

*Note: An Approved Maintenance Organisation and an operator approved by the Authority to perform maintenance under an equivalent system shall be responsible for the certification of an aircraft engaged in commercial air transport operations, an aeroplane of over 5, 700 kg maximum certified take-off mass not engaged in commercial air transport operations and a helicopter of over 2, 730 kg maximum certified take-off mass not engaged in commercial air transport operations.*

2. A holder of an Aircraft Maintenance Engineer Licence shall not issue a Certificate of Release to Service for maintenance work, except where such work

was successfully accomplished in accordance with the Aircraft Maintenance Manual or document referenced in the Aircraft Maintenance Manual.

3. A holder of an Aircraft Maintenance Engineer Licence with an Airframe category and type rating shall have the following certification privileges appropriate to the type rating held:

*(a)* issue a Certificate of Release to Service for—

(i) work completed on an aircraft or component, including duplicate inspections, repairs, component and accessories replacement, modifications, servicing and system tests on the airframe and systems of an aircraft on which the person holds the rating;

(ii) the replacement of avionics components where no specialised test equipment or procedures such as soldering or connector pin replacement is required and the license holder has received training on the affected system as part of his approved type course, on an aircraft on which the person holds a type rating;

(iii) for the satisfactory completion of a scheduled or unscheduled inspection and return of the aircraft to service; and

*(b)* issue a Certificate of Maintenance Review in accordance with regulation 31A of the Civil Aviation [(No. 5) Airworthiness] Regulations. Sub. Leg.

4. An Aircraft Maintenance Engineer Licence with an Engine category and type rating shall have the privileges appropriate to the type rating held to issue a Certificate of Release to Service for work completed on a power plant, or power plant component including duplicate inspections, repairs, component and accessory replacements, modifications, servicing and system tests on any power plant on which the person holds a type rating.

5. A holder of an Aircraft Maintenance Engineer Licence with Airframe and Engine categories and type ratings for an aircraft shall be eligible to make a statement in the aircraft permanent record that such aircraft was inspected and found to be safe for the intended flight and affix his signature against such statement as required by a Special Flight Permit issued by the Authority under regulation 12(5) of the Civil Aviation [(No. 5) Airworthiness] Regulations.

*L.R.O.*

6. (1) The holder of an Aircraft Maintenance Engineer Licence with an E1 Avionics Systems category shall have the privilege to issue a Certificate of Release to Service for work completed on electrical systems or components, radio systems or components, and instrument systems or components, including duplicate inspections, repairs, component and accessory replacements, modifications, scheduled and unscheduled inspections for an—

*(a)* aeroplane 5 700 kg or less maximum certified take-off mass and a helicopter 2 730 kg or less maximum certified take-off mass, appropriate to the category held; and

*(b)* aeroplane over 5 700 kg maximum certified take-off mass and a helicopter over 2 730 kg maximum certified take-off mass, appropriate to a type rating held.

(2) The holder of an Aircraft Maintenance Engineer Licence with an E2 Avionics Systems category shall have the privilege to issue a Certificate of Release to Service for work completed on electrical systems or components, radio systems or components, instrument systems or components, auto-flight systems and components and flight management systems and components, including duplicate inspections, repairs, component and accessory replacements, modifications, scheduled and unscheduled inspections for an—

*(a)* aeroplane 5 700 kg or less maximum certified take-off mass and a helicopter 2 730 kg or less maximum certified take-off mass, appropriate to the category held; and

*(b)* aeroplanes over 5 700 kg maximum certified take-off mass and a helicopter over 2 730 kg maximum certified take-off mass, appropriate to a type rating held.

(3) The privileges under paragraphs (1) and (2) shall be—

*(a)* limited to the removal and replacement of components, system testing, trouble-shooting, repairs to wiring, connectors, or installations, as well as calibrations or adjustments described in the Aircraft Maintenance Manuals; and

*(b)* restricted from reassembling or carrying out any repair on a component, except where such repair is specifically defined in the Aircraft Maintenance Manual or document referenced by the Aircraft Maintenance Manual.

7. A holder of an Aircraft Maintenance Engineer Licence with compass compensation and adjustment rating may issue a Certificate of Release to Service for maintenance work performed on an aircraft compass system appropriate to the rating held.

8. (1) The certification privileges of a holder of an Aircraft Maintenance Engineer Licence category with a type rating is restricted to repairs, replacements, modifications, mandatory inspections, scheduled and unscheduled maintenance inspections or any other tasks described in the Aircraft Manufacturer's Maintenance and Service Manuals, FAA Advisory Circular AC43.13-1B/2B as amended from time to time or the equivalent publication issued by the European Aviation Safety Agency (EASA), Transport Canada, UK CAA or Trinidad and Tobago CAA.

(2) Where certification is done under subclause (1), a holder of an Aircraft Maintenance Engineer Licence in a category with a type rating shall be responsible for the condition, assembly, installation and functioning of all parts of the airframe, power plant or avionics systems, as applicable, affected by the work carried out.

9. A holder of an Aircraft Maintenance Engineer Licence in the Airframe category with a type rating shall not issue a Certificate of Release to Service, in respect of an airframe or component where work has been done involving the repair, replacement or modification by riveting, bonding, welding, laminating, or the manufacture of—

*(a)* a fuselage longeron (stringer) or frame;

*(b)* a box or truss beam, wing stringer or chord member, wing main rib or spar;

*(c)* a seat support brace or bracket;

*(d)* an engine mount assembly or part thereof;

*(e)* repairs to fiber-reinforced plastic and epoxy primary structures;

*(f)* covering a fuselage or airfoil with cotton, linen, polyester or glass-fibre fabric;

*(g)* disturbing of individual parts of units which are supplied as bench-tested units, except for replacement or adjustment of items normally replaceable or adjustable in service where subsequent functioning may be proved without the use of test apparatus used for normal functioning check;

*(h)* repair of any surface, of damage extending more than six inches in length in any direction, where the surface is subject to pressurisation loads; and

*(i)* any repair to aircraft skin, whether or not subject to pressurisation loads, where the use of support, jig or fixture is required.

10. A holder of an Aircraft Maintenance Engineer Licence in the Engine category with a type rating shall not issue a Certificate of Release to Service for—

*(a)* repairs to a wooden, or composite blade or propeller;

*(b)* reassembly of the crankcase of a reciprocating engine;

*(c)* overhaul or reassembly of a turbine engine or turbine engine module;

*(d)* repairs to a propeller that is beyond the limits recommended in the manufacturer's maintenance manual or service instructions;

*(e)* reassembly of a controllable pitch or variable-pitch propeller; and

*(f)* an engine mount assembly or part thereof.

11. A holder of an Aircraft Maintenance Engineer Licence may provide guidance and supervision for a structured programme of self-study for the knowledge and skills training of personnel preparing for an Aircraft Maintenance Licence in a category, where he—

*(a)* has been engaged in the maintenance of aircraft for at least twelve months in the previous two years;

*(b)* has received training on the fundamentals of instructing which includes—

(i) the learning process;

(ii) elements of effective teaching;

(iii) student evaluation and testing;

(iv) course development;

(v) lesson planning;

(vi) classroom training techniques;

(vii) assessment of student performance; and

(viii) analysis and correction of student errors;

*(c)* has been approved by the Authority prior to commencement of the programme of self-study.

12. A holder of an Aircraft Maintenance Engineer Licence may conduct skills testing of personnel for an Aircraft Maintenance Licence in a category or rating, where he—

*(a)* holds a valid Aircraft Maintenance Engineer Licence in such category or rating for more than five years;

*(b)* has been engaged in the aircraft maintenance activities for at least twenty-four months in the previous five years;

*(c)* has received training on the fundamentals of instructing which includes—

(i) the learning process;

(ii) elements of effective teaching;

(iii) student evaluation and testing;

(iv) course development;

(v) lesson planning;

(vi) classroom training techniques;

(vii) assessment of student performance;

(viii) analysis and correction of student errors; and

*(d)* is approved by the Authority to conduct skills testing of personnel applying for an Aircraft Maintenance Engineer Licence in the category or rating sought.

**PART G**

Regulation 167.

The following are the standards for the renewal of an Aircraft Maintenance Engineer Licence:

1. The holder shall provide to the Authority documented records that demonstrate that, over a period of six months during the preceeding twenty-four months he has—

*(a)* performed maintenance on aircraft;

*(b)* supervised the performance of aircraft maintenance;

*(c)* supervised, in an executive capacity, an aircraft maintenance function;

*(d)* served as an aviation maintenance instructor;

*(e)* supervised another aviation maintenance instructor in an aircraft maintenance training course provided by an Aviation Training Organisation; or

*(f)* carried out inspections on aircraft for the purpose of determining airworthiness.

2. Where an Aircraft Maintenance Engineer is unable to meet the requirements of clause 1 for renewal of his Aircraft Maintenance Engineer Licence, he may regain eligibility for renewal by—

*(a)* performing aircraft maintenance under the supervision the holder of a valid Aircraft Maintenance Engineer Licence for a minimum period of six months, provided that the supervising Aircraft Maintenance Engineer is the person signing the renewal application form attesting to his competency; and

Schedule 13. Part B.

*(b)* successfully completing a written test in the areas of civil aviation requirements, laws and regulations set out in Part B of Schedule 13.

3. Where an application for renewal of an Aircraft Maintenance Engineer Licence is made—

*(a)* prior to expiration of the licence and the requirements of clause 1 is satisfied, the licence shall be renewed for a period of two years;

*(b)* two years or less after the licence has expired and the requirements of clause 1 is satisfied, the licence shall be renewed for two years from the date the renewal was approved; or

*(c)* more than two years after the licence has expired, the application may be approved where the applicant demonstrates that during the elapsed period he has been performing one of the functions in clause 1 while holding a valid aircraft maintenance licence from another Contracting State.

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## SCHEDULE 14

## IMPLEMENTING STANDARDS

Regulation191 (1). [301/2004 222/2005 196/2009].

The following standards are numbered to correspond numerically to the relevant provisions in the regulations:

**Regulation 5**

An airman licence issued under these Regulations shall meet the following minimum standards:

*(a)* an airman licence shall be printed on first quality paper or other suitable material and the items mentioned in regulation 5(1)*(c)* shown clearly thereon;

*(b)* the following colours apply:

(A) white for student pilot;

(B) light brown for private pilot of an aeroplane;

(C) light blue for commercial pilot of an aeroplane;

(D) dark green for airline transport pilot of an aeroplane;

(E) pink for glider pilot;

(F) violet for free balloon pilot;

(G) brown for flight engineer;

(H) maroon for aircraft maintenance; and

(I) yellow for air traffic controller;

*(c)* the Trinidad and Tobago Civil Aviation Authority ensures that the privileges granted by a pilot licence, or by related ratings, are not exercised unless the holder maintains competency and meets the requirements for recent experience, by the examination of the following documents:

(i) Pilot Medical Certificate;

(ii) Pilot log book;

(iii) Pilot Licence;

(iv) Pilot Authorisation; and

(v) any other documents as may be required by the Authority;

*(d)* examination of the above mentioned documents may take place:

(i) during the Renewal of Certificate of validity of the Pilot's Licence;

(ii) during Ramp Checks; and

(iii) during flight Checks.

**Regulation 31**

Where the applicant has met the requirements pertinent to the operation of the radio-telephone on board an aircraft, the Director-General may recommend the Authority endorse the pilot licence for the operation of such radio-telephone.

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*L.R.O.*

**Regulation 33**

The following procedures meet the minimum skill requirements for a Private Pilot Licence with a helicopter rating:

| | |
|---|---|
| PARAGRAPH 1<br>PRE-FLIGHT CHECKS AND PREPARATIONS | |
| *Use of checklist, airmanship (control of helicopter by external visual reference, anti/de-icing procedures, etc.) apply in all Paragraphs.* | |
| a | Helicopter knowledge |
| b | Mass and balance |
| c | Pre-flight inspection: external and internal |
| d | Starting procedure |
| e | Taxiing including hover and air taxi |
| F | Pre-take-off procedures |
| g | ATC liaison – compliance, R/T procedures |
| PARAGRAPH 2<br>Hover manoeuvres<br>(including confined areas) | |
| a | Lift off and touch down |
| b | Stationary hovering with head-cross-tail wind, if applicable |
| c | Stationary hover turns 360 degrees left and right |
| d | Forward, sideways and rearwards hovering |
| e | Simulated engine failure during hovering (at aerodromes only) |
| PARAGRAPH 3<br>Take offs (including from unprepared sites AND confined areas) | |
| a | Take offs (various profiles) |
| b | Simulated engine failure during take off (at aerodromes only) |
| c | After T/O checks, departure procedure, Air Traffic Control liaison and compliance, R/T procedures |
| PARAGRAPH 4<br>Flight Procedures and manoeuvres | |
| a | Climbing and descending turns on to specified headings |
| b | Level flight, control of heading, altitude and speed |
| c | Level turns with 30° bank, 180° to 360° left and right, visually and 180 degrees level turns by sole reference to instruments |
| PARAGRAPH 5<br>NAVIGATION | |
| a | Navigation at various altitudes, map reading |
| b | Altitude, speed, heading control, observation of airspace, altimeter setting |
| c | Observation of weather conditions, assessment of trends, diversion planning |
| d | Monitoring of flight progress, flight log, fuel usage, instrument monitoring |
| e | Use of radio navigation aids |

| | |
|---|---|
| | PARAGRAPH 6<br>Approach and landings, (including to unprepared sites and confined areas) |
| a | Arrival procedures, altimeter setting, checks |
| b | ATC liaison and compliance, RT procedures |
| c | Landings (various profiles) |
| d | Quick stops from different speeds |
| e | Descent in autorotation |
| f | Autorotative landing (at aerodromes only) |
| g | Action after flight |
| | PARAGRAPH 7<br>ABNORMAL AND EMERGENCY PROCEDURES<br>(simulated where appropriate) |
| a | Engine |
| b | Fuel system |
| c | Electrical system |
| d | Hydraulic system (if relevant) |
| e | Main and Tail rotor system |
| f | Other abnormal and emergency procedures as outlined in the appropriate Flight Manual |

**Regulation 40**

Where the applicant has met the requirements pertinent to the operation of the radio-telephone on board an aircraft, the Director-General may recommend the Authority endorse the pilot licence for the operation of such radio-telephone.

**Regulation 42**

The following procedures meet the minimum skill requirements for a Commercial Pilot Licence with a helicopter rating:

| | |
|---|---|
| | PARAGRAPH 1<br>PRE-FLIGHT CHECKS AND PREPARATION |
| *Use of checklist, airmanship (control of helicopter by external visual reference, anti/de-icing procedures, etc.) apply in all Paragraphs.* | |
| a | Helicopter knowledge |
| b | Mass and balance |
| c | Pre-flight inspection: external and internal |
| d | Starting procedure |
| e | Taxiing including hover and air taxi |
| f | Pre-take-off procedures |
| g | ATC liaison – compliance, R/T procedures |

| | |
|---|---|
| | PARAGRAPH 2<br>HOVER MANOEUVRES WITH AND WITHOUT STABILITY AUGMENTATION SYSTEM (SAS), IF EQUIPPED INCLUDING CONFINED AREAS |
| a | Lift off and touch down |
| b | Stationary hovering with head-cross-tail wind, if applicable |
| c | Stationary hover turns 360° left and right |
| d | Forward, sideward and rearward hovering |
| e | Simulated engine failure during hovering (at aerodromes only) |
| | PARAGRAPH 3<br>TAKE-OFFS (INCLUDING FROM UNPREPARED SITES AND CONFINED AREAS) |
| a | Take-offs (various profiles) |
| b | After T/O checks departure procedure, ATC liaison and compliance, R/T procedures |
| | PARAGRAPH 4<br>FLIGHT MANOEUVRES AND PROCEDURES BY SOLE REFERENCE TO INSTRUMENTS |
| a | Climbing and descending turns on to specified headings |
| b | Level flight, control of heading, altitude and airspeed |
| c | Recovery from unusual attitudes |
| d | Turns with 30° bank, 180° to 360° degrees left and right |
| | PARAGRAPH 5<br>EN ROUTE PROCEDURES |
| a | Navigation at various altitudes, map reading |
| b | Altitude, speed, heading control, observation of airspace, altimeter setting |
| c | Observation of weather conditions, assessment of trends, diversion planning |
| d | Monitoring of flight progress, flight log, fuel usage, instrument monitoring |
| e | Tracking, positioning (NDB and/or VOR), identification of facilities |
| | PARAGRAPH 6<br>APPROACH AND LANDINGS, (INCLUDING TO UNPREPARED SITES AND CONFINED AREAS) |
| a | Arrival procedures, altimeter setting, checks |
| b | ATC liaison and compliance, R/T procedures |
| c | Landings (various profiles) |
| d | Quick stops from different speeds |
| e | Descend in autorotation |
| f | Autorotative landing (at aerodromes only) (Straight in, 90° and 180° turn) |
| | PARAGRAPH 7<br>ABNORMAL AND EMERGENCY PROCEDURES (SIMULATED WHERE APPROPRIATE) |
| a | Engine |
| b | Fuel system |
| c | Electrical system |
| d | Hydraulic system |
| e | Main and Tail rotor system |
| f | Other abnormal and emergency procedures as outlined in the appropriate Flight Manual |

**Regulation 50**

Where the applicant has met the requirements pertinent to the operation of the radio-telephone on board an aircraft, the Director-General may recommend the Authority endorse the pilot licence for the operation of such radio-telephone.

**Regulation 58**

The following procedures meet the minimum skill requirements for a Type Rating for an Airline Transport Pilot Licence:

*(a)* the symbols hereunder has the mean that follows:

"P" = Trained as pilot in command or co-pilot and as Pilot Flying (PF) and Pilot Not Flying (PNF) for the issue of a type rating as applicable;

"X" = Simulators shall be used for this exercise, if available, otherwise an aircraft shall be used except where indicated.

*(b)* the practical training shall be conducted at least at the training equipment level shown as (P), or may be conducted up to any higher equipment level shown by the arrow (>). The following abbreviations are used to indicate the training equipment used:

A/C = Aircraft
S = Flight Simulator
TD = Flight Training Device
TD = Other Training Devices

*(c)* the starred items (*) shall be flown in actual or simulated Instrument Meterological Conditions.

*(d)* where the letter "M" appears in the skill test/ proficiency check column this will indicate the mandatory exercise.

*(e)* a flight simulator shall be used for practical training if the simulator forms part of an approved type-rating course. The following considerations will apply to the approval of the course:

(i) the qualification of the flight simulator as set out in the Act or Regulations made thereunder;

(ii) the qualifications of the instructor and examiner;

(iii) the amount of line-orientated simulator training provided on the course;

(iv) the qualifications and previous line operating experience of the pilot under training; and

(v) the amount of supervised line flying experience provided after the issue of the new type rating.

| | PRACTICAL TRAINING | | | | | ATPL/TYPE-RATING SKILL TEST/PROF. CHECK | |
|---|---|---|---|---|---|---|---|
| **Manoeuvres/Procedures**<br>Aeroplanes certificated for two pilots shall include MCC training and testing. | OTD | FTD | FS | A/C | Instructor initials when training completed | Chkd in<br>FS A/C | FE initials when test completed |
| **PARAGRAPH 1**<br>**1 Flight preparation**<br>1.1 Performance calculation | P | | | | | | |
| 1.2 Aeroplane ext. visual inspect.; location of each item and purpose of inspection | | | | P | | | |
| 1.3 Cockpit inspection | | P | | | | | |
| 1.4 Use of checklist prior to starting engines, starting procedures, radio and navigation equipment check, selection and setting of navigation and communication frequencies. | P | > | > | > | | M | |
| 1.5 Taxiing in compliance with air traffic control or instructions of instructor. | | | P | > | | | |
| 1.6 Pre-flight checks | | P | > | > | | M | |
| **PARAGRAPH 2**<br>**2 Take-offs**<br>2.1 Normal take offs with different flap settings, including expedited take off. | | | P | > | | | |
| 2.2 Instrument take-off; transition to instrument flight is required during rotation or immediately after becoming airborne. | | | P* | > | | | |
| 2.3 Cross wind take-off (aircraft, if practicable) | | | P | > | | | |
| 2.4 Take-off at maximum take-off mass (actual or simulated maximum take-off mass) | | | P | > | | | |
| 2.5 Take-offs with simulated. engine failure<br>2.5.1* shortly after reaching V2, or | | | P* | > | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Unless otherwise approved by the Authority, the engine failure shall not be simulated until reaching a minimum height of 500ft above runway end. In aeroplanes having the same performance as a transport category aeroplane regarding take-off mass and density altitude, the instructor may simulate the engine failure shortly after reaching V2.* | | | | | | | |
| 2.5.2 between V1 and V2, or | | | P* | X | | M* FS Only | |
| 2.5.3 as close as possible after V1, when V1 and V2 or V1 and VR are identical. | | | P* | X | | M* FS Only | |
| 2.5.4 Rejected take-off at a reasonable speed before reaching V1, giving due consideration to aeroplane characteristics, runway length, surface conditions, wind direction, brake heat energy, and any other factors that might adversely affect safety. | | | P | >X | | M | |
| **PARAGRAPH 3**<br>**3 Flight Manoeuvres and Procedures**<br>3.1 Turns with and without spoilers. | | | P | | | | |
| 3.2 Tuck under and Mach buffets after reaching the critical Mach number, and other specific flight characteristics of the aeroplane (e.g. Dutch Roll) | | | P | >X<br>An aircraft may not be used for this exercise | | M | |
| 3.3 Normal operation of systems and controls engineer's panel. | P | > | > | > | | | |
| 3.4 Normal and abnormal operations of following systems: | | | | | | A minimum of 3 items shall be selected from 3.4 to 3.5 inclusive. | |
| 3.4.0 Engine (if necessary propeller) | P | > | > | > | | | |
| 3.4.1 Pressurisation and air-conditioning | P | > | > | > | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3.4.2 Pitot/static system | P | > | > | > | | | |
| 3.4.3 Fuel system | P | > | > | > | | | |
| 3.4.4 Electrical system | P | > | > | > | | | |
| 3.4.5 Hydraulic system | P | > | > | > | | | |
| 3.4.6 Flight control and Trim-system | P | > | > | > | | | |
| 3.4.7 Anti- and de-icing system, Glare shield heating | P | > | > | > | | | |
| 3.4.8 Autopilot/Flight director | P | > | > | > | | | |
| 3.4.9 Stall warning devices or stall avoidance devices, and stability augmentation devices. | P | > | > | > | | | |
| 3.4.10 Ground proximity warning system Weather radar, radio altimeter, transponder. | P | > | > | > | | | |
| 3.4.11 Radios, navigation equipment, instruments, flight management system. | P | > | > | > | | | |
| 3.4.12 Landing gear and brake-system. | P | > | > | > | | | |
| 3.4.13 Slat and flap system. | P | > | > | > | | | |
| 3.4.14 Auxiliary power unit. | P | > | > | > | | | |
| **3.5 TCAS** | P | > | > | | | | |
| **3.6 Abnormal and emergency procedures:** 3.6.1 Fire drills e.g. Engine, Auxillary power unit, cabin, cargo compartment, flight deck, wing and electrical fires including evacuation. | | P | > | > | | A minimum of 3 items shall be selected from 3.6 to 3.6.8 inclusive. | |
| 3.6.2 Smoke control and removal. | | P | > | > | | | |
| 3.6.3 Engine failures, shut-down and restart at a safe height. | | P | > | > | | | |
| 3.6.4 Fuel dumping (simulated). | | P | > | > | | | |
| 3.6.5 Windshear at Take off/landing. | | | P | X | | FS Only | |
| 3.6.6 Simulated cabin pressure failure/Emergency descent. | | | P | > | | | |
| 3.6.7 Incapacitation of flight crew flight member. | | P | > | > | | | |
| 3.6.8 Other emergency procedures as outlined in the appropriate aeroplane Flight Manual. | | P | > | > | | | |
| 3.7 Steep turns with 45° bank, 180° to 360° left and right. | | P | > | > | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3.8 Early recognition and counter measures on approaching stall (up to activation of stall warning device) in take-off configuration (flaps in take-off position), in cruising flight configuration and in landing configuration (flaps in landing position, gear extended) | | | P | > | | | |
| 3.8.1 Recovery from full stall or after activation of stall warning device in climb, cruise and approach configuration. | | | P | X | | | |
| **3.9 Instrument flight procedures:** 3.9.1 Adherence to departure and arrival routes and ATC instructions. | | P* | > | > | | M* | |
| 3.9.2 Holding procedures. | | P* | > | > | | | |
| 3.9.3 ILS-approaches down to a a decision height (DH) not less than 200 ft. 3.9.3.1 manually, without flight director. | | | P* | > | | M* | |
| 3.9.3.2 manually, with flight director. | | | P* | > | | | |
| 3.9.3.3 automatically, with autopilot. | | | P* | > | | | |
| 3.9.3.4 manually, with one engine simulated inoperative; engine failure has to be simulated during final approach from before passing the outer marker (OM) until touchdown or through the complete missed approach procedure. *Unless otherwise approved by the Authority, the approach with simulated engine failure and the ensuing go-around shall be initiated in conjunction with the NDB or VOR approach as described in 3.9.4. The go-around shall be initiated when reaching the published obstacle clearance height (OCH/A), however, not later than reaching a minimum descent height/altitude (MDH/A) of 500 ft above runway threshold elevation. In aeroplanes having the same performance as a transport category aeroplane regarding take-off mass and density altitude, the instructor may simulate the engine failure in accordance with 3.9.3.4.* | | | P* | > | | M* | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3.9.4 NDB or VOC/LOC-approach down to the MDH/A. | | | P* | > | | M* | |
| 3.9.5 Circling approach under following conditions:<br>(a) approach to the authorized minimum circling approach altitude at the aerodrome in question in accordance with the local instrument approach facilities in simulated instrument flight conditions;<br>followed by:<br>(b) circling approach to another runway at least 90° off centreline from final approach used in item a), at the authorized minimum circling approach altitude;<br>*Remark: if a) and b) are not possible due to Air Traffic Control reasons a simulated low visibility pattern may be performed.* | | | P* | > | | M* | |
| **PARAGRAPH 4**<br>**4 Missed Approach Procedures**<br>4.1 Go-around with all engines operating* after an Instrument Landing System approach on reaching decision height. | | | P* | > | | | |
| 4.2 Other missed approach procedures. | | | P* | > | | | |
| 4.3 Go-around with one engine simulated inoperative* after an Instrument Landing System approach on reaching Decision Height (see also 3.9.3.4). | | | P* | > | | | |
| 4.4 Rejected landing at 50 feet above runway threshold and go-around. | | | P | > | | | |
| **PARAGRAPH 5**<br>**5 Landings**<br>5.1 Normal landings* also after an ILS approach with transition to visual flight on reaching Decision Height. | | | P | | | | |
| 5.2 Landing with simulated jammed horizontal stabiliser in any out-of-trim position. | | | P | >X<br>an aircraft may not be used for this exercise | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5.3 Cross wind landings (aircraft, if practicable). | | | P | > | | | |
| 5.4 Traffic pattern and landing without extended or with partly extended flaps and slats. | | | P | > | | | |
| 5.5 Landing with critical engine simulated inoperative. | | | P | > | | | |
| 5.6 Landing with two engines simulated inoperative:<br>– *Aeroplanes with three engines: the centre engine and one outboard engine as far as practicable according to data of the AFM.*<br>– *Aeroplanes with four engines: two engines at one side.* | | | P | X | | FS Only | |
| **General remarks:**<br>**Proposed sequence for skill test**<br>**Special requirements for extension of a type rating for instrument approaches down to a decision height of less than 200 feet (60 m), i.e. Cat II/III operations.** | | | | | | | |
| **PARAGRAPH 6**<br>**6 Type rating for instrument approaches down to a decision height of less than 200 feet (CAT II/III)**<br>The following manoeuvres and procedures are the minimum training requirements to permit instrument approaches down to a Decision Height of less than 200 feet.<br>During the following instrument approaches and missed approach procedures all aeroplane equipment required for type certification of instrument approaches down to a Decision Height of less than 200 feet shall be used.<br>6.1 Aborted take-off at minimum authorized Runway Visual Range. | | | P* | >X<br>an aircraft may not be used for this exercise | | | |
| 6.2 ILS Approaches<br>In simulated instrument flight conditions down to the applicable DH, using flight guidance system.<br>Standard procedures of crew co-ordination (task sharing, call out procedures, mutual surveillance, information exchange and support) shall be observed. | | | P* | > | | M* | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6.3 Go-around after approaches as indicated in 6.2 on reaching DH. The training also shall include a go-around due to (simulated) insufficient RVR, wind shear, aeroplane deviation in excess of approach limits for a successful approach, and ground/airborne equipment failure prior to reaching DH and, go-around with simulated airborne equipment failure. Special attention shall be given to go-around procedures with pre-calculated manual or automatic go-around attitude guidance. | | | P* | > | | M* | |
| 6.4 Landing(s). with visual reference established at DH following an instrument approach. Depending on the specific flight guidance system, an automatic landing shall be performed. | | | P* | > | | M* | |

*NOTE: CAT II/III operations shall be accomplished in accordance with Operational Rules.*

**CONTENTS OF THE AIRLINE TRANSPORT PILOT LICENCE/TYPE RATING TRAINING/ SKILL TESTAND PROFICIENCY CHECK ON MULTI-PILOT HELICOPTERS**

| **Manoeuvres / Procedures** (Including MCC on multi-pilot helicopters) | |
|---|---|
| | |
| **PARAGRAPH 1** | |
| 1+ | Pre-flight preparations and checks |
| 1.1 | Helicopter exterior visual inspection; location of each item and purpose of inspection. |
| 1.2 | Cockpit inspection |
| 1.3 | Starting procedures, radio and navigation equipment check, selection and setting of navigation and communication frequencies |
| 1.4 | Taxiing /air taxiing in compliance with air traffic control instructions or on instructions of an instructor |
| 1.5 | Pre take off procedures and checks |
| **PARAGRAPH 2** | |
| 2 | Take-offs |
| 2.1 | Take-offs (various profiles ) |
| 2.2 | Cross wind take-off (if practicable) |
| 2.3 | Take-off at maximum take-off mass (actual or simulated maximum take-off mass) |
| 2.4 | Take-offs with simulated engine failure: |
| 2.4.1 | Shortly before reaching TDP, or DPAT |

| | |
|---|---|
| 2.4.2 | Shortly after reaching TDP, or DPAT |
| PARAGRAPH 3 | |
| 3 | Flight manoeuvres and procedures |
| 3.1 | Turns |
| 3.2 | Landings, various profiles |
| 3.2.1 | Landing following simulated engine failure before LDP or DPBL |
| 3.2.2 | Landing following simulated engine failure after LDP or DPBL |
| 3.3 | Normal and abnormal operations of the following systems and procedures: |
| 3.3.1 | Engine |
| 3.3.2 | Air conditioning (heating, ventilation) |
| 3.3.3 | Pitot/static system |
| 3.3.4 | Fuel System |
| 3.3.5 | Electrical system |
| 3.3.6 | Hydraulic system |
| 3.3.7 | Flight control and Trim-system |
| 3.3.8 | Anti- and de-icing system |
| 3.3.9 | Autopilot/Flight director |
| 3.3.10 | Stability augmentation devices |
| 3.3.11 | Weather radar, radio altimeter, transponder |
| 3.3.12 | Area Navigation System |
| 3.3.13 | Landing gear system |
| 3.3.14 | Tail rotor control failure (if applicable) |
| 3.3.15 | Tail rotor loss (if applicable) |
| 3.3.16 | Auxiliary power unit |
| 3.3.17 | Radio, navigation equipment, instruments flight management system |
| 3.4 | Abnormal and emergency procedures |
| 3.4.1 | Fire drills (including evacuation if applicable) |
| 3.4.2 | Smoke control and removal |
| 3.4.3 | Engine failures, shut down and restart at a safe height |
| 3.4.4 | Fuel dumping (simulated) |
| 3.4.5 | Autorotation descent |
| 3.4.6 | Autorotative landing or power recovery |
| 3.4.7 | Incapacitation of crew member |
| 3.4.8 | Other emergency procedures as outlined in the appropriate Flight Manual |
| 3.5 | Turns with 30° bank, 180° to 360° left and right, by sole reference to instruments |
| **PARAGRAPH 4** | |
| 4 | INSTRUMENT FLIGHT PROCEDURES (To be performed in IMC or simulated IMC). |
| 4.1 | Instrument take-off : transition to instrument flight is required as soon possible after becoming airborne |
| 4.2 | Adherence to departure and arrival routes and Air Traffic Control instructions |
| 4.3 | Holding procedures |

| | |
|---|---|
| 4.4 | ILS-approaches down to CAT 1 decision height |
| 4.4.1 | manually, without flight director |
| 4.4.2 | manually, with flight director |
| 4.4.3 | with coupled autopilot |
| 4.4.4 | manually, with one engine simulated inoperative.<br>(Engine failure has to be simulated during final approach before passing the outer marker (OM) until touchdown, or through the complete missed approach procedure) |
| 4.5 | Non-precision approach down to the minimum descent altitude MDA/H |
| 4.6 | Circling approach under following conditions:<br>a) Approach to the authorized minimum circling altitude at the aerodrome in question in accordance with the local instrument approach facilities in simulated instrument flight conditions;<br>followed by:<br>b) Circling approach to another runway at least 90 degrees off centreline from final approach used in item a), at the authorized minimum circling approach altitude.<br>Remark: if a) and b) are not possible due to Air Traffic Control reasons a simulated low visibility circuit (visibility less than 800 metres) may be performed. |
| 4.7 | Missed Approach Procedures |
| 4.7.1 | Go-around with all engines operating on reaching decision height/MDA |
| 4.7.2 | Other missed approach procedures |
| 4.7.3 | Go-around with one engine simulated inoperative on reaching decision height/MDA |
| 4.7.4 | IMC autorotation with power recovery |
| **PARAGRAPH 5** | |
| 5 | Additional authorization on a type rating for instrument approaches down to a decision height of less than 60 m (200 ft) (CAT II/III)<br>Following manoeuvres and procedures are to be trained for the purpose of type rating extension to instrument approach down to a DH of less than 60 m (200 ft)<br>During the following instrument approaches and missed approach procedures all equipment necessary for type certification of instrument approaches down to a decision height of less than 60 m (200 ft) has to be used |
| 5.1 | Aborted take off ;<br>at take off weather minima |
| 5.2 | Instrument Landing System approach down to a decision height applied for using flight guidance system standard procedures of crew co-ordination (task sharing, calling procedures, mutual surveillance, information and support ) are to be observed particularly |
| 5.3 | Go-around<br>After approaches as indicated in 5.2. on reaching decision height. The transition training also has to comprise go-around due to (simulated) insufficient runway visual range, wind shear, aircraft deviation more than tolerable for a successful approach, and ground/airborne equipment failure prior to reaching decision height, furthermore, go-around with airborne equipment failure. Special attention has to be given to go-around procedures with pre-calculated manual or automatic go-around attitude guidance |
| 5.4 | Landing(s)<br>With visual reference established at decision height following an instrument approach.<br>Depending on the specific flight guidance system, an automatic landing has to be performed. |

| PARAGRAPH 6 | |
|---|---|
| 6 | Use of optional equipment |

**Regulation 60**

The following procedures meet the minimum skill requirements for an Instrument Rating skill test for a helicopter:

| PARAGRAPH 1<br>DEPARTURE | |
|---|---|
| A | Use of flight manual (or equivalent) especially aircraft performance calculation; mass and balance |
| B | Use of Air Traffic Services document, weather document |
| C | Preparation of Air Traffic Control flight plan, Instrument Flight Rules flight plan/log |
| D | Pre-flight inspection |
| E | Weather minima |
| F | Taxing/Air taxi in compliance with Air Traffic Control or instructions of instructor |
| G | Pre-take off briefing, procedures and checks |
| H | Transition to instrument flight |
| I | Instrument departure procedures |
| **PARAGRAPH 2<br>GENERAL HANDLING** | |
| A | Control of the helicopter by reference solely to instruments, including: |
| B | Climbing and descending turns with sustained 30° bank |
| C | Recoveries from unusual attitudes, including sustained 30° bank turns and steep descending turns |

| PARAGRAPH 3<br>EN-ROUTE IFR PROCEDURES | |
|---|---|
| A | Tracking, including interception, e.g. NDB, VOR, RNAV |
| B | Use of radio aids |
| C | Level flight, control of heading, altitude and airspeed, power setting |
| D | Altimeter settings |
| E | Timing and revision of estimated times of arrival |
| F | Monitoring of flight progress, flight log, fuel usage, systems management |
| G | Ice protection procedures, simulated if necessary and applicable |
| H | ATC liaison and compliance, R/T procedures |

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| **PARAGRAPH 4 PRECISION APPROACH** | |
|---|---|
| A | Setting and checking of navigational aids, identification of facilities |
| B | Arrival procedures, altimeter checks |
| C | Approach and landing briefing, including descent/approach/landing checks |
| D* | Holding procedure |
| E | Compliance with published approach procedure |
| f | Approach timing |
| g | Altitude, speed, heading control, (stabilised approach) |
| h* | Go-around action |
| i* | Missed approach procedure / landing |
| j | Air Traffic Control liaison – compliance, Radio Telephony procedures |
| ** to be performed in Paragraph 4 or Paragraph 5* | |

| **PARAGRAPH 5 NON-PRECISION APPROACH** | |
|---|---|
| a | Setting and checking of navigational aids, identification of facilities |
| b | Arrival procedures, altimeter checks |
| c | Approach and landing briefing, including descent/approach/landing checks |
| d* | Holding procedure |
| e | Compliance with published approach procedure |
| f | Approach timing |
| g | Altitude, speed, heading control, (stabilised approach) |
| h* | Go around action |
| i* | Missed approach procedure*/landing |
| j | Air Traffic Control liaison – compliance, R adio Telephony procedures |
| ** to be performed in Paragraph 4 or Paragraph 5* | |
| **PARAGRAPH 6 (if applicable) ABNORMAL AND EMERGENCY PROCEDURES** | |
| *This Paragraph may be combined with Paragraphs 1 through 5. The test shall have regard to control of the helicopter, identification of the failed engine, immediate actions (touch drills), follow up actions and checks, and flying accuracy, in the following situations:* | |
| a | Engine failure after take-off and approach* (at a safe altitude unless carried out in a flight simulator or flight training equipment<br>**Multi-engine helicopter only* |
| b | Failure of stability augmentation devices/hydraulic system (if applicable) |
| c | Limited panel |
| d | Autorotation and recovery to a pre-set altitude |
| e | Precision approach manually without flight director*<br>Precision approach manually with flight director*<br>**Only one item to be tested* |

**Regulation 100**

Where the applicant has met the requirements pertinent to the operation of the radio-telephone on board an aircraft, the Director-General may recommend the Authority endorse the airman licence for the operation of such radio-telephone.

**Regulation 107–109**

The following procedures meet the minimum training and skill test standards for an airman licence:

*(a)* except as provided in paragraph *(b)*, to be eligible for a skill test for a licence or rating issued under these Regulations, an applicant shall—

(i) pass the required knowledge test within the twenty-four calendar-month period preceding the month the applicant completes the skill test, if a knowledge test is required;

(ii) present the knowledge test report at the time of application for the skill test, if a knowledge test is required;

(iii) have satisfactorily accomplished the required training and obtained the aeronautical experience prescribed by these Regulations for the licence or rating sought;

(iv) meet the prescribed age requirement of this subpart for the issuance of the licence or rating sought; and

(v) have an endorsement in his or her logbook or training record that has been signed by an authorised instructor who certifies that the applicant—

(A) has received and logged training time within sixty days preceding the date of application in preparation for the skill test;

(B) is prepared for the required skill test; and

(C) has demonstrated satisfactory knowledge of the subject areas in which the applicant was deficient on the airman knowledge test;

*(b)* an applicant for an Airline Transport Pilot Licence or an additional rating to an airline transport licence may take the Skill test for that licence or rating with an expired knowledge test report, provided that the applicant is employed as a—

(i) is employed as a flight crew member by a certificate holder under Civil Aviation [(No. 3) Air Operator Certification and Administration] at the time of the Skill test and has satisfactorily accomplished that operator's approved—

Sub. Leg.

(A) pilot in command aircraft qualification training program that is appropriate to the licence and rating sought; and

(B) Qualification training requirements appropriate to the licence and rating sought; or

*(c)* is employed as a flight crew member in scheduled military air transport operations of Trinidad and Tobago at the time of the Skill test, and has accomplished the pilot in command aircraft qualification-training programme that is appropriate to the licence and rating sought.

*Required Aircraft Simulation and Equipment*

*(d)* *general*. Except as provided in subparagraph *(d)*(ii), or when permitted to accomplish the entire flight increment of the Skill test in an approved flight simulator or an approved flight training device, an applicant for a licence or rating shall furnish—

(i) an aircraft of Trinidad and Tobago registry for each required test that—

(A) is of the category, class, and type, if applicable, applicable to the licence or rating sought; and

(B) has a current standard, limited, or primary airworthiness certificate;

(ii) at the discretion of the Flight Test Examiner who administers the Skill test, the applicant may furnish—

(A) an aircraft that has a current airworthiness certificate other than standard, limited, or primary but that otherwise meets the requirement of paragraph *(d)*(i);

(B) an aircraft of the same category, class, and type, if applicable, of foreign registry that is properly certified by the country of registry; or

(C) a military aircraft of the same category, class, and type, if applicable, for which the applicant is applying for a licence or rating.

*Required equipment-excluding controls*

*(e)* each applicant for a skill test shall use an aircraft that has—

(i) the equipment for each area of operation required for the Skill test;

(ii) no prescribed operating limitations that prohibit its use in any of the areas of operation required for the skill test;

(iii) except as provided in paragraph *(h)*, at least two pilot stations with adequate visibility for each person to operate the aircraft safely; and

(iv) cockpit and outside visibility adequate to evaluate the performance of the applicant when an additional jump seat is provided for the Flight Test Examiner.

*Required controls*

*(f)* each applicant for a skill test shall use an aircraft (other than a lighter-than-air aircraft) that has engine power controls and flight controls that are easily reached and operable in a conventional manner by both pilots, unless the Flight Test Examiner determines that the skill test can be conducted safely in the aircraft without the controls being easily reached.

*Simulated instrument flight equipment*

*(g)* an applicant for a skill test that involves manoeuvring an aircraft solely by reference to instruments shall furnish—

(i) equipment on board the aircraft that permits the applicant to pass the areas of operation that apply to the rating sought; and

(ii) a device that prevents the applicant from having visual reference outside the aircraft, but does not prevent the Flight Test Examiner from having visual reference outside the aircraft, and is otherwise acceptable to the Authority.

*Aircraft with single controls*

*(h)* an applicant may complete a skill test in an aircraft having a single set of controls, provided the—

(i) examiner agrees to conduct the test;

(ii) test does not involve a demonstration of instrument skills; and

(iii) proficiency of the applicant can be observed by an Flight Test Examiner who is in a position to observe the applicant.

**Regulation 112**

The following are the minimum standards for the recording and retention of flight training and aeronautical experience records:

*(a)* for the purposes of meeting the requirements of regulation 112, each person shall enter the following information for each flight or lesson logged—

(i) General:

(A) date;

(B) total flight time;

(C) location where the aircraft departed and arrived, or for lessons in an approved flight simulator or an approved flight training device, the location where the lesson occurred;

(D) type and identification of aircraft, approved flight simulator, or approved flight training device, as appropriate;

(E) the name of a safety pilot, if required by the Act or regulations made thereunder.

(ii) type of pilot experience or training—

(A) solo;

(B) pilot in command;

(C) co-pilot;

(D) flight and ground training received from an authorised instructor;

(E) training received in an approved flight simulator or approved flight training device from an authorised instructor.

(iii) conditions of flight—

(A) day or night;

(B) actual instrument;

(C) simulated instrument conditions in flight, an approved flight simulator, or an approved flight training device.

*(b) logging of pilot time*. The pilot time described in this subparagraph may be used to—

(i) apply for a licence or rating issued under these Regulations; or

(ii) satisfy the recent flight experience requirements of the Act or Regulations made thereunder.

*(c) logging of solo flight time*. Except for a student pilot acting as pilot in command of an airship requiring more than one flight crewmember, a pilot may log as solo flight time only that flight time when the pilot is the sole occupant of the aircraft.

*(d) logging pilot in command flight time*.

(i) a private or commercial pilot may log pilot in command time only for that flight time during which that person is—

(A) the sole manipulator of the controls of an aircraft for which the pilot is rated;

(B) acting as pilot in command of an aircraft on which more than one pilot is required under the type certification of the aircraft or the regulations under which the flight is conducted; or

(C) a sole occupant.

(ii) an airline transport pilot may log as pilot in command time all of the flight time while acting as pilot in command of an operation requiring an Airline Transport Pilot Licence.

(iii) an authorised instructor may log as pilot in command time all flight time while acting as an authorised instructor.

(iv) a student pilot may log pilot in command time when the student pilot—

(A) is the sole occupant of the aircraft or is performing functions of the pilot in command of an airship requiring more than one flight crewmember

(B) has a current solo flight endorsement as required under regulation 27; or

(C) is undergoing training for a pilot licence or rating.

*(e) logging co-pilot flight time*. A person may log co-pilot flight time only for that flight time during which that person—

(A) is qualified in accordance with the co-pilot requirements of the Act or Regulations made thereunder, and occupies a crewmember station in an aircraft that requires more than one pilot by the aircraft's type certificate; or

(B) holds the appropriate category, class, and instrument rating (if an instrument rating is required for the flight) for the aircraft being flown, and more than one pilot is required under the type certification of the aircraft or the regulations under which the flight is being conducted.

*(f) logging instrument flight time*.

(A) a person may log instrument flight time only for that flight time when the person operates

the aircraft solely by reference to instruments under actual or simulated instrument flight conditions; and

(B) an authorised instructor may log instrument flight time when conducting instrument flight instruction in actual instrument flight conditions;

(C) for the purposes of logging instrument flight time to meet the recent instrument experience requirements of the Act or Regulations made thereunder, the following information shall be recorded in a person's logbook—

(I) the location and type of each instrument approach accomplished; and

(II) the name of the safety pilot, if required;

(D) an approved flight simulator or approved flight training device may be used by a person to log instrument flight time, provided an authorised instructor is present during the simulated flight.

*(g) logging training time.*

(i) a person may log training time when that person receives training from an authorised instructor in an aircraft, approved flight simulator, or approved flight training device.

(ii) the training time shall be logged in a logbook and shall—

(A) be endorsed in a legible manner by the authorised instructor; and

(B) include a description of the training given, the length of the training lesson, and the instructor's signature, licence number, and licence expiration date.

**Regulation 122**

Where the applicant has met the requirements pertinent to the operation of the radio-telephone, the Director-General may recommend the Authority endorse the airman licence for the operation of such radio-telephone.

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**Regulation 141**

Where the applicant has met the requirements pertinent to the operation of the radio-telephone, the Director-General may recommend that the Authority endorse the Flight Operations Officer Authorisation for the operation of such radio-telephone.

**Regulation 189A**

An applicant for a licence or the holder of a licence shall meet the language proficiency requirements as follows:

*(a)* to meet the language proficiency requirements under regulations 189A, an applicant for a licence or a holder of a licence shall—

(i) demonstrate the characteristics of a proficient speaker in a manner acceptable to the Authority;

(ii) comply with the parameters set out in clause *(b)*; and

(iii) comply with the International Civil Aviation Organisation (ICAO) Language Proficiency Rating Scale Levels 4, 5 and 6 set out in the Table that follows clause *(b)* hereunder.

*(b)* A person classified as a proficient speaker under clause *(a)* shall—

(i) communicate effectively in voice-only in telephone or radio-telephone and in face-to-face situations;

(ii) communicate on common, concrete and work-related topics with accuracy and clarity;

(iii) use appropriate communication strategies to exchange messages and to recognise and resolve misunderstandings in a general or work-related context such as to check, confirm or clarify information;

(iv) handle successfully and with relative ease the linguistic challenges presented by a complication or unexpected turn of events that occur within the context of a routine work situation or communicative task with which he is otherwise familiar; and

(v) use a dialect or accent which is intelligible to the aeronautical community.

## TABLE A

### ICAO LANGUAGE PROFICIENCY RATING SCALE

### LEVELS 1, 2 AND 3

| Proficiency Parameters | Level 1 Preliminary | Level 2 Elementary | Level 3 Pre-Operational |
|---|---|---|---|
| Pronunciation … | Performs at a level below the elementary level. | Pronunciation, stress, rhythm and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding. | Pronunciation, stress, rhythm and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding. |
| Structure … … | Performs at a level below the elementary level. | Shows only limited control of a few simple memorised grammatical structure and sentence patterns. | Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning. |
| Vocabulary … | Performs at a level below the elementary level. | Limited vocabulary range consisting only of isolated words and memorised phrases. | Vocabulary range and accuracy are often sufficient to communicate on common, concrete, or work-related topics, but range is limited and the word choice is often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary. |

*L.R.O.*

**TABLE A—***Continued*

**ICAO LANGUAGE PROFICIENCY RATING SCALE LEVELS 1, 2 AND 3**

| Proficiency Parameters | Level 1 Preliminary | Level 2 Elementary | Level 3 Pre-Operational |
|---|---|---|---|
| Fluency … … | Performs at a level below the elementary level. | Can produce very short, isolated, memorised utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words. | Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations of slowness in language processing may prevent effective communications. Fillers are sometimes distracting. |
| Comprehension | Performs at a level below the elementary level. | Comprehension is limited to isolated, memorised phrases when they are carefully and slowly articulated. | Comprehension is often accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic or situational complication or an unexpected turn of events. |

**ICAO LANGUAGE PROFICIENCY RATING SCALE**
**LEVELS 1, 2 AND 3**—*Continued*

| Proficiency Parameters | Level 1 Preliminary | Level 2 Elementary | Level 3 Pre-Operational |
|---|---|---|---|
| Interaction … | Performs at a level below the elementary level. | Response time is slow and often inappropriate. Interaction is limited to simple routine exchanges. | Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with resonable ease on familiar topics and in predictable situation. Generally inadequate when dealing with an unexpected turn of events. |

Note: *Levels 1, 2 and 3 describe language proficiency levels which are below the ICAO language proficiency requirements for aeronautical radio-telephony communication.*

*L.R.O.*

## TABLE B

### ICAO LANGUAGE PROFICIENCY RATING SCALE LEVELS 4, 5 AND 6

| Proficiency Parameters | Level 4 Operational | Level 5 Extended | Level 6 Expert |
|---|---|---|---|
| Pronunciation ... | Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding. | Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding. | Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding. |
| Structure ... | Basic grammatical structures and sentence patterns are used creatively and are usually well-controlled. Errors may occur particularly in unusual or unexpected circumstances, but rarely interfere with meaning. | Basic grammatical structures and sentence patterns are consistently well-controlled. Complex structures are attempted but with errors which sometimes interfere with meaning. | Both basic and complex grammatical structures and sentence patterns are consistently well controlled. |
| Vocabulary ... | Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances. | Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work-related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic. | Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to registers. |

**ICAO LANGUAGE PROFICIENCY RATING SCALE**
**LEVELS 4, 5 AND 6**—*Continued*

| Proficiency Parameters | Level 4 Operational | Level 5 Extended | Level 6 Expert |
|---|---|---|---|
| Fluency … … | Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting. | Able to speak at length with relative ease on familiar topics but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors. | Able to speak at length with a natural effortless flow. Varies speech flow for stylistic effect, e.g., to emphasise a point. Uses appropriate discourse markers and connectors spontaneously. |
| Comprehension | Comprehension is mostly accurate on common, concrete, and work-related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies. | Comprehension is accurate on common, concrete, and work-related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of event. Is able to comprehend a range of speech varieties (dialect and/or accents) or registers. | Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties. |

*L.R.O.*

**TABLE B**—*Continued*

**ICAO LANGUAGE PROFICIENCY RATING SCALE LEVELS 4, 5 AND 6**

| Proficiency Parameters | Level 4 Operational | Level 5 Extended | Level 6 Expert |
|---|---|---|---|
| Interaction … | Responses are usually immediate, appropriate and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstanding by checking, confirming, or clarifying. | Responses are immediate, appropriate and informative. Manages the speaker/listener relationship effectively. | Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues and responds to them appropriately. |

Note: *Levels 4, 5 and 6 describe language proficiency levels that meet the ICAO language proficiency requirements for aeronautical radio-telephony communication with Level 4 being rating acceptable for aeronautical radio-telephony communication.*

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**Regulation 194(2)**

The British Civil Airworthiness Requirements, CAP 468 Section L, Issue 13 and Airworthiness Notice No. 10, Issue 17 meet the minimum International Civil Aviation Organisation requirements for giving effect to the Chicago Convention in respect of minimum standards relating to the issue of Aircraft Maintenance Engineer Licences and Ratings. Until such time as Part IX of these Regulations comes into effect, Operators may be guided by the British Civil Airworthiness Requirements, CAP 468 Section L, Issue 13 and Airworthiness Notice No. 10, Issue 17 for the issue of Aircraft Maintenance Engineer Licences and Ratings.

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# CIVIL AVIATION [(NO. 2) OPERATIONS] REGULATIONS

ARRANGEMENT OF REGULATIONS

**REGULATION**

1. Citation.
2. Interpretation.

**APPLICABILITY OF REGULATIONS**

3. Applicability of Regulations.

**PART I**

**GENERAL OPERATIONS REQUIREMENTS**

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5. Restrictions on the operation of aircraft.
6. Special Flight Permit operational restrictions.
7. Required aircraft instruments and equipment.
7A. Electronic Navigation data management.
8. Restrictions on the use of inoperative instruments and equipment.
9. Required Aircraft Flight Manual, marking and placard requirements.
10. Required aircraft and equipment inspections.
11. Documents to be carried on aircraft for all operations.
12. Approval to transport dangerous goods.
13. Provisions for safe transport of dangerous goods.
14. Specific goods not to be transported.
15. Classification of dangerous goods.
16. Packing of dangerous goods.
17. Labelling and marking of dangerous goods.
18. Requirement for a Dangerous Goods Transport Document.
19. Restrictions on the acceptance of dangerous goods by an operator or his handling agent.
20. Inspection for damage, leakage or contamination by dangerous goods.
21. Removal of contamination by dangerous goods.
22. Loading restrictions for dangerous goods.

ARRANGEMENT OF REGULATIONS—*Continued*

**REGULATION**

23. Provision of information in respect of dangerous goods by operator.
24. Requirement for dangerous goods training programme.
25. Dangerous goods incident and accident reports.

**PART II**

**AIRCRAFT MAINTENANCE REQUIREMENTS**

26. Applicability of Part II.
27. General requirements in respect of aircraft.
28. Requirements of operator in respect of aircraft.
29. Requirements for inspection of aircraft.
30. Required changes to aircraft inspection programmes.
31. Owner, lessee or operator to keep maintenance records.
32. Owner, lessee or operator to retain maintenance records.
33. Procedure on transfer of maintenance records.

**PART III**

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34. Composition of the flight crew.
35. Operator to ensure flight crew qualifications.
36. Licence requirements for flight crew.
37. Limitation on use of services for commercial air transport operations.
38. Rating required for Instrument Flight Rules operations.
39. Special authorisation required for Category II or III operations.
40. Pilot's logbook.
41. Recency requirements for a pilot in command.
41A. Recent Experience–Cruise Relief Pilot.
42. Requirements for flying under Instrument Flight Rules or Instrument Meteorological Conditions.
43. Recency take-off and landings requirements for co-pilot.
44. Required proficiency for general aviation pilots.
45. Pilot privileges and limitations.

**REGULATION**

**PART IV**

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46. Crew responsibilities.
47. Powers of the pilot in command.
48. Compliance with local regulations.
49. Prohibition on the negligent or reckless operations of aircraft.
50. Fitness of flight crew.
51. Crew member use of seat belt and shoulder harness.
52. Requirements of flight crew at duty stations.
53. Flight crew emergency duties.
54. Required crew equipment.
55. Requirement to comply with approved checklist procedures.
56. Requirement to have search and rescue information on board aircraft.
57. Production of aircraft and flight documentation.
58. Requirements for cockpit compartment security for commercial air transport operations.
59. Admission to the cockpit in commercial air transport operations.
60. Admission of Inspector to the cockpit.
61. Requirement for in-flight fuel management.
62. Duties of flight crew during critical phases of flight.
63. Restriction on manipulation of the controls in commercial air transport operations.
64. Simulated abnormal situations in flight for commercial air transport operations.
65. Completion of technical logbook for commercial air transport operations.
66. Reporting mechanical irregularities.
67. General reporting procedures for occurrences.
68. Reporting procedures for accidents and serious incidents.
69. Reporting procedures for Air Traffic incidents.
70. Procedures for reporting Airborne Collision Avoidance System Advisory.
71. Procedures for reporting bird hazards and strikes.

ARRANGEMENT OF REGULATIONS—*Continued*

**REGULATION**

72. Procedures for reporting in-flight emergency.
73. Procedures for reporting unlawful interference.
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75. Operation of cockpit voice and flight data recorder.
76. Requirements for minimum supply and use of oxygen.
77. Restrictions on use of portable electronic devices.

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78. Submission of flight plan.
79. Air traffic control flight plan for commercial air transport operations.
80. Contents of a flight plan.
81. Requirements for planned re-clearance.
82. Procedures where there are changes to a flight plan.
83. Procedures for closing a flight plan.
84. Requirements for aircraft airworthiness and safety precautions.
85. Requirement for adequacy of operating facilities.
86. Pilot in command to be familiar with meteorological information.
87. Weather limitations for Visual Flight Rules flights.
88. Instrument Flight Rules, destination aerodrome requirements.
89. Instrument Flight Rules destination alternate requirements.
90. Instrument Flight Rules, alternate aerodome selection criteria.
91. Reqirements for off-shore alternates for helicopter operations.
92. Take-off alternate aerodromes for commercial air transport operations.
93. Maximum distance from an adequate aerodrome for two-engine aeroplanes without an extended range operations approval.
94. Extended range operations with two-engine aeroplane.
95. Requirements for en route alternate aerodromes for extended range operations.
96. Fuel, oil and oxygen planning and contingency factors.
97. Fuel supply requirement for Visual Flight Rules flight.

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98. Fuel supply requirement for Instrument Flight Rules flight.
99. Requirements for flight planning document distribution and retention for commercial air transport operations.
100. Requirements for aircraft loading, mass and balance.
101. Allowable weights on all load manifests.
102. Requirement for flight release for commercial air transport operations.
103. Requirements for operational flight plan for commercial air transport operations.
104. Requirement to keep records of emergency and survival equipment for commercial air transport operations.

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106. General requirements for aircraft operations.
107. Aircraft performance calculations.
108. General weight and obstruction clearance limitations.
109. Applicability of regulations 110 to 118.
110. General requirements for aircraft performance in commercial air transport.
111. Prohibitions on the use of single-engine aircraft.
112. Required mass limitations for aeroplanes.
113. Aircraft performance calculations.
114. Commercial air transport operations take-off limitations.
115. En route limitations with all engines operating.
116. En route limitations where one engine is inoperative.
117. En route limitations where two engines of an aeroplance are inoperative.
118. Aircraft landing limitations.
118A. Additional requirements for operations of a single-engine turbined-powered aircraft, etc.
118B. Additional requirements for operations of helicopters in performance Class 3 in Instrument Meteorological Conditions, except special Visual Flight Rules flight.

ARRANGEMENT OF REGULATIONS—*Continued*

**REGULATION**

**PART VII**

**FLIGHT RULES**

119. Applicability.
120. General flight rules requirements.
121. Restrictions on the operation of aircraft on the ground.
122. Required take-off conditions.
123. Requirements and restrictions where flight into known or expected icing.
124. Cruising levels with altimeter settings.
125. General minimum safe altitudes.
126. Minimum safe Visual Flight Rules Altitudes for commercial air transport operations.
127. Aerodrome operating minima.
128. Required threshold crossing height for precision approaches.
129. Instrument approach operating minima requirements.
130. General operating rules for Category II and Category III operations.
131. Requirements for Category II and Category III manual.
132. Procedures to be followed where a diversion decision is to be made.
133. Procedures to be used for formation flight.
134. General right-of-way rules.
135. Right-of-way Rules for water operations.
136. Requirements for the use of aircraft lights.
137. Requirements for simulated instrument flight.
138. Requirements for in-flight simulation of abnormal situations.
139. Restrictions on dropping, spraying and towing.
140. Restrictions on aerobatic flight.
141. Restrictions on where flight test is conducted.
142. Restrictions on the use of an aircraft in a prohibited or restricted area.
143. Restrictions on operations in Minimum Navigation Performance Specification or Reduced Vertical Separation Minimum.
143A. Approved operation in vertical separation minimum airspace.

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144. Requirements where operations are conducted on or in the vicinity of an uncontrolled aerodrome.
145. Required altitudes for turbojet, turbofan or large aircraft on entering aerodrome traffic pattern.
146. Compliance with visual and electronic glide slopes.
147. Restriction or suspension of operations for commercial air transport operations.
148. Continuation of flight in commercial air transport when destination aerodrome is temporarily restricted.
149. Requirements where interception occurs.
150. Requirements for Air Traffic Control clearances.
151. Requirement to adhere to Air Traffic Control clearances.
152. Communication requirements.
153. Pilot in command to fly along assigned route.
154. Procedures where inadvertent changes occur.
155. Procedures where there are intended changes for Air Traffic Control clearance.
156. Requirements for position reports.
157. Procedures where operations are conducted on or in the vicinity of a controlled aerodrome.
158. Procedures where there has been unlawful interference on board an aircraft.
159. Time check requirements.
160. Universal signals requirements.
160A. Technical and servicing communication signals.
161. Visual Flight Rules and navigation requirements.
162. Restrictions on operations under Visual Meteorological conditions.
163. Visual Flight Rules weather minimums for take-off and landing.
164. Special Visual Flight Rules Operations.
165. Visual Flight Rules Cruising Altitudes.
166. Requirement to comply with Air Traffic Control clearances for Visual Flight Rules flights.

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167. Requirement to have Air Traffic Control Authorisation for Visual Flight Rules flights.
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169. Changing from Visual Flight Rules to Instrument Flight Rules.
170. Two-way radio communication failure in Visual Flight Rules.
171. Restrictions on Instrument Flight Rules flights in controlled airspace.
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173. Procedures for Instrument Flight Rules take-off minima for commercial air transport.
174. Restrictions on take-off or landing under Instrument Flight Rules Operations.
175. Minimum altitudes for use of an autopilot.
176. Instrument Flight Rules, Cruising Altitude or flight level in controlled airspace.
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178. Instrument Flight Rules radio communications.
179. Requirement for malfunction reports for operation under Instrument Flight Rules in controlled airspace.
180. Continuation of Instrument Flight Rules flight toward a destination.
181. Instrument approach procedures and Instrument Flight Rules landing minimums.
182. Commencing an instrument approach.
183. Procedures for instrument approaches to civil aerodromes.
184. Requirements for operation below decision height or minimum descent altitude.
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186. Requirements for landing during Instrument Meteorological Conditions.

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187. Procedure where change from Instrument Flight Rules flight to Visual Flight Rules flight.

188. Two-way radio communication failure in Instrument Meteorological Conditions.

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190. Requirements for refuelling or defuelling with passengers embarking on board or disembarking.

191. Required passenger seats, safety belts and shoulder harnesses.

192. Required passenger briefing.

193. Required in-flight emergency instruction.

194. Minimum supply and use of passenger oxygen.

195. Exceptions to use of medication by passenger.

196. Restricted areas of access of passengers.

197. Applicability of regulations 198 to 219.

198. Requirement to comply with instructions given by crew members.

199. Denial of transportation of certain categories of passengers in commercial air transport operations.

200. Exemptions of certain passenger-carrying requirements.

201. Cabin crew at duty stations.

202. Pilot in command to ensure emergency exit is available.

203. Prohibition in respect of armed emergency exit.

204. Prohibition on blocking access to emergency exit.

205. Pilot in command or senior cabin crew to ensure.

206. Requirements for passengers with reduced mobility.

207. Requirements for transport of inadmissible passengers, deportees or persons in custody.

208. Passenger requirements for exit row seating.

209. Restriction on carriage of weapons.

ARRANGEMENT OF REGULATIONS—*Continued*

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210. Requirements for oxygen for medical use by passengers.
211. Restrictions on carry-on baggage.
212. Prohibition on carriage of cargo in passenger compartment.
213. Prohibition on smoking on aircraft.
214. Requirement to brief passengers prior to take-off in commercial air transport operations.
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217. Requirement for seat backs to be upright prior to take-off and landing.
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**CREW MEMBER AND FLIGHT OPERATIONS OFFICER QUALIFICATIONS FOR COMMERCIAL AIR TRANSPORT**

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222. Pilot in command requirements for turbojet, turbofan or large aircraft.
223. Pilot in command requirements for non-turbojet or non-turbofan.
224. Aeronautical Experience Requirements for Pilot in Command in respect of small aeroplanes.
224A. Pilot operations under the Instruments Flight Rules or at night.
225. Co-pilot licence requirements.
226. Flight Engineer licence requirements.
227. Requirements for Flight Engineer competency.
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229. Requirement for crew member or Flight Operations Officer to complete Company Procedures Indoctrination.

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230. Requirement for initial dangerous goods training.
231. Initial security training.
232. Requirement for initial crew resource training.
233. Initial emergency equipment drills.
234. Required initial aircraft ground training.
235. Initial aircraft flight training.
236. Initial specialised operations training.
237. Requirement for flight crew member to complete difference and familiarisation training.
238. Requirements when aircraft simulators are used.
239. Requirements for flight crew conversion training and checking.
240. Restrictions on the use by the national air operator of persons as flight crew.
241. Nomination as pilot in command.
242. Required qualifications to operate in either pilot's seat.
243. Re-establishing recency of experience by a pilot.
244. Requirements for operations on more than one type or variant of aircraft.
245. Restrictions on operation of helicopters and aeroplanes.
246. Requirement for the maintenance of training records.
247. Requirement for the pairing of low experience crew members.
248. Requirement of Flight Engineer proficiency checks.
249. Requirement for competency checks for cabin crew.
250. Requirement for competency checks for Flight Operations Officers.
251. Requirements for supervised line flying for pilots.
252. Requirements for supervised line flying for Flight Engineers.
253. Requirements for supervised line experience for cabin crew.
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**REGULATION**

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259. Required pilot in command qualifications for designated special aerodromes and heliports.
260. Required recurrent training and checking for flight crew members.
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262. Refresher training for cabin crew recurrent training is still valid.
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265. Qualification requirements for Flight Instructors.
266. Restrictions on use of person as check airman.
267. Restriction on use of check airmen.
268. Required check airman qualifications.
269. Check airman limitations.
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271. Required line qualification for check airman and instructor.
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279. Flight time limitations.
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281. Extension of flight duty time by split duty.
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283. Unforeseen operational circumstances.
284. Delayed reporting time.
285. Requirements for time free from duty.
286. Positioning time to count as duty time.
287. Flight crew members to inform of other times of flying.
288. Requirements for flight crew members on reserve.
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## COMMERCIAL AIR TRANSPORT FLIGHT RELEASE

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292. Qualified persons required for operational control functions.
293. Restrictions on flight operation officer or flight dispatcher.
294. Functions and duties of operational control.
295. Contents of a flight release or operational flight plan.
296. Requirements for aircraft flight release.
297. Required facilities and notices to airmen for flight release.
298. Weather reports and forecasts required for flight release.
299. Procedures for flight release in icing conditions.
300. Flight release under Visual Flight Rules or Instrument Flight Rules.
301. Required minimum fuel supply for flight release.
302. Aircraft loading and performance requirement for flight release.
303. Amendment or re-release en route requirements for flight release.
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305. Air operator to comply with minimum standards.
306. Director-General may amend the Schedules.
307. Transitional Provisions.

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**SCHEDULE 1.**
**SCHEDULE 2.**
**SCHEDULE 3.**
**SCHEDULE 4.**
**SCHEDULE 4A.**
**SCHEDULE 5.**
**SCHEDULE 6.**
**SCHEDULE 6A.**
**SCHEDULE 7.**
**SCHEDULE 8.**
**SCHEDULE 9.**
**SCHEDULE 10.**
**SCHEDULE 11.**
**SCHEDULE 12.**

# CIVIL AVIATION [(NO. 2) OPERATIONS] REGULATIONS

*made under section 33*

101/2004. [274/2004 302/2004 31/2005 223/2005 186/2006 285/2006 46/2007 30/2008 34/2009 197/2009].

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No. 2) Operations] Regulations.

Interpretation. [302/2004 186/2006 34/2009 197/2009].

**2.** In these Regulations—

"accident" means an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all persons have disembarked, in which—

*(a)* a person is fatally or seriously injured as a result of—

(i) being in the aircraft;

(ii) direct contact with any part of the aircraft, including parts which have become detached from the aircraft; or,

(iii) direct exposure to jet blast,

except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

*(b)* the aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft;

*(c)* the aircraft would normally require major repair or replacement of the affected component; except for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tyres, brakes, fairings, small dents or puncture holes in the aircraft skin; or

*(d)* the aircraft is missing or is completely inaccessible;

"advisory airspace" means airspace of defined dimensions or designated routes, within which air traffic advisory services are available;

"aerial work" means an aircraft operation in which an aircraft is used for specialised services including agriculture, construction, photography, surveying, observation and patrol, search and rescue aerial advertisement;

"aerobatic flight" means manoeuvres intentionally performed by an aircraft involving an abrupt change in its altitude, an abnormal attitude or an abnormal variation in speed;

"aircraft" means any machine that can derive support in the atmospheres from the reaction of the air on surfaces other than the reaction of the air on the surface of the earth;

"Aircraft Flight Manual" means an approved Aeroplane Flight Manual or an approved Rotorcraft Flight Manual as applicable;

"air operator" means any person, organisation or enterprise who undertakes to engage in domestic commercial air transport in international commercial air transport, whether directly or indirectly or by a lease in any other arrangement;

"air navigation facility" means any facility used available for use or designed for use in aid of air navigation, including aerodromes, landing areas, lights, any apparatus or equipment for signalling, for radio directional finding or for radio or other electrical communication and any other structure or mechanism having a similar purpose for guiding or controlling flight in the air or the landing and take-off of aircraft;

"airworthiness directives" means a document issued or adopted by the Authority which mandates actions to be performed to restore an acceptable level of safety for an aircraft when evidence shows that the safety level may otherwise be compromised;

"airworthy" means an aircraft or aeronautical product is in a fit and safe state for flight and is in conformity with its type design;

"alternate heliport" means a heliport to which a helicopter may proceed when it becomes either impossible or inadvisable to proceed to or to land at the heliport of intended landing and includes—

*(a)* "take-off alternate" which is an alternate heliport at which a helicopter can land should this become necessary shortly after take-off and it is not possible to use the heliport of departure;

*(b)* "en route alternate" which is a heliport at which a helicopter would be able to land after experiencing an abnormal or emergency condition while en route and may include the heliport of departure; and

*(c)* "destination alternate" which is an alternate heliport to which a helicopter may proceed should it become either impossible or inadvisable to land at the heliport of intended landing and may include the heliport of departure;

"altimetry system error" means the difference between the altitude indicated by the altimeter display, assuming a correct altimeter barometric setting, and the pressure altitude corresponding to the undisturbed ambient pressure;

"area navigation" means a method of navigation which permits aircraft operation on any desired flight path within the coverage of ground-based or space-based navigation aids or within the limits of the capability of self-contained aids or a combination of these;

"automatic dependent surveillance-contract" means the method by which the terms of an automatic dependent surveillance-contract agreement will be exchanged between ground system and the aircraft, via data link, specifying under what conditions automatic dependent surveillance-contract reports would be initiated and what data would be contained in the report;

"automatic dependent surveillance-contract agreement" means a reporting plan which establishes the conditions of automatic dependent surveillance-contract data such as data required by the air traffic services unit and frequency of automatic dependent surveillance-contract reports which have to be agreed to prior to using automatic dependent surveillance-contract in the provision of air traffic services;

"automatic dependent surveillance-broadcast" means a system by which aircraft, aerodrome vehicles and other objects can automatically transmit or receive data such as identification, position and any additional data as appropriate, in a broadcast mode via a data link;

"cabin crew" means a person employed to facilitate the safety of passengers, whose duties are detailed by the air operator or the pilot in command;

"check airman" means a person who is qualified and permitted, to conduct an evaluation in an aircraft, flight simulator, or a flight training device for a particular type aircraft or flight simulator, for a particular air operator;

"congested hostile environment" means a hostile environment within a congested area;

"controlled flight" means any flight which is subject to an air traffic control clearance;

"crew" means any member of the flight crew or cabin crew;

"critical engine" means the engine of an aircraft, the failure of which would most adversely affect the performance or handling qualities of an aircraft;

"critical phases of flight" means those portions of operations involving taxiing, take-off and landing and all flight operations below 10,000 feet, except cruise flight;

"cruise relief pilot" means a flight crew member who is assigned to perform pilot tasks during cruise flight, to allow the pilot in command or co-pilot to obtain planned rest;

"dangerous goods" means articles or substances which are capable of posing significant risks to health, safety or property when transported by air;

"dangerous goods accident" means an occurrence associated with and related to the transport of dangerous goods which results in fatal or serious injury to a person or major property damage;

"dangerous goods incident" means an occurrence, other than a dangerous goods accident, associated with and related to the transport of dangerous goods, not necessarily occurring on board an aircraft, which results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation or other evidence that the integrity of the packaging has not been maintained or any occurrence relating to the transport of dangerous goods, which seriously jeopardises the aircraft or its occupants;

"dangerous goods transport document" means a document specified by the Technical Instructions that bears a signed declaration indicating that the dangerous goods are fully and accurately described by their proper shipping names and the four-digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods to identify a substance or a particular group of substances, where assigned, and that they are correctly classified, packed, marked, labelled and in a proper condition for transport;

"day" means the period of elapsed time, using Co-ordinated Universal Time or local time that begins at midnight and ends twenty-fours hours later at the next midnight;

"defined point before landing" means the point, within the approach and landing phase, after which the ability of a helicopter operating in performance Class 2, to continue the flight safely, with one engine inoperative, is not assured and a forced landing may be required;

"defined point after take-off" means the point, within the take-off and initial climb phase, before which the ability of the helicopter operating in performance Class 2, to continue the flight safely, with one engine inoperative, is not assured and a forced landing may be required;

"duty" means any continuous period during which a crew member is required to carry out any task associated with the business of an air operator;

"effective length of the runway" means the distance for landing from the point at which the obstruction clearance plane associated with the approach end of the runway intersects the centreline of the runway to the far end;

"expected approach time" means the time at which Air Traffic Control expects that an arriving aircraft, following a delay, will leave the holding fix to complete its approach for a landing;

"extended over water operation" means—

*(a)* in the case of a single engine land plane a distance of more than one hundred nautical miles from land suitable for making an emergency landing; or

*(b)* in the case of a multi-engine land plane, a distance of more than two hundred nautical miles from land suitable for making an emergency landing with the capability of continuing flight with one engine in-operative;

"final approach and take-off area" means a defined area over which the final phase of the approach manoeuvre to hover or landing is completed and from which the take-off manoeuvre is commenced and includes the rejected take-off area available for helicopters operating in performance Class 1;

"flight" means one or more sectors and defined by a flight number;

"flight crew" means those members of the crew of an aircraft who act as a pilot in command, co-pilot or flight engineer;

"flight dispatcher" means a person who holds a flight dispatcher licence or certificate from another Contracting State;

"flight duty period" means any time during which a person operates in an aircraft as a member of its crew and begins when the crew member is required by the air operator to report for a flight duty and finishes at the end of flight time on the final sector;

"flight operations officer" means a person designated by the operator to engage in the control and supervision of flight operations who is qualified in accordance with the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, and who supports, briefs and assists the pilot in command in the safe conduct of the flight; Sub. Leg.

"flight plan" means specified information provided to Air Traffic Services Units, relative to an intended flight or portion of a flight of an aircraft, and may mean variously, full information on all items comprised in the flight plan description, covering the whole route of a flight or limited information required when the purpose is to obtain a clearance for a minor portion of a flight such as to cross an airway, to take-off from or to land at a controlled aerodrome;

"Flight Test Examiner" means a person designated by the Authority, to conduct an evaluation in an aircraft, in a flight simulator or in a flight training device for a particular type aircraft, for a particular air operator or Approved Training Organisation;

"flight time" means the total time from the moment an aeroplane first moves under its own power for the purpose of taking off until the moment it finally comes to rest at the end of the flight;

"flight time (helicopter)" means the total time from the moment a helicopter first moves under its own power for the purpose of taking off until the rotors are next stopped;

"freight container" means an article of transport equipment for radioactive materials, designed to facilitate the transport of such materials, either packaged or unpackaged, by one or more modes of transport;

"general aviation operation" means an aircraft operation other than a commercial air transport operation or an aerial work operation;

"ground visibility" means the visibility at an aerodrome as reported by an accredited observer or by automatic systems;

"handling agent" means an agency which performs on behalf of the operator some or all of the latter's functions including receiving, loading, unloading, transferring or other processing of passengers or cargo;

"helideck" means a heliport located on a floating or fixed offshore structure;

"heliport" means an aerodrome or defined area on a structure intended to be used wholly or in part for the arrival, departure, and surface movement of helicopters;

"hostile environment" means an environment in which—

*(a)* a safe forced landing cannot be accomplished because the surface and its surrounding environment, is inadequate;

*(b)* the helicopter occupants cannot be adequately protected from the atmospheric and weather elements;

*(c)* search and rescue response or capability is not provided consistent with anticipated exposure; or

*(d)* there is an unacceptable risk of endangering persons or property on the ground;

"incident" means an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

"journey log" means a form signed by the pilot in command of each flight that records the registration of the aircraft, crew member names and duty assignments, the type of flight, and the date, place, and time of arrival and departure;

"landing decision point" means the point used in determining the landing performance of a helicopter operating in performance Class 1, where, should a power-unit failure occur at this point, the landing may be safely continued or a balked landing initiated;

"line operating flight time" means flight time recorded by the pilot in command or co-pilot while conducting commercial operations for an air operator;

"master minimum equipment list" means a list of equipment established by a manufacturer of an aircraft for a particular

aircraft type with the approval of the State of manufacture containing items, one or more of which is permitted to be unserviceable at the commencement of a flight, it may be associated with special operating conditions, limitations or procedures and provides the basis for development, review, and approval by the Authority of the Minimum Equipment List of an individual operator;

"national air operator" means a person, organisation or enterprise who has been issued a Trinidad and Tobago air operator certificate in accordance with the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations; Sub. Leg.

"navigation specification" means a set of aircraft and flight crew requirements needed to support performance-based navigation operations within a defined airspace as folows:

*(a)* required navigation performance specification which is a navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, such as RNP4, RNP, APCH; and

*(b)* area navigation specification which is a navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV, for example, RNAV 5, RNAV 1;

"non-congested hostile environment" means a hostile environment outside a congested area;

"non-hostile environment" means an environment in which—

*(a)* a safe forced landing can be accomplished because the surface, and its surrounding environment, is adequate;

*(b)* the helicopter occupants can be adequately protected from the elements;

*(c)* search and rescue response and capability is provided consistent with anticipated exposure; and

*(d)* the assessed risk of endangering persons or property on the ground is acceptable;

"occurrence" includes an incident, serious incident or accident;

"offshore operations" means operations which routinely have a substantial proportion of the flight conducted over water areas to or from offshore locations and include but are not limited to support of offshore oil, gas and mineral exploitation and sea-pilot transfer;

"okta(s)" is the international unit for reporting cloud amount which is the estimated total apparent area of the sky covered with cloud such that 0 okta means sky clear, 1 okta means one-eighth of the sky covered with cloud, 1–2 oktas mean up to one-quarter of the sky covered with cloud, 3–4 oktas mean up to one half of the sky covered with cloud, 5–7 oktas mean up to three-quarters of the sky covered with cloud, and 8 oktas mean sky overcast with cloud;

"operator" means—

*(a)* a person, organisation or enterprise engaged in or offering to engage in, aircraft operations and any person who causes or authorises the operation of an aircraft, in the capacity of owner, lessee, or otherwise whether with or without the control of the aircraft;

*(b)* who or which is deemed to be engaged in the operation of aircraft within the meaning of the Civil Aviation Act;

Ch. 49:03.

"operational flight plan" means the plan of an operator for the safe conduct of flight based on considerations of aircraft performance, other operating limitations, and relevant expected conditions on the route to be followed and at the aerodromes or heliports concerned;

"operations in performance Class 1" means operations of a helicopter with performance such that, in the event of a critical power unit failure, performance is available to enable the helicopter to safely continue the flight to an appropriate landing area, unless the failure occurs prior to reaching the take-off decision point or after passing the landing decision point, in which case the helicopter must be able to land within the rejected take-off or landing area;

"operations in performance Class 2" means operations of a helicopter with performance such that, in the event of critical power unit failure, performance is available to enable the helicopter to safely continue the flight to an appropriate landing area, except when the failure occurs early during the take-off manoeuvre or late in the landing manoeuvre, in which case a forced landing may be required;

"operations in performance Class 3" means operations with performance such that, in the event of a power unit failure at any time during the flight, a forced landing will be required;

"operations specifications" means the authorisations, conditions and limitations associated with the air operator certificate and subject to the conditions in the operations manual;

"package" means the complete product of the packing operation consisting of the packaging and its contents prepared for transport;

"packaging" means receptacles and any other components or materials necessary for the receptacle to perform its containment function and to ensure compliance with the packing requirements;

"passenger exit seats" means those seats from which a passenger can proceed directly to the exit without entering an aisle or passing around an obstruction and those seats in a row of seats through which passengers would have to pass to gain access to an exit, from the first seat inboard of the exit to the first aisle inboard of the exit;

"performance-based navigation" means area navigation based on performance requirements for aircraft operating along an air traffic service route, on an instrument approach procedure in a designated airspace;

"positioning" means the practice of transferring crews from place to place as passengers in surface or air transport on behalf of the air operator;

"proper shipping name" means the name to be used to describe a particular article or substance in all shipping documents and notifications and, where appropriate, on packaging;

"reporting time" means the time at which a crew member is required by the air operator to report for duty;

"required communication performance" means a statement of the performance requirements for operational communication in support of specific Air Traffic Management functions;

"RCP type" means a label that represents the values assigned to required communication performance parameters for communication transaction time, continuity, availability and integrity such as RCP 240;

"reserve duty" means a period during which the air operator requires a crew member who would otherwise be off-duty to be available for flight duty;

"rest period" means a period before starting a flying duty period that is designed to give crew members adequate opportunity to rest before a flight;

"RNP" means a statement of the navigation performance necessary for operation within a defined airspace, the performance and requirements of which are defined for a particular RNP type application;

"RNP type" means a containment value of navigation accuracy, expressed as a distance in nautical miles from the intended aircraft position within which flights would be for at least ninety-five per cent of the total flying time, for example, RNP4 represents a navigation accuracy of plus or minus four nautical miles on a ninety-five per cent containment basis.

"rostered duty" means a planned duty period, or series of duty periods, with stipulated start and finish times, notified by the air operator to crews in advance;

"rostering period" means a period of consecutive days which the air operator shall roster duty and rest periods notified by the air operator in advance;

"runway-holding position" means a designated position intended to protect a runway, an obstacle limitation surface, or an ILS/MLS critical/sensitive area at which taxiing aircraft and vehicles shall stop and hold, unless otherwise authorised by the aerodrome control tower;

"safe forced-landing" means an unavoidable landing or ditching of an aircraft with a reasonable expectancy of no injuries to persons in the aircraft or on the surface;

"safety management system" means a systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures;

"safety programme" means an integrated set of regulations and activities aimed at improving safety;

"scheduled duty" means the allocation of specific flights or other duties to a crew member within the pre-notified rostered series of duty periods;

"sector" means the time between an aircraft moving under its own power until it next comes to rest after landing, at the designated parking position;

"series of flights" means consecutive flights of a helicopter that—

*(a)* begin and end within a period of 24 hours; and

*(b)* are all conducted by the same pilot-in-command;

"serious incident" means an incident involving circumstances indicating that an accident nearly occurred;

"serious injury" means an injury which is sustained by a person in an accident and which—

*(a)* requires hospitalisation for more than 48 hours, commencing within seven days from the date the injury was received;

*(b)* results in a fracture of any bone (except simple fractures of fingers, toes or nose);

*(c)* involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage;

*(d)* involves injury to any internal organ;

*(e)* involves second or third degree burns, or any burns affecting more than 5% of the body surface; or

*(f)* involves verified exposure to infectious substances or injurious radiation.

"short haul operation" means flights where the origins and destinations are less than three hours time change apart;

"Special Flight Permit" means a permit issued by the Authority in accordance with the Civil Aviation [(No. 5) Sub. Leg.

Airworthiness] Regulations in respect of an aircraft that is capable of safe flight, but unable to meet applicable airworthiness requirements;

"split duty" means a flying duty period which consists of two or more sectors separated by less than a minimum rest period;

"State of Origin" means the State in which dangerous goods were first loaded on an aircraft;

"suitable accommodation" means a furnished bedroom which is subject to minimum noise, is well ventilated and has the facility to control the levels of light and temperature;

"take-off decision point" means the point used in determining take-off performance of a helicopter operating in performance Class 1 from which, a power-unit failure occurring at this point, either a rejected take-off may be made or a take-off safely continued;

"target level of safety" means a generic term representing the level of risk which is considered acceptable in particular circumstances;

"Technical Instructions" means the International Civil Aviation Organisation Technical Instructions for the Safe Transport of Dangerous Goods by Air;

"total vertical error" means the geometric difference between the actual pressure altitude flown by an aircraft and its assigned pressure altitude (flight level);

"travelling" means all time spent by the crew member transiting between the place of rest and the place of reporting for duty and does not count as duty time;

"Trinidad and Tobago aircraft" means all civil aircraft registered in Trinidad and Tobago;

"unit load device" means any type of aircraft container for baggage or freight, aircraft pallet with a net, or aircraft pallet with a net over an igloo;

"VHF Omni Range" means a ground based radio navigation equipment capable of giving visual indications in the cockpit bearings by means of signals received from very high frequency omni-directional radio ranges; and

"visibility" means, for aeronautical purposes the greater of—

(i) the greatest distance at which a black object of suitable dimensions, situated near the ground, can be seen and recognised when observed against a bright background; and

(ii) the greatest distance at which lights in the vicinity of one thousand candelas can be seen and identified in an unlit background.

## APPLICABILITY OF REGULATIONS

Applicability of Regulations.

**3.** (1) These Regulations prescribe the requirements for—

*(a)* operations conducted on a Trinidad and Tobago aircraft by airmen and operator certified by the Authority;

*(b)* the use of foreign registered aircraft by national air operators;

*(c)* operations of aircraft within Trinidad and Tobago by airmen or air operators of a foreign State.

(2) Operators of Trinidad and Tobago aircraft and flight crew licensed in Trinidad and Tobago, operating outside of Trinidad and Tobago, shall comply with the requirements under these Regulations unless such compliance would violate any law of the foreign State in which the operation is conducted.

### PART I

## GENERAL OPERATIONS REQUIREMENTS

Requirements for registration markings. Sub. Leg.

**4.** A person shall not operate an aircraft, unless such aircraft displays the proper markings prescribed under the Civil Aviation [(No. 4) Registration and Markings] Regulations and in the case of a foreign registered aircraft, markings approved by the State of Registry.

### GENERAL OPERATIONS OF AIRCRAFT

Restrictions on the operation of aircraft.

**5.** (1) A person shall not operate an aircraft in Trinidad and Tobago unless it is in an airworthy condition.

(2) Prior to initiating flight, a pilot in command shall determine whether an aircraft is in a condition for safe flight.

(3) The pilot in command shall discontinue a flight as soon as practicable when a mechanical, electrical or structural condition occurs that would render the aircraft no longer airworthy.

**SPECIAL FLIGHT PERMIT**

Special Flight Permit operational restrictions. Sub. Leg.

**6.** Where a Trinidad and Tobago aircraft is issued a Special Flight Permit in accordance with the Civil Aviation [(No. 5) Airworthiness] Regulations a person shall operate such aircraft in accordance with the limitations issued with such Special Flight Permit.

**AIRCRAFT INSTRUMENTS AND EQUIPMENT**

Required aircraft instruments and equipment.

Sub. Leg.

**7.** A person shall not operate a Trinidad and Tobago aircraft unless it is equipped with the required instruments and navigation equipment appropriate to the type of flight operations conducted and the route being flown, as prescribed under the Civil Aviation [(No. 7) Instruments and Equipment] Regulations.

**ELECTRONIC NAVIGATION DATA MANAGEMENT**

Electronic Navigation data management. [186/2006].

**7A.** (1) An operator shall not employ electronic navigation data products that have been processed for application in the air and on the ground unless his procedures for ensuring that the process applied and the product delivered have met acceptable standards of integrity, and that the products are compatible with the intended functions of the equipment that will use them, has been approved by the Authority.

(2) Where an operator employs electronic navigation data products the operator shall—

*(a)* continuously monitor the process and the product to ensure that the standards are maintained; and

*(b)* implement procedures that ensures timely distribution and insertion of current and unaltered electronic navigation data to all aircraft that require it.

**INOPERATIVE INSTRUMENTS AND EQUIPMENT**

Restrictions on the use of inoperative instruments and equipment. [223/2005].

**8.** (1) A person shall not take-off an aircraft with inoperative instruments or equipment installed, except as authorised by the Authority.

(2) A person shall not operate an aircraft in commercial air transport with inoperative instruments and equipment installed unless maintenance on those items has been properly deferred in accordance with a current Minimum Equipment List approved by the Authority for that aircraft.

(3) An air operator shall not operate a multi-engine aircraft with inoperative instruments and equipment installed unless the following conditions are met:

*(a)* an approved Minimum Equipment List exists for that aircraft;

*(b)* the Authority has issued the air operator with operations specifications authorising operations in accordance with an approved Minimum Equipment List;

*(c)* the flight crew shall have direct access at all times prior to flight to all of the information contained in the approved Minimum Equipment List through printed or other means approved by the Authority in the air operator's operations specifications;

*(d)* records identifying the inoperative instruments and equipment and the information required by subregulation (4)*(b)*, shall be available to the pilot; and

*(e)* the aircraft is operative under all applicable conditions and limitations contained in the Minimum Equipment List and the operations specifications authorising use of the Minimum Equipment List.

(4) The Minimum Equipment List under subregulation (3) shall—

Sub. Leg.

*(a)* be prepared in accordance with the limitations specified in the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations; and

*(b)* provide for the operations of the aircraft with certain instruments and equipment in an inoperative condition.

**AIRCRAFT FLIGHT MANUAL AND AIRCRAFT OPERATING MANUAL**

Required Aircraft Flight Manual, marking and placard requirements.

**9.** (1) A person shall not operate a Trinidad and Tobago aircraft unless there is available in such aircraft—

*(a)* a current Aircraft Flight Manual; and

*(b)* an Aircraft Operating Manual approved by the Authority for the national air operator.

(2) Where an Aircraft Flight Manual required by subregulation (1)*(a)*, does not exist, another—

*(a)* manual;

*(b)* document;

*(c)* instruction;

*(d)* necessary information;

*(e)* markings and placards; or

*(f)* any combination thereof,

that is approved or accepted by the Authority and which provides the pilot in command with the necessary limitations for safe operation shall be on board such aircraft.

(3) A person shall not operate an aircraft within or over Trinidad and Tobago without complying with the operating limitations specified—

*(a)* in the Aircraft Flight Manual;

*(b)* on the markings of the aircraft;

*(c)* on placards in the aircraft; or

*(d)* by the certifying authority for the State of Registry of the aircraft.

(4) An operator shall display in his aircraft all placards, listings, instrument markings or combination thereof, containing those operating limitations prescribed by the certifying authority for the State of Registry of the aircraft.

**AIRCRAFT AND EQUIPMENT INSPECTIONS**

Required aircraft and equipment inspections.

**10.** (1) Unless otherwise authorised by the Authority, a person shall not operate a Trinidad and Tobago aircraft unless it has had the following inspections:

*(a)* an annual inspection within the past twelve months;

*(b)* a one hundred hour inspection, where the aircraft is used in commercial operations;

*(c)* an altimeter and pitot-static system inspection in the past twenty-four months where the aircraft is being operated under Instrument Flight Rules;

*(d)* a transponder check within the past twelve months, for transponder equipped aircraft; and

*(e)* an emergency locating transmitter check within the past twelve months, for emergency locating transmitter equipped aircraft.

(2) An aircraft maintained under an alternate maintenance and inspection programme approved by the Authority, may not have current annual or one hundred hour inspections in its maintenance records.

(3) An alternate maintenance and inspection programme under subregulation (2), may include a recommended programme of the manufacturer, instructions for continued airworthiness or a programme designed by the operator and approved by the Authority.

(4) The requirements for inspections under this regulation shall be prescribed under the Act or Regulations made thereunder.

**DOCUMENTS REQUIRED ON BOARD AN AIRCRAFT**

Documents to be carried on aircraft for all operations. [34/2009 197/2009].

**11.** (1) Except as provided in regulation 9, a person shall not operate an aircraft unless such aircraft has on board, the following current documents in respect of such aircraft except

those current documents marked with an asterisk (*), are required for operators other than air operators:

*(a)* *Aircraft Registration Certificate issued to the owner;

*(b)* *Airworthiness Certificate;

*(c)* *aircraft journey log;

*(d)* *Aircraft Radio Licence;

*(e)* *list of passenger names and points of embarkation and destination;

*(f)* cargo manifest including special loads information;.

*(g)* for the air operator, an aircraft technical log;

*(h)* document attesting to noise certification;

*(i)* *Aircraft Flight Manual or equivalent document under regulation 9;

*(j)* *the part of the Operations Manual relevant to operation being conducted;

*(k)* for an air operator, minimum equipment list;

*(l)* Operational Flight Plan;

*(m)* filed Air Traffic Control flight plan;

*(n)* Notices to Airmen briefing documentation;

*(o)* meteorological information;

*(p)* mass and balance documentation otherwise referred to as "load sheet";

*(q)* listing of special situation passengers;

*(r)* procedures and signals for intercepted aircraft;

*(s)* *current and suitable maps and charts for routes of proposed flight or possibly diverted flights;

*(t)* forms for complying with the reporting requirements of the Authority and the air operator;

*(u)* for international flights, a general declaration for Customs;

*(v)* any documentation which may be required by the Authority or State concerned with the proposed flight;

*(w)* *Certificate of Insurance for the aircraft;

*(x)* Category II and Category III Manuals for general aviation operations; and

*(y)* Certificate of Maintenance Review.

(2) The Authority may permit the information required under subregulation (1) to be presented in a form other than printed paper where accepted by the Authority.

(3) The Noise Certificate under subregulation (1)*(h)*, shall state the standards in Annex 16, Volume 1 of the Chicago Convention, and may be contained in any other document under subregulation (1), approved by the Authority.

(4) The operator of an aircraft shall ensure that an acceptable standard of accessibility, usability and reliability in respect of the operational flight plan under subregulation (1)*(l)*.

(5) In this regulation "special situation passengers" includes armed security personnel, deportees, persons in custody, and persons with special medical needs.

(6) The requirement of subregulation (1)*(y)*, shall come into effect on—

*(a)* 1st July 2009 for aircraft having more than nineteen passenger seats; and

*(b)* 1st January 2010 for aircraft having nineteen passenger seats or less.

**TRANSPORT OF DANGEROUS GOODS**

Approval to transport dangerous goods.

**12.** (1) An operator shall not transport dangerous goods unless approved to do so by the Authority.

(2) Where an operator wishes to transport dangerous goods he shall apply to the Authority for approval to do so.

(3) Where approval is granted for an operator to transport dangerous goods, the continued validity of such approval shall be dependent upon—

*(a)* the operator remaining in compliance with these Regulations; and

*(b)* the Director-General being granted access to the facilities of the organisation to determine continued compliance with these Regulations.

**SAFE TRANSPORT OF DANGEROUS GOODS**

Provisions for safe transport of dangerous goods.

**13.** (1) An operator shall comply with the provisions contained in Annex 18 of the Chicago Convention on all occasions when dangerous goods are carried, irrespective of whether the flight is wholly or partly within or wholly outside Trinidad and Tobago.

(2) Where dangerous goods are to be transported outside of Trinidad and Tobago, the operator shall review and comply with the appropriate variations noted by Contracting States contained in Attachment 3 to the Technical Instructions.

(3) Articles and substances which would otherwise be classified as dangerous goods are excluded from the provisions of these Regulations, to the extent specified in the Technical Instructions.

**FORBIDDEN GOODS**

Specific goods not to be transported.

**14.** (1) An operator shall take all reasonable measures to ensure that articles and substances that are specifically identified by name or generic description in the Technical Instructions, as being forbidden for transport under any circumstances, are not carried on any aircraft.

(2) An operator shall take all reasonable measures to ensure that articles and substances or other goods that are identified in the Technical Instructions as being forbidden for transport in normal circumstances are transported only when—

*(a)* they are exempted by the States concerned under the provisions of the Technical Instructions; or

*(b)* the Technical Instructions indicate that they may be transported under an approval issued by the State of Origin.

**CLASSIFICATION OF DANGEROUS GOODS**

Classification of dangerous goods.

**15.** An operator shall take all reasonable measures to ensure that articles and substances are classified as dangerous goods as specified in the Technical Instructions.

**PACKING OF DANGEROUS GOODS**

Packing of dangerous goods.

**16.** An operator shall take all reasonable measures to ensure that dangerous goods are packed as specified in the Technical Instructions.

**LABELLING AND MARKING OF DANGEROUS GOODS**

Labelling and marking of dangerous goods.

**17.** (1) An operator shall take all reasonable measures to ensure that packages, overpacks and freight containers are labelled and marked as specified in the Technical Instructions.

(2) Where dangerous goods are carried on a flight, which takes place wholly or partly outside the territory of Trinidad and Tobago, the operator shall ensure that labelling and marking are in the English Language in addition to any other language requirements.

**DANGEROUS GOODS TRANSPORT DOCUMENT**

Requirement for a Dangerous Goods Transport Document.

**18.** (1) An operator shall ensure that, except when otherwise specified in the Technical Instructions, dangerous goods are accompanied by a Dangerous Goods Transport Document which shall contain information specified in the Technical Instructions.

(2) The Dangerous Goods Transport Document under subregulation (1), shall bear a declaration signed by the person who offers the dangerous goods for transport, indicating that the dangerous goods are fully described by their proper shipping names and that they are classified, packed, marked, labelled and are in proper condition for transport by air in accordance with the Technical Instructions.

(3) Where dangerous goods are carried on a flight which takes place wholly or partly outside the territory of a State, the operator shall ensure that the English Language is used for the dangerous goods transport document in addition to any other language requirements.

**ACCEPTANCE OF DANGEROUS GOODS BY OPERATOR OR HANDLING AGENT**

Restrictions on the acceptance of dangerous goods by an operator or his handling agent.

**19.** (1) An operator or his handling agent, shall not accept dangerous goods for transport until the package, overpack or freight container has been inspected in accordance with the acceptance procedures set out in the Technical Instructions.

(2) An operator, or his handling agent, shall use an acceptance check list which shall—

*(a)* allow for all relevant details to be checked; and

*(b)* be in such form as will allow for the recording of the results of the acceptance check by manual, mechanical or computerised means.

**DAMAGE, LEAKAGE OR CONTAMINATION BY DANGEROUS GOODS**

Inspection for damage, leakage or contamination by dangerous goods.

**20.** An operator shall ensure that—

*(a)* packages, overpacks and freight containers are inspected for evidence of leakage or damage immediately prior to loading on an aircraft or into a unit load device, as specified in the Technical Instructions;

*(b)* a unit load device is not loaded on an aircraft unless it has been inspected as required by the Technical Instructions and found free from any evidence of leakage from, or damage to, the dangerous goods contained therein;

*(c)* leaking or damaged packages, overpacks or freight containers are not loaded on an aircraft;

*(d)* any package of dangerous goods found on an aircraft and which appears to be damaged or leaking is removed or arrangements are made for its removal by an appropriate authority or organisation;

*(e)* after removal of any leaking or damaged goods, the remainder of the consignment is inspected to ensure it is in a proper condition for transport and that no damage or contamination has occurred to the aircraft or its load; and

*(f)* packages, overpacks and freight containers are inspected for signs of damage or leakage upon unloading from an aircraft or from a unit load device and, where there is evidence of damage or leakage, the area where the dangerous goods were stowed is inspected for damage or contamination.

**REMOVAL OF CONTAMINATION BY DANGEROUS GOODS**

Removal of contamination by dangerous goods.

**21.** An operator shall ensure that—

*(a)* any contamination found as a result of the leakage or damage of dangerous goods is removed without delay; and

*(b)* an aircraft which has been contaminated by radioactive materials is immediately taken out of service and not returned until the radiation level at any accessible surface and the non-fixed contamination are not more than the values specified in the Technical Instructions.

**LOADING OF DANGEROUS GOODS**

Loading restrictions for dangerous goods.

**22.** (1) An operator shall ensure that dangerous goods are not carried in an aircraft cabin occupied by passengers or on the cockpit, unless otherwise specified in the Technical Instructions.

(2) An operator shall ensure that dangerous goods are protected from damage when loading, segregating, stowing and securing such dangerous goods on an aircraft as specified in the Technical Instructions.

(3) An operator shall ensure that packages of dangerous goods bearing the "Cargo Aircraft Only" label are carried on a cargo aircraft and loaded as specified in the Technical Instructions.

**INFORMATION ON DANGEROUS GOODS**

Provision of information in respect of dangerous goods by operator.

**23.** (1) An operator shall ensure that—

*(a)* information is provided to enable ground staff to carry out their duties with regard to the transport of dangerous goods, including the actions to be taken in the event of incidents and accidents involving dangerous goods; and

*(b)* where applicable, the information referred to in paragraph *(a)*, is also provided to his handling agent.

(2) A national air operator shall ensure that information is promulgated as required by the Technical Instructions so that passengers are warned as to the types of goods which they are forbidden from transporting as checked baggage or carry on luggage.

(3) A national air operator and, where applicable, his handling agent, shall ensure that notices are provided at check-in points for cargo giving information about the transport of dangerous goods.

(4) An operator shall ensure that information is provided in his Operations Manual to enable crew members to carry out their responsibilities in regard to the transport of dangerous goods, including the actions to be taken in the event of emergencies involving dangerous goods which may arise.

(5) An operator shall ensure that the pilot in command is provided with written information on the details in respect of the dangerous goods on board as early as practicable before flights in the manner specified in the Technical Instructions.

(6) Where dangerous goods are on board an aircraft and an aircraft accident occurs, the operator of such aircraft shall—

*(a)* as soon as possible, inform the appropriate authority of the State in which the aircraft accident occurred of any dangerous goods carried; and

*(b)* on request, provide any information required to minimise the hazards created by any dangerous goods carried.

**DANGEROUS GOODS TRAINING PROGRAMMES**

Requirement for dangerous goods training programme.

**24.** (1) An operator shall establish, maintain and have approved by the Authority, an initial and recurrent dangerous goods training programme, as required by the Technical Instructions in respect of his operations.

(2) Notwithstanding the generality of subregulation (1), an operator who does not hold an approval to carry dangerous goods under regulation 12 shall ensure that—

*(a)* staff who are engaged in general cargo handling have received training to carry out their duties in respect of dangerous goods which covers as a minimum, the areas identified under

subregulation (1), to an extent sufficient to ensure that an awareness is gained—

(i) of the hazards associated with dangerous goods; and

(ii) how to identify such goods;

*(b)* crew members, passenger and ground handling staff and security staff employed by the national air operator who deal with the screening of passengers and their baggage, have received training which covers as a minimum, the areas identified in subregulation (1), to an extent sufficient to ensure that an awareness is gained—

(i) of the hazards associated with dangerous goods;

(ii) how to identify such goods; and

(iii) what requirements apply to the carriage of such goods specified under regulation 13.

**REPORTING OF DANGEROUS GOODS INCIDENT OR ACCIDENT**

Dangerous goods incident and accident reports. [34/2009].

**25.** (1) An operator of an aircraft transporting dangerous goods shall report—

*(a)* all dangerous goods incidents and accidents; and

*(b)* all instances of undeclared and misdeclared dangerous goods in cargo,

occurring in Trinidad and Tobago and which involve the transport of dangerous goods originating in another State or destined for another State.

(2) The report on—

*(a)* dangerous goods incidents and accidents; and

*(b)* undeclared and misdeclared dangerous goods in cargo,

required by subregulation (1) shall be made in accordance with the detailed provision of ICAO Doc. 9284—Technical Instructions for the Safe Transport of Dangerous Goods by Air.

**PART II**

## AIRCRAFT MAINTENANCE REQUIREMENTS

Applicability of Part II. [223/2005].

**26.** (1) This Part applies to all general aviation, large complex aircraft operated in Trinidad and Tobago, whether or not the aircraft is registered in Trinidad and Tobago.

(2) Regulations 28 and 29 do not apply to an aircraft subject to an approved aircraft maintenance programme approved by the Authority for a national air operator under Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations.

Sub. Leg.

(3) Where any aircraft, not registered in Trinidad and Tobago and operating under an inspection programme approved or accepted by the State of Registry, does not have the equipment required by the Authority for operations within Trinidad and Tobago, the operator of such aircraft shall ensure that such equipment is installed and inspected in accordance with the requirements of the State of Registry, acceptable to the Authority prior to operation of that aircraft in Trinidad and Tobago.

### GENERAL AIRCRAFT REQUIREMENTS

General requirements in respect of aircraft.

**27.** (1) An operator of an aircraft shall be primarily responsible for maintaining such aircraft in an airworthy condition, including compliance with all airworthiness directives.

(2) A person shall not perform maintenance, preventive maintenance, or alterations to an aircraft other than as prescribed by these Regulations, the Act or Regulations made thereunder.

(3) A person shall not certify an aircraft as airworthy unless he is qualified in accordance with the Act or Regulations made thereunder to issue such certification.

(4) A person shall not operate an aircraft for which a maintenance manual of the manufacturer or instructions for continued airworthiness containing an airworthiness limitations section has been issued unless—

*(a)* the mandatory replacement times;

*(b)* inspection intervals; and

*(c)* related procedures set forth in the specific operating provisions,

are approved by the Authority under the Act or Regulations made thereunder.

**REQUIREMENTS OF OPERATOR IN RESPECT OF AIRCRAFT**

Requirements of operator in respect of aircraft.

**28.** An operator shall—

*(a)* have his aircraft inspected as prescribed under this Part and discrepancies rectified as required under the Performance Rules prescribed under the Act or Regulations made thereunder;

*(b)* inspect, repair, replace or remove an inoperative instrument or item of equipment at the next required inspection, except when permitted under the provisions of an approved Minimum Equipment List;

*(c)* ensure that a placard has been installed on the aircraft when listed discrepancies include inoperative instruments or equipment;

*(d)* ensure that all maintenance, overhaul, alterations and repairs that affect airworthiness are performed as prescribed in accordance with the Act or Regulations made thereunder;

*(e)* ensure that maintenance personnel make appropriate entries in the maintenance records in accordance with this Part; and

*(f)* ensure that the appropriate maintenance personnel complete and sign the Certificate of Release to Service, after the maintenance has been accomplished satisfactorily and in accordance with prescribed methods.

**INSPECTIONS OF AIRCRAFT**

Requirements for inspection of aircraft. [197/2009].

**29.** (1) Except as provided in subregulation (6), a person shall not operate an aircraft unless—

*(a)* an annual inspection was conducted on the aircraft in accordance with the Act or

Regulations made thereunder and issued with a Certificate of Release to Service by a person authorised under the Act or Regulations made thereunder; or

*(b)* an inspection was conducted for the issuance of an Airworthiness Certificate in accordance with the Act or Regulations made thereunder; and

*(c)* the aircraft's records for the preceding six months have been inspected in accordance with the requirements of regulation 31A of the Civil Aviation [(No. 5) Airworthiness] Regulations and a Certificate of Maintenance Review issued in respect of such aircraft.

Sub. Leg.

(2) An inspection performed under subregulation (1)*(b)*, shall not be substituted for any other inspection required by this regulation unless it is performed by a person authorised to perform annual inspections and is entered as an "annual" inspection in the required maintenance record.

(3) Except as provided in subregulation (6), a person shall not operate for hire—

*(a)* an aircraft carrying any person, other than a crew member; or

*(b)* give flight instruction in an aircraft which that person provides,

unless within the preceding one hundred hours of time in service, the aircraft has—

*(c)* received an annual or one hundred-hour inspection and has been issued a Certificate of Release to Service in accordance with the Act or Regulations made thereunder;

*(d)* received an inspection for the issuance of an Airworthiness Certificate in accordance with the Act or Regulations made thereunder.

(4) The one hundred-hour limitation under subregulation (3), may be exceeded by no more than ten hours while en route to reach a place where the inspection can be done.

(5) The excess time, under subregulation (4), used to reach a place where the inspection can be done shall be included in computing the next one hundred hours of time in service.

(6) Subregulations (1) through (5), shall not apply to—

*(a)* an aircraft that carries a Special Flight Permit;

*(b)* an aircraft subject to the requirements of subregulation (7) or (9); or

*(c)* turbine-powered rotorcraft when the operator elects to inspect such rotorcraft in accordance with subregulation (9).

(7) An operator of an aircraft desiring to use a progressive inspection programme shall submit a written request to the Authority.

(8) A written request under subregulation (7), shall be accompanied by—

*(a)* details of—

(i) the Aircraft Maintenance Engineer who shall be conducting inspections and maintenance and who holds a type rating required by the Act or Regulations made thereunder;

(ii) the approved Aircraft Maintenance Organisation appropriately rated in accordance with the Act or Regulations made thereunder; or

(iii) where applicable, the manufacturer of the aircraft who will be supervising or conducting the progressive inspection;

*(b)* a current inspection procedures manual available and readily understandable to flight crew and maintenance personnel containing—

(i) an explanation of the progressive inspection, including the continuity of inspection responsibility, the making of reports, and the keeping of records and technical reference material;

(ii) an inspection schedule, specifying the intervals in hours or days when routine and detailed inspections will be performed and including instructions for exceeding an inspection interval by not more than ten hours while en route and for changing an inspection interval based on service experience;

(iii) a sample of the routine and detailed inspection form and instructions for its use; and

(iv) a sample of the report and record and instructions for their use;

*(c)* details of the housing and equipment required for disassembly and proper inspection of the aircraft; and

*(d)* appropriate current technical information for the aircraft.

(9) An operator of a large aeroplane, turbojet multi-engine aeroplane, turbo propeller-powered multi-engine aeroplane and turbine-powered rotorcraft shall select and use one of the following programmes appropriate to the aircraft:

*(a)* a current inspection programme recommended by the manufacturer;

*(b)* a continuous maintenance programme that is part of a continuous maintenance programme for that make and model of aircraft currently approved by the Authority for use by an operator; or

*(c)* any other inspection programme established by the operator of that aircraft and approved by the Authority.

(10) An operator shall—

*(a)* include in the programme selected under subregulation (9), the name and address of the person responsible for the scheduling of the inspections required by the programme; and

*(b)* provide a copy of the programme selected under subregulation (9), to the person performing inspection on the aircraft.

(11) An aircraft shall not be issued a Certificate of Release to Service, unless the replacement times for life-limited parts specified in the aircraft specification-type data sheets are complied with and the aircraft, and its associated aeronautical products including survival and emergency equipment are inspected in accordance with an inspection programme selected under subregulation (9).

(12) A person wishing to establish or change an approved inspection programme shall submit the new programme for approval to the Authority for approval.

(13) A request for an approval under subregulation (12), shall be accompanied by—

*(a)* instructions and procedures for the conduct of inspection for the particular make and model aircraft, including necessary tests and checks and details of the parts and areas of the aeronautical products, including survival and emergency equipment required to be inspected; and

*(b)* a schedule of the inspections required to be performed which may be expressed in terms of time in service, time and cycles of operation of any combination thereof.

(14) Where an operator changes from one inspection programme to another, he shall apply the time in service, calendar times, or cycles of operation accumulated under the previous programme, in determining when an inspection becomes due under the new programme.

(15) The frequency and detail of the progressive inspections under this regulation shall be as set out in Schedule 1. Schedule 1.

**AMENDMENT TO AIRCRAFT INSPECTION PROGRAMMES**

**30.** (1) Where the Director-General finds a revision to an approved inspection programme is necessary for the continued Required changes to aircraft inspection programmes.

*L.R.O.*

adequacy of such programme, he shall recommend that the Authority notify the operator of the changes required to the inspection programme prior to its approval.

(2) Where an operator receives a notification under subregulation (1), he shall make any change in the inspection programme as recommended by the Authority.

(3) Notwithstanding subregulation (2), an operator may petition the Authority to reconsider the notification, within thirty days of receipt thereof.

(4) A petition under subregulation (3), shall include justification or an alternate method of compliance with an equivalent level of safety being maintained for the decision to be revoked.

(5) Except in the case of an emergency requiring immediate action in the interest of safety, the filing of the petition stays the notification pending a decision by the Authority.

**MAINTENANCE RECORDS OF AIRCRAFT**

Owner, lessee or operator to keep maintenance records.

**31.** (1) An operator of an aircraft shall keep a maintenance record of—

*(a)* the entire aircraft to include—

(i) the total time in service which shall include hours, calendar time and cycles, as appropriate, of the aircraft and all life limited parts;

(ii) the current inspection status of the aircraft, including the time since required or approved inspection was last performed;

(iii) the current empty mass and the location of the centre of gravity when empty;

(iv) addition or removal of equipment;

(v) the type and extent of maintenance and alteration, including the time in service and date;

(vi) the date when work was performed; and

(vii) a chronological list of compliance with Airworthiness Directives, including methods of compliance;

*(b)* life limited aeronautical products including survival and emergency equipment to include—

(i) total time in service;

(ii) date of the last overhaul;

(iii) time in service since the last overhaul; and

(iv) date of the last inspection;

*(c)* instruments and equipment, the serviceability and operating life of which are determined by their time in service to include—

(i) records of the time in service as are necessary to determine their serviceability or to compute their operating life; and

(ii) date of last inspection.

**MAINTENANCE RECORDS RETENTION**

Owner, lessee or operator to retain maintenance records.

**32.** (1) Except for records maintained by an air operator, an operator shall retain, until the work is repeated or superseded by other work of equivalent scope and detail, the following:

*(a)* records of the maintenance, preventive maintenance, minor modifications, and records of the one hundred hour, annual and other required or approved inspections, as appropriate for each aircraft, including the airframe and each engine, propeller, rotor and appliance of an aircraft to include—

(i) a description or reference to data acceptable to the Authority, of the work performed;

(ii) the date of completion of the work performed; and

(iii) the signature and licence number of the person issuing the Certificate of Release to Service;

*(b)* records containing the following information:

(i) the total time in service of the airframe, each engine, each propeller and each rotor;

(ii) the current status of all life-limited aeronautical products;

(iii) the time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis;

(iv) the addition and removal of equipment;

(v) the current empty mass and the location of the centre of gravity of the aircraft when empty;

(vi) the current inspection status of the aircraft, including the time since the last inspection required by the inspection programme under which the aircraft and its appliances are maintained;

(vii) the current status of applicable Airworthiness Directives including, for each, the method of compliance, the Airworthiness Directive number, and revision date;

(viii) where the Airworthiness Directive involves recurring action, the time and date when the next action is required; and

(ix) copies of the prescribed forms for each major repair and major modification to the airframe and currently installed engines, rotors, propellers, and appliances.

(2) The records specified in subregulation (1), shall be retained and transferred with the aircraft at the time the aircraft is sold or leased.

(3) An operator shall make all maintenance records required by this regulation available for inspection by the Director-General.

(4) The records specified in subregulation (1), shall be preserved by an operator for two years after the aircraft has been permanently withdrawn from service or destroyed.

**TRANSFER OF MAINTENANCE RECORDS**

Procedure on transfer of maintenance records.

**33.** An operator who sells or leases a Trinidad and Tobago aircraft shall transfer to the purchaser or lessor at the time of sale or lease, the records identified in regulation 32 in respect of such aircraft, in plain language form or in coded form at the option of the purchaser or lessor, where the coded form provides for the preservation and retrieval of information in a manner acceptable to the Authority.

**PART III**

## FLIGHT CREW REQUIREMENTS

Composition of the flight crew. [186/2006].

**34.** (1) An operator shall ensure that—

*(a)* the number and composition of the flight crew is no less than specified in the Aircraft Flight Manual;

*(b)* all flight crew hold an applicable and valid licence acceptable to the Authority and are suitably qualified and competent to conduct the duties assigned to them;

*(c)* procedures are established, acceptable to the Authority, to prevent the crewing together of inexperienced flight crew;

*(d)* one pilot amongst the flight crew, qualified as a pilot in command, is designated as the pilot in command who may delegate the conduct of the flight to another qualified pilot;

*(e)* where a dedicated system panel operator is required by the Aircraft Flight Manual, the flight crew includes one crew member who holds a Flight Engineer Licence issued under the Civil Aviation (General Application and Personnel Licensing) Regulations or suitably qualified flight crew acceptable to the Authority;

Sub. Leg.

*(f)* an operator shall ensure that when engaging the services of flight crew who are self-employed or working on a freelance or part-time basis, all applicable flight crew requirements are complied with;

*(g)* attention is paid in respect of paragraph *(f)*, to the total number of aircraft types or variants including when his services are engaged by operators that flight crew members may fly for the purpose of commercial air transport;

*(h)* a co-pilot is included as part of the flight crew in commercial air transport operations under Instrument Flight Rules, unless the Authority has issued a deviation;

*(i)* an aeroplane is not operated under the Instruments Flight Rules or at night in commercial air transport operations by a single pilot unless approved by the Authority.

(2) Notwithstanding the minimum number and composition of flight crew specified in an Aircraft Flight Manual, where the Director-General is of the opinion that considerations related to—

*(a)* the type of aircraft used;

*(b)* the type of operation involved; and

*(c)* the duration of flight between points where flight crews are changed,

require that the number and composition of the flight crew should exceed the number specified in such Aircraft Flight Manual, he may recommend the Authority increase the minimum number of flight crew required for his operation.

(3) An operator shall ensure the revised minimum number and composition of flight crew under subregulation (2), is met.

(4) For operations under Instrument Flight Rules, or at night, an operator shall ensure that—

*(a)* for all turbo-propeller aircraft with an approved passenger seating configuration of more than nine, the minimum flight crew shall be two pilots; or

*(b)* for all turbojet aircraft, the minimum flight crew shall be two pilots.

(5) Where an aircraft other than those covered by subregulation (4)*(a)* and *(b)*, is operated by a single pilot, the operator shall ensure that—

*(a)* the Operations Manual conversion and recurrent training programme includes the additional requirements for a single pilot operation;

*(b)* the cockpit procedures include—

(i) engine management and emergency handling;

(ii) use of normal, abnormal and emergency check lists;

(iii) Air Traffic Control communication;

(iv) departure and approach procedures;

(v) autopilot management; and

(vi) use of simplified in-flight documentation;

*(c)* the recurrent checks required by regulation 260 shall be performed in the single-pilot role on the type or class of aircraft in an environment representative of the operation;

*(d)* such pilot shall have a minimum of fifty hours flight time on the specific type or class of aircraft under Instrument Flight Rules of which ten hours shall be as pilot in command; and

*(e)* the minimum required recency experience for a pilot engaged in a single-pilot operation under Instrument Flight Rules or at night shall be five Instrument Flight Rules flights, including three instrument approaches, carried out during the preceding ninety days on the type or class of aircraft in the single-pilot role.

(6) The requirement under subregulation (5)*(e)* may be met by using an Instrument Flight Rules instrument approach check on the type or class of aircraft.

(7) An operator shall ensure that where the requirements under subregulation (5) are not satisfied, the minimum flight crew shall be two pilots.

**QUALIFICATION FOR FLIGHT CREW**

Operator to ensure flight crew qualifications. [302/2004 185/2006].

**35.** (1) An operator shall ensure that each member of his flight crew holds valid licences with appropriate ratings.

(1A) An operator shall ensure that a flight crew member demonstrates the ability to speak and understand the language used for aeronautical radio telephony communication as specified in the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations.

Sub. Leg.

(2) A pilot in command shall not operate an aircraft in commercial air transportation operations unless he ensures that the licence of each flight crew member—

*(a)* is valid; and

*(b)* contains the proper ratings.

(3) A pilot shall not operate an aircraft in commercial air transport operations or aerial work unless he meets the requirements of the Act or Regulations made thereunder for the specific operation and in the specific type of aircraft used.

(4) The pilot in command of an aeroplane equipped with an airborne collision avoidance system (ACASII) shall ensure that each flight crew member has been appropriately trained to competency in the use of ACASII equipment and the avoidance of collisions.

**REQUIREMENTS FOR FLIGHT CREW**

Licence requirements for flight crew.

**36.** (1) A person shall not act as pilot in command or in any other capacity as a required flight crew member of—

*(a)* a Trinidad and Tobago aircraft, unless he carries in his personal possession the appropriate and valid licence for that flight crew position for that type of aircraft;

*(b)* a foreign aircraft, unless he carries in his personal possession the appropriate and valid

licence for that type of aircraft which shall include a current medical certificate issued by the State which issued the licence.

(2) The flight crew of an aircraft shall include at least one member who holds a valid licence issued or rendered valid by the Authority, authorising operation of the type of radio transmitting equipment to be used.

**COMMERCIAL AIR TRANSPORT SERVICES REQUIREMENTS**

Limitation on use of services for commercial air transport operations. Sub. Leg.

**37.** A person shall not act as a required flight crew member, nor shall any national air operator require a person to act as a required flight crew member in commercial air transport operations, where he does not meet the requirements of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, and has successfully completed the full training programme under these Regulations of the national air operator.

**REQUIREMENTS FOR INSTRUMENT FLIGHT RULES OPERATIONS**

Rating required for Instrument Flight Rules operations.

**38.** A person shall not act as pilot in command of an aircraft under Instrument Flight Rules or in weather conditions less than the minimum prescribed for Visual Flight Rules flight unless—

*(a)* in the case of an aeroplane, the pilot holds an Instrument Rating or an Airline Transport Pilot Licence with an appropriate aeroplane category, class, and type rating for the aeroplane being flown;

*(b)* in the case of a helicopter, the pilot holds a helicopter Instrument Rating or an Airline Transport Pilot Licence for helicopters not limited to Visual Flight Rules operations.

**CATEGORY II OR CATEGORY III OPERATIONS**

Special authorisation required for Category II or III operations.

**39.** (1) Except as provided in subregulation (2), a person shall not act as a flight crew member of an aircraft in a Category II or III operation under Part VII unless—

*(a)* in the case of a pilot in command, he holds a current Category II or III pilot authorisation issued

Sub. Leg.

in accordance with the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations for that type of aircraft; and

*(b)* in the case of a co-pilot, he is authorised under that Part to act as co-pilot in that aircraft in Category II or III operations.

(2) An authorisation is not required for individual pilots of an air operator who has operations specifications approving Category II or III operations.

**PILOT'S LOGBOOK REQUIREMENTS**

Pilot's logbook.

**40.** (1) A pilot shall provide the Authority with evidence that he possesses the aeronautical training and experience to meet the requirements for a licence or rating, or recency of experience, recorded in his logbook.

(2) A Student Pilot shall carry his logbook, including the proper Flight Instructor endorsements, on all solo cross-country flights.

**PILOT IN COMMAND AND CO-PILOT RECENCY REQUIREMENTS**

Recency requirements for a pilot in command. [223/2005 186/2006 46/2007].

**41.** (1) A person shall not act as pilot in command or co-pilot of a type or variant of a type of an aeroplane or helicopter carrying passengers, nor of an aeroplane or helicopter certified for more than one required flight crew member unless within the preceding ninety days that pilot has—

*(a)* made three take-offs and landings as the sole manipulator of the flight controls in an aeroplane or helicopter of the same category and class and where a type rating is required, of the same type; or

*(b)* for a tailwheel aeroplane, made three take-offs and landings in a tailwheel aeroplane with each landing to a full stop.

(2) A pilot who has not met the recency of experience for take-offs and landings under subregulation (1), shall

satisfactorily complete a re-qualification training programme acceptable to the Authority.

(3) Requirements of subregulations (1) and (2), may be satisfied in a flight simulator.

(4) Where a pilot in command or a co-pilot is flying several variants of the same type of aeroplane or helicopter or different types of aeroplanes or helicopters with similar characteristics in terms of operating procedures, systems and handling, the Director-General shall determine under which conditions the requirements of subregulation (1) for each variant of each type of aeroplane or helicopter can be combined.

(5) ***(Deleted by LN 223/2005).***

**RECENT EXPERIENCE—CRUISE RELIEF PILOT**

Recent Experience—Cruise Relief Pilot. [46/2007].

**41A.** (1) An operator shall not assign a pilot to act in the capacity of cruise relief pilot in a type or variant of a type of aeroplane unless, within the preceding 90 days that pilot has either—

*(a)* operated as a pilot in command, co-pilot or cruise relief pilot on the same type of aeroplane; or

*(b)* carried out flying skill refresher training including normal, abnormal and emergency procedures specific to cruise flight on the same type of aeroplane or in a flight simulator approved for the purpose, and has practised approach and landing procedures, where the approach and landing procedure practice may be performed as the pilot who is not flying the aeroplane.

(2) When a cruise relief pilot is flying several variants of the same type of aeroplane or different types of aeroplanes with similar characteristics in terms of operating procedures, systems and handling, the State shall decide under which conditions the requirements of subregulation (1) for each variant of each type of aeroplane can be combined.

**INSTRUMENT FLIGHT RULES FOR INSTRUMENT METEOROLOGICAL CONDITIONS REQUIREMENTS**

Requirements for flying under Instrument Flight Rules or Instrument Meteorological Conditions. [197/2009].

**42.** (1) A person shall not act as pilot in command in an aircraft under Instrument Flight Rules, nor in Instrument Meteorological Conditions, unless he has, within the past six months—

*(a)* logged at least six hours of instrument flight time including at least three hours in flight in the category of aircraft; and

*(b)* completed at least six instrument approaches.

(2) A pilot who has completed an instrument proficiency check with a Flight Test Examiner, retains recency for Instrument Flight Rules operations for twelve months following such check.

**CO-PILOT RECENCY REQUIREMENTS**

Recency take-off and landings requirements for co-pilot.

**43.** (1) A pilot shall not act as co-pilot at the flight controls of an aircraft during take-off and landing unless, within the preceding ninety days, such pilot has—

*(a)* made three take-offs and landings as the pilot in command or co-pilot in an aircraft of the same category and class and where a type rating is required, of the same type; and

*(b)* for a tailwheel aircraft, made the three take-offs and landings as the pilot in command or co-pilot in a tailwheel aircraft with each landing to a full stop.

(2) A pilot who has not met the recency requirements for take-offs and landings prescribed by subregulation (1), shall satisfactorily complete a re-qualification training programme acceptable to the Authority.

(3) The requirements of subregulations (1) and (2), may be satisfied in a flight simulator.

(4) The ninety-day period prescribed under subregulation (1), may be extended up to a maximum of one hundred and twenty days where the pilot meets the requirements

of subregulation (1), on a line flight under the supervision of a type rating instructor or Flight Test Examiner.

(5) Where a period beyond the one hundred and twenty days extension under subregulation (4), is required, the recency requirement shall be satisfied by a training flight or use of a flight simulator.

**GENERAL AVIATION PILOT PROFICIENCY REQUIREMENTS**

Required proficiency for general aviation pilots.

**44.** (1) A person shall not act as pilot in command of an aircraft type certified for more than one pilot unless, since the beginning of the preceding twelve months, he has passed with a Flight Test Examiner, a proficiency check in an aircraft requiring more than one pilot.

(2) A person shall not act as pilot in command of an aircraft type certified for more than one pilot unless, since the beginning of the preceding twenty-four months, he has passed a proficiency check in the aircraft type to be operated.

(3) A person shall not act as pilot in command of an aircraft type certified for a single pilot unless, since the beginning of the preceding twenty-four months, he has passed a proficiency check with a Flight Test Examiner.

(4) A Flight Test Examiner conducting proficiency checks under this regulation shall ensure that each proficiency check duplicates the manoeuvres of the type rating skill test.

(5) A person shall not act as co-pilot of an aircraft type certified for more than one pilot unless, since the beginning of the preceding twelve months, he has—

*(a)* become familiar with the aircraft systems, performance, normal and emergency procedures; and

*(b)* logged three take-off and landings as the sole manipulator of the controls.

(6) This regulation shall not apply to pilots engaged in commercial air transport operations.

**PRIVILEGES AND LIMITATIONS OF PILOTS**

Pilot privileges and limitations.

**45.** A pilot may conduct operations only within the privileges and limitations of his licence.

**PART IV**

## CREW MEMBER DUTIES AND RESPONSIBILITIES

Crew responsibilities.

**46.** (1) A crew member shall be responsible for proper execution of his duties that are—

*(a)* related to the safety of the aircraft and its occupants; and

*(b)* specified in the instructions and procedures laid down in the Operations Manual.

(2) A crew member shall—

*(a)* report to the pilot in command any fault, failure, malfunction or defect which he believes may affect the airworthiness or safe operation of an aircraft including emergency system;

*(b)* report to the pilot in command any occurrence that endangered, or may endanger the safety of operation; and

*(c)* make use of the occurrence reporting scheme of the operator in accordance with these Regulations and in all such cases a copy of the report shall be communicated to the pilot in command concerned.

(3) Nothing in subregulation (2), shall require a crew member to report an occurrence which has already been reported by another crew member.

(4) A crew member shall not perform duties on an aircraft—

*(a)* while under the influence of any drug that may affect his faculties in a manner contrary to safety;

*(b)* until a reasonable time period has elapsed after deep-water diving;

*(c)* following blood donation except when a reasonable time period has elapsed;

*(d)* where he is in any doubt of being able to accomplish his assigned duties; or

*(e)* where he knows or suspects that he is suffering from fatigue, or feels unfit to the extent that the flight may be endangered.

(5) A crew member shall not—

*(a)* consume alcohol less than eight hours prior to the specified reporting time for flight duty or the commencement of reserve or standby duty;

*(b)* commence a flight duty period with a blood alcohol level in excess of 0.04 per cent by weight in the period;

*(c)* consume alcohol during the flight duty period or whilst on reserve or standby duty.

(6) A pilot in command shall—

*(a)* be responsible for the safe operations of the aircraft and the safety of its occupants during flight time;

*(b)* decide whether or not to accept an aircraft with unserviceable equipment permitted by the Configuration Deviation List or Minimum Equipment List;

*(c)* ensure that the pre-flight inspection has been carried out;

*(d)* have authority to give all commands he deems necessary for the purpose of securing the safety of the aircraft and of persons or property carried therein;

*(e)* have authority to require any person to disembark, or have removed who in his opinion, may represent a potential hazard to the safety of the aircraft or its occupants;

*(f)* have authority to require any part of cargo on an aircraft be removed, which in his opinion, may represent a potential hazard to the safety of the aircraft or its occupants;

*(g)* not permit any person to be carried in the aircraft who appears to be under the influence of alcohol or drugs to the extent that the safety of the aircraft or its occupants is likely to be endangered;

*(h)* have the right to refuse transportation of inadmissible passengers, deportees or persons in custody if their carriage poses any risk to the safety of the aircraft or its occupants;

*(i)* detain any person or cargo for any period he considers reasonably necessary to ensure compliance with the Act or Regulations made thereunder;

*(j)* ensure that all passengers are briefed on the location of emergency exits and the location and use of relevant safety and emergency equipment;

*(k)* ensure that all operational procedures and check lists are complied with in accordance with the Operations Manual;

*(l)* not allow any crew member to perform any activity during take-off, initial climb, final approach and landing except those duties required for the safe operation of the aircraft; and

*(m)* not allow—

(i) a flight data recorder to be disabled, switched off or erased during flight;

(ii) recorded data to be erased after flight in the event of an accident or an incident subject to mandatory reporting;

(iii) a cockpit voice recorder to be disabled or switched off during flight unless he believes that the recorded data, which otherwise would be erased automatically, should be preserved for incident or accident investigation; and

(iv) recorded data to be manually erased during or after flight in the event of an accident or incident subject to mandatory reporting.

(7) The pilot in command or the pilot to whom conduct of the flight has been delegated shall, in an emergency situation that requires immediate decision and actions, take any action he considers necessary under the circumstances and in such cases he may deviate from rules, operational procedures and methods in the interest of safety.

**PILOT IN COMMAND AUTHORITY**

**47.** An operator shall take all necessary measures to ensure that all persons carried in the aircraft, obey all reasonable commands given by the pilot in command for the purpose of securing the safety of the aircraft and of persons or property carried therein. Powers of the pilot in command.

**COMPLIANCE WITH REGULATIONS OF A TERRITORY**

**48.** (1) Subject to subregulation (2), a pilot in command shall comply with the relevant laws, regulations and procedures of the States in which the aircraft is operated. Compliance with local regulations.

(2) Where an emergency situation exists, which endangers the safety of an aircraft or persons on board an aircraft and necessitates the taking of action which involves a violation of the requirements under subregulation (1), the pilot in command shall—

*(a)* notify the appropriate Civil Aviation Authority without delay; and

*(b)* submit a report of the circumstances, where required by the State in which the incident occurred.

(3) A copy of the report under subregulation (2)*(b)*, shall be submitted by the pilot in command to the Authority within ten days of the violation in the form prescribed.

**NEGLIGENT OR RECKLESS OPERATIONS OF AIRCRAFT**

**49.** A person shall not operate an aircraft in a negligent or reckless manner so as to endanger life or property. Prohibition on the negligent or reckless operations of aircraft.

*L.R.O.*

### FITNESS OF FLIGHT CREW

Fitness of flight crew. [186/2006].

**50.** (1) A person shall not act as pilot in command or in any other capacity as a required flight crew when he is aware of any decrease in his medical fitness for any cause which might render him unable to safely exercise the privileges of his licence.

(2) The pilot in command shall be responsible for ensuring that a flight is not—

*(a)* commenced where any flight crew member is incapacitated from performing duties for any cause such as injury, sickness, fatigue, the effects of alcohol or drugs; or

*(b)* continued beyond the nearest suitable aerodrome where the capacity of the flight crew to perform functions is significantly reduced by impairment of faculties due to fatigue, sickness or lack of oxygen.

### CREW MEMBER SEAT BELT AND SHOULDER HARNESS

Crew member use of seat belt and shoulder harness.

**51.** (1) A crew member shall have his seat belt fastened during take-off and landing and all other times when seated at his station.

(2) A member of the flight crew occupying a pilot seat shall keep the safety harness fastened during take-off and landing phases

(3) Crew members other than those specified in subregulation (1), occupying a station equipped with a shoulder harness shall fasten that harness during take-off and landing, except that the shoulder harness may be unfastened where those crew members cannot perform the required duties with the shoulder harness fastened.

(4) An occupant of a seat equipped with a combined safety belt and shoulder harness shall have the combined safety belt and shoulder harness properly secured about himself, during take-off and landing and be able to properly perform assigned duties.

(5) At an unoccupied seat, the safety belt and shoulder harness, where installed, shall be secured so as not to interfere with a crew member in the performance of his duties or with the rapid egress of persons in an emergency.

**DUTY STATION REQUIREMENTS FOR FLIGHT CREW**

Requirements of flight crew at duty stations.

**52.** (1) A required flight crew member shall remain at his assigned duty station during take-off and landing and critical phases of flight.

(2) A flight crew member shall remain at his station during all phases of flight unless—

*(a)* absence is necessary for the performance of his duties in connection with the operation;

*(b)* absence is necessary for physiological needs, provided one qualified pilot remains at the controls at all times; or

*(c)* the crew member is taking a rest period and a qualified relief crew member replaces him at the duty station.

(3) On all decks of an aircraft that are occupied by passengers, required cabin crew members shall be seated at their assigned stations during the take-off and landing and whenever deemed necessary by the pilot in command in the interest of safety.

**EMERGENCY DUTIES OF FLIGHT CREW**

Flight crew emergency duties.

**53.** An operator shall assign for each type of aircraft the necessary functions that flight crew are to perform in an emergency or in a situation requiring emergency evacuation.

**REQUIRED EQUIPMENT FOR CREW**

Required crew equipment.

**54.** (1) A crew member involved in night operations shall have a flashlight at his station.

(2) A flight crew member shall have at his station an aircraft checklist containing at least the pre-take-off, after take-off, before landing and emergency procedures.

(3) A flight crew member shall have at his station, current and suitable charts to cover the route of the proposed flight and any route along which it is reasonable to expect that the flight may be diverted.

(4) A flight crew member assessed as fit to exercise the privileges of a licence subject to the use of suitable corrective lenses, shall have a spare set of the corrective lenses readily available when performing as a required crew member in commercial air transport operations.

**CHECKLIST PROCEDURES COMPLIANCE**

Requirement to comply with approved checklist procedures. Sub. Leg.

**55.** A pilot in command shall ensure that the flight crew follows the approved checklist procedures under the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, when operating the aircraft.

**SEARCH AND RESCUE INFORMATION**

Requirement to have search and rescue information on board aircraft.

**56.** For all international flights, a pilot in command shall have on board the aircraft essential information concerning the search and rescue services in the areas over which they intend to operate the aircraft.

**AIRCRAFT AND FLIGHT DOCUMENTATION**

Production of aircraft and flight documentation.

**57.** A pilot in command shall produce to an Inspector of the Authority or of any other civil aviation authority of a contracting State the documentation required to be carried on board an aircraft when such Inspector so requests.

**COCKPIT COMPARTMENT SECURITY FOR COMMERCIAL AIR TRANSPORT OPERATIONS**

Requirements for cockpit compartment security for commercial air transport operations. Sub. Leg.

**58.** A pilot in command shall ensure that approved procedures under Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, to prevent unauthorised persons from entering the flight crew compartment during flight are complied with at all times during passenger carrying commercial air transport operations.

**GENERAL ADMISSION TO COCKPIT**

Admission to the cockpit in commercial air transport operations. [186/2006].

**59.** (1) A pilot in command shall not admit any person to the cockpit of a Trinidad and Tobago aircraft engaged in commercial air transport operations unless the person being admitted is—

*(a)* an operating crew member;

*(b)* a representative of the Authority responsible for certification, licensing or inspection, where this is required for the performance of his official duties;

*(c)* permitted by the operator and carried out in accordance with instructions contained in the Operations Manual;

*(d)* a flight operations officer of a national air operator on line observation training; or

*(e)* an Air Traffic Controller who is authorised by the Authority to observe Air Traffic Control procedures.

(2) The pilot in command shall ensure that—

*(a)* in the interest of safety, admission to the cockpit does not cause distraction and interference with the operations of the flight; and

*(b)* a person who is carried on the cockpit is made familiar with the relevant safety procedures.

**ADMISSION TO COCKPIT BY INSPECTOR**

Admission of Inspector to the cockpit.

**60.** (1) Where, in performing the duties of conducting an inspection, an Inspector from the Authority presents his authorisation to the pilot in command, the pilot in command shall give the Inspector free and uninterrupted access to the cockpit of the aircraft.

(2) A national air operator shall make available for the use of the Inspector, the observer seat most suitable to perform his duties as determined by the Inspector.

**IN-FLIGHT FUEL MANAGEMENT REQUIREMENTS**

Requirement for in-flight fuel management.

**61.** (1) An air operator shall establish a procedure to ensure that in-flight fuel checks and fuel management are carried out.

(2) A pilot in command shall ensure that the amount of usable fuel remaining in flight is not less than the fuel required to proceed to an aerodrome where a safe landing can be made, with final reserve fuel remaining.

(3) A pilot in command shall declare an emergency when the actual usable fuel on board is less than the final reserve fuel.

**FLIGHT CREW DUTIES DURING CRITICAL PHASES OF FLIGHT**

Duties of flight crew during critical phases of flight.

**62.** (1) A flight crew member shall not perform any duties during a critical phase of flight except those required for the safe operation of the aircraft.

(2) A pilot in command shall not permit a flight crew member to engage in any activity during a critical phase of flight which could distract or interfere with the performance of his assigned duties.

(3) A flight crew member required to be on cockpit duty shall communicate through boom microphones below Flight Level 150.

**MANIPULATION OF THE CONTROLS IN COMMERCIAL AIR TRANSPORT OPERATIONS**

Restriction on manipulation of the controls in commercial air transport operations.

**63.** (1) A pilot in command shall not allow an unqualified person to manipulate the controls of an aircraft during commercial air transport operations.

(2) A pilot in command shall not allow any person to manipulate the controls of an aircraft during commercial air transport operations nor shall any person manipulate the controls during flight unless that person is—

*(a)* a qualified pilot, flight instructor or check airman of the national air operator operating that aircraft; or

*(b)* an authorised pilot safety representative of the Authority or who has the permission of the pilot in command, is qualified in the aircraft, and is checking flight operations.

**SIMULATED ABNORMAL SITUATIONS**

Simulated abnormal situations in flight for commercial air transport operations.

**64.** A person shall not cause or engage in simulated abnormal or emergency situations or the simulation of instrument meteorological conditions by artificial means during commercial air transport operations.

**TECHNICAL LOGBOOK**

Completion of technical logbook for commercial air transport operations.

**65.** (1) The pilot in command shall ensure that all portions of the technical logbook are completed in indelible ink or indelible pencil at the appropriate points before, during and after flight operations.

(2) The pilot in command shall be responsible for the journey log and the general declaration.

**REPORTING MECHANICAL IRREGULARITIES**

Reporting mechanical irregularities.

**66.** An operator shall ensure that all known or suspected defects and mechanical irregularities occurring during flight time are entered in the technical log of the aircraft at the end of such flight time.

**GENERAL REPORTING PROCEDURES FOR OCCURRENCES**

General reporting procedures for occurrences.

**67.** (1) An operator shall establish procedures for reporting occurrences taking into account the following responsibilities:

*(a)* a pilot in command or the operator of an aircraft shall submit a report to the Authority of any occurrence that endangers or could endanger the safety of operation;

*(b)* a report under paragraph *(a)*, by the pilot in command shall be despatched within seventy-two hours of the time when the incident was identified unless exceptional circumstances prevent this;

*(c)* a pilot in command shall ensure that all known or suspected technical defects and all occurrences whose technical limitations occurring while he was responsible for the flight are recorded in the aircraft technical log and where the deficiency or exigency of technical limitations endangers or could endanger the safety of operation, the pilot in command shall in addition initiate the submission of a report to the Authority in accordance with paragraph *(a)*.

(2) In the case of incidents reported in accordance with subregulation (1)—

*(a)* arising from or relating to, any failure, malfunction defect in the aircraft, its equipment or any item of ground support equipment; or

*(b)* which causes or may cause adverse effects on continuing airworthiness of the aircraft,

the operator shall also inform the organisation responsible for the design or the supplier or, where applicable, the organisation responsible for continued airworthiness, at the same time as a report is submitted to the Authority.

**REPORTING PROCEDURES FOR ACCIDENTS AND SERIOUS INCIDENTS**

Reporting procedures for accidents and serious incidents.

**68.** An operator shall establish procedures for reporting accidents and serious incidents taking into account the following responsibilities and the circumstances:

*(a)* a pilot in command shall notify the operator of any accident or serious incident occurring while he was responsible for the flight, and when he is incapable of providing such notification, this task shall be undertaken by the next senior crew member as specified by the national air operator where such other member is able to do so;

*(b)* an operator shall ensure that the civil aviation authority in the State of the operator, the nearest appropriate civil aviation authority where not the civil aviation authority in the State of the operator, and any other organisation required by the State of the operator to be informed, are notified by the quickest means available of any accident or serious incident and in the case of accidents only, at least before the aircraft is moved unless exceptional circumstances prevent this; and

*(c)* a pilot in command or the operator of an aircraft shall submit a report to the civil aviation authority in the State of the operator within seventy-two hours of the time when the accident or serious incident occurred.

**AIR TRAFFIC INCIDENTS REPORTING PROCEDURES**

Reporting procedures for Air Traffic incidents.

**69.** Where an air traffic incident occurs, a pilot in command shall without delay notify—

*(a)* the Air Traffic Control Facility concerned of the incident and of his intention to submit an air traffic incident report after the flight has ended whenever an aircraft in flight has been endangered by—

(i) near collision with any other flying device;

(ii) faulty air traffic procedures or lack of compliance with applicable procedures by air traffic control or by the flight crew; and

(iii) failure of air traffic control facilities; and

*(b)* the Authority of the incident.

**AIRBORNE COLLISION AVOIDANCE SYSTEM**

Procedures for reporting Airborne Collision Avoidance System Advisory.

**70.** A pilot in command shall—

*(a)* immediately notify the Air Traffic Control Facility concerned whenever an aircraft in flight has manoeuvred in response to an Airborne Collision Avoidance System Resolution Advisory;

*(b)* submit a report to the Authority on any occurrence of an Airborne Collision Avoidance System Resolution Advisory.

**BIRD HAZARDS AND BIRD STRIKES**

Procedures for reporting bird hazards and strikes.

**71.** (1) A pilot in command shall immediately inform the local Traffic Control Facility whenever a potential bird hazard is observed.

(2) Where a pilot in command of an aircraft is aware that a bird strike has occurred and such bird strike has resulted in significant damage or the loss or malfunction of any essential service of the aircraft he shall submit a written bird strike report to the Authority, upon landing.

(3) Where evidence of a bird strike is discovered on an aircraft when the pilot in command is not available, the operator shall be responsible for submitting the report.

**IN-FLIGHT EMERGENCY REPORTING**

Procedures for reporting in-flight emergency.

**72.** (1) Where an in-flight emergency occurs the pilot in command shall inform the appropriate Air Traffic Facility—

*(a)* of such an occurrence; and

*(b)* where the situation permits, any dangerous goods on board the aircraft.

(2) Where an aircraft under subregulation (1), has landed, the pilot in command shall, where the occurrence has been associated with and was related to the transport of dangerous goods, comply also with the reporting requirements specified in regulation 25.

**UNLAWFUL INTERFERENCE REPORTING PROCEDURES**

Procedures for reporting unlawful interference.

**73.** Where there has been an act of unlawful interference on board an aircraft, the pilot in command or, in his absence, the operator shall submit a report as soon as practicable to the civil authority of the State where the incident occurred and to the Authority.

**POTENTIALLY HARZARDOUS CONDITIONS REPORTING PROCEDURES**

Procedures for reporting potentially hazardous conditions.

**74.** A pilot in command shall notify the appropriate Air Traffic Control Facility as soon as practicable whenever a potentially hazardous condition such as an irregularity in a ground or navigational facility, a meteorological phenomenon or a volcanic ash cloud is encountered during flight.

**COCKPIT VOICE RECORDER AND FLIGHT DATA RECORDER**

Operation of cockpit voice and flight data recorder.

**75.** (1) A pilot in command shall ensure that whenever an aircraft has flight recorders installed, such recorders are operated continuously from the instant—

*(a)* for a flight data recorder, the aircraft begins its take-off roll until it has completed the landing roll; and

*(b)* for a cockpit voice recorder, the initiation of the pre-start checklist until the end of the aircraft shutdown checklist.

(2) A pilot in command, in order to preserve the data for an accident or incident investigation by the Authority, shall not, unless necessary, permit a flight data recorder or cockpit voice recorder to be disabled, switched off or erased during flight.

(3) In the event of an accident or incident, a pilot in command shall act to preserve the recorded data for subsequent submission to the Authority as may be requested to conduct an investigation.

**MINIMUM SUPPLY AND USE OF OXYGEN**

**76.** (1) A pilot in command shall ensure that breathing oxygen is provided on flights at such altitudes where a lack of oxygen may result in impairment of the faculties of crew members. Requirements for minimum supply and use of oxygen. [34/2009].

(2) The minimum supply of oxygen on board the aircraft shall not be less than that prescribed by Civil Aviation [(No.7) Instruments and Equipment] Regulations. Sub. Leg.

(3) A pilot in command shall ensure that all flight crew members, when performing duties essential to the safe operation of an aircraft in flight, use breathing oxygen continuously where the cabin altitudes exceeds 10,000 feet for a period in excess of thirty minutes and whenever the cabin altitude exceeds 13,000 feet.

(4) One pilot at the controls of a pressurised aircraft in flight shall have available at his pilot station, a quick-donning oxygen mask with oxygen readily available on demand—

*(a)* for general aviation operations, at flight levels above 350, where there is no other pilot at his duty station; and

*(b)* for commercial air transport operations, at flight levels above 250, if there is no other pilot at his duty station.

**PORTABLE ELECTRONIC DEVICES**

Restrictions on use of portable electronic devices.

**77.** A pilot in command or senior cabin crew shall not permit any person to use, nor shall any person use a portable electronic device on board an aircraft that may adversely affect the performance of the aircraft systems and equipment unless—

*(a)* for Instrument Flight Rules operations other than commercial air transport, he allows such a device prior to its use; or

*(b)* for commercial air transport operations, the national air operator makes a determination of acceptable devices and publishes that information in the Operations Manual for the crew members use; and

*(c)* he informs passengers of those portable electronic devices that may be used on the aircraft.

**PART V**

## FLIGHT PLANNING AND SUPERVISION

**FLIGHT PLANS**

Submission of flight plan.

**78.** (1) Information in respect of an intended flight or portion of a flight, to be provided to the appropriate Air Traffic Control Facilities, shall be in the form of an Air Traffic Control flight plan (hereinafter referred to as a "flight plan").

(2) A flight plan under subregulation (1), shall be filed for all Visual Flight Rules and Instrument Flight Rules flights.

(3) A pilot in command shall submit a flight plan before departure or during flight, to the appropriate Air Traffic Control Facility, unless arrangements have been made for submission of a repetitive flight plan.

(4) Unless otherwise prescribed by the appropriate Air Traffic Control Facility, a pilot shall submit a flight plan to the appropriate Air Traffic Control Facility—

*(a)* at least sixty minutes before departure of the aircraft; or

*(b)* where submitted during flight, at a time which will ensure its receipt by the appropriate Air Traffic Control Facility at least ten minutes before the aircraft is estimated to reach—

(i) the intended point of entry into a control area or advisory area; or

(ii) the point of crossing an airway or advisory route.

**COMMERCIAL AIR TRANSPORT OPERATIONS AIR TRAFFIC CONTROL FLIGHT PLAN**

Air traffic control flight plan for commercial air transport operations.

**79.** A person shall not take-off an aircraft in commercial air transport operations where a flight plan has not been filed, except as authorised by the Authority.

**FLIGHT PLAN REQUIREMENTS**

Contents of a flight plan.

**80.** (1) A person filing an Instrument Flight Rules flight plan or Visual Flight Rules flight plan shall provide the following information to Air Traffic Control Facility prior to departure of that aircraft:

*(a)* aircraft identification;

*(b)* flight rules and type of flight;

*(c)* number and type of aircraft and wake turbulence category;

*(d)* equipment;

*(e)* departure aerodrome and alternate, where required;

*(f)* estimated off-block time;

*(g)* cruising speed;

*(h)* cruising level;

*(i)* route to be followed;

*(j)* destination aerodrome and total estimated elapsed time;

*(k)* alternate aerodrome;

*(l)* fuel endurance;

*(m)* total number of persons on board;

*(n)* emergency and survival equipment;

*(o)* name of pilot in command; and

*(p)* any other information as may be prescribed by the Authority.

(2) Whatever the purpose for which it is submitted, a flight plan under subregulation (1), shall contain information, as applicable, on the items set out in subregulation (1)*(a)* through *(k)* regarding the whole route or the portion thereof for which the flight plan is submitted.

**PLANNED RE-CLEARANCE REQUIREMENTS**

Requirements for planned re-clearance.

**81.** Where during flight planning a Flight Operation Officer or an equivalently qualified person determines that fuel endurance of the aircraft may permit the pilot in command to change the destination filed to one of greater distance during flight while still complying with the minimum fuel planning requirements he shall, where the pilot in command agrees, notify the appropriate Air Traffic Control Facility of this possibility when the flight plan is submitted.

**CHANGES TO FLIGHT PLAN**

Procedures where there are changes to a flight plan.

**82.** (1) When a flight plan is submitted for an Instrument Flight Rules flight or a Visual Flight Rules flight operated as a controlled flight, and a change occurs to such flight plan in respect of—

*(a)* Instrument Flight Rules to Visual Flight Rules flight; or

*(b)* Visual Flight Rules flight to Instrument Flight Rules flight,

the pilot shall report such change as soon as practicable to the appropriate Air Traffic Control Facility.

(2) For Visual Flight Rules flight other than that operated as a controlled flight, the pilot in command shall report significant changes to a flight plan as soon as practicable to the appropriate Air Traffic Control Facility.

(3) Operational instructions involving a change to the filed flight plan, shall when practicable, be co-ordinated with the

appropriate Air Traffic Control Facility before transmission to the aircraft.

(4) Where information is submitted prior to departure regarding fuel endurance or total number of persons carried on board, is incorrect at time of departure, such circumstance constitutes a significant change under subregulation (2) and shall be reported to the Air Traffic Control Facility.

**CLOSING A FLIGHT PLAN**

Procedures for closing a flight plan.

**83.** (1) A pilot in command shall make a report of arrival (hereinafter referred to as an "arrival report") either in person or by radio to the appropriate Air Traffic Control Facility at the earliest opportunity upon landing at the destination aerodrome, unless the Air Traffic Control Facility automatically closes a flight plan.

(2) Where a flight plan has been submitted for a portion of a flight, but not the arrival at destination, the pilot shall close that flight plan en route with the appropriate Air Traffic Control Facility.

(3) Where an Air Traffic Control Facility under subregulation (2) does not exist at the arrival aerodrome, the pilot shall contact the nearest Air Traffic Control Facility to close the flight plan as soon as practicable after landing and by the quickest means available.

(4) When communication facilities at the arrival aerodrome are known to be inadequate and alternate arrangements for the handling of arrival reports on the ground are not available prior to landing the aircraft, they shall transmit to the appropriate Air Traffic Control Facility, a message with all the arrival details which would normally be contained in an arrival report.

(5) An arrival report under this regulation shall include the following information:

*(a)* aircraft identification;

*(b)* departure aerodrome;

*(c)* destination aerodrome, only in the case of a diversionary landing;

*(d)* arrival aerodrome; and

*(e)* time of arrival.

(6) In this regulation "closing a flight plan" means an indication by the pilot in command of the end or intended end of a flight within an Air Traffic Control Facility.

**FLIGHT PREPARATION**

Requirements for aircraft airworthiness and safety precautions. [34/2009 197/2009].

**84.** (1) A pilot in command shall not operate an aeroplane in flight or a helicopter in a series of flights unless he is satisfied that—

*(a)* the aircraft is airworthy, duly registered and that appropriate certificates are aboard the aircraft;

*(b)* the instruments and equipment installed in the aircraft are appropriate, taking into account the expected flight conditions; and

*(c)* any necessary maintenance has been performed and a Certificate of the Release to Service, has been issued in respect to the aircraft.

(2) For commercial air transport operations, a pilot in command shall certify by signing the aircraft technical log that he is satisfied that the requirements of subregulation (1), have been met for a particular flight or series of flights in the case of a helicopter.

(3) A pilot in command shall certify by signing the load sheet and operational flight plan that he is satisfied that—

*(a)* the mass and centre of gravity of the aircraft are such that the flight can be conducted safely, taking into account the flight conditions expected;

*(b)* any load carried is properly distributed and safely secured in accordance with the Aircraft Loading Manual;

*(c)* a check has been completed indicating that the operating limitations of Part VI can be complied with for the flight to be undertaken.

**ADEQUACY OF OPERATING FACILITIES**

Requirement for adequacy of operating facilities. [34/2009].

**85.** (1) A person shall not commence a flight unless it has been determined by every reasonable means available, that the ground or water areas and aerodrome facilities (including communication facilities and navigational aids are available and directly required for such flight and for the safe operation of the aircraft) are adequate.

(2) In this regulation "every reasonable means" means the use at the point of departure of information available to the pilot in command either through official information published by the Aeronautical Information Services or readily obtainable from other sources.

**METEOROLOGICAL INFORMATION REQUIREMENT**

Pilot in command to be familiar with meteorological information.

**86.** (1) Before commencing a flight, a pilot in command shall be familiar with all available meteorological information appropriate to the intended flight.

(2) A pilot in command shall include, during preparation for flight—

*(a)* a study of current weather reports and forecasts; and

*(b)* the planning of an alternative course of action to provide for the possibility that the flight cannot be completed as planned, because of advance weather conditions.

**VISUAL FLIGHT RULES WEATHER LIMITATIONS**

Weather limitations for Visual Flight Rules flights. [34/2009].

**87.** A person shall not commence a flight to be conducted in accordance with Visual Flight Rules unless current meteorological reports, or a combination of current reports and forecasts, indicate that the meteorological conditions along the route, or that part of the route to be flown or in the intended area of operations under Visual Flight Rules, will, at the appropriate time, allow Visual Flight Rules operations.

**DESTINATION AERODROMES INSTRUMENT FLIGHT RULES REQUIREMENTS**

Instrument Flight Rules, destination aerodrome requirements.

**88.** (1) A person shall not, for Instrument Flight Rules flight planning purposes, commence an Instrument Flight Rules flight unless approach minima are prescribed and the information indicates that the weather conditions at the aerodrome of intended landing and where required, at least one suitable alternate at the estimated time of arrival, will be at or above the—

*(a)* minimum ceiling and visibility values for the standard instrument approach procedure to be used; or

*(b)* minimum operating altitude, where no instrument approach procedure is to be used, that would allow a Visual Flight Rules decent to the aerodrome.

(2) Notwithstanding subregulation (1), where Instrument Flight Rules flight planning is required for commercial air transport, the weather at the destination is not required to be at or above the approach minima to release and commence a flight where the designated alternate aerodrome meets the Instrument Flight Rules weather selection criteria.

**DESTINATION ALTERNATE INSTRUMENT FLIGHT RULES REQUIREMENT**

Instrument Flight Rules destination alternate requirements.

**89.** (1) A pilot in command shall for a flight to be conducted in accordance with the Instrument Flight Rules, ensure that at least one destination alternate aerodrome is selected and specified in the operational flight plan under regulation 103 and the Air Traffic Control flight plans, unless—

*(a)* the duration of the flight and the meteorological conditions prevailing are such that there is reasonable certainty that, at the estimated time of arrival at the aerodrome of intended landing and for a reasonable period before and after such time, the approach and landing may be made under Visual Flight Rules; or

*(b)* the aerodrome of intended landing is isolated and there is no suitable destination alternate aerodrome; or

*(c)* the heliport of intended landing is isolated and no suitable alternate aerodrome is available in which case a point of no return shall be determined.

(2) The requirements set out in subregulation (1), shall be satisfied where—

*(a)* there is a standard instrument approach procedure prescribed for the aerodrome of intended landing by the appropriate authority; and

*(b)* available current meteorological information indicates that the following meteorological conditions will exist from two hours before to two hours after the estimated time of arrival:

(i) a cloud base of at least 1,000 feet above the approach minimum associated with the instrument approach procedure; and

(ii) visibility of 4 kilometres more than the approach minimum associated with the procedure or 5.5 kilometres whichever is the greater.

(3) The ceiling and visibility requirements of subregulation (2)*(b)* may be reduced upon approval of the Authority for—

*(a)* helicopters; or

*(b)* commercial air transport operations where no suitable destination alternate exists.

**ALTERNATE AERODROME SELECTION CRITERIA FOR INSTRUMENT FLIGHT RULES**

Instrument Flight Rules, alternate aerodrome selection criteria.

**90.** (1) A pilot in command shall not designate an alternate aerodrome in an Instrument Flight Rules flight plan unless—

*(a)* the current available forecast indicates that the meteorological conditions at that alternate aerodrome at the estimated time of arrival will be at or above approach minima for such alternate aerodrome; or

*(b)* specifically authorised by the Authority.

(2) Unless otherwise specifically authorised by the Authority, where approach minima under this regulation are not published, and where there is no prohibition against using the aerodrome as an Instrument Flight Rules planning alternate, a pilot in command shall ensure that the meteorological conditions at that alternate at the estimated time of arrival will be at or above—

*(a)* a ceiling of at least 600 feet and visibility of not less than 2 statute miles for a precision approach procedure; or

*(b)* a ceiling of at least 800 feet and visibility of not less than 2 statute miles for a non-precision approach procedure.

**OFF-SHORE ALTERNATES FOR HELICOPTER OPERATIONS REQUIREMENTS**

Requirements for off-shore alternates for helicopter operations.

**91.** (1) A person shall not designate an off-shore alternate aerodrome landing site for helicopter operations when it is possible to carry enough fuel to have an on-shore alternate landing site.

(2) A person selecting an off-shore alternate aerodrome landing site for helicopter operations shall consider the following:

*(a)* calculating the point of no return;

*(b)* the use of off-shore alternate only after a point of no return;

*(c)* attaining one-engine inoperative performance capability prior to arrival at the alternate;

*(d)* guaranteeing helideck availability;

*(e)* the weather information at the helideck shall be available from a source approved by the Authority; and

*(f)* for Instrument Flight Rules operations, an instrument approach procedure shall be prescribed and available.

**TAKE-OFF ALTERNATE AERODROMES REQUIREMENTS FOR COMMERCIAL AIR TRANSPORT OPERATIONS**

Take-off alternate aerodromes for commercial air transport operations. [34/2009].

**92.** (1) A person shall not release or take-off an aircraft without a suitable take-off alternate aerodrome specified in the flight release where it would not be possible to return to the aerodrome of departure.

(2) A national air operator shall ensure that each take-off alternate aerodrome specified under subregulation (1), shall be located within—

*(a)* one hour flight time at single-engine cruise speed for two-engine aircraft; or

*(b)* for three or four-engine aircraft, two hours flight time at one-engine inoperative cruise speed.

(3) A take-off alternate aerodrome or heliport shall be selected and specified in the operational flight plan where the weather conditions at the aerodrome or heliport of departure are at or below the applicable aerodrome or heliport operating minima or it would not be possible to return to the aerodrome or heliport of departure for other reasons.

(4) An operator shall not select an alternate aerodrome unless—

*(a)* the appropriate weather reports or forecast or any combination thereof indicate that, during a period commencing one hour before and ending one hour after the estimated time of arrival at the aerodrome, the weather condition will be at or above the applicable landing minima specified for that aerodrome;

*(b)* the height of the ceiling is taken into account when the only approaches available are non-precision and circling approaches; and

*(c)* limitations related to one-engine inoperative operation are taken into account.

**DISTANCE REQUIREMENT FOR TWO-ENGINE AEROPLANES**

Maximum distance from an adequate aerodrome for two-engine aeroplanes without an extended range operations approval.

**93.** (1) Unless specifically approved by the Authority, a national air operator shall not operate a large two-engine aeroplane over a route which contains a point from an adequate aerodrome, further than the distance flown in sixty minutes at the one-engine inoperative cruise speed determined in accordance with subregulation (2), with either—

*(a)* a maximum approved passenger seating configuration greater than nineteen; or

*(b)* a maximum take-off mass greater than forty-five thousand, three hundred and sixty kilogrammes.

(2) A national air operator shall determine a speed for the calculation of the maximum distance to an adequate aerodrome for each two-engine aircraft type or variant operated, not exceeding the maximum operating speed based upon the true airspeed that the aircraft can maintain with one-engine inoperative under the following conditions:

*(a)* International Standard Atmosphere;

*(b)* level flight—

(i) for turbine engine powered aeroplane at—

(A) Flight Level 170; or

(B) the maximum flight level to which the aeroplane, with one-engine inoperative, can climb and maintain, using the gross rate of climb specified in the Aeroplane Flight Manual,

whichever is less;

(ii) for a propeller driven aeroplane at—

(A) Flight Level 80; or

(B) the maximum flight level to which the aeroplane, with one-engine inoperative, can climb and maintain, using the gross rate of climb specified in the Aeroplane Flight Manual,

whichever is less;

*(c)* maximum continuous thrust or power on the remaining operating engine;

*(d)* an aeroplane mass not less than that resulting from—

(i) take-off at sea-level at maximum take-off mass until the time elapsed since take-off is equal to the applicable threshold prescribed in subregulation (1);

(ii) all engines climb to the optimum long range cruise altitude until the time elapsed since take-off is equal to the applicable threshold prescribed in subregulation (1); and

(iii) all engines cruise at the long range cruise speed at the optimum long range cruise altitude until the time elapsed since take-off is equal to the applicable threshold prescribed in subregulation (1).

(3) A national air operator shall ensure that the following data, specific to each type or variant, is included in the Operations Manual:

*(a)* the one-engine inoperative cruise speed, determined in accordance with subregulation (2);

*(b)* the maximum distance from an adequate aerodrome determined in accordance with subregulations (1) and (2); and

*(c)* any other pertinent data required by the Authority.

**EXTENDED RANGE OPERATIONS WITH TWO-ENGINE AEROPLANE**

Extended range operations with two-engine aeroplane.

**94.** (1) An operator shall not conduct operations beyond the threshold distance determined in accordance with regulation 93 unless so approved by the Authority.

(2) An operator wishing to conduct operations beyond the threshold distance determined in accordance with regulation 93 shall apply to the Authority for approval to do so.

(3) Where the Director-General is satisfied that—

*(a)* the airworthiness certification of the aircraft type;

*(b)* the reliability of the propulsion system; and

*(c)* the maintenance procedures of the operator, operating practices, flight dispatch and crew training programmes,

meets the requirements of these Regulations he may recommend the Authority approve the operation.

**EN ROUTE ALTERNATE AERODROMES FOR EXTENDED RANGE OPERATIONS REQUIREMENTS**

Requirements for en route alternate aerodromes for extended range operations.

**95.** (1) Prior to conducting an Extended Range Operations flight, an air operator shall ensure that a suitable Extended Range

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Operations en route alternate is available, within either the approved diversion time or a diversion time based on the Minimum Equipment List serviceability status of the aircraft, whichever is shorter.

(2) A pilot in command shall ensure that the required en route alternates for Extended Range Operations are selected and specified in the flight plan in accordance with the Extended Range Operations diversion time approved by the Authority.

(3) A person shall not select an aerodrome as an Extended Range Operations en route alternate aerodrome unless the appropriate weather reports or forecasts or any combination thereof, indicate that during a period commencing one hour before and ending one hour after the expected time of arrival at the aerodrome, the weather conditions will be at or above the planning minima prescribed in Schedule 2.

Schedule 2.

**FUEL, OIL AND OXYGEN PLANNING AND CONTINGENCY FACTORS**

Fuel, oil and oxygen planning and contingency factors. [34/2009].

**96.** (1) A person shall not commence a flight unless the aircraft carries sufficient amounts of fuel, oil and oxygen including any reserves to be carried for contingencies needed to ensure the safe completion of the flight.

(2) In computing the amounts required under subregulation (1), a person shall ensure that additional fuel, oil and oxygen are carried to provide for the increased consumption that would result from any of the following contingencies:

*(a)* expected winds and other meteorological conditions;

*(b)* possible variations in Air Traffic Control routings;

*(c)* anticipated traffic delays;

*(d)* for Instrument Flight Rules flight, one instrument approach at the destination aerodrome, including a missed approach;

*(e)* the procedures prescribed in the Operations Manual for loss of pressurisation en route where applicable;

*(f)* loss of one power unit en route; and

*(g)* any other conditions that may delay landing of the aircraft or increase fuel and oil consumption.

(3) A person computing the required minimum fuel supply shall ensure that, for flights of more than two thousand nautical miles, the minimum fuel supply calculation includes an additional amount of fuel equal to that necessary to fly ten per cent of the total time for the flight from take-off to destination.

(4) A pilot in command shall not commence a flight to an aerodrome where a suitable alternate aerodrome is not available due to the destination aerodrome being isolated, without enough reserve fuel for two additional hours flight at normal cruise fuel consumption.

(4A) A pilot in command shall not commence a flight in accordance with instrument flight rules to an aerodrome or heliport where a suitable alternate is not available due to the destination aerodrome or heliport being isolated, without enough fuel carried to enable the helicopter to fly to the destination to which the flight is planned and thereafter for a period that will, based on geographic and environmental considerations, enable a safe landing to be made.

(5) The Authority may grant specific approval for commercial air transport operations to isolated aerodromes without regard to fuel consumption requirement of subregulation (4).

(6) A flight plan may be amended in flight in order to re-plan the flight to another aerodrome, provided that the requirements of this regulation can be complied with from the point where the flight has been re-planned.

(7) Notwithstanding subregulations (1) through (5) the Authority may require, in addition to any other requirement herein, extra fuel to be carried on a particular route or flight operation in the interest of safety.

(8) Any extra fuel under subregulation (7) shall be included in the computation of the minimum fuel requirement for that route.

**MINIMUM FUEL SUPPLY FOR VISUAL FLIGHT RULES FLIGHTS**

Fuel supply requirement for Visual Flight Rules flight.

**97.** (1) A person shall not commence a flight in an aeroplane under Visual Flight Rules unless, considering the wind and forecast weather conditions, there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed—

*(a)* for flights during the day, for at least thirty minutes thereafter; or

*(b)* for flights at night, for at least forty-five minutes thereafter; and

*(c)* for international flights, for at least an additional fifteen per cent of the total flight time calculated for cruise flight.

(2) A person shall not commence a flight in a helicopter under Visual Flight Rules unless, considering the wind and forecast weather conditions there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed—

*(a)* for twenty minutes thereafter; or

*(b)* for international flights, for at least an additional ten per cent of the total flight time calculated, plus a reserve for contingencies specified by the operator and approved by the Authority.

**MINIMUM FUEL SUPPLY FOR INSTRUMENT FLIGHT RULES FLIGHT**

Fuel supply requirement for Instrument Flight Rules flight.

**98.** (1) A person shall not commence a flight under Instrument Flight Rules unless there is enough fuel supply, considering weather reports and forecasts, to—

*(a)* fly to the first point of intended landing;

*(b)* fly from that aerodrome to the planned alternate aerodrome, where required; and

*(c)* fly thereafter at normal cruising speed—

(i) in a propeller-driven aeroplane, for forty-five minutes; and

(ii) in a rotorcraft, turbojet or turbofan aeroplane, for thirty minutes in a holding pattern at 1,500 feet above the aerodrome, plus a reserve for contingencies specified

by the operator and approved by the Authority.

(2) For Instrument Flight Rules flight to isolated aerodromes, the two-hour minimum reserve specified in subregulation 96(4) shall apply.

(3) Notwithstanding subregulation (2), regulation 96(5) shall not apply to commercial air transport operations unless specifically approved by the Authority.

**COMMERCIAL AIR TRANSPORT FLIGHT PLANNING DOCUMENT DISTRIBUTION AND RETENTION**

Requirements for flight planning document distribution and retention for commercial air transport operations. [34/2009].

**99.** (1) For commercial air transport operations, a pilot in command shall complete and sign the following flight preparation documents prior to departure:

*(a)* an operational flight plan, which takes into consideration Notices to Airmen and weather pertinent to the flight planning decisions regarding minimum fuel supply, en route performance, destination, aerodrome and alternate aerodromes;

*(b)* a load manifest, which takes into consideration the distribution of the load, center of gravity, take-off and landing weights and compliance with maximum operating weight limitations and performance analysis;

*(c)* an applicable technical log page, where—

(i) mechanical irregularities were entered after previous flight;

(ii) maintenance or inspection functions were performed; or

(iii) fuel and oil uplift were recorded; and

(iv) a Certificate of Release to Service was issued at the departure aerodrome.

(2) A person shall not take-off an aircraft in commercial air transport unless all flight release documents, signed by the pilot in command, are retained and available at the point of departure.

(3) A pilot in command shall carry on the aircraft a copy of the documents specified in subregulation (1), to the destination aerodrome.

Sub. Leg.

(4) Completed flight preparation documents shall be kept by a national air operator in the manner set out in the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations for a period of not less than three months.

(5) An operational flight plan shall be completed for every intended flight of an aircraft or series of flights of a helicopter and shall be approved and signed by the pilot in command and signed by the Flight Operations Officer.

(6) A copy of the operational flight plan under subregulation (5), shall be filed at the designated retention location.

(7) Where the procedures under subregulation (6), are not possible the flight plan shall be left with the aerodrome authority or on record at the appropriate Authority specified by the national air operator in his Operations Manual.

(8) Notwithstanding subregulation (6), the Authority may approve a different retention location where all documents can be available for subsequent review.

(9) In this regulation "retention location" means the operator or an agent designated by him.

**AIRCRAFT LOADING, MASS AND BALANCE REQUIREMENTS**

Requirements for aircraft loading, mass and balance.

**100.** (1) A person shall not operate an aircraft unless all loads carried are properly distributed and safely secured on the aircraft in accordance with the approved loading manual for such aircraft or the procedures of the manufacturer in the case of small aeroplanes.

(2) A person shall not operate an aircraft unless the calculations for the mass and center of gravity location of the aircraft indicate that the flight can be conducted safely, taking into account the flight conditions expected.

(3) A pilot in command may delegate his responsibility for the proper loading of an aircraft to suitably qualified persons provided by the national air operator, who shall be responsible for supervising such loading.

(4) Notwithstanding subregulation (3), a pilot in command shall ascertain that proper loading procedures are followed.

(5) For commercial air transport operations, a pilot in command shall not commence a flight unless he is satisfied that the loading and mass and balance calculations contained in the load manifest are accurate and comply with the aircraft limitations.

(6) A national air operator shall establish mass and balance documentation in the manner set out in Schedule 3, prior to the departure of each flight specifying the load and its distribution which shall enable the pilot in command to determine that the load and its distribution is such that the mass and balance limits of the aircraft are not exceeded. Schedule 3.

(7) The person preparing the mass and balance documentation under subregulation (6), shall be named in such documentation.

(8) The person supervising the loading of the aircraft shall confirm by signature that the load and its distribution are in accordance with the mass and balance documentation.

(9) The document shall be acceptable to the pilot in command and his acceptance shall be indicated by countersignature or equivalent.

(10) An operator shall specify procedures for last minute changes to the load.

(11) Subject to the approval of the Authority, a national air operator may use documentation procedures other than those required by this regulation.

**MAXIMUM ALLOWABLE WEIGHTS TO BE CONSIDERED ON ALL LOAD MANIFESTS**

**101.** A pilot in command shall ensure that the maximum allowable weight for a flight does not exceed the maximum allowable take-off weight— Allowable weights on all load manifests.

*(a)* for the specific runway and conditions existing at the take-off time; and

*(b)* considering anticipated fuel and oil consumption that allows compliance with applicable en route performance, landing weight and landing distance limitations for destination and alternate aerodromes.

**COMMERCIAL AIR TRANSPORT OPERATIONS FLIGHT RELEASE REQUIREMENTS**

Requirement for flight release for commercial air transport operations.

**102.** (1) A person shall not commence a flight under a flight following system without specific authority from the person authorised by the air operator to exercise operational control over the flight.

(2) A person shall not commence a passenger-carrying flight in commercial air transport operations for which there is a published schedule, unless a qualified person authorised by the air operator to perform operational control functions has issued a flight release for that specific operation or series of operations.

(3) The pilot in command and Flight Operations Officer shall sign the flight release document.

**COMMERCIAL AIR TRANSPORT OPERATIONS OPERATIONAL FLIGHT PLAN REQUIREMENTS**

Requirements for operational flight plan for commercial air transport operations. Schedule 4.

**103.** (1) A national air operator shall not permit a person to commence a flight unless his operational flight plan meets the requirements set out in Schedule 4 and has been prepared in accordance with the procedures specified in the Operations Manual of the national air operator and signed by the pilot in command and the Flight Operations Officer.

(2) A pilot in command shall sign the operational flight plan only when he and the Flight Operations Officer exercising operational supervision have determined that the flight can be safely completed.

(3) The operational flight plan under this regulation shall include the routing and fuel calculations with respect to the meteorological and other factors expected to complete the flight to the destination and all required alternates.

(4) A pilot in command signing an operational flight plan shall have access to the applicable flight planning information for

fuel supply, alternate aerodromes, weather reports, forecasts and notices to Airmen for the routing and aerodromes of operation.

(5) A person shall not continue a flight from an intermediate aerodrome without a new operational flight plan where the aircraft has been on the ground more than six hours.

(6) A pilot in command of an aircraft shall ensure that one copy of the operational flight plan is left at a point of departure, in accordance with the procedures specified in the company Operations Manual and that another copy is carried on board the aircraft until the aircraft reaches the final destination of the flight.

(7) A national air operator shall specify in its company Operations Manual—

*(a)* the period for which the operational flight plan shall be kept;

*(b)* the method of recording the formal approval of the plan by the flight operations officer; and

*(c)* the method of recording the formal approval of the plan by the pilot in command.

(8) A national air operator shall keep a copy of the operational flight plan, including any amendments to the plan, for not less than ninety days.

**COMMERCIAL AIR TRANSPORT RECORDS OF EMERGENCY AND SURVIVAL EQUIPMENT REQUIREMENT**

Requirement to keep records of emergency and survival equipment for commercial air transport operations.

**104.** (1) An air operator shall at all times have available for immediate communication to rescue centres, lists containing information on the emergency and survival equipment carried on board any of their aircrafts engaged in international air transportation.

(2) The information required under subregulation (1), shall include as applicable the number, colours and type of life rafts and pyrotechnics, details of emergency medical supplies and type and frequencies of the emergency portable radio equipment.

## PART VI

## AIRCRAFT OPERATING AND PERFORMANCE LIMITATIONS

### APPLICABILITY

Applicability.

**105.** This Part prescribes the operating and performance limitations for all civil aircraft.

General requirements for aircraft operations. [34/2009].

**106.** (1) An operator shall operate an aircraft in accordance with a comprehensive and detailed code of aircraft performance prescribed by the Authority in compliance with the applicable Regulations of this Part.

(2) An operator shall not operate an aircraft that—

*(a)* exceeds its designed performance limitations for any operation, as established by the Authority; or

*(b)* exceeds operating limitations contained in the Aircraft Flight Manual, or its equivalent.

(3) An aircraft shall be operated in compliance with the terms of its Certificate of Airworthiness and within the approved operating limitations contained in its flight manual.

(4) An operator shall not operate a helicopter to or from heliports in a congested hostile environment, unless he satisfies the requirements specified by the competent authority in which the heliport is situated, to enable the operation to be conducted in a manner that gives appropriate consideration for the risk associated with a power-unit failure.

(4A) In conditions where the safe continuation of flight is not ensured in the event of a critical power-unit failure, helicopter operations shall be conducted in a manner that gives appropriate consideration for achieving a safe forced landing.

(5) An unmanned free balloon shall be operated in such a manner as to minimise hazards to persons, property or other aircraft in accordance with Schedule 4A and conditions specified by the Authority.

**AIRCRAFT PERFORMANCE DATA**

Aircraft performance calculations.

**107.** (1) An operator shall ensure that the aircraft performance data contained in the Aircraft Flight Manual, or other authorised source is used to determine compliance with the appropriate requirements of this Part.

(2) When applying performance data, a person performing calculations shall account for the aircraft configuration, environmental conditions and the operation of any system or systems which may have an adverse effect on aircraft performance.

**GENERAL WEIGHT AND OBSTRUCTION CLEARANCE LIMITATIONS**

General weight and obstruction clearance limitations.

**108.** (1) An operator shall not take-off an aircraft without ensuring that the maximum allowable weight for flight does not exceed the maximum allowable take-off or landing weight or any applicable en route aircraft performance or landing distance limitations considering the—

*(a)* condition of the take-off and landing areas to be used;

*(b)* gradient of runway to be used in respect of land planes;

*(c)* pressure altitude;

*(d)* ambient temperature;

*(e)* current and forecast winds; and

*(f)* any known conditions such as atmospheric and aircraft configuration, which may adversely affect aircraft performance.

(2) An operator shall not take-off an aircraft, assuming normal engine operations, which due to its weight is unable to safely clear all obstacles during all phases of flight, including all points along the intended en route path or any planned diversions.

(3) An operator shall ensure that an aircraft is operated in compliance with its mass limitations and noise certificate limitations where applicable.

Applicability of regulations 110 to 118.

**109.** Regulations 110 to 118 prescribe aircraft performance and operating limitations for aircraft used in commercial air transport operations.

**GENERAL REQUIREMENTS FOR AIRCRAFT PERFORMANCE IN COMMERCIAL AIR TRANSPORT**

General requirements for aircraft performance in commercial air transport.

**110.** Where full compliance with the requirements of regulations 111 to 118 cannot be shown due to specific design characteristics such as seaplanes, airships, or supersonic aircraft, the operator shall apply approved performance standards that ensure a level of safety not less restrictive than those of relevant requirements of these Regulations.

Prohibitions on the use of single-engine aircraft. [186/2006].

**111.** (1) An operator shall not operate a single-engine aircraft used for revenue passenger carrying operations unless such aircraft is continually operated in daylight, under Visual Flight Rules.

(2) An operator shall not operate a multi-engine aircraft used for revenue passengers carrying operations that is unable to comply with any of the performance limitations of regulations 114 through 118 unless that aircraft is continually operated—

*(a)* in daylight;

*(b)* under Visual Flight Rules; and

*(c)* at a weight that will allow it to climb, with the critical engine inoperative, at least 50 feet a minute when operating at the minimum en route altitude of the intended route or any planned diversion, or at 5,000 feet above mean sea level, whichever is higher.

(3) A multi-engine aircraft that is unable to comply with subregulation (2)*(c)*, is for the purpose of these Regulations, considered to be a single engine aircraft and shall comply with the requirements of subregulation (4).

(4) Except as provided in regulation 118A a single-engine aircraft shall only be operated in conditions of weather and light and over such routes and diversions therefrom, that permit a safe forced landing to be executed in the event of engine failure.

**MASS LIMITATIONS**

Required mass limitations for aeroplanes. [34/2009].

**112.** (1) The mass of an aircraft at the start of take-off shall not exceed the mass at which take-off limitations are complied with, nor the mass at which en route engine inoperative and landing limitations are complied with, allowing for expected reductions in mass as the flight proceeds and for any applicable jettisoning of fuel.

(2) The mass of an aircraft at the start of take-off shall not exceed the maximum take-off mass specified in the flight manual taking into account the factors specified in regulation 108(1).

(3) The estimated mass of an aircraft for the expected time of landing at the aerodrome of intended landing and at any alternate aerodrome shall not exceed the maximum landing mass specified in the flight manual taking into account the factors specified in regulation 108(1).

(4) The mass of an aircraft at the start of take-off and the estimated mass for the expected time of landing at the aerodrome of intended landing and at any alternate aerodrome shall not exceed the relevant maximum mass at which compliance was demonstrated with the applicable noise certification standards, unless otherwise authorised by the Authority in respect of that aerodrome.

**AIRCRAFT PERFORMANCE CALCULATIONS**

Aircraft performance calculations.

**113.** (1) A national air operator shall not take-off an aircraft used in commercial air transport without ensuring that the applicable operating and performance limitations required for this regulation can be accurately computed based on the Aircraft Flight Manual, or other data source approved by the Authority.

(2) An air operator calculating performance and operating limitations for an aircraft used in commercial air transport shall ensure that performance data used to determine compliance with these Regulations can, during any phase of flight, accurately account for—

*(a)* any reasonably expected adverse operating conditions that may affect aircraft performance;

*(b)* one engine failure for aircraft having two engines, where applicable; and

*(c)* two engine failure for aircraft having three or more engines, where applicable.

(3) When calculating the performance and limitation requirements of regulations 114 to 118, a person performing the calculation shall, for all engines operating and for inoperative engines, accurately account—

*(a)* in all phases of flight for—

(i) the effect of fuel and oil consumption on aircraft weight;

(ii) the effect of fuel consumption on fuel reserves resulting from changes in flight paths, winds, and aircraft configuration;

(iii) the effect of fuel jettisoning on aircraft weight and fuel reserves, where applicable and approved;

(iv) the effect of any ice protection system, where weather conditions require its use;

(v) ambient temperatures and winds along intended route and any planned diversion; and

(vi) flight paths and minimum altitudes required to remain clear of obstacles; and

*(b)* during take-off and landing for—

(i) the condition of the take-off runway or area to be used, including any contamination such as water, slush, snow and ice;

(ii) the gradient of runway to be used;

(iii) the runway length including clearways and stopways, where applicable;

(iv) pressure altitude at take-off and landing sites;

(v) current ambient temperature and wind at take-off;

(vi) forecast ambient temperatures and winds at each destination and planned alternate landing site;

(vii) the ground handling characteristics, such as braking action, of the type of aircraft; and

(viii) landing aid and terrain that may affect the take-off path, landing path, and landing roll.

(4) Obstacle data shall be provided by the air operator, for the development of procedures and calculations to ensure compliance with take-off and obstacle clearance limitations.

(5) An air operator shall take account of charting accuracy when complying with these Regulations.

(6) Where conditions are different from those on which the performance is based, compliance may be determined by interpolation or by computing the effects of changes in the specific variables, where the results of the interpolation or computations are substantially as accurate as the results of direct tests.

(7) In performing aircraft performance calculation under this regulation an air operator may correct take-off data based on still air by taking into account not more than fifty per cent of any reported headwind component and not less than one hundred and fifty per cent of any reported tailwind component.

**TAKE-OFF LIMITATIONS**

Commercial air transport operations take-off limitations. [34/2009].

**114.** (1) An air operator shall take account of charting accuracy when assessing compliance with this regulation.

(2) An air operator shall ensure that an aeroplane shall be able, in the event of a critical power-unit failing at any point in the take-off, either to discontinue the take-off and stop within the accelerate-stop distance available or to continue the take-off and clear all obstacles along the flight path by an adequate margin until the aircraft is in a position to comply with the en route one engine inoperative limitations.

(3) A national air operator shall ensure that an aeroplane is not allowed to take-off unless the following requirements are met when determining the maximum permitted take-off mass:

*(a)* the take-off run shall not be greater than the length of the runway;

*(b)* where the critical engine fails at any time after the aeroplane reaches $V_1$, to continue the take-off flight path and clear all obstacles either—

(i) by a height of at least 35 feet vertically for turbine engine powered aeroplanes or 50 feet for reciprocating engine powered aeroplane; and

(ii) by at least 60 metres horizontally within the aerodrome boundaries and by at least ninety meters horizontally after passing the boundaries, without banking more than fifteen degrees at any point on the take-off flight path;

*(c)* for a turbine engine powered aeroplane—

(i) the take-off distance shall not exceed the length of the runway plus the length of any clearway, except that the length of any clearway included in the calculation shall not be greater than half the length of the runway; and

(ii) the accelerate-stop distance shall not exceed the length of the runway, plus the length of any stopway, at any time during take-off until reaching $V_1$;

*(d)* the accelerate-stop distance shall not exceed the length of the runway at any time during take-off until reaching $V_1$ for reciprocating engine powered aeroplane.

(4) In determining the length of the runway available for an aircraft, account shall be taken of the loss, where any, of runway length due to alignment of the aeroplane prior to take-off.

(5) An air operator operating a helicopter in performance Class 1 shall ensure that the helicopter is able, in the event of the failure of the critical power-unit being recognised—

*(a)* at or before the take-off decision point, to discontinue the take-off and stop within the rejected take-off area available; or

*(b)* at or after the take-off decision point, to continue the take-off, clearing all obstacles along the flight path by an adequate margin until the helicopter is in a position to comply with the requirements of regulation 116(5).

(6) An air operator operating a helicopter in performance Class 2 shall ensure that the helicopter is able, in the event of the failure of the critical power-unit—

*(a)* at any time before reaching defined point after take-off, to achieve a safe forced landing; or

*(b)* at any time after reaching defined point after take-off, to continue the take-off clearing all obstacles along the flight path by an adequate margin until the helicopter is in a position to comply with the requirements of regulation 116(5).

(7) An air operator operating a helicopter in performance Class 3 shall ensure that the helicopter is able, in the event of the failure of the critical power-unit at any point of the flight path, to achieve a safe forced landing.

**EN ROUTE LIMITATIONS WITH ALL ENGINES OPERATING**

En route limitations with all engines operating.

**115.** A national air operator shall not take-off a reciprocating engine powered aeroplane used in commercial air transport operations at a weight that does not allow a rate of climb of at least 6.9 $V_{so}$, with all engines operating, at an altitude of at least 1,000 feet above all terrain and obstructions within ten miles of each side of the intended track.

**EN ROUTE LIMITATIONS WITH ONE ENGINE INOPERATIVE**

En route limitations where one engine is inoperative. [34/2009].

**116.** (1) A national air operator shall not take-off an aeroplane used in commercial air transport operations having two engines unless such aeroplane can, in the event of a power failure at the most critical point along the route or planned diversion therefrom, continue the flight to a suitable aerodrome

where a landing can be made within the landing limitations and without flying below the minimum flight altitude at any point, while allowing—

*(a)* for a reciprocating engine powered aeroplane—

(i) at least a rate of climb of 0.079—(0.106/number of engines installed) $V_{so}^2$ (when $V_{so}$ is expressed in knots) at an altitude of per 1,000 feet above all terrain and obstructions within 5 statute miles, on each side of the intended track; and

(ii) a positive slope at an altitude of at least 1,500 feet above the aerodrome where the aircraft is assumed to land;

*(b)* for a turbine engine powered transport category aeroplane—

(i) a positive slope at an altitude of at least 1,000 feet above all terrain and obstructions within 9.3 kilometres, on each side of the intended track;

(ii) net flight path from cruising altitude to the intended landing aerodrome that allows at least 2,000 feet clearance above all terrain and obstructions within 5 statute miles, on each side of the intended track; and

(iii) a positive slope at an altitude of at least 1,500 feet above the aerodrome where the aircraft is assumed to land.

(2) The climb rate specified in subregulation (1)*(a)*(i) may be amended to 0.026 $V_{so}^2$ for large transport category aircraft issued a type certificate prior to the year 1953.

(3) The 5 statute miles clearance margin stated in subregulation (1)*(a)*, shall be increased to 10 statute miles where navigational accuracy does not meet the ninety-five per cent containment level.

(4) An air operator shall not take-off a helicopter used in commercial air transport operations having two engines, unless that helicopter can, in the event of the critical engine failing and

any point in the en route phase, continue the flight to the destination or alternate landing site without flying below the minimum flight altitude at any point and clearing all obstacles in the approach path by a safe margin.

(5) An air operator operating a helicopter in performance Class 1 or performance Class 2 shall ensure that the helicopter is able, in the event of the failure of the critical power-unit at any point in the en route phase, to continue the flight to a site and meet the requirements of subregulation 118(7) or (8) respectively, without flying below the appropriate minimum flight altitude at any point.

(6) An air operator operating a helicopter in performance Class 3 shall ensure that the helicopter is able—

*(a)* with all power-units operating, to continue along its intended route or planned diversions without flying at any point below the appropriate minimum flight altitude; or

*(b)* in the event of the failure of a power-unit at any point in the en route phase, to achieve a safe forced landing.

**EN ROUTE LIMITATIONS WITH TWO ENGINES INOPERATIVE**

En route limitations where two engines of an aeroplane are inoperative.

**117.** (1) A national air operator shall not take-off an aeroplane used in commercial air transport operations having three or more engines at such a weight where there is no suitable landing aerodrome within ninety minutes at any point along the intended route with all engines operating at cruising power, unless that aircraft can, in the event of simultaneous power failure of two critical engines at the most critical point along that route, continue to a suitable landing aerodrome while allowing—

*(a)* for a turbine engine powered aeroplane—

(i) a net flight path considering the ambient temperatures anticipated along the track clearing vertically, by at least 2,000 feet, all terrain and obstructions within 5 statute miles on each side of the intended track;

(ii) a positive slope at 1,500 feet above the aerodrome of intended landing; and

(iii) enough fuel to continue to the aerodrome of intended landing, to arrive at an altitude of at least 1,500 feet directly over the aerodrome and thereafter to fly for 15 minutes at cruise power;

*(b)* for a reciprocating engine powered aeroplane—

(i) a rate of climb at 0.013 $V_{so}^2$ feet per minute, at an altitude of 1,000 feet above the highest ground or obstruction within 10 miles on each side of the intended track, or at an altitude of 5,000 feet, which ever is higher; and

(ii) enough fuel to continue to the aerodrome of intended landing and to arrive at an altitude of at least 300 m directly over that aerodrome.

(2) A national air operator shall ensure that in computing the fuel required to continue to the aerodrome of intended landing under subregulation (1)*(a)* the consumption of fuel and oil after engine failure is the same as the consumption that is allowed for in the net flight path data in the Aircraft Flight Manual.

(3) Where the two engines of the reciprocating aeroplane are predicted to fail at an altitude above the prescribed minimum altitude, compliance with the prescribed rate of climb need not be shown during the descent from the cruising altitude to the prescribed minimum altitude, where those requirements can be met once the prescribed minimum altitude is reached, and assuming descent to be along a net flight path and the rate of descent to be 0.013 $V_{so}^2$ greater than the rate in the approved performance data.

(4) Where the jettisoning of fuel is authorised or planned, the weight of the aeroplane at the point where the two engines fail is considered to be not less than that which would include enough fuel to proceed to an aerodrome and to arrive at an altitude of at least 1,000 feet directly over that aerodrome.

(5) A national air operator shall not take-off a Performance Class 1 helicopter or Performance Class 2 helicopter used in commercial air transport operations having three or more engines, unless that helicopter can, in the event of two critical engines failing simultaneously at any point in the en route phase of flight, continue the flight to a suitable landing site.

**AIRCRAFT LANDING PERFORMANCE LIMITATIONS**

Aircraft landing limitations. [34/2009].

**118.** (1) Before commencing an approach to land, a pilot in command shall satisfy himself that, according to the information available to him, the weather at the aerodrome and the condition of the runway intended to be used, do not prevent a safe approach, landing or missed approach, having regard to the aircraft performance information contained in the Operations Manual.

(2) A national air operator shall not take-off an aeroplane used in commercial air transport operation unless its weight on arrival at either the intended destination aerodrome or any planned alternate aerodrome would allow a full stop landing from a point 50 feet above the intersection of the obstruction clearance plane and the runway, and within—

*(a)* for a turbine engine powered aeroplane, sixty per cent of the effective length of each runway;

*(b)* for reciprocating engine powered aeroplane, seventy per cent of the effective length of each runway.

(3) For the purpose of determining the allowable landing weight at the destination aerodrome, an operator determining the landing limit shall ensure that—

*(a)* the aeroplane is landed on the most favourable runway and in the most favourable direction, in still air; or

*(b)* the aeroplane is landed on the most suitable runway considering the probable wind speed and direction, runway conditions, the ground handling characteristics of the aircraft, and considering other conditions such as landing aids, terrain and expected variations in the approach and landing

techniques, where such allowance has not been made in the scheduling of performance data.

(4) Where the runway at the landing destination is reported or forecast to be wet or slippery, the landing distance available shall be at least one hundred and fifteen per cent of the required landing distance unless, based on a showing of actual operating landing techniques on wet or slippery runways, a shorter landing distance, but not less than that required by subregulation (2), has been approved for a specific type and model aeroplane and this information is included in the Aeroplane Flight Manual.

(5) A turbine powered transport category aeroplane that would be prohibited from taking off from its destination aerodrome because it could not meet the requirements of subregulation (2)*(a)* for mass landing for such destination aerodrome, may take-off from the departure aerodrome where an alternate aerodrome is specified that meets all the requirements of subregulation (2).

(6) An air operator shall not take-off a helicopter used in commercial air transport unless, with all engines operating on arrival at the intended destination landing site or any planned alternate landing, it can clear all obstacles on the approach path and can land and stop within the landing distance available.

(7) An air operator operating a helicopter in performance Class 1 shall ensure that the helicopter is able, in the event of the failure of the critical power-unit being recognised—

*(a)* at any point during the approach and landing phase, before the landing decision point, after clearing all obstacles in the approach path to—

(i) land and stop within the landing distance available; or

(ii) perform a balked landing and clear all obstacles in the flight path by an adequate margin equivalent to that specified in regulation 114(5); or

*(b)* after the landing decision point, to stop and land within the landing distance available.

(8) An air operator operating a helicopter in performance Class 2 shall ensure that the helicopter is able, in the event of the failure of the critical power-unit being recognised—

*(a)* at any point during the approach and landing phase, before the landing decision point, after clearing all obstacles in the approach path to—

(i) land and stop within the landing distance available;

(ii) perform a balked landing and clear all obstacles in the flight path by an adequate margin equivalent to that specified in regulation 114(5); or

*(b)* after the landing decision point, to achieve a safe forced landing.

(8A) An air operator operating a helicopter in performance Class 3 shall ensure that the helicopter is able, in the event of the failure of the critical power-unit at any point in the approach and landing phase of flight, to achieve a safe forced landing.

(9) In this regulation the term "obstruction clearance plane" means a plane sloping upward from the runway at a slope of 1:20 to the horizontal, and tangent to or clearing all obstructions within a specified area surrounding the runway as shown in a profile view of that area. In the plan view, the centre line of the specified area coincides with the centre line of the runway, beginning at the point where the obstruction clearance plane intersects the centre line of the runway and proceeding to a point at least 1,500 feet from the beginning point. Thereafter, the centre line coincides with the take-off path over the ground for the runway, in the case of take-offs, or with the instrument approach counterpart, for landings, or where the applicable one of these paths has not been established, it proceeds consistent with turns of at least 4,000 foot radius until a point is reached beyond which the obstruction clearance plane clears all

obstructions. This area extends laterally 200 feet on each side of the centre line at the point where the obstruction clearance plane intersects the runway and continues at this width to the end of the runway; then it increases uniformly to 500 feet on each side of the centre line at a point 1,500 feet from the intersection of the obstruction clearance plane with the runway; thereafter, it extends laterally 500 feet on each side of the centre line.

**ADDITIONAL REQUIREMENTS FOR OPERATIONS OF SINGLE-ENGINE TURBINE-POWERED AEROPLANE AT NIGHT OR IN INSTRUMENTS METEOROLOGICAL CONDITIONS**

Additional requirements for operations of a single-engine turbined-powered aircraft, etc. [186/2006 34/2009].

**118A.** (1) The Director-General may recommend that the Authority approve operations by a single-engine turbine-powered aeroplane at night or in Instrument Meteorological Conditions in commercial air transport operations, where the Director-General is satisfied that the airworthiness certification of the aeroplane is appropriate and that the overall level of safety required under the Act and Regulations made thereunder is satisfied by—

*(a)* the reliability of the turbine engine;

*(b)* the air operator's maintenance procedures, operating practices, flight dispatch procedures and crew training programmes; and

*(c)* the equipment and other requirements as provided in Schedule 6.

Schedule 6.

(2) An air operator shall not operate a single-engine turbine-powered aeroplane—

*(a)* at night or in Instrument Meteorological Conditions unless the aeroplane has an engine trend monitoring system;

*(b)* for which the individual Certificate of Airworthiness is first issued on or after 1st January 2005 at night or in Instrument Meteorological Conditions unless such aeroplane has an automatic engine trend monitoring system.

**ADDITIONAL REQUIREMENTS FOR OPERATIONS OF HELICOPTERS IN PERFORMANCE CLASS 3 IN INSTRUMENT METEOROLOGICAL CONDITIONS EXCEPT SPECIAL VISUAL FLIGHT RULES FLIGHT**

Additional requirements for operations of helicopters in performance Class 3 in Instrument Meteorological Conditions, except special Visual Flight Rules flight. [34/2009].

**118B.** (1) An air operator shall ensure that a helicopter operating in performance Class 3, in Instrument Meteorological Conditions, is only conducted over a surface environment acceptable to the competent authority of the State over which the operations are performed.

(2) The Director-General may recommend that the Authority approve operations by a helicopter in performance Class 3, in Instrument Meteorological Conditions in commercial air transport operations, where the Director-General is satisfied that the airworthiness requirements for the helicopter is appropriate for flight under instrument flight rules and that the overall level of safety required under the Act and Regulations made thereunder is satisfied by—

*(a)* the reliability of the engines;

*(b)* the operator's maintenance procedures, operating practices and crew training programme; and

*(c)* equipment and other requirements provided in accordance with Schedule 6A.

(3) An air operator shall not operate a helicopter in performance Class 3, in Instrument Meteorological Condition unless the helicopter has a programme for engine trend monitoring.

(4) The programme for engine trend monitoring referred to in subregulation (3) shall utilise the recommended instruments, systems and operational and maintenance procedures of the manufacturer of the engine and helicopter, to monitor the engines.

## PART VII

## FLIGHT RULES

Applicability.

**119.** This Part prescribes the rules of the air applicable to all flight operations.

**GENERAL FLIGHT RULES REQUIREMENTS**

General flight rules requirements.

**120.** (1) The Regulations set out in this Part (hereinafter referred to as the "Rules of the Air") shall apply to aircraft bearing the nationality and registration marks of Trinidad and Tobago, wherever they may be, to the extent that they do not conflict with the rules published by State over-flown.

(2) For the purposes of flight over those parts of the high seas where a Contracting State has accepted the responsibility of providing air traffic services, the appropriate Air Traffic Control Authority is the relevant authority designated by the State responsible for providing those services.

(3) The operation of an aircraft either in flight or on the movement area of an aerodrome shall be in compliance with the general rules and, in addition, when in flight, either with the Visual Flight Rules or Instrument Flight Rules.

**OPERATION OF AIRCRAFT ON THE GROUND**

Restrictions on the operation of aircraft on the ground. [34/2009].

**121.** (1) A person shall not taxi an aircraft on the movement area of an aerodrome unless the person at the controls—

*(a)* has been authorised by the operator, the lessee, or a designated agent;

*(b)* is fully competent to taxi the aircraft;

*(c)* is qualified to use the radio where radio communications are required;

*(d)* has received instruction from a competent person in respect of aerodrome layout, and where appropriate, information on—

(i) routes;

(ii) signs;

(iii) marking;

(iv) lights;

(v) Air Traffic Control signals and instructions, phraseology and procedures; and

*(e)* is able to conform to the operational standards required for safe aircraft movement at the aerodrome.

(2) An operator shall ensure that a helicopter rotor is not turned under power for the purpose of flight unless there is a pilot qualified to operate a helicopter, at the controls.

(3) Notwithstanding subregulation (2), an operator may authorise a person other than a qualified pilot to turn a rotor of a helicopter for purposes other than flight, where the operator—

*(a)* has provided the person with appropriately specific training and procedures to be followed; and

*(b)* is satisfied that the person is competent to conduct such operations.

(4) A person authorised by an operator under subregulation (3), may turn a rotor of a helicopter under power for purposes other than flight.

**TAKE-OFF CONDITIONS**

Required take-off conditions.

**122.** Before commencing take-off, a pilot in command shall ensure that—

*(a)* according to the available information, the weather at the aerodrome and the condition of the runway intended to be used will allow for a safe take-off and departure; and

*(b)* the Runway Visual Range or visibility in the take-off direction of the aircraft is equal to or better than the applicable minimum.

**FLIGHT INTO KNOWN OR EXPECTED ICING CONDITIONS**

Requirements and restrictions where flight into known or expected icing.

**123.** (1) An operator shall ensure that a flight is not commenced or intentionally flown into expected or actual icing conditions unless the aircraft is certified and equipped to cope with such conditions.

(2) An operator shall ensure that an aircraft is not allowed to take-off or continue to operate along a route when icing conditions are expected or encountered, without ensuring that the aircraft is certified for icing operations and has sufficient operational de-icing or anti-icing equipment.

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(3) An operator shall ensure that an aircraft is not allowed to take-off when frost, ice or snow is adhering to the wings, control surfaces, propellers, engine inlets or other critical surfaces of the aircraft which might adversely affect the performance or controllability of the aircraft.

(4) A pilot in command shall not take-off and an air operator shall ensure that a pilot is not allowed to take-off an aircraft when conditions are such that frost, ice or snow may reasonably be expected to adhere to the aircraft, unless the procedures approved for the national air operator by the Authority are followed to ensure ground de-icing and anti-icing is accomplished.

(5) An operator shall establish procedures to be followed when ground de-icing and anti-icing and related inspections of the aircraft are necessary.

(6) A pilot in command shall not commence take-off unless the external surfaces are clear of any deposit which might adversely affect the performance and controllability of the aircraft except as permitted in the Aircraft Flight Manual.

(7) Where illumination is used to detect the formation of ice, it shall be of a type that will not cause glare or reflection such that would handicap crew members in the performance of their duties.

**CRUISING LEVELS WITH ALTIMETER SETTINGS**

Cruising levels with altimeter settings.

**124.** The cruising levels at which a flight or a portion of a flight is to be conducted shall be in terms of—

*(a)* flight levels, for flights at or above the lowest usable flight level or, where applicable, above the transition altitude;

*(b)* altitudes, for flights below the lowest usable flight level or, where applicable, at or below the transition altitude.

**GENERAL MINIMUM SAFE ALTITUDES**

General minimum safe altitudes.

**125.** (1) An operator shall ensure that when necessary for take-off or landing, an aircraft is not operated below the following altitudes:

*(a)* an altitude allowing for continuation of flight or an emergency landing without undue hazard

to persons or property on the surface where a power unit fails;

*(b)* an altitude of 1,000 feet above the highest obstacle within a horizontal radius of six hundred metres of the aircraft where the aircraft is operated over any congested area of a city, town, or settlement, or over any open-air assembly of persons;

*(c)* an altitude of five hundred feet above the surface where an aircraft is operated over uncongested areas, except over open water or sparsely populated areas where the aircraft shall not be operated closer than one hundred and fifty metres to any person, vessel, vehicle, or structure.

(2) The pilot of a helicopter is not subject to the proximity restrictions of these Regulations, provided the helicopter is operated in a manner that is not hazardous to persons and property on the surface.

(3) The pilot of a helicopter shall comply with any routes or altitudes for the area that are prescribed for helicopters by the Authority.

(4) An operator shall be permitted to establish minimum flight altitudes for those routes flown for which minimum flight altitudes have been established by the State flown over or the responsible State, provided that such altitudes shall not be less than those established by that State.

(5) An operator shall specify the procedures by which it is intended to determine minimum flight altitudes for operations conducted over routes for which minimum flight altitudes have not been established by the State flown over or the responsible State and shall include this procedure in his Operations Manual.

(6) The procedure for establishing the minimum flight altitudes under subregulations (4) and (5) shall be approved by the Authority, provided that the minima established by any procedure shall not be lower than that specified in Annex 2 of the Chicago Convention.

(7) The Director-General may recommend that that the Authority approve the procedures under subregulation (6), after careful consideration of the probable effects of the following factors on the safety of the operation in question:

*(a)* the accuracy and reliability with which the position of the aircraft can be determined;

*(b)* the inaccuracies in the indications of the altimeters used;

*(c)* the characteristics of the terrain such as sudden changes in the elevation;

*(d)* the probability of encountering unfavorable meteorological conditions, such as severe turbulence and descending air currents;

*(e)* possible inaccuracies in aeronautical charts; and

*(f)* airspace restrictions.

**COMMERCIAL AIR TRANSPORT OPERATIONS MINIMUM SAFE VISUAL FLIGHT RULES ALTITUDES**

Minimum safe Visual Flight Rules Altitudes for commercial air transport operations. [223/2005].

**126.** (1) A national air operator shall ensure that an aircraft is not operated in commercial air transport operation during the day, under Visual Flight Rules, at an altitude less than 1,000 feet above the surface or within 1,000 feet of any mountain, hill, or other obstruction to flight.

(2) A national air operator shall ensure that an aircraft is not operated in commercial air transport operation at night, under Visual Flight Rules, at an altitude less than 1,000 feet above the highest obstacle within a horizontal distance of five miles from the centre of the intended course, or, in designated mountainous areas, less than 2,000 feet above the highest obstacle within a horizontal distance of 5 statute miles from the centre of the intended course.

**AERODROME OR HELIPORT OPERATING MINIMA**

Aerodrome operating minima. [34/2009].

**127.** (1) An operator shall establish operating minima for each aerodrome or heliport planned to be used in operations, by a method acceptable to the Authority.

(2) Operating minima established under subregulation (1), shall not be lower than any that may be established for such aerodromes or heliports by the State in which the aerodrome is located, except when specifically approved by the State.

(3) In establishing the operating minima which will apply to any particular operation, an operator shall take full account of—

*(a)* the type, performance and handling characteristics of the aircraft;

*(b)* the composition of the flight crew, their competence and experience;

*(c)* the dimensions and characteristics of the final approach and take-off site or runways which may be selected for use and for heliports, the physical characteristics and direction of approach;

*(d)* the adequacy and performance of the available visual and non-visual ground aids;

*(e)* the equipment available on the aircraft for the purpose of navigation and control of the flight path during the approach and the missed approach;

*(f)* the obstacles in the approach and missed approach areas and the obstacle clearance altitude or height for the instrument approach procedures;

*(g)* the means used to determine and report meteorological conditions; and

*(h)* the obstacles in the climb-out areas and necessary clearance margins from the obstacles.

(4) The pilot in command of an aircraft shall not commence take-off unless the weather conditions at the aerodrome of departure are equal to or better than applicable minima for landing at that aerodrome unless a suitable take-off alternate aerodrome is available.

(5) When the reported meteorological visibility is below that required for take-off a pilot shall not take-off.

(6) Where no reported meteorological visibility or runway visual range is available, a take-off may only be

commenced where the pilot in command can determine that the runway visual range or visibility along the take-off runway is equal to or better than the required minimum.

### THRESHOLD CROSSING HEIGHT FOR PRECISION APPROACHES

Required threshold crossing height for precision approaches.

**128.** An operator shall establish operational procedures designed to ensure that an aircraft being used to conduct precision approaches crosses the threshold by a safe margin, with the aircraft in the landing configuration and attitude.

### REQUIRED INSTRUMENT APPROACH OPERATING MINIMA

Instrument approach operating minima requirements.

**129.** (1) An operator shall ensure that an aircraft is not operated to or from an aerodrome using operating minima lower than those which may be established for that aerodrome by the State in which it is located, unless that State specifically approves such operation.

(2) For instrument approach and landing operations, aerodrome-operating minima below eight hundred metres visibility should not be authorised unless Runway Visual Range information is provided.

(3) The Director-General may recommend that the Authority approve one or more instrument approach procedures designed in accordance with the classification of instrument approach and landing operations procedures to serve each instrument runway or aerodrome utilised for instrument flight operation.

(4) The Director-General shall cause the instrument approach procedures and landing operations procedures to be promulgated.

### GENERAL OPERATING RULES FOR CATEGORY II AND CATEGORY III OPERATIONS

General operating rules for Category II and Category III operations.

**130.** (1) An operator shall not conduct Category II or Category III operations unless—

*(a)* each aeroplane concerned is certified for operations with a decision height below 200 feet,

or no decision height, and equipped in accordance with the standards prescribed by the Director-General;

*(b)* the operations are approved by the Authority;

*(c)* the flight crew consists of either two pilots; and

*(d)* the decision height is determined by a radio altimeter.

(2) A Category II or Category III instrument approach and landing operations shall not be authorised unless Runway Visual Range information is provided.

(3) When the approach procedure being used provides for and requires the use of a decision height, the authorised decision height is the highest of the following:

*(a)* the decision height or alert height prescribed by the approach procedure;

*(b)* the decision height or alert height prescribed for the pilot in command;

*(c)* the decision height or alert height for which the aircraft is equipped.

(4) Unless otherwise authorised by the Authority, a pilot operating an aircraft in a Category II or Category III approach that provides and requires use of a decision height or alert height shall not continue the approach below the authorised decision height or alert height unless the following conditions are met:

*(a)* the aircraft is in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal manoeuvres and where that descent rate will allow touchdown to occur within the touchdown zone of the runway of intended landing;

*(b)* at least one of the following visual references for the intended runway is distinctly visible and identifiable to the pilot:

(i) visual reference containing a segment of at least three consecutive lights being the

centre line of the approach lights or touchdown zone lights or runway lights or a combination of these;

(ii) the threshold;

(iii) the threshold markings;

(iv) the threshold lights;

(v) the touchdown zone or touchdown zone markings; and

(vi) the touchdown zone lights.

(5) Unless otherwise authorised by the Authority, a pilot operating an aircraft shall immediately execute an appropriate missed approach whenever, prior to touchdown, the requirements of subregulation (3), are not met.

(6) An operator shall ensure that an aircraft using a Category III approach without decision height shall not be landed except in accordance with the provisions of the letter of authorisation issued by the Authority.

(7) Subregulations (1) through (6) shall not apply to operations conducted by a national air operator issued a certificate under the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations.

Sub. Leg.

(8) A national air operator shall ensure that an aircraft in a Category II or Category III operations is conducted in accordance with his operations specifications.

(9) An operator before commencing a Category II or Category III programme shall ensure that—

*(a)* the pilot in command and co-pilot of the aircraft hold the appropriate authorisations and ratings prescribed under the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations;

Sub. Leg.

*(b)* each flight crew member has adequate knowledge of, and familiarity with, the aircraft and the procedures to be used; and

*(c)* the instrument panel in front of the pilot who is controlling the aircraft has appropriate instrumentation for the type of flight control guidance system that is being used.

(10) Unless otherwise authorised by the Authority, an operator shall ensure that an aircraft is not operated in a Category II or Category III programme unless each ground component required for that operation and the related airborne equipment is installed and operating.

(11) An operator shall submit a low visibility operations programme to the Authority for approval prior to conducting Category II and Category III operations.

**CATEGORY II AND CATEGORY III MANUAL**

Requirements for Category II and Category III manual.

**131.** (1) Except as provided in subregulation (6) an operator shall ensure that an aircraft is not operated in a Category II or a Category III operations unless—

*(a)* there is available on such aircraft a current and approved Category II or Category III manual, as appropriate, for that aircraft;

*(b)* the operation is conducted in accordance with the procedures, instructions and limitations in the appropriate manual; and

*(c)* the instruments and equipment listed in the manual that are required for a particular Category II or Category III operation have been inspected and maintained in accordance with the maintenance programme contained in the manual.

(2) Where an operator wishes to amend his Category II or III Manual he shall submit such amendment to the Authority for approval.

(3) Where a submission under subregulation (2) is accompanied by a request to initiate operations in accordance with an amendment, such operations shall not commence unless the Authority so approves.

Schedule 5.

(4) An operator shall ensure that his Category II or Category III manual meets the requirements of Schedule 5.

(5) An operator shall keep a current copy of each approved manual at his principal base of operations and shall make each manual available for inspection upon request by the Authority.

Sub. Leg.

(6) Subregulations (1) and (4) shall not apply to operations conducted by a national air operator issued a certificate under the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations.

**DIVERSION DECISION PROCEDURES**

Procedures to be followed where a diversion decision is to be made.

**132.** (1) Except as provided in subregulation (2), a pilot in command shall land an aircraft at the nearest suitable aerodrome at which a safe landing can be made whenever an engine of an aircraft fails or is shut down to prevent possible damage.

(2) Where only one engine of an aircraft having three or more engines fails, or its rotation is stopped, a pilot in command may proceed to an aerodrome where in his opinion proceeding to that aerodrome is as safe as landing at the nearest suitable aerodrome after considering the—

*(a)* nature of the malfunction and the possible mechanical difficulties that may occur should be continued;

*(b)* altitude, weight, and usable fuel at the time of engine stoppage;

*(c)* weather conditions en route and at possible landing points;

*(d)* air traffic congestion;

*(e)* terrain characteristics; and

*(f)* familiarity with the aerodrome to be used.

**OPERATION NEAR OTHER AIRCRAFT**

Procedures to be used for formation flight.

**133.** (1) A person shall not operate an aircraft so close to another aircraft as to create a collision hazard.

(2) A person shall not operate an aircraft, carrying passengers for hire, in formation flight.

(3) An operator shall ensure that an aircraft is not flown in formation except by pre-arrangement among the pilot in command of the aircraft taking part in the flight and, for formation flight in controlled airspace, in accordance with the conditions prescribed by the appropriate Air Traffic Control Authority.

(4) Conditions under subregulation (3), shall include the requirement that—

*(a)* the formation operates as a single aircraft with regard to navigation and position reporting;

*(b)* separation between aircraft in the formation flight shall be the responsibility of the flight leader and the pilots in command of the other aircraft in the flight and shall include periods of transition when aircraft are manoeuvring to attain their own separation within the formation and during join-up and break-away; and

*(c)* a distance not exceeding one kilometre laterally and longitudinally and 100 feet vertically from the flight leader shall be maintained by each aircraft.

**GENERAL RIGHT-OF-WAY RULES**

General right-of-way rules. [223/2005].

**134.** (1) A pilot of an aircraft in flight or while manoeuvring in the movement area of an aerodrome shall maintain vigilance so as to see and avoid other aircraft.

(2) A pilot of an aircraft in flight that has the right-of-way, has the right to proceed on the same heading and at the same speed before any other aircraft.

(3) Notwithstanding the right-of-way under subregulation (2), a pilot shall be responsible to take such action, including collision avoidance manoeuvres based on resolution advisories provided by Airborne Collision Avoidance System equipment, so as to best avoid collision.

(4) A pilot of an aircraft which does not have right-of-way in flight shall give way to an aircraft which has the right-of-way and shall not pass over or under the other aircraft or cross ahead of it unless passing well clear of it, taking into account the effect of aircraft wake turbulence.

(5) An aircraft in distress or an aircraft that is compelled to land has the right-of-way over all other air traffic.

(6) Where aircraft of the same category are converging at approximately the same altitude, except head-on or approximately so, the aircraft which has the other to its right shall give way.

(7) Where aircraft of different categories are converging in flight, the following right-of-way rules shall apply:

*(a)* a balloon has the right-of-way over any other category of aircraft;

*(b)* a glider has the right-of-way over an airship, aeroplane, or rotorcraft; and

*(c)* an airship has the right-of-way over an aeroplane or rotorcraft.

(8) An aircraft towing or refuelling another aircraft has the right-of-way over all other engine-driven aircraft, except aircraft in distress.

(9) Where aircraft are approaching each other head-on, or approximately so, the pilot of each aircraft shall alter course to the right.

(10) An aircraft that is being overtaken has the right-of-way and a pilot of the overtaking aircraft shall alter course to the right to pass well clear.

(11) An aircraft, while on final approach to land or while landing, has the right-of-way over other aircraft in flight or operating on the surface.

(12) Where two or more aircraft are approaching an aerodrome for the purpose of landing, the aircraft at the lower altitude has the right-of-way.

(13) Notwithstanding subregulation (12), power driven heavier than air aircraft shall give way to gliders for the purpose of landing.

(14) An aircraft taxiing on the manoeuvring area of an aerodrome shall give way to aircraft taking off or about to take-off.

(15) In case of danger of collision between two aircraft taxiing on the movement area of the aerodrome, the following shall apply:

*(a)* where two aircraft are approaching head on or approximately so, each shall stop or where practicable alter its course to the right so as to keep well clear;

*(b)* where two aircraft are on a converging course, the one which has the other on its right shall give way;

*(c)* an aircraft which is being overtaken by another aircraft shall have the right-of-way and the overtaking aircraft shall keep well clear of the other aircraft;

*(d)* an aircraft taxiing in the manoeuvring area shall stop and hold at all taxi-holding positions unless otherwise authorised by the aerodrome control tower; and

*(e)* an aircraft taxiing on the manoeuvring area shall stop and hold at lighted stop bars and may proceed further when the lights are switched off.

**RIGHT-OF-WAY RULES FOR WATER OPERATIONS**

Right-of-way Rules for water operations.

**135.** (1) An operator shall ensure that an aircraft operating on the water shall, as far as possible, keep clear of all vessels and avoid impeding their navigation and shall give way to any vessel or other aircraft that is given the right-of-way by these Regulations.

(2) When two aircraft or an aircraft and a vessel, are on crossing courses, the aircraft or vessel which has the other on its right shall give way so as to keep well clear.

(3) When two aircraft or an aircraft and a vessel, are approaching head-on, or approximately so, each shall alter its course to the right to keep well clear.

(4) An aircraft or vessel that is being overtaken has the right-of-way, and the overtaking aircraft or vessel, shall alter course to keep well clear.

(5) An aircraft landing on or taking off from the water shall, as far as practicable, keep well clear of all aircraft and vessels on the water and avoid impeding their navigation.

(6) Where two aircraft or an aircraft and a vessel, approach so as to pose to a risk of collision, each aircraft or vessel shall proceed with careful regard to existing circumstances, including the limitations of the respective aircraft or vessel.

**REQUIREMENTS FOR THE USE OF AIRCRAFT LIGHTS**

Requirements for the use of aircraft lights.

**136.** (1) Except as provided in subregulation (4), all aircraft in flight shall display—

*(a)* anti-collision lights, to attract attention to the aircraft at all times, and

*(b)* navigation lights intended to indicate the relative path of the aircraft to an observer, from sunset to sunrise or during any other period specified by the appropriate authority.

(2) Except as provided in subregulation (4), a person shall not park or move an aircraft at night in a movement area or in dangerous proximity to a movement area of an aerodrome, unless the aircraft—

*(a)* has lighted navigation lights to attract attention to the aircraft;

*(b)* has display lights at the extremities of its structure; or

*(c)* is in an area that is marked by obstruction lights.

(3) An aircraft shall display red anti-collision beacon lights prior to commencement of engine start and while engines are running.

(4) A pilot shall be permitted to switch off or reduce the intensity of any flashing light where—

*(a)* such light adversely affects or is likely to adversely affect the satisfactory performance of duties of persons engaged in an aircraft operations; or

*(b)* such light may subject an outside observer to harmful dazzle.

(5) An operator shall ensure that an aircraft on water is not anchored between sunset and sunrise or such other period as may be prescribed by the appropriate authority, unless that aircraft—

*(a)* has lighted anchor lights; or

*(b)* is in an area where anchor lights are not required on aircraft or vessels.

**SIMULATED INSTRUMENT FLIGHT REQUIREMENTS**

Requirements for simulated instrument flight.

**137.** (1) An operator shall ensure that an aircraft is not operated in simulated instrument flight unless—

*(a)* that aircraft has fully functioning dual controls;

*(b)* the pilot operating the simulated instrument flight is accompanied at the other control seat by a safety pilot who holds at least a Private Pilot Licence with category and class ratings appropriate to the aircraft being flown; and

*(c)* the safety pilot has adequate vision forward and to each side of the aircraft, or a competent observer in communication with the safety pilot occupies a position in the aircraft from which the field of vision of the observer adequately supplements the vision of the safety pilot.

(2) An operator shall ensure that simulated instrument flight conditions are not conducted during commercial air transport operations.

**IN-FLIGHT SIMULATION OF ABNORMAL SITUATIONS**

Requirements for in-flight simulation of abnormal situations.

**138.** An operator shall ensure that an abnormal or emergency situation is not simulated during commercial air transport operations.

**RESTRICTION ON DROPPING, SPRAYING, TOWING**

Restrictions on dropping, spraying and towing.

**139.** Except under conditions prescribed by the appropriate Authority and as indicated by relevant information, advice and clearance from Air Traffic Control Authority a pilot shall not—

*(a)* drop, dust or spray from an aircraft;

*(b)* tow an aircraft or other object; or

*(c)* allow parachute descents unless formally approved by the Authority.

**REQUIREMENTS FOR PARTICIPATION IN AEROBATIC FLIGHT**

Restriction on aerobatic flight.

**140.** (1) A person shall not operate an aircraft in aerobatic flight—

*(a)* over any city, town or settlement;

*(b)* over an open air assembly of persons;

*(c)* within the lateral boundaries of the surface areas of Class B, C, D or E airspace designated for an aerodrome;

*(d)* below an altitude of one thousand, five hundred feet above the land or sea surface; or

*(e)* when the flight visibility is less than 3 statute miles.

(2) A person shall not operate an aircraft in manoeuvres exceeding a bank angle of sixty degrees or pitch angle of thirty degrees from level flight attitude unless all occupants of the aircraft are wearing parachutes packed by a qualified parachute rigger in the past twelve months.

**RESTRICTION ON LOCATION OF FLIGHT TEST**

Restrictions on where flight test is conducted.

**141.** A person shall not flight-test an aircraft except over open water, or sparsely populated areas having light traffic.

**RESTRICTION ON USE OF AIRCRAFT IN PROHIBITED AREAS AND RESTRICTED AREAS**

Restrictions on the use of an aircraft in a prohibited or restricted area.

**142.** (1) A person shall not operate an aircraft in a prohibited area, or in a restricted area, except in accordance with the conditions of the restrictions or by permission of the State over whose territory the areas are established.

(2) In this regulation, "a prohibited area" or "restricted area" means an area designated by a Civil Aviation Authority to be prohibited or restricted area.

**OPERATIONS IN DEFINED PORTIONS OF AIRSPACES WITH SPECIFIC NAVIGATION PERFORMANCE REQUIREMENTS OR REDUCED VERTICAL SEPARATION MINIMUM**

Restrictions on operations in Minimum Navigation Performance Specification or Reduced Vertical Separation Minimum. [302/2004 223/2005 186/2006].

**143.** (1) An operator shall not operate—

*(a)* an aeroplane in defined portions of airspace based on a Regional Air Navigation Agreement where—

(i) minimum navigation performance specifications are prescribed, such as MNPS, RNP Type or RNAV; or

(ii) a reduced vertical separation minimum (RVSM) of one thousand feet is applied between FL 290 and FL 410; or

*(b)* a helicopter in defined portions of airspace or on routes where an RNP type has been prescribed, unless approved to do so by the Authority.

(2) Where an operator wishes to apply to operate an aeroplane or helicopter under the conditions set out in subregulation (1), he shall apply to the Authority in the prescribed form.

(2A) An application under subregulation (2) shall be accompanied by the following documents:

*(a)* an identification of the RVSM aircraft group or the non-group aircraft;

*(b)* a definition of RVSM flight envelopes applicable to the aircraft;

*(c)* documentation that establishes compliance with the applicable RVSM aircraft requirements; and

*(d)* the conformity tests used to ensure that aircraft approved in accordance with the documents meet the RVSM aircraft requirements.

(3) An operator shall not operate an aeroplane or helicopter in defined portions of airspace or routes specified in subregulation (1), except in accordance with conditions of the procedures and restrictions required for such airspace or routes.

**APPROVAL FOR OPERATIONS IN REDUCED VERTICAL SEPARATION MINIMUM AIRSPACE**

Approved operation in vertical separation minimum airspace. [186/2006].

**143A.** (1) The Director-General may recommend the Authority grant approval for an operator to operate an aeroplane in Reduced Vertical Separation Minimum airspace where he is satisfied that—

*(a)* the vertical navigation performance capability of the aeroplane satisfies the altimetry system performance requirements for operations in RVSM airspace;

*(b)* the operator has instituted appropriate procedures for his aeroplane in respect to continued airworthiness practices and programmes;

*(c)* the operator has instituted appropriate flight crew procedures for operations in RVSM airspace;

*(d)* the operator has adequate provisions for receiving the reports issued by the monitoring agencies of height keeping performance of aeroplanes approved for operations in RVSM airspace; and

*(e)* the operator shall take immediate corrective action for individual aircraft or aircraft type groups, identified in a report referred to in paragraph *(d)*, as not complying with the height-keeping requirements for operation in airspace where RVSM is applied.

(2) The Director-General may recommend that the Authority amend, suspend or revoke the Air Operator Certificate of a national operator where the national operator conducts operations in RVSM airspace without the required approval from the Authority.

**OPERATIONS ON OR IN THE VICINITY OF AN UNCONTROLLED AERODROME**

Requirements where operations are conducted on or in the vicinity of an uncontrolled aerodrome.

**144.** (1) A pilot of an aircraft operated on or in the vicinity of an aerodrome shall, whether or not within an aerodrome traffic zone—

*(a)* observe other aerodrome traffic for the purpose of avoiding collision; and

*(b)* conform with or avoid the pattern of traffic formed by other aircraft in operation.

(2) When approaching to land at an aerodrome without an operating control tower, each pilot of—

*(a)* an aeroplane shall make all turns to the left or shall comply with any traffic patterns established by the civil aviation authority having jurisdiction over that aerodrome; and

*(b)* a helicopter shall avoid the pattern of traffic flow of aeroplanes.

(3) When departing an aerodrome without an operating control tower, a pilot of an aircraft shall make all turns to the left or shall comply with any traffic patterns established by the civil aviation authority having jurisdiction over that aerodrome.

(4) A pilot of an aircraft shall land and take-off into the wind unless safety, the runway configuration or traffic considerations determine that a different direction is preferable.

### AERODROME TRAFFIC PATTERN ALTITUDES FOR TURBOJET, TURBOFAN, OR LARGE AIRCRAFT

Required altitudes for turbojet, turbofan or large aircraft on entering aerodrome traffic pattern.

**145.** (1) When arriving at an aerodrome, the pilot in command of a turbojet, turbofan or large aircraft shall enter the traffic pattern at least 1,500 feet above ground level until further descent is required for landing.

(2) When departing an aerodrome, the pilot in command of a turbojet, turbofan or large aircraft shall climb to 1,500 feet above ground level as rapidly as practicable.

### COMPLIANCE WITH VISUAL AND ELECTRONIC GLIDE SLOPES

Compliance with visual and electronic glide slopes.

**146.** (1) The pilot in command of an aircraft approaching to land on a runway served by a visual approach slope indicator shall maintain an altitude at or above the glide slope until a lower altitude is necessary for a safe landing.

(2) The pilot in command of a turbojet, turbofan, or large aeroplane approaching to land on a runway served by an

Instrument Landing System, shall fly that aeroplane at or above the glide slope from the point of interception to the middle marker.

### COMMERCIAL AIR TRANSPORT OPERATIONS RESTRICTION OR SUSPENSION OF OPERATIONS

Restriction or suspension of operations for commercial air transport operations.

**147.** Where a pilot in command or an air operator knows of conditions, including aerodrome and runway conditions, that are a hazard to safe operations, such person shall restrict or suspend all commercial air transport operations to such aerodromes and runways as necessary until those conditions are corrected.

### CONTINUATION OF FLIGHT IN COMMERCIAL AIR TRANSPORT OPERATIONS WHEN DESTINATION AERODROME IS TEMPORARILY RESTRICTED

Continuation of flight in commercial air transport when destination aerodrome is temporarily restricted.

**148.** A pilot in command shall not allow a flight to continue toward any aerodrome of intended landing where commercial air transport operations have been restricted or suspended, unless—

*(a)* in the opinion of the pilot in command, the conditions that are a hazard to safe operations may reasonably be expected to be corrected by the estimated time of arrival; or

*(b)* there is no safer procedure.

### INTERCEPTION OF CIVIL AIRCRAFT

Requirements where interception occurs. [186/2006].

**149.** (1) Interception of civil aircraft by a military aircraft of an armed force of Trinidad and Tobago shall be conducted in a manner—

*(a)* to have due regard for the safety of navigation of civil aircraft; and

*(b)* as prescribed by the Authority.

(2) When intercepted by a military aircraft, the pilot in command of a civil aircraft shall comply with the international standards when intercepting and responding to visual signals as specified in paragraphs *(e)*, *(l)* and *(m)* of Schedule 7.

Schedule 7.

### AIR TRAFFIC CONTROL CLEARANCES

Requirements for Air Traffic Control clearances.

**150.** (1) A pilot in command shall obtain an Air Traffic Control clearance prior to operating a controlled flight, or any portion thereof.

(2) A pilot in command shall request an Air Traffic Control clearance through the submission of a flight plan to an Air Traffic Control Facility.

(3) Whenever a pilot in command of an aircraft has requested a clearance involving priority, he shall where requested by the appropriate Air Traffic Control Facility and upon completion of flight, submit a report explaining the necessity for such priority.

(4) A person operating an aircraft at a controlled aerodrome shall not taxi on the manoeuvring area or any runway without clearance from the aerodrome control tower.

**ADHERENCE TO AIR TRAFFIC CONTROL CLEARANCES**

Requirement to adhere to Air Traffic Control clearances.

**151.** (1) When an Air Traffic Control clearance has been obtained, a pilot in command shall not deviate from the clearance, except in an emergency unless he obtains an amended clearance.

(2) When operating in airspace requiring controlled flight, a pilot in command shall not operate contrary to Air Traffic Control instructions, except in an emergency.

(3) A pilot in command who in an emergency deviates from an Air Traffic Control Clearance shall notify Air Traffic Control of that deviation as soon as possible.

(4) A pilot in command may amend his Air Traffic Control clearance at any time but shall not operate under such amended clearance until it has been accepted by the Air Traffic Control Facility.

**COMMUNICATION REQUIREMENTS**

Communication requirements. [223/2005 186/2006].

**152.** (1) A pilot operating an aircraft on a controlled flight shall maintain a continuous listening watch on the appropriate radio frequency of, and establish two-way communication as required with, the appropriate Air Traffic Control Facility, except as may be prescribed by the appropriate air traffic services authority in respect of aircraft forming part of aerodrome traffic at a controlled aerodrome.

(2) Regulations for communication failure in Visual Meterological Conditions and Instrument Meteorological Conditions are prescribed in regulations 170 and 188 respectively.

(3) A person operating an Instrument Flight Rules flight outside controlled airspace but within or into areas, or along routes, designated by the appropriate Air Traffic Control Authority shall maintain an air-ground voice communication on the appropriate communication channel and establish two-way communication as necessary with the Air Traffic Service Facility providing flight information service and shall make position reports as required by regulation 156.

(4) Where a communication failure prevents compliance with subregulation (1), a pilot shall comply with the voice communication failure procedures specified in the Implementing Standards for Regulation 152 in Schedule 12 and the following procedures as are appropriate:

*(a)* attempt to establish communication with the appropriate air traffic services facility using all other available means; and

*(b)* where the aircraft is forming part of aerodrome traffic at a controlled aerodrome, keep a watch for such instructions as may be issued by visual signals.

**ROUTE TO BE FLOWN**

Pilot in command to fly along assigned route. [186/2006].

**153.** (1) Unless otherwise authorised by the appropriate air traffic services authority or directed by the appropriate Air Traffic Control Facility, a pilot in command of a controlled flight shall, as far as practicable—

*(a)* when on an established Air Traffic Control route, operate along the defined centre line of that route; or

*(b)* when on any other route, operate directly between the navigation facilities and points defining that route.

(2) Where a pilot in command deviates from the requirements of subregulation (1), he shall notify the appropriate Air Traffic Control Facility as soon as possible.

(3) A pilot in command of a controlled flight operating along an Air Traffic Control route defined by reference to Very

High Frequency Omni Range shall change over for primary navigation guidance from the facility behind the aircraft to that ahead of it at, or as close as operationally feasible to, the change-over point, where established.

(4) Where an Automatic Dependent Surveillance agreement is in place, the Air Traffic Services Facility shall be informed automatically via data link whenever changes occur beyond the threshold values stipulated by the Automatic Dependent Surveillance event contract.

**INADVERTENT CHANGES TO ROUTE**

Procedures where inadvertent changes occur.

**154.** Where in a controlled flight a pilot in command inadvertently deviates from the current flight plan he shall—

*(a)* where the aircraft is off track adjust the heading of the aircraft to regain track as soon as practicable;

*(b)* where the average true airspeed at cruising level between reporting points varies from that given in the flight plan or is expected to vary by plus or minus five per cent of the true airspeed, inform the appropriate Air Traffic Control Facility;

*(c)* where the time estimated for a reporting point, flight information region boundary or destination aerodrome, whichever comes first, is found to be in excess—

(i) of three minutes from that notified to Air Traffic Control Facility; or

(ii) such other period of time as is prescribed by the appropriate Air Traffic Control Authority,

notify as soon as possible the appropriate Air Traffic Control Facility and give a revised estimated time.

**INTENDED CHANGES FOR AIR TRAFFIC CONTROL CLEARANCE**

Procedures where there are intended changes for Air Traffic Control clearance.

**155.** Requests for flight plan changes shall include the following information:

*(a)* aircraft identification;

*(b)* in respect of a change in cruising level, the requested new cruising level and cruising speed

at this level and revised time estimates, when applicable, at subsequent flight information region boundaries;

*(c)* in respect of a new route without destination change, the flight rules, a description of the new route of flight including related flight plan data beginning with the position from which requested change of route is to commence, revised time estimates and any other pertinent information;

*(d)* in respect of a destination change, the flight rules under which the flight will operate, a description of the revised route of the flight to the revised destination aerodrome including related flight plan data beginning with the position from which the requested change of route is to commence, revised time estimates, alternate aerodrome and any other pertinent information.

**POSITION REPORTS**

Requirements for position reports.

**156.** (1) A pilot of a controlled flight shall, unless exempted by the appropriate Air Traffic Control Authority, report to the appropriate Air Traffic Control Facility, as soon as possible, the time and level of passing each designated compulsory reporting point, together with any other required information.

(2) A pilot of a controlled flight shall make position reports in relation to additional points or intervals when requested by the appropriate Air Traffic Control Facility.

(3) A pilot of a controlled flight shall, except when landing at a controlled aerodrome, advise the appropriate Air Traffic Control Facility as soon as it ceases to be subject to Air Traffic Control Services.

**OPERATIONS ON OR IN THE VICINITY OF A CONTROLLED AERODROME**

Procedures where operations are conducted on or in the vicinity of a controlled aerodrome.

**157.** (1) An operator shall ensure that an aircraft is not operated to, from, through, or on an aerodrome having an operational control tower unless two-way communications are maintained between that aircraft and the control tower.

(2) On arrival at an aerodrome, a pilot in command shall establish communications required by subregulation (1), at least four nautical miles distance from the aerodrome when operating from the surface up to and including 2,500 feet.

(3) When departing an aerodrome, a pilot in command shall establish communications with the control tower prior to taxi.

(4) A person shall not, at any aerodrome with an operating control tower, operate an aircraft on a runway or taxiway or take-off or land an aircraft, unless an appropriate clearance has been received from the Air Traffic Control Facility.

(5) A clearance to "taxi to" the take-off runway authorises the person to cross other runways during the taxi to the assigned runway but is not a clearance to cross or taxi on to that runway.

(6) A clearance to "taxi to", any other point on the aerodrome authorises a person to cross all runways that intersect the taxi route to the assigned point.

(7) Where the radio fails or two-way communication is lost in the vicinity of a controlled aerodrome a pilot in command may continue a Visual Flight Rules flight operation using the procedures set out in regulation 170 and land the aircraft when—

*(a)* the weather conditions are at or above basic Visual Flight Rules minima; and

*(b)* clearance to land is received by light signals.

(8) The two-way communications failure procedures under regulation 188 shall apply during Instrument Flight Rules operations in the vicinity of a controlled aerodrome.

**UNLAWFUL INTERFERENCE**

**158.** (1) A pilot in command shall, when and where possible, notify the appropriate Air Traffic Control Facility when an aircraft is being subjected to unlawful interference, including—

Procedures where there has been unlawful interference on board an aircraft. [223/2005 34/2009].

*(a)* any significant circumstances associated with the unlawful interference; and

*(b)* any deviations from the current flight plan necessitated by the circumstances,

to enable the Air Traffic Control Facility to give priority to the aircraft and to minimise conflict with other aircraft.

(1A) A pilot in command of an aircraft subjected to an act of unlawful interference shall attempt to land as soon as practicable at—

*(a)* the nearest suitable aerodrome; or

*(b)* a dedicated aerodrome assigned by the appropriate authority, unless considerations aboard the aircraft dictate otherwise.

(2) In this regulation "interference" means—

*(a)* any act which causes or threatens the safety of the aircraft or of persons on board the aircraft;

*(b)* the use of abusive language or insulting words towards crew member or passenger on the aircraft; or

*(c)* when used in relation to a crew member, threats of assaults or intimidation of a crew member while he is performing his duties.

**TIME CHECKS**

Time check requirements.

**159.** (1) A pilot in command shall use, in flight operations Co-ordinated Universal Time, expressed in hours and minutes of the twenty-four hour day beginning at midnight.

(2) A pilot in command shall obtain a time check prior to operating a controlled flight and at such other times as may be necessary during the flight.

**UNIVERSAL SIGNALS**

Universal signals requirements. [186/2006].

**160.** (1) An operator shall ensure that procedures to be followed upon the observation or reception of the designated universal aviation signals are established.

(2) Upon observing or receiving any of the designated universal aviation signals, a person operating an aircraft shall take such action as may be required by the interpretation of the signal.

(3) Universal signals shall have the meanings designated in Schedule 7. Schedule 7.

(4) A person using universal signals in the movement of aircraft shall use them only for the purpose indicated.

(5) A person shall not use signals likely to cause confusion with universal aviation signals.

(6) All ground staff when engaged in ground signalling shall use—

*(a)* daylight fluorescent-coloured wands, table-tennis bats or gloves during daylight hours; or

*(b)* illuminated wands during the night or in low visibility.

(7) No person shall guide an aircraft unless the person is trained and qualified and is approved by the appropriate authority to carry out the functions of a signalman.

(8) A signalman under subregulation (7) shall—

*(a)* be responsible for providing standard marshalling signals to a pilot while operating an aircraft in a clear and precise manner using the signals prescribed in Schedule 7; and

*(b)* wear a distinctive fluorescent identification vest to allow the flight crew of an aircraft to identify that he is the person responsible for the marshalling operation.

**TECHNICAL AND SERVICING COMMUNICATION SIGNALS**

**160A.** (1) A signalman shall use as appropriate the technical and servicing communication signals at figures 24 through 29 of the marshalling signals prescribed in paragraph *(j)* of Schedule 7 to communicate to flight crews during the aircraft movement process relating to servicing or handling functions. Technical and servicing communication signals. [186/2006].

(2) Notwithstanding subregulation (1), manual signals shall be used only for technical and servicing communication when verbal communication is not possible.

(3) A signalman shall ensure at all times that an acknowledgement is received from flight crew in response to technical and servicing communication signals.

**VISUAL FLIGHT RULES REQUIREMENTS AND NAVIGATION**

Visual Flight Rules and navigation requirements.

**161.** Navigation for flights under Visual Flight Rules shall be accomplished by visual reference to landmarks.

**VISUAL METEOROLOGICAL CONDITIONS**

Restrictions on operations under Visual Meteorological conditions.

**162.** An operator shall ensure that an aircraft is not operated under Visual Flight Rules when—

*(a)* the flight visibility is less than, or at a distance from the clouds that is less than that prescribed; or

*(b)* the corresponding altitude and class of airspace set out in Schedule 8 exists.

Schedule 8.

**VISUAL FLIGHT RULES WEATHER MINIMA FOR TAKE-OFF AND LANDING**

Visual Flight Rules weather minimums for take-off and landing.

**163.** (1) A pilot shall not enter the traffic pattern, land or take-off an aircraft under Visual Flight Rules from an aerodrome located in Class B, Class C, Class D or Class E airspace unless the—

*(a)* reported ceiling is at least 1,500 feet; and

*(b)* reported ground visibility is at least 3 statute miles, where reported.

(2) Where the ground visibility is not reported, the pilot shall conduct such flight as if flight visibility is 3 statute miles.

(3) Where an aerodrome located in Class G airspace below 1,200 feet above ground level a pilot shall not enter the traffic pattern, land or take-off an aircraft under Visual Flight Rules unless—

*(a)* in an aeroplane, the visibility is at least 1 statute mile and the aeroplane can be operated clear of clouds within one-half mile of the runway; or

*(b)* in a helicopter it can be operated clear of clouds at a speed that allows the pilot adequate opportunity to see any air traffic or obstruction in time to avoid a collision.

**SPECIAL VISUAL FLIGHT RULES OPERATIONS**

Special Visual Flight Rules Operations.

**164.** (1) A pilot shall not conduct a Special Visual Flight Rules flight operation to enter the traffic pattern, land or take-off an aeroplane under Special Visual Flight Rules from an aerodrome located in Class B, Class C, Class D or Class E airspace unless—

*(a)* given clearance by an Air Traffic Control Authority;

*(b)* the aircraft remains clear of clouds; and

*(c)* the flight visibility is at least 1 statute mile.

(2) A pilot shall not conduct a Special Visual Flight Rules flight operation in an aircraft between sunset and sunrise unless authorised by the appropriate Air Traffic Control Authority and—

*(a)* the pilot in command has a valid licence and rating for Instrument Flight Rules operations; and

*(b)* the aircraft is certified for Instrument Flight Rules flight.

**VISUAL FLIGHT RULES CRUISING ALTITUDES**

Visual Flight Rules Cruising Altitudes. [34/2009].

**165.** (1) A pilot operating an aircraft in level cruising flight under Visual Flight Rules at altitudes above 3,000 feet from the ground or water, shall maintain—

*(a)* for magnetic courses from 0° to 179°, any odd thousand Mean Sea Level altitudes plus 500 feet or cruising level plus 500 feet, such as 3,500 feet, 5,500 feet or Flight Level 215;

*(b)* for magnetic courses from 180° to 359°, any even thousand Mean Sea Level altitudes plus 500 feet or cruising level plus 500 feet, such as 4,500 feet, 6,500 feet or Flight Level 225.

(2) A pilot may deviate from cruising altitudes specified in subregulation (1) only when—

*(a)* authorised by the Air Traffic Control Authority;

*(b)* operating in a holding pattern; or

*(c)* manoeuvring in turns.

**AIR TRAFFIC CONTROL CLEARANCES FOR VISUAL FLIGHT RULES FLIGHTS**

Requirement to comply with Air Traffic Control clearances for Visual Flight Rules flights.

**166.** A pilot of a Visual Flight Rules flight shall obtain and comply with Air Traffic Control clearances and maintain a listening watch before and during operations—

*(a)* within Classes B, C and D airspace;

*(b)* as part of aerodrome traffic at controlled aerodromes; and

*(c)* under Special Visual Flight Rules as prescribed under regulation 167.

**VISUAL FLIGHT RULES FLIGHTS REQUIRING AIR TRAFFIC CONTROL AUTHORISATION**

Requirement to have Air Traffic Control Authorisation for Visual Flight Rules flights.

**167.** Unless authorised by the appropriate Air Traffic Control Authority, a pilot shall not operate in Visual Flight Rules flight—

*(a)* above Flight Level 200; or

*(b)* at transonic and supersonic speeds.

**WEATHER DETERIORATION BELOW VISUAL METEOROLOGICAL CONDITIONS**

Procedure where there is weather deterioration below Visual Meteorological Conditions.

**168.** A pilot of a Visual Flight Rules flight operated as a controlled flight shall, when he finds it is not practical or possible to maintain flight in Visual Meteorological Conditions in accordance with the Air Traffic Control flight plan—

*(a)* request an amended clearance enabling the aircraft to continue in Visual Meteorological Conditions to its destination or to an alternative aerodrome, or to leave the airspace within which an Air Traffic Control clearance is required;

*(b)* where no clearance can be obtained, continue to operate in Visual Meteorological Conditions

and notify the appropriate Air Traffic Control Facility of the action being taken either to leave the airspace concerned or to land at the nearest suitable aerodrome;

*(c)* where operating within a control zone, request authorisation to operate as a Special Visual Flight Rules flight; or

*(d)* where currently rated for Instrument Flight Rules operations, request clearance to operate under Instrument Flight Rules.

**CHANGING FROM VISUAL FLIGHT RULES TO INSTRUMENT FLIGHT RULES**

Changing from Visual Flight Rules to Instrument Flight Rules.

**169.** A pilot operating under Visual Flight Rules who wishes to change to Instrument Flight Rules shall—

*(a)* where a flight plan was submitted, communicate the necessary changes to be effected to his current flight plan; or

*(b)* submit an amended flight plan to the appropriate Air Traffic Control facility and obtain a clearance prior to operating under Instrument Flight Rules when in controlled airspace.

**TWO-WAY RADIO COMMUNICATION FAILURE IN VISUAL METEOROLOGICAL CONDITIONS**

Two-way radio communication failure in Visual Flight Rules. [186/2006].

**170.** (1) Where radio communications failure occurs in Visual Meteorological Conditions while under Air Traffic Control, or where Visual Meteorological Conditions are encountered after the radio communications failure, a pilot shall—

*(a)* continue the flight under Visual Flight Rules;

*(b)* land at the nearest suitable aerodrome; and

*(c)* report the arrival to Air Traffic Control Facility by the most expeditious means possible.

(2) Where radio communication failure occurs while operating under Instrument Flight Rules or if the pilot of an aircraft operating under Instrument Flight Rules flight considers

it inadvisable to complete the flight under subregulation (1), the pilot shall complete the flight in accordance with regulation 188.

**INSTRUMENT FLIGHT RULES FLIGHTS IN CONTROLLED AIRSPACE**

Restrictions on Instrument Flight Rules flights in controlled airspace.

**171.** A pilot shall not operate an aircraft in controlled airspace under Instrument Flight Rules unless he has—

*(a)* filed an Instrument Flight Rules flight plan; and

*(b)* received an appropriate Air Traffic Control clearance.

**INSTRUMENT FLIGHT RULES FLIGHTS OUTSIDE CONTROLLED AIRSPACE**

Procedures for Instrument Flight Rules flights outside controlled airspace.

**172.** (1) A pilot in command of an Instrument Flight Rules flight operating outside controlled airspace, but within or into areas, or along routes, designated by the appropriate Air Traffic Control Authority, shall—

*(a)* maintain a listening watch on the appropriate radio frequency; and

*(b)* establish two-way communication, as necessary, with the Air Traffic Control facility providing flight information service.

(2) A pilot in command of an Instrument Flight Rules flight operating outside controlled airspace for which the appropriate Air Traffic Control Authority requires a flight plan shall—

*(a)* maintain a listening watch on the appropriate radio frequency;

*(b)* establish two-way communication, as necessary, with the Air Traffic Control facility providing flight information service;

*(c)* report the position of the aircraft as specified for controlled flights.

**INSTRUMENT FLIGHT RULES TAKE-OFF MINIMA FOR COMMERCIAL AIR TRANSPORT OPERATIONS**

Procedures for Instrument Flight Rules take-off minima for commercial air transport. [223/2005].

**173.** Unless otherwise authorised by the Authority, a pilot operating an aircraft in commercial air transport operations

shall not accept a clearance to take-off from a civil aerodrome under Instrument Flight Rules unless weather conditions are at or above—

*(a)* 1 statute mile visibility for aircraft, other than helicopters, having two engines;

*(b)* ½ statute mile visibility for aircraft having more than two engines; or

*(c)* ½ statute mile visibility for helicopters.

**MINIMUM ALTITUDES FOR INSTRUMENT FLIGHT RULES OPERATIONS**

Restrictions on take-off or landing under Instrument Flight Rules Operations. [223/2005].

**174.** (1) Except where necessary for take-off or landing a person shall not operate an aircraft under Instrument Flight Rules—

*(a)* below the applicable minimum altitudes prescribed by the relevant civil aviation authority having jurisdiction over the airspace being overflown; or

*(b)* where no applicable minimum altitude is prescribed by the relevant civil aviation authority—

(i) over high terrain or in mountainous areas, at a level which is at least 2,000 feet above the highest obstacle located within 8 km of the estimated position of the aircraft; and

(ii) elsewhere than as specified in subregulation (1), at a level which is at least 1,000 feet above the highest obstacle located within 8 km of the estimated position of the aircraft.

(2) Where a Minimum En route Altitude and a Minimum Obstacle Clearance Altitude are prescribed for a particular route or route segment, a pilot may operate an aircraft below the Minimum En route Altitude down to, but not below the Minimum Obstacle Clearance Altitude when within twenty-two nautical miles of the very high VHF Omni Range concerned.

(3) Where a pilot is unable to communicate with an Air Traffic Control Facility, he shall climb to a higher minimum Instrument Flight Rules altitude immediately after passing the point beyond which that minimum altitude applies.

(4) Where there are intervening obstructions, a pilot shall climb to a point above which the higher minimum altitude under subregulation (3), applies, at or above the applicable Minimum Clearance Altitude.

**MINIMUM ALTITUDES FOR USE OF AN AUTOPILOT**

Minimum altitudes for use of an autopilot.

**175.** (1) For en route operations, a pilot shall not use an autopilot at an altitude which is less than 500 feet above the terrain.

(2) Where the maximum altitude loss, specified in the Aircraft Flight Manual for a malfunction under cruise conditions under subregulation (1), when multiplied by two is greater than 500 feet, then such altitude becomes the controlling minimum altitude for use of the autopilot.

(3) Except for auto-land, for instrument approach operations, a person shall not use an autopilot at an altitude above the terrain that is less than 50 feet below the minimum decision altitude or decision height.

(4) Where the maximum altitude loss specified in the Aircraft Flight Manual for a malfunction under approach conditions under subregulation (3) when multiplied by two is more than 50 feet, then such altitude becomes the controlling minimum altitude for use of the autopilot.

(5) The Director-General may recommend that the Authority approve the use of a flight control guidance system with automatic landing capability to touchdown and rollout.

**INSTRUMENT FLIGHT RULES, CRUISING ALTITUDE OR FLIGHT LEVEL IN CONTROLLED AIRSPACE**

Instrument Flight Rules, Cruising Altitude or flight level in controlled airspace.

**176.** A pilot operating an aircraft under Instrument Flight Rules in level cruising flight in controlled airspace shall maintain the altitude or flight level assigned that aircraft by the Air Traffic Control Facility.

**INSTRUMENT FLIGHT RULES, CRUISING ALTITUDE OR FLIGHT LEVEL IN UNCONTROLLED AIRSPACE**

Instrument Flight Rules, Cruising Altitude or flight level in uncontrolled airspace. [223/2005].

**177.** (1) A pilot operating an aircraft in level cruising flight in uncontrolled airspace under Instrument Meteorological Conditions at altitudes above 3,000 feet from the ground or water, shall maintain—

*(a)* for magnetic courses from 0° to 179°, any odd thousand mean sea level altitude or flight level, such as 5,000 feet, 7,000 feet, or Flight Level 210; and

*(b)* for magnetic courses from 180° to 359°, any even thousand mean sea level altitudes or flight level, such as 4,000 feet, 6,000 feet or Flight Level 220.

(2) A pilot may deviate from the cruising altitudes specified in subregulation (1), only when—

*(a)* authorised by the Air Traffic Control Authority;

*(b)* operating in a holding pattern; or

*(c)* manoeuvring in turns.

**INSTRUMENT FLIGHT RULES RADIO COMMUNICATIONS**

Instrument Flight Rules radio communication. [223/2005].

**178.** A pilot in command of an aircraft operated under Instrument Flight Rules in controlled airspace shall have a continuous watch maintained on the appropriate frequency and shall report by radio as soon as possible—

*(a)* the time and altitude of passing each designated reporting point, or the reporting points specified by the Air Traffic Control Authority, except that while the aircraft is under radar control, only the passing of those reporting points specifically requested by Air Traffic Control Authority, need be reported;

*(b)* any unforecast weather conditions encountered; and

*(c)* any other information which may affect the safety of flight, such as hazardous weather or abnormal radio station indications.

**MALFUNCTION REPORTS FOR OPERATION UNDER INSTRUMENT FLIGHT RULES IN CONTROLLED AIRSPACE**

Requirement for malfunction reports for operation under Instrument Flight Rules in controlled airspace.

**179.** (1) A pilot in command of an aircraft operated in controlled airspace under Instrument Flight Rules shall report as soon as practical to the Air Traffic Control Authority any malfunctions of navigational, approach or communication equipment occurring in flight.

(2) A pilot in command shall include in his report under subregulation (1)—

*(a)* the aircraft identification;

*(b)* the equipment affected;

*(c)* the degree to which the capability of the pilot to operate under Instrument Flight Rules in the Air Traffic Control area is impaired; and

*(d)* the nature and extent of assistance desired from Air Traffic Control.

**CONTINUATION OF INSTRUMENT FLIGHT RULES FLIGHT TOWARD A DESTINATION**

Continuation of Instrument Flight Rules flight toward a destination.

**180.** A pilot shall not continue an Instrument Flight Rules flight toward an aerodrome or heliport of intended landing, unless the latest available meteorological information indicates that the conditions at that aerodrome, or at least one destination alternate aerodrome will, at the expected time of arrival, be at or above the specified instrument approach minima.

**INSTRUMENT APPROACH PROCEDURES AND INSTRUMENT FLIGHT RULES LANDING MINIMA**

Instrument approach procedures and Instrument Flight Rules landing minimums.

**181.** (1) A person shall not make an instrument approach at an airport except in accordance with Instrument Flight Rules weather minima and instrument approach procedures set forth in the operations specifications of the air operator.

(2) The instrument approach under subregulation (1), may be continued below decision height and the landing may be completed provided that the required visual reference is established at the decision height and is maintained.

**COMMENCING AN INSTRUMENT APPROACH**

Commencing an instrument approach. [223/2005].

**182.** (1) The pilot in command or the pilot to whom conduct of a flight has been delegated may commence an instrument approach regardless of the reported runway visual range or visibility but such instrument approach shall not be continued beyond the outer marker, or equivalent position, where the reported runway visual range or visibility is less than the applicable minima.

(2) Where after passing the outer marker or equivalent position in accordance with subregulation (1), the reported Runway Visual Range falls below the applicable minima, the approach may be continued to decision height.

(3) Where no outer marker or equivalent position exists, the pilot in command or the pilot to whom conduct of the flight has been delegated shall make the decision to continue or abandon the approach before 1,000 feet above the aerodrome on the final approach segment.

**INSTRUMENT APPROACHES TO CIVIL AERODROMES**

Procedures for instrument approaches to civil aerodromes.

**183.** (1) A pilot operating an aircraft in accordance with Instrument Flight Rules shall use a standard instrument approach procedure prescribed by the authorities having jurisdiction over the aerodrome, unless otherwise authorised by the Air Traffic Control Authority.

(2) For the purpose of this regulation, when the approach procedure being used provides for and requires the use of a Decision Height, the authorised decision height is the highest of the following:

*(a)* the decision height prescribed by the approach procedure;

*(b)* the decision height prescribed for the pilot in command; or

*(c)* the decision height for which the aircraft is equipped.

**OPERATION BELOW DECISION HEIGHT OR MINIMUM DESCENT ALTITUDE**

Requirements for operation below decision height or minimum descent altitude.

**184.** (1) Where a decision height or minimum descent altitude is applicable, a pilot shall not operate an aircraft at any aerodrome or heliport below the authorised minimum descent altitude or continue an approach below the authorised decision height unless—

*(a)* the aircraft is continuously in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal manoeuvres;

*(b)* the flight visibility is not less than the visibility prescribed in the standard instrument approach being used;

*(c)* at least one of the following visual references for the intended runway is distinctly visible and identifiable to the pilot:

(i) the approach light system, except that the pilot shall not descend below 100 feet above the touchdown zone elevation using the approach lights as a reference unless the red terminating bars or the red side row bars are also distinctly visible and identifiable;

(ii) the threshold;

(iii) the threshold markings;

(iv) threshold lights;

(v) the runway end identifier lights;

(vi) the visual approach slope indicator;

(vii) the touchdown zone or touchdown zone markings;

(viii) the touchdown zone lights;

(ix) the runway or runway markings; or

(x) the runway lights.

(2) For commercial air transport operations the pilot in command shall ensure that the descent rate under

subregulation (1)*(a)*, allows touchdown to occur within the touchdown zone of the runway of intended landing.

(3) The visual references under this regulation shall not apply to Category II and III operations.

**LANDING DURING INSTRUMENT METEOROLOGICAL CONDITIONS**

Execution of missed approach procedures.

**185.** A pilot operating a civil aircraft shall not land that aircraft when the flight visibility is less than the visibility prescribed in the standard instrument approach procedure being used unless the required visual cues are present.

**EXECUTION OF A MISSED APPROACH PROCEDURE**

Requirements for landing during Instrument Meteorological Conditions. [223/2005].

**186.** A pilot operating an aircraft shall immediately execute an appropriate missed approach procedure when one of the following conditions exists:

*(a)* whenever the required visual reference criteria are not met in the following situations:

(i) when the aircraft is being operated below minimum decent altitude; or

(ii) upon arrival at the missed approach point, including a decision height where a decision height is specified and its use is required, and at any time after that until touchdown;

*(b)* whenever an identifiable part of the aerodrome is not distinctly visible to the pilot during a circling manoeuvre at or above minimum decent height, unless the inability to see an identifiable part of the aerodrome results only from a normal bank of the aircraft during the circling approach.

**CHANGE FROM INSTRUMENT FLIGHT RULES FLIGHT TO VISUAL FLIGHT RULES FLIGHT**

Procedure where change from Instrument Flight Rules flight to Visual Flight Rules flight. [223/2005].

**187.** (1) A pilot electing to change from an Instrument Flight Rules flight to a Visual Flight Rules flight shall notify the appropriate Air Traffic Control Facility specifically that the

Instrument Flight Rules flight is cancelled and then communicate the changes to be made to his current flight plan.

(2) When a pilot operating under Instrument Flight Rules encounters visual meteorological conditions, he shall not cancel the Instrument Flight Rules flight unless it is anticipated, and intended, that the flight will be continued for a reasonable period of time in uninterrupted visual meteorological conditions.

**TWO-WAY RADIO COMMUNICATION FAILURE IN INSTRUMENT METEOROLOGICAL CONDITIONS**

Two-way radio communication failure in Instrument Meteorological Conditions. [186/2006 197/2009].

**188.** Where radio communication failure occurs in Instrument Meteorological Condition or when the pilot of an Instrument Flight Rules flight considers it advisable to complete the flight under Visual Flight Rules under regulation 170, the pilot shall—

*(a)* unless otherwise prescribed on the basis of regional air navigation agreement, in airspace where radar is not used in the provision of air traffic control—

(i) maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of twenty minutes following the aircraft's failure to report its position over a compulsory reporting point; and

(ii) thereafter, adjust level and speed in accordance with the filed flight plan;

*(b)* in airspace where radar is used in the provision of air traffic control, maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of seven minutes following:

(i) the time the last assigned level or minimum flight altitude is reached;

(ii) the time the transponder is set to Code 7600; or

(iii) the aircraft's failure to report its position over a compulsory reporting point,

whichever is later, and thereafter adjust level and speed in accordance with the filed flight plan;

*(c)* when being radar vectored or having been directed by Air Traffic Control to proceed offset using area navigation without a specified limit, rejoin the current flight plan route no later than the next significant point, taking into consideration the applicable minimum flight altitude;

*(d)* proceed according to the current flight plan route to the appropriate designated navigation aid or fix serving the destination aerodrome and, when required to ensure compliance with *(e)* below, hold over this aid or fix until commencement of descent;

*(e)* commence descent from the navigation aid or fix specified in paragraph *(b)* at, or as close as possible to, the expected approach time last received and acknowledged or if no expected approach time has been received and acknowledged, at, or as close as possible to, the estimated time of arrival resulting from the current flight plan;

*(f)* complete a normal instrument approach procedure as provided for the designated navigation aid or fix; and

*(g)* land, if possible, within thirty minutes after the estimated time of arrival specified in paragraph *(c)* or the last acknowledged expected approach time, whichever is later.

## PART VIII

## PASSENGERS AND PASSENGER HANDLING

Unacceptable conduct of passenger.

**189.** (1) A person on board an aircraft shall not interfere with a crew member in the performance of his duties.

(2) A passenger shall fasten his seat belt and keep it fastened while the seat belt sign is lit.

(3) A person on board an aircraft shall not recklessly or negligently act or omit to act in such a manner as to endanger the aircraft or persons and property therein.

(4) A person shall not conceal himself or cargo on board an aircraft.

(5) A person shall not smoke—

*(a)* while the no-smoking sign is lit; or

(*b*) in any aircraft lavatory.

(6) A person shall not tamper with, disable or destroy any smoke detector installed in any aircraft lavatory.

(7) A person shall not enter in or be on an aircraft when under the influence of alcohol or drugs to the extent that the safety of the aircraft or its occupants is likely to be endangered.

(8) A passenger shall from the time of boarding an aircraft to the time of disembarking an aircraft comply with all safety instructions given by a crew member.

(9) A person who contravenes any of the provisions of this regulation is guilty of an offence and is liable on summary conviction to a fine of twenty-five thousand dollars and imprisonment for one year.

**REFUELLING OR DEFUELLING WITH PASSENGERS EMBARKING ON BOARD OR DISEMBARKING**

Requirements for refuelling or defuelling with passengers embarking on board or disembarking.

**190.** (1) An operator shall establish operational procedures for refuelling or defuelling an aircraft while passengers are embarking, on board or disembarking the aircraft.

(2) A pilot in command shall not allow an aircraft to be refuelled when passengers are embarking on board or disembarking an aircraft unless—

*(a)* the aircraft is manned by qualified personnel ready to initiate and direct an evacuation;

*(b)* two-way communication is maintained between qualified personnel in the aircraft and the ground crew supervising the refuelling; and

*(c)* he complies with the operational procedures under subregulation (1) established by the operator.

(3) Unless specifically authorised by the Authority, a national air operator shall not allow a helicopter to be refueled or defuelled when—

*(a)* passengers are embarking or disembarking; or

*(b)* the engine is running or the rotors are turning.

**PASSENGER SEATS, SAFETY BELTS AND SHOULDER HARNESSES**

Required passenger seats, safety belts and shoulder harnesses.

**191.** (1) A person shall not operate an aircraft unless there are available during the take-off, en route flight, and landing—

*(a)* an approved seat or berth for each person on board the aircraft who has reached his second birthday; and

*(b)* an approved seat belt for separate use by each person on board the aircraft who has reached his second birthday, except that two persons occupying a berth may share one approved safety belt and two persons occupying a multiple lounge or divan seat may share one approved safety belt during en route flight only.

(2) Except as provided in this paragraph, each person on board an aircraft operated under this part shall occupy an approved seat or berth with a separate safety belt properly secured about him during movement on the surface, take-off, and landing.

(3) A safety belt provided for the occupant of a seat may not be used by more than one person who has reached his or her second birthday.

(4) Notwithstanding subregulations (2) and (3), a child may—

*(a)* be held by an adult who is occupying an approved seat or berth, provided the child has not reached his second birthday; or

*(b)* occupy a child restraint system acceptable to the Authority, furnished by the operator or by the parent, guardian, or attendant designated by the child's parent or guardian to attend to the safety of the child during the flight.

(5) This regulation does not prohibit the operator from providing child restraint systems consistent with safe operating practices and acceptable to the Authority, or determining the most appropriate passenger seat location for use of the child restraint system.

(6) A passenger shall have his seat belt securely fastened at any other time the pilot in command determines it is necessary for safety.

(7) When cabin crew are required in a commercial air transport operation, the pilot in command may delegate his responsibilities under this regulation.

(8) Notwithstanding subregulation (7) a pilot in command shall ascertain that the proper briefing in respect on the use of the seat belt has been conducted prior to take-off.

(9) The pilot in command shall ensure that during take-off and landing and whenever, by reason of turbulence or any emergency occurring during flight, the precaution is considered necessary, all passengers on board an aircraft shall be secured in their seats by means of the seat belt or harnesses provided.

**PASSENGER BRIEFING**

Required passenger briefing.

**192.** (1) An operator shall establish procedures in his Operations Manual to ensure that—

*(a)* passengers are given a verbal briefing about safety matters; and

*(b)* passengers are provided with a safety briefing card containing instructions which shall indicate the operation of emergency equipment and exits likely to be used by passengers.

(2) A pilot in command shall ensure that before take-off—

*(a)* passengers are briefed on the following items where applicable:

(i) smoking regulations;

(ii) back of the seat to be in the upright position and tray table stowed;

(iii) location of emergency exits;
(iv) location and use of floor proximity escape path markings;
(v) stowage of hand baggage;
(vi) restrictions on the use of portable electronic devices; and
(vii) the location and the contents of the safety briefing card;

*(b)* passengers receive a demonstration on the following:
(i) the use of safety belts and safety harnesses, including how to fasten and unfasten the safety belts and safety harnesses;
(ii) the location and use of oxygen equipment where required; and

*(c)* the location and use of life jackets where required.

(3) A pilot in command shall ensure that after take-off of an aircraft passengers are reminded of the following:

*(a)* smoking regulations; and
*(b)* use of safety belts and safety harnesses.

(4) A pilot in command shall ensure that before landing passengers are reminded of the following:

*(a)* smoking regulations;
*(b)* use of safety belts and safety harnesses;
*(c)* back of the seat to be in the upright position and tray table stowed;
*(d)* re-stowage of hand baggage; and
*(e)* restrictions on the use of portable electronic devices.

(5) A pilot in command shall ensure that after landing passengers are reminded of the following:

*(a)* smoking regulations; and
*(b)* use of safety belts and safety harnesses.

(6) A pilot in command shall ensure that in an emergency during flight, passengers are instructed in such emergency action as may be appropriate to the circumstances.

**IN-FLIGHT EMERGENCY INSTRUCTION**

Required in-flight emergency instruction.

**193.** In an emergency during flight, the pilot in command shall ensure that all persons on board are instructed in such emergency action as may be appropriate to the circumstances.

**MINIMUM SUPPLY AND USE OF PASSENGER OXYGEN**

Minimum supply and use of passenger oxygen.

**194.** (1) The pilot in command shall ensure that breathing oxygen and masks are available to passengers in sufficient quantities for all flights at such altitudes where a lack of oxygen might harmfully affect passengers.

(2) The pilot in command shall ensure that the minimum supply of oxygen prescribed by the Authority is on board the aircraft.

(3) The pilot in command shall require all passengers to use oxygen continuously at cabin pressure altitudes above 15,000 feet.

**PASSENGER MEDICATION**

Exceptions to use of medication by passenger.

**195.** Notwithstanding regulation 189(7), a person who is under medication and is a medical patient under proper care may be allowed to enter in or be on an aircraft where the operator is satisfied that the safety of the aircraft and its occupants is not likely to be endangered.

**PASSENGER ACCESS**

Restricted areas of access of passengers.

**196.** An operator shall take all reasonable measures to ensure that a passenger is not in any part of an aircraft in flight which is not a part designated for accommodation of passengers unless temporary access has been granted by the pilot in command to any part of the aircraft—

*(a)* for the purpose of taking action necessary for the safety of the aircraft or of any person, animal or goods therein; or

*(b)* in which cargo or stores are carried being a part which is designed to enable a person to have access thereto while the aircraft is in flight.

Applicability of regulations 198 to 219.

**197.** Notwithstanding the generality of the foregoing regulations of this Part regulations 198 to 219 apply to commercial air transport operations.

Requirement to comply with instructions given by crew members.

**198.** A person on a commercial air transport flight shall comply with instructions given by a crew member in compliance with this Part.

**DENIAL OF TRANSPORTATION OF CERTAIN CATEGORIES OF PASSENGERS**

Denial of transportation of certain categories of passengers in commercial air transport operations.

**199.** (1) A national air operator shall not refuse transportation of any person where he has established procedures for the carriage of persons who may require the assistance of another person to move expeditiously to an exit in the event of an emergency.

(2) Notwithstanding subregulation (1), a national air operator may deny transportation of a person where such person—

*(a)* refuses to comply with the instructions regarding exit seating restrictions prescribed by the Authority; or

*(b)* has a handicap that can be physically accommodated only by an exit row seat.

**CARRIAGE OF PERSONS WITHOUT COMPLIANCE WITH CERTAIN PASSENGER-CARRYING REQUIREMENTS**

Exemptions of certain passenger-carrying requirements. Sub. Leg.

**200.** The passenger-carrying requirements for—

*(a)* megaphones as specified in the Civil Aviation [(No.7) Instruments and Equipment] Regulations;

*(b)* passenger briefing as specified in regulations 214 and 215;

*(c)* locking of cockpit compartment door in regulation 58,

shall not apply in commercial air transport operations where an aircraft is carrying only—

*(d)* a crew member not required for the flight;

*(e)* a representative of the Authority on official duty;

*(f)* a person necessary to the safety or security of cargo or animals; or

*(g)* any person authorised by the Operations Manual of the national air operator, as approved by the Authority.

**CABIN CREW AT DUTY STATIONS**

Cabin crew at duty stations.

**201.** (1) During take-off and landing and whenever the pilot in command so directs, cabin crew shall remain at their duty stations with safety belts and shoulder harnesses fastened except to perform duties related to the safety of the aircraft and its occupants.

(2) During take-off and landing, cabin crew shall be located as near as practicable to required floor level exits and shall be uniformly distributed throughout the aircraft to provide the most effective egress of passengers in event of an emergency evacuation.

(3) Where passengers are on board a parked aircraft, cabin crew or another person qualified in emergency evacuation procedures for the aircraft, shall be placed in the following manner:

*(a)* where only one qualified person is required, that person shall be located in accordance with the Operations Manual procedures of the national air operator;

*(b)* where more than one qualified person is required, those persons shall be spaced throughout the cabin to provide the most effective assistance for the evacuation in case of an emergency.

(4) An air operator shall ensure that crew members who are not required flight or cabin crew members, have also been trained in, and are proficient to perform, their assigned duties.

**EVACUATION CAPABILITY**

Pilot in command to ensure emergency exit is available.

**202.** (1) The pilot in command, senior cabin crew and other person assigned by the national air operator shall ensure that, when passengers are on board the aircraft prior to movement on the surface, at least one floor-level exit provides for egress of passengers through normal or emergency means.

(2) A national air operator shall establish for approval by the Authority, the necessary functions to be performed by the crew members in an emergency or a situation requiring emergency evacuation for each type of aircraft.

**ARMING OF AUTOMATIC EMERGENCY EXITS**

Prohibition in respect of armed emergency exit.

**203.** A person shall not cause an aircraft carrying passengers to be moved on the surface, take-off or land unless each automatically deployable emergency evacuation assisting means installed on the aircraft, is armed and ready for evacuation.

**ACCESSIBILITY OF EMERGENCY EXITS AND EQUIPMENT**

Prohibition on blocking access to emergency exit.

**204.** (1) An air operator shall ensure that carry-on baggage or other items do not block access to the emergency exits when the aircraft is moving on the surface, during take-off or landing or while passengers remain on board.

(2) A pilot in command of an aircraft shall ensure that relevant emergency equipment remains easily accessible for immediate use.

**STOPS WHERE PASSENGERS REMAIN ON BOARD**

Pilot in command or senior cabin crew to ensure.

**205.** (1) At stops where passengers remain on board an aircraft, the pilot in command of such aircraft, the senior cabin crew or both shall ensure that—

*(a)* all engines are shut down;

*(b)* at least one floor level exit remains open to provide for the disembarking of passengers; and

*(c)* there is at least one person immediately available who is qualified in the emergency evacuation of the aircraft and who has been identified to the passengers on board as responsible for the passenger safety.

(2) Where refuelling with passengers on board an aircraft, the pilot in command or a designated company representative shall ensure that the requirements specified in regulation 190 and the Operations Manual procedures are followed.

### CARRIAGE OF PERSONS WITH REDUCED MOBILITY

Requirements for passengers with reduced mobility.

**206.** (1) A national air operator shall establish procedures for the carriage of persons with reduced mobility.

(2) A national air operator shall ensure that persons with reduced mobility do not occupy seats where their presence could—

*(a)* impede the crew in their duties;

*(b)* obstruct access to emergency equipment; or

*(c)* impede the emergency evacuation of the aircraft.

(3) The pilot in command of an aircraft shall be notified when persons with reduced mobility are to be carried on board.

### CARRIAGE OF INADMISSIBLE PASSENGERS, DEPORTEES OR PERSONS IN CUSTODY

Requirements for transport of inadmissible passengers, deportees or persons in custody.

**207.** (1) A national air operator shall establish procedures for the transportation of inadmissible passengers, deportees or persons in custody to ensure the safety of the aircraft and its occupants.

(2) The pilot in command of an aircraft shall be notified when the persons under subregulation (1), are to be carried on board.

### EXIT ROW SEATING

Passenger requirements for exit row seating.

**208.** A pilot in command or senior cabin crew of an aircraft shall not allow a passenger to sit in an emergency exit row where the pilot in command or senior cabin crew determines that it is likely that the passenger would be unable to understand and perform the functions necessary to open an exit and to exit rapidly.

### CARRIAGE OF WEAPONS

Restriction on carriage of weapons.

**209.** (1) A person shall not, while on board an aircraft, carry on or about his person a firearm, weapon or munitions of war, either concealed or unconcealed.

(2) A person who contravenes subregulation (1), is guilty of an offence and is liable on summary conviction to a fine of five thousand dollars and imprisonment for two years.

(3) This regulation shall not apply to an air marshal authorised to be on board an aircraft in accordance with the Civil Aviation [(No. 8) Aviation Security] Regulations. Sub. Leg.

**OXYGEN FOR MEDICAL USE BY PASSENGERS**

**210.** (1) A national air operator may allow a passenger to carry and operate equipment for the storage, generation or dispensing of medical oxygen on an aircraft under conditions as prescribed by the Authority. Requirements for oxygen for medical use by passengers.

(2) A national air operator shall ensure that a person is not allowed to connect or disconnect oxygen-dispensing equipment to or from an oxygen cylinder while any other passenger is aboard an aircraft engaged in commercial air transport.

**CARRY-ON BAGGAGE**

**211.** (1) An air operator shall not allow the boarding of carry-on baggage unless it can be stowed and secured in an approved location in accordance with the Operations Manual procedures of the air operator. Restrictions on carry-on baggage.

(2) An air operator shall not allow aircraft passenger entry doors to be closed in preparation for taxi or pushback unless at least one required crew member has verified that each article of baggage has been properly stowed in overhead racks with approved restraining devices or doors, or in approved locations of the bulkhead.

(3) An air operator shall not allow carry-on baggage to be stowed in a location that would cause such location to be loaded beyond its maximum placard weight limitation.

**CARRIAGE OF CARGO IN PASSENGER COMPARTMENTS**

**212.** A national air operator shall not allow the carriage of cargo in the passenger compartment of an aircraft except under conditions approved by the Authority. Prohibition on carriage of cargo in passenger compartment.

**SMOKING ON BOARD PROHIBITION**

Prohibition on smoking on aircraft.

**213.** (1) The pilot in command shall ensure that no person on board an aircraft is allowed to smoke.

(2) In those areas in the cabin where oxygen is being supplied, the pilot in command shall ensure that required passenger information signs are lit.

**PASSENGER BRIEFINGS**

Requirement to brief passengers prior to take-off in commercial air transport operations.

**214.** (1) A pilot in command of an aircraft shall not commence a take-off unless the passengers are briefed prior to take-off in accordance with the procedures of the Operations Manual of the national air operator on—

*(a)* smoking limitations and prohibitions;

*(b)* emergency exit location and use;

*(c)* use of safety belts;

*(d)* location and use of emergency floatation equipment;

*(e)* placement of seat backs and tray tables;

*(f)* the normal and emergency use of oxygen and where flight is above 12,000 feet above Mean Sea Level; and

*(g)* the passenger briefing card.

(2) The pilot in command or senior cabin crew shall immediately before or immediately after turning the seat belt sign off, ensure that the passengers are briefed to keep their seat belts fastened while seated, even when the seat belt sign is off.

(3) A passenger briefing card required by this regulation shall contain information that is pertinent only to the type and model aircraft used for that flight.

(4) The pilot in command or senior cabin crew shall before each take-off, ensure that any persons of reduced mobility is personally briefed on—

*(a)* the route to the most appropriate exit; and

*(b)* the time to begin moving to the exit in event of an emergency.

(5) A pilot in command under this regulation may delegate his briefing responsibility to the senior cabin crew where cabin crew are required.

(6) Notwithstanding subregulation (4), a pilot in command shall ascertain that the proper briefing required by this regulation has been conducted prior to take-off.

**PASSENGER BRIEFING FOR EXTENDED OVER WATER OPERATIONS**

Requirement to brief, specific to over water operations.

**215.** (1) An air operator shall establish procedures for the briefing of passengers when conducting extended over water operations.

(2) A pilot in command of an aircraft shall not commence extended over water operations unless all passengers have been briefed on the location of life rafts where applicable and location and operation of life vests and other floatation equipment including a demonstration of the method of donning and inflating.

**PASSENGER SEAT BELTS AND INFORMATION SIGNS**

Required passenger seat belts and information signs in commercial air transport operations.

**216.** (1) The pilot in command of an aircraft shall turn on required passenger information signs during any movement on the surface, for each take-off and each landing and whenever considered necessary in the interest of safety.

(2) A passenger on board an aircraft occupying a seat or berth shall fasten his safety belt and keep it fastened while the "Fasten Seat Belt" sign is lit or, in aircraft not equipped with such a sign, whenever instructed by the pilot in command.

(3) At each unoccupied seat under this regulation, the safety belt and shoulder harness, where installed, shall be secured so as not to interfere with a crew member in the performance of his duties or with the rapid egress of occupants in an emergency.

**PASSENGER SEAT BACKS**

Requirement for seat backs to be upright prior to take-off and landing.

**217.** (1) A pilot in command of an aircraft shall not take-off or land an aircraft unless each passenger seat back is in the upright position.

(2) The senior cabin crew of an aircraft engaged in commercial air transport operations shall ensure that prior to take-off or landing each passenger seat back is in the upright position.

**STOWAGE OF FOOD, BEVERAGE AND PASSENGER SERVICE**

Restrictions of movement in respect of stowage of food and beverage.

**218.** (1) A pilot in command shall not operate an aircraft on the surface, take-off or land—

*(a)* when any food, beverage or tableware is located at any passenger seat;

*(b)* unless each food and beverage tray and seat back tray table is in the stowed position;

*(c)* unless each passenger serving cart is secured in its stowed position; and

*(d)* unless each movie screen that extends into an aisle is stowed.

(2) A senior cabin crew shall ensure that while an aircraft is in movement on the surface or is taking off and landing—

*(a)* food, beverage or tableware is not located at any passenger seat;

*(b)* each food and beverage tray and seat back tray table is in the stowed position;

*(c)* each passenger serving cart is secured in its stowed position; and

*(d)* each movie screen that extends into an aisle is stowed.

**SECURING OF ITEMS OF MASS IN PASSENGER COMPARTMENT**

Requirements to secure items of mass in passenger compartment.

**219.** A national air operator shall ensure that prior to take-off or landing of an aircraft each item of mass in the passenger cabin is properly secured to prevent it from becoming a hazard during taxi, take-off and landing and during turbulent weather conditions.

## PART IX

## CREW MEMBER AND FLIGHT OPERATIONS OFFICER QUALIFICATIONS FOR COMMERCIAL AIR TRANSPORT

### APPLICABILITY OF PART IX

Applicability of Part IX.

**220.** Notwithstanding the generality of Part IX of these Regulations the provisions of this Part shall apply to the conduct of commercial air transport operations.

### AGE AND SPECIAL MEDICAL CERTIFICATE RESTRICTION

Age and special medical certificate restriction. [46/2007].

**221.** (1) A person shall not serve nor shall any national air operator use a person as a required pilot flight crew member on a commercial aircraft where such person has reached his sixtieth birthday.

(2) A check airman who has—

*(a)* reached his sixtieth birthday; or

*(b)* who does not hold an appropriate medical certificate,

may continue his check airman functions, but may not serve as or occupy the position of a required flight crew member on an aircraft engaged in commercial air transport operations.

(3) Notwithstanding subregulations (1) and (2)*(a)*, the holder of a pilot licence who is between the age of sixty and sixty-five years may serve as a member of a multi-pilot crew on an aircraft engaged in commercial air transport operations where—

*(a)* no other flight crew member on board has attained the age of sixty years; and

*(b)* no other flight crew member is a holder of a Special Medical Certificate issued under the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations. Sub. Leg.

(4) The holder of a Special Medical Certificate issued under the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations shall not serve as, or occupy the position of a required flight crew member on an aircraft engaged in commercial air transport operations.

(5) Notwithstanding subregulation (4), the holder of a Special Medical Certificate may act as a member of a multi-pilot crew where—

*(a)* no other flight crew member has attained the age of sixty years, and

*(b)* no other flight crew member is a holder of a Special Medical Certificate.

**LICENCE REQUIREMENTS FOR TURBOJET, TURBOFAN OR LARGE AIRCRAFT**

Pilot in command requirements for turbojet, turbofan or large aircraft. Sub. Leg.

**222.** A pilot shall not act as pilot in command of a turbojet, turbofan or large commercial aircraft unless he holds an Airline Transport Pilot Licence and a type rating for that aircraft issued in accordance with Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations.

**LICENCE REQUIREMENTS FOR NON-TURBOJET OR NON-TURBOFAN SMALL AIRCRAFT**

Pilot in command requirements for non-turbojet or non-turbofan. [223/2005].

**223.** A pilot shall not act as pilot in command of a non-turbojet or non-turbofan small aircraft in commercial air transport during—

*(a)* Instrument Flight Rules operations unless he holds a Commercial Pilot Licence with appropriate category and class ratings for the aircraft operated, and an instrument rating and meets the experience requirements for the operation; or

*(b)* day Visual Flight Rules operations unless he holds a Commercial Pilot Licence with appropriate category type and class ratings for the aircraft operated.

**EXPERIENCE REQUIREMENTS FOR PILOT IN COMMAND IN RESPECT OF SMALL AEROPLANE**

Aeronautical Experience Requirements for Pilot in Command in respect of small aeroplanes.

**224.** A national air operator shall ensure that a pilot does not operate as a pilot in command of an aeroplane certificated by the Aeroplane Flight Manual for single pilot operations unless when conducting passenger carrying operations under Visual Flight Rules,

he has a minimum of five hundred hours total flight time including at least one hundred hours of cross country flight time of which twenty-five hours were at night on aeroplanes or, for operations under Instrument Flight Rules, holds a valid Instrument Rating.

**SINGLE PILOT OPERATIONS UNDER THE INSTRUMENTS FLIGHT RULES OR AT NIGHT**

Pilot operations under the Instruments Flight Rules or at night. [186/2006].

**224A.** (1) An operator shall not conduct single-pilot commercial air transport operations under the Instruments Flight Rules or at night unless approved by the Authority.

(2) A single pilot shall not operate an aeroplane under Instrument Flight Rules or at night in commercial air transport operations unless the standards prescribed in Schedule 12 of the Regulations are compiled with.

**CO-PILOT LICENCE REQUIREMENTS**

Co-pilot licence requirements. [34/2009].

**225.** A pilot shall not act as co-pilot of an aircraft in commercial air transport operations unless he—

*(a)* holds a Commercial Pilot Licence with appropriate category, class and type ratings for the aircraft operated; and

*(b)* holds an instrument rating in the category, class and type for the aircraft operated.

**FLIGHT ENGINEER LICENCE REQUIREMENTS**

Flight Engineer licence requirements.

**226.** (1) A person shall not act as the Flight Engineer of a commercial aircraft unless he holds a Flight Engineer Licence with the appropriate class and type rating.

(2) When a separate Flight Engineer station is incorporated in the design of an aircraft, the flight crew shall comprise at least one Flight Engineer unless those duties can, with the approval of the Authority, be satisfactorily performed by another flight crew member without interfering with that flight crew member's regular duties.

**ALTERNATE TO PERFORM FLIGHT ENGINEER FUNCTIONS**

Requirements for Flight Engineer competency.

**227.** A national air operator shall ensure that, on all flights requiring a Flight Engineer, there is assigned at least one other flight crew member competent to perform the flight duties in the event the Flight Engineer becomes incapacitated.

**PERSONS QUALIFIED TO FLIGHT RELEASE**

Requirements for Flight Operations Officer.

Sub. Leg.

**228.** A person shall not act as a Flight Operations Officer in releasing a scheduled passenger-carrying commercial air transport operation unless he has a valid Flight Operations Officer Authorisation issued in accordance with the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations.

**COMPANY PROCEDURES INDOCTRINATION**

Requirement for crew member or Flight Operations Officer to complete Company Procedures Indoctrination. Schedule 9. Part A.

**229.** (1) A person shall not serve and a national air operator shall not use a person as a crew member or Flight Operations Officer unless that person has completed the company procedures indoctrination training programme approved by the Authority, which shall include a complete review of the Operations Manual procedures pertinent to the crew member or duties of the Flight Operations Officers and other items outlined in Part A of Schedule 9.

(2) A national air operator shall provide a minimum of forty programmed hours of instruction for company procedures indoctrination training unless a reduction in the number of programmed hours is approved by the Authority.

**INITIAL DANGEROUS GOODS TRAINING**

Requirement for initial dangerous goods training.

**230.** A person shall not serve and a national air operator shall not use a person as a crew member unless he has completed the appropriate initial dangerous goods training programme approved by the Authority and described in the Technical Instructions.

**INITIAL SECURITY TRAINING**

Initial security training.

**231.** A person shall not serve and a national air operator shall not use a person as a crew member unless such person has completed the initial security training programme approved by the Authority.

**INITIAL CREW RESOURCE MANAGEMENT TRAINING**

Requirement for initial crew resource training.

**232.** (1) A person shall not serve and a national air operator shall not use a person as a crew member or Flight Operations Officer in commercial air transport operations unless such person has completed the initial Crew Resource Management Training Programme including—

*(a)* proper flight crew co-ordination and incapacitation procedures;

*(b)* effective flight crew and cabin crew co-ordination; and

*(c)* knowledge about human performance relating to passenger cabin safety duties,

as approved by the Authority.

(2) The Crew Resource Management Training programme under subregulation (1), shall meet the requirements of Part B of Schedule 9.

Schedule 9. Part B.

**INITIAL EMERGENCY EQUIPMENT DRILLS**

Initial emergency equipment drills.

**233.** (1) A person shall not serve and a national air operator shall not use a person as a crew member unless that person has satisfactorily completed the appropriate initial emergency and life saving equipment drills for the crew member position and approved by the Authority for the emergency equipment available on the aircraft to be operated, including—

*(a)* life vests;

*(b)* life rafts;

*(c)* evacuation slides;

*(d)* emergency exits, portable fire extinguishers;

*(e)* oxygen equipment and first aid kits.

(2) The emergency and life saving equipment drills under subregulation (1), shall meet the requirements set out in Part C of Schedule 9.

Schedule 9. Part C.

*L.R.O.*

**INITIAL AIRCRAFT GROUND TRAINING**

Required initial aircraft ground training. [223/2005].

**234.** (1) A person shall not serve and a national air operator shall not use a person as a crew member or Flight Operations Officer, unless that person has satisfactorily completed the initial ground training approved by the Authority for the aircraft type.

(2) Initial aircraft ground training under this regulation for flight crew members shall include—

*(a)* the pertinent portions of the Operations Manuals relating to aircraft-specific performance, mass and balance, operational policies, systems, limitations, normal, abnormal and emergency procedures on the aircraft type to be used; and

*(b)* shall ensure that all flight crew members know the functions for which they are responsible and the relation of these functions to the functions of other crew members.

(3) A national air operator may have separate initial aircraft ground training programmes of varying lengths and subject emphasis approved by the Authority, which recognise the experience levels of flight crew members.

(4) Initial aircraft ground training under this regulation for cabin crew shall—

*(a)* include the pertinent portions of the approved Operations Manuals relating to specific aircraft configuration, equipment, including those used in emergencies and normal and emergency procedures for the aircraft types within the fleet;

*(b)* ensure each person is competent to execute those safety duties and functions which the cabin crew member is assigned to perform in the event of an emergency or in a situation requiring emergency evacuation;

*(c)* when serving on aircraft operated above 10,000 feet, include knowledge on the effect

of lack of oxygen and, in the case of pressurised aircraft, physiological phenomena accompanying a loss of pressurisation;

*(d)* include awareness of other crew members assignments and functions in the event of an emergency so far as is necessary for the fulfillment of the duties of the crew member.

(5) Aircraft initial ground training for Flight Operations Officers shall include the pertinent portions of the Operations Manuals relating to specific aircraft flight preparation procedures, performance, mass and balance systems, limitations specific to the aircraft types operated.

(6) The syllabi for Initial Aircraft Ground Training under this regulation is set out in Part D of Schedule 9. Schedule 9. Part D.

**INITIAL AIRCRAFT FLIGHT TRAINING**

**235.** (1) A person shall not serve nor shall any national air operator use a person as a flight crew member unless he has completed the initial flight training approved by the Authority for the aircraft type, which ensures that all flight crew members are trained to perform their assigned duties. Initial aircraft flight training.

(2) Initial flight training shall focus on the manoeuvring and safe operation of the aircraft in accordance with normal, abnormal and emergency procedures of the national air operator.

(3) A national air operator may have separate initial flight training programmes which recognise the experience levels of flight crew members approved by the Authority.

(4) The initial aircraft flight training under this regulation shall meet the requirements of Part E of Schedule 9. Schedule 9. Part E.

**INITIAL SPECIALISED OPERATIONS TRAINING**

**236.** (1) A person shall not serve and a national air operator shall not use a person as a flight crew member in commercial air Initial specialised operations training.

transport operations unless he has completed the appropriate initial specialised operations training programme approved by the Authority.

(2) Specialised operations under subregulation (1), for which initial training curricula shall be developed include—

*(a)* low minima operations, including low visibility take-offs and Categories II and III operations;

*(b)* extended range operations;

*(c)* specialised navigation; and

*(d)* pilot in command right seat qualification.

(3) Notwithstanding the generality of subregulation (2), the initial specialised operations training under this regulation shall meet the requirements of Part F of Schedule 9.

Schedule 9. Part F.

**DIFFERENCE AND FAMILIARISATION TRAINING**

Requirement for flight crew member to complete difference and familiarisation training.

**237.** (1) A national air operator shall ensure that a flight crew member completes—

*(a)* differences training which requires additional knowledge and training on appropriate training device or the aircraft—

(i) when operating another variant of an aircraft of the same type or another type of the same class currently operated; or

(ii) when changing equipment or procedures on types or variants currently operated;

*(b)* familiarisation training which requires the acquisition of additional knowledge—

(i) when operating another aircraft of the same type; or

(ii) when changing equipment or procedures on types or variants currently operated.

(2) A national air operator shall specify in his Operations Manual when differences training or familiarisation training under subregulation (1), is required.

**USE OF FLIGHT SIMULATORS**

Requirements when aircraft simulators are used.

**238.** A national air operator shall ensure that an aircraft simulator and other training device used for flight crew qualification shall—

*(a)* be specifically approved by the Authority for—

(i) the national air operator;

(ii) the type aircraft, including type variations, for which the training or check is being conducted; and

(iii) the particular manoeuvre, procedure, and flight crew member function involved;

*(b)* maintain the performance, functional and other characteristics that are required for approval;

*(c)* be modified to conform with any modification to the aircraft being simulated that results in changes to performance, functional or other characteristics required for approval;

*(d)* be given a daily functional pre-flight check before use; and

*(e)* have a daily discrepancy log.

**CONVERSION TRAINING AND CHECKING**

Requirements for flight crew conversion training and checking. Sub. Leg.

**239.** (1) A national air operator shall ensure that—

*(a)* flight crew complete a Type Rating course which satisfies the applicable requirements of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations when changing from one type of aircraft to another type or class for which a new type or class rating is required;

*(b)* flight crew complete the approved conversion course before commencing unsupervised line flying—

(i) when changing to an aircraft for which a type or class rating is required; or

(ii) when changing national air operators;

*(c)* conversion training acceptable to the Authority is conducted by a suitably qualified person in accordance with a detailed course syllabus included in the Operations Manual;

*(d)* the amount of training required by his conversion course is determined after due note has been taken of the previous training of the flight crew member from records prescribed by the Act or Regulations made thereunder;

*(e)* the minimum standards of qualification and experience required for flight crew before undertaking conversion training are specified in the Operations Manual;

*(f)* flight crew undergo the operator proficiency check and emergency and safety equipment training and checks before commencing line flying under supervision;

*(g)* upon completion of line flying under supervision, successfully completes the line check;

*(h)* once a flight crew member has commenced the conversion course of the national air operator he does not undertake flying duties on another type or class until the course is completed or terminated; and

*(i)* crew resource management training is incorporated in the conversion course.

(2) The conversion course of the national air operator and the Type or Class Rating course required for the issue of flight crew licences may be combined.

(3) A national air operator shall ensure that his cabin crew has completed the appropriate training, as specified in the Operations Manual, before undertaking assigned duties.

(4) The training required under subregulation (3), shall comprise—

*(a)* conversion training which shall be completed before being—

(i) first assigned by the national air operator to operate as a cabin crew member; or

(ii) assigned to operate another aircraft type; and

*(b)* differences training which shall be completed before operating—

(i) on a variant of an aircraft type currently operated; or

(ii) with different safety equipment, safety equipment location, or normal and emergency procedures on currently operated aircraft types or variants.

(5) A national air operator shall ensure that—

*(a)* conversion training is conducted in a structured and realistic manner;

*(b)* differences training is conducted in a structured manner; and

*(c)* conversion training and where necessary differences training, include the use of all safety equipment and all normal and emergency procedures applicable to the type and variant of aircraft and involves training and practice on either an approved training device or on the actual aircraft.

(6) A national air operator in determining the content of the conversion or differences training under subregulation (3), shall take account of the previous training of the cabin crew member, recorded in his training records.

(7) Conversion and differences training programmes shall be approved by the Authority.

Schedule 9. Part G.

(8) A conversion and differences training programme under this regulation shall meet the requirements of Part G of Schedule 9.

**AIRCRAFT AND INSTRUMENT PROFICIENCY CHECKS**

Restrictions on the use by the national air operator of persons as flight crew. [223/2005].

**240.** (1) A person shall not serve and a national air operator shall not use a person as a pilot flight crew member unless, since the beginning of the sixth calendar month before such service, such person has passed the proficiency check prescribed by Authority in the make and model of aircraft on which his services is required.

(2) A person shall not serve and a national air operator shall not use a person as a pilot under Instrument Flight Rules operations unless, since the beginning of the sixth month before that service, such person has passed the instrument proficiency check prescribed by the Authority.

(3) The proficiency check under subregulation (2), shall ensure that piloting technique and the ability to execute emergency procedures are checked in such a way so as to assess the competency of the pilot.

(4) A pilot may complete the requirements of subregulations (1) and (2) simultaneously in a specific aircraft type.

Schedule 9. Part H.

(5) The proficiency check under subregulation (1) shall be in the areas set out in Part H of Schedule 9.

**NOMINATION AS PILOT IN COMMAND**

Nomination as pilot in command.

**241.** (1) A national air operator shall ensure that for a pilot to be upgraded from co-pilot to pilot in command and for those joining as pilot in command—

*(a)* a minimum level of experience, acceptable to the Authority, is specified in the Operations Manual; and

*(b)* for multi-crew operations, the pilot completes a command course acceptable to the Authority.

(2) The command course required by subregulation (1)*(b)*, shall be specified in the Operations Manual and include at least the following:

*(a)* training in Flight Simulator including line orientated flying training and flying training;

*(b)* an operator proficiency check for operations as pilot in command;

*(c)* responsibilities of the pilot in command;

*(d)* line training under supervision as a pilot in command for a minimum of ten sectors for pilots already qualified on the aircraft type;

*(e)* completion of a pilot in command line check and route and airport qualification check; and

*(f)* elements of Crew Resource Management training programme specified under regulations 232 and 239, respectively.

**QUALIFICATIONS TO OPERATE IN EITHER PILOT'S SEAT**

**242.** (1) A national air operator shall ensure that a pilot who may be assigned to operate in either pilot's seat prior to such assignment completes the appropriate training and checking programme specified in the Operations Manual of the national air operator.

Required qualifications to operate in either pilot's seat.

(2) In developing the training and checking programmes under subregulation (1), the national air operator shall take into consideration the matters set out in Part I of Schedule 9.

Schedule 9. Part I.

**RE-ESTABLISHING RECENCY OF EXPERIENCE BY A PILOT**

**243.** (1) In addition to meeting all applicable training and checking requirements of these Regulations, a required pilot flight crew member who, in the preceding ninety days has not made at least three take-offs and landings in the type of aircraft in which he is to serve, shall, under the supervision of a check airman, re-establish recency of experience by making at least three take-offs and landings in the type of aircraft on which such person is to serve or in a flight simulator.

Re-establishing recency of experience by a pilot. [186/2006].

(2) When using a flight simulator to accomplish any of the take-off and landing training requirements necessary to re-establish recency of experience, flight crew position shall be occupied by an appropriately qualified pilot and the flight simulator shall be operated as if in a normal in-flight environment without use of the repositioning features of the flight simulator.

(3) A check airman who observes the take-offs and landings of a pilot flight crew member shall certify that the person being observed is proficient and qualified to perform flight duty in line flight operations.

(4)<br>(5) } ***(Deleted by LN 186/2006).***

**OPERATIONS ON MORE THAN ONE TYPE OR VARIANT OF AIRCRAFT**

Requirements for operations on more than one type or variant of aircraft.

**244.** (1) A national air operator shall ensure that a flight crew member does not operate more that one type or variant of aircraft unless he is competent to do so and has been approved by the Authority to so conduct.

(2) When considering operations of more than one type or variant of aircraft, a national air operator shall ensure that the differences and similarities of the aircraft concerned, justify such operations, taking into account the following:

*(a)* the level of technology;

*(b)* operational procedures; and

*(c)* handling characteristics.

(3) A national air operator shall ensure that a flight crew member operating more than one type or variant complies with all the requirements prescribed by the Act or Regulations made thereunder for each type or variant of aircraft unless the Authority has approved the use of credit related to the training, checking and recency requirements.

(4) A national air operator shall specify in his Operations Manual appropriate procedures and operational restrictions, approved by the Authority, for any operation on more than one type or variant covering—

*(a)* the minimum experience level of flight crew on one type or variant before beginning training for and operation of another type or variant of aircraft;

*(b)* the process by which flight crew qualified on one type or variant of aircraft shall be trained and qualified on another type or variant of aircraft; and

*(c)* all applicable recency experience requirements for each type or variant of aircraft.

**OPERATION OF HELICOPTERS AND AEROPLANES**

Restrictions on operation of helicopters and aeroplanes.

**245.** A national air operator shall ensure that where a flight crew member is qualified to operate both helicopters and aeroplanes—

*(a)* his operation of such helicopters and aeroplanes are limited to one type of each;

*(b)* appropriate procedures and operational restrictions, approved by the Authority, are specified in the Operations Manual of the national air operator.

**TRAINING RECORDS**

Requirement for the maintenance of training records.

**246.** (1) A national air operator shall maintain records of—

*(a)* all training and checking undertaken by; and

*(b)* qualifications of,

all flight and cabin crew members and Flight Operations Officers which meet the requirements of the Act and Regulations made thereunder.

(2) Records under subregulation (1), shall be made available to the relevant crew member or Flight Operations Officer upon request.

*L.R.O.*

**PAIRING OF LOW EXPERIENCE CREW MEMBERS**

Requirement for the pairing of low experience crew members.

**247.** (1) Where a co-pilot has fewer than one hundred hours of flight time in the aircraft type being flown in commercial air transport operations, and the pilot in command is not an appropriately qualified check airman, the pilot in command shall make all take-offs and landings in situations designated as critical by the Authority.

(2) A pilot in command or co-pilot shall not conduct commercial air transport operations in a particular type aircraft in commercial air transport operations unless either pilot has at least seventy-five hours of line operating flight time, either as pilot in command or co-pilot.

(3) Where a national air operator wishes to deviate from subregulation (2), he shall follow the deviation procedures set out in the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations. Sub. Leg.

(4) Notwithstanding the sixty days notification requirement under the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, where the Director-General is in receipt of an application for a Deviation Certificate which requires the immediate implementation of the deviation and where he is satisfied that such deviation would not affect the safety of flight, he may recommend the Authority authorise a deviation from subregulation (2), by an appropriate amendment to the operations specifications.

**FLIGHT ENGINEER PROFICIENCY CHECKS**

Requirement of Flight Engineer proficiency checks.

**248.** (1) A person shall not serve and a national air operator shall ensure that a person does not serve as a Flight Engineer on an aircraft unless within the preceding six calendar months he has—

*(a)* successfully completed a proficiency check in accordance with the requirements prescribed by the Authority; or

*(b)* recorded fifty hours flight time for the national air operator as flight engineer in the type aircraft.

(2) The proficiency check required by this regulation shall include an examination of the procedures listed in Part J of Schedule 9.

Schedule 9. Part J.

**COMPETENCY CHECKS FOR CABIN CREW**

**249.** (1) A person shall not serve and a national air operator shall not use a person as a cabin crew unless, since the beginning of the twelfth calendar month before such service, such person has passed the competency check prescribed by the Authority performing the emergency duties appropriate to the assignment of such person.

Requirement for competency checks for cabin crew.

(2) A national air operator shall ensure that during or following completion of the required training, each cabin crew member undergoes a competency check covering the training received in order to verify proficiency in carrying out normal and emergency duties.

(3) Competency checks under this regulation shall be performed by cabin crew instructors acceptable to the Authority.

(4) A national air operator shall ensure that each cabin crew member undergoes checks for initial conversion, differences and recurrent training.

(5) The competency check under this regulation shall test the cabin crew knowledge in the areas set out in Part K of Schedule 9.

Schedule 9. Part K.

**COMPETENCY CHECKS FOR FLIGHT OPERATIONS OFFICERS**

**250.** (1) A person shall not serve and a national air operator shall not use a person as a Flight Operations Officer unless, since the beginning of the twelfth calendar month before such service, such person has passed the competency check, prescribed by the Authority, performing the flight preparation and supervision appropriate to the assignment of such person.

Requirement for competency checks for Flight Operations Officers.

(2) The competency check under this regulation shall be—

*(a)* performed by a suitably qualified Flight Operations Officer Instructor acceptable to the Authority; and

*(b)* test the Flight Operations Officer on the areas specified in Part L of Schedule 9.

Schedule 9. Part L.

**SUPERVISED LINE FLYING FOR PILOTS**

Requirements for supervised line flying for pilots.

**251.** (1) A pilot initially qualifying as pilot in command shall operate a minimum of ten sectors performing the duties of pilot in command under the supervision of a check airman.

(2) A pilot in command transitioning to a new aircraft type shall complete a minimum of five sectors performing the duties of a pilot in command under the supervision of a check airman.

(3) A pilot qualifying for duties other than pilot in command shall complete a minimum of five sectors performing those duties under the supervision of a check airman.

(4) During the time that a qualifying pilot in command is acquiring operating experience, a check airman who is also serving as the pilot in command shall occupy a pilot seat.

(5) In the case of pilot transitioning to pilot in command, a check airman serving as pilot in command shall occupy the observer's seat where—

*(a)* the transitioning pilot has made at least two take-offs and landings in the aircraft type used; and

*(b)* has satisfactorily demonstrated to the check airman that he is qualified to perform the duties of a pilot in command for that aircraft type.

**SUPERVISED LINE FLYING FOR FLIGHT ENGINEERS**

Requirements for supervised line flying for Flight Engineers.

**252.** A person qualifying as a Flight Engineer for a particular aircraft type shall perform in such capacity for a minimum of five flights under the supervision of a check airman.

**SUPERVISED LINE EXPERIENCE FOR CABIN CREW**

Requirements for supervised line experience for cabin crew.

**253.** (1) A person qualifying as a cabin crew shall perform in such capacity for a minimum of two sectors under the supervision of a senior cabin crew.

(2) In qualifying as a cabin crew under subregulation (1), the areas of operations required for supervised line experience are set out in Part M of Schedule 9.

Schedule 9. Part M.

**CABIN CREW FAMILIARISATION**

**254.** A national air operator shall ensure that cabin crew upon— Familiarisation requirements for cabin crew.

*(a)* completion of conversion training; and

*(b)* prior to operating as one of the minimum member of the required cabin crew,

undergo aircraft familiarisation training.

**LINE OBSERVATIONS FOR FLIGHT OPERATIONS OFFICERS**

**255.** A person shall not serve and a national air operator shall not use a person as a Flight Operations Officer unless, since the beginning of the twelfth month before such service, such person has observed, on the cockpit, the conduct of a one-way flight over routes representative of those for which such person is assigned duties. Line observations for Flight Operations Officers.

**AREA, ROUTE AND AERODROME QUALIFICATION FOR PILOT IN COMMAND**

**256.** (1) An air operator shall not utilise a pilot as pilot in command of an aircraft on a route segment for which such pilot is not currently qualified until such pilot has complied with this regulation. Route and airport qualification for pilot in command. [186/2006].

(2) A pilot under subregulation (1), shall demonstrate to the national air operator an adequate knowledge of—

*(a)* the route to be flown and the aerodromes which are to be used, including—

(i) the terrain and minimum safe altitudes;

(ii) the seasonal meteorological conditions;

(iii) the meteorological, communication and air traffic facilities, services and procedures;

(iv) the search and rescue procedures; and

(v) the navigational facilities and procedures, including any long-range navigation procedures, associated with the route along which the flight is to take place; and

*(b)* procedures applicable to flight paths over heavily populated areas and areas of high air traffic density, obstructions, physical layout, lighting, approach aids and arrival, departure, holding and instrument approach procedures, and applicable operating minima.

(3) Where a pilot in command has not made an actual approach into an aerodrome of landing on the route, an initial approach to such aerodrome by such pilot in command must be made with a pilot who is qualified for that aerodrome, as a member of the flight crew or as an observer on the cockpit.

(4) The provisions of subregulation (3), in respect of the presence of a pilot who is qualified for the aerodrome shall not apply where—

*(a)* the approach to the aerodrome is not over difficult terrain and the instrument approach procedures and aids available are similar to those with which the pilot is familiar, and a margin to be approved by the Authority is added to the normal operating minima, or there is reasonable certainty that approach and landing can be made in visual meteorological conditions; or

*(b)* the descent from the initial approach altitude can be made by day in visual meteorological conditions; or

*(c)* the national air operator qualifies the pilot in command to land at the aerodrome concerned by means of adequate pilot in command pictorial presentation; or

*(d)* the aerodrome concerned is adjacent to another aerodrome at which the pilot in command is currently qualified to land.

(5) A national air operator shall not continue to utilise a pilot in command on a route unless, within the preceding twelve months, the pilot in command has made at least one trip between the terminal points of that route as a pilot member of the flight crew, or as a check airman, or as an observer in the flight crew compartment—

*(a)* within that specified area; and

*(b)* if appropriate, on any route where procedures associated with that route or with any aerodromes intended to be used for take-off or landing require the application or special skills or knowledge.

(6) Where a pilot in command has not within the preceding twelve months made a trip under subregulation (5), on a route in close proximity and over similar terrain within such a specified area, route or aerodrome; and has not practised the necessary procedures in a training device which is adequate for the purpose of training, prior to serving as pilot in command within that area or on that route, that pilot shall requalify in accordance with this regulation.

(7) In addition to the records required under this regulation, a national air operator shall maintain a record acceptable to the Authority, of the qualification of the pilot in command and of the manner in which such qualification has been achieved for satisfying the requirements of this regulation.

**ROUTE AND AREA CHECKS FOR PILOT QUALIFICATION**

Required route and area checks for pilot qualification.

**257.** (1) A person shall not serve and a national air operator shall not use a person as a pilot in commercial air transport operations unless, within the preceding twelve months, such person has passed a route check in which he satisfactorily performed his assigned duties in one of the types of aeroplanes he is to fly.

(2) A person shall not perform pilot in command duties in commercial air transport operations—

*(a)* over a designated special operational area that requires a special navigation system or procedures; or

*(b)* in Extended Range Twin Engine Operations,

unless his competency with the systems and procedures has been demonstrated to the national air operator within the preceding twelve months.

(3) A pilot in command shall demonstrate special operational competency by navigation over the route or area as a pilot in command under the supervision of a check airman and on a continuing basis, on flights while performing duties as a pilot in command.

**PILOT IN COMMAND LOW MINIMA AUTHORISATION**

Pilot in command low minima authorisation.

**258.** (1) A national air operator shall ensure that when planning for an instrument approach where the ceiling may be less than 300 feet and the visibility may be less than 1 statute mile, the pilot in command assigned on such flight has prior to flight performed fifteen sectors performing pilot in command duties in the aircraft type which shall include five approaches to land using Category I or Category II procedures.

(2) A pilot in command shall not plan for or initiate an instrument approach when the ceiling is less than 300 feet and the visibility is less than one statute mile unless he has, prior to such flight completed fifteen sectors performing the duties of pilot in command in the aircraft type which included five approaches to land using Category I or Category II procedures.

(3) A national air operator shall ensure that where planning for approach when the ceiling may be less than 100 feet or the visibility may be less than 1,200 Runway Visual Range,

the pilot in command assigned to such flight has prior to flight completed twenty sectors performing pilot in command duties in the aircraft type which shall include five approaches to land using Category III procedures.

(4) A pilot in command shall not plan for or initiate an approach when the ceiling is less than 100 feet or the visibility is less than 1,200 Runway Visual Range unless he has prior to such flight completed twenty sectors performing pilot in command duties in the aircraft type, which included completing five approaches and landings using Category III procedures.

**PILOT IN COMMAND QUALIFICATION FOR DESIGNATED SPECIAL AERODROMES AND HELIPORTS**

Required pilot in command qualifications for designated special aerodromes and heliports.

**259.** (1) A person shall not serve nor shall any national air operator use a person as pilot in command in commercial air transport operations at designated special aerodromes and heliports unless within the preceding twelve months—

*(a)* the pilot in command has received a briefing from the national air operator on such operations for that aerodrome, through pictorial means acceptable to the Authority; or

*(b)* the pilot in command or the assigned second in command has made a take-off and landing at that aerodrome while serving as a flight crew member for the national air operator.

(2) Designated special aerodrome and heliport limitations under subregulation (1), are not applicable where the operation will occur—

*(a)* during daylight hours;

*(b)* when the visibility is at least 3 statute miles; and

*(c)* when the ceiling at that aerodrome is at least 1,000 feet above the lowest initial approach altitude prescribed for an instrument approach procedure.

**FLIGHT CREW MEMBERS RECURRENT TRAINING AND CHECKING**

Required recurrent training and checking for flight crew members. [223/2005 46/2007].

**260.** (1) A national air operator shall ensure that—

*(a)* each flight crew member undergoes recurrent training and checking and that all such training and checking are relevant to the type or variant of aircraft on which such flight crew member operates;

*(b)* a recurrent training and checking programme is established in the Operations Manual of the national air operator, and approved by the Authority;

*(c)* ground and recurrent training are conducted by suitably qualified personnel;

*(d)* emergency and safety equipment training is conducted by suitably qualified personnel; and

*(e)* all personnel conducting recurrent training for crew are suitably qualified to integrate the elements of Crew Resource Management into such training;

*(f)* modular Crew Resource Management training is conducted by at least one Crew Resource Management trainer, acceptable to the Authority, who may be assisted by experts in order to address specific specialised areas; and

*(g)* recurrent checking is conducted as follows:

(i) operator proficiency check shall be conducted by a check airman trained in Crew Resource Management concepts and the assessment of Crew Resource Management skills;

(ii) line check shall be conducted by a suitably qualified pilot in command nominated by a national air operator and acceptable to the Authority; and

(iii) emergency and safety equipment checks shall be conducted by suitably qualified personnel.

(2) A national air operator shall ensure that—

*(a)* flight crew undergo proficiency checks of piloting technique and the ability to execute emergency procedures in such a way as to demonstrate the pilot's competence on each type or variant of a type of aeroplane or helicopter to assess competency in carrying out normal, abnormal and emergency procedures;

*(b)* the proficiency check under paragraph *(a)* is conducted without external visual reference when the flight crew member will be required to operate under Instrument Flight Rules; and

*(c)* flight crew undergo proficiency checks as part of a normal flight crew complement.

(2A) Where the operation may be conducted under instrument flight rules, an operator shall ensure that the competency of the pilot to comply with such rules is demonstrated to either a check pilot of the operator or a representative of the Authority.

(2B) Where the operator schedules flight crew on several variant of the same type of aeroplane or helicopter or different types of aeroplanes or helicopters with similar characteristics in terms of operating procedures, systems and handling, the Director-General shall decide under which conditions the requirements of subregulation (2A) for each variant or each type of aeroplane or helicopter can be combined.

(3) The period of validity of a proficiency check shall be six months in addition to the remainder of the month in which the proficiency check expires.

(3A) Where a proficiency check is issued within the final three months of validity of a previous proficiency check, the

period of validity of the new proficiency check shall extend from the date of issue until six months from the expiry date of that previous proficiency check.

(4) A proficiency check shall be performed twice within any period of one year and any two such checks which are similar and which occur within a period of four consecutive months shall not alone satisfy this requirement.

(5) A national air operator shall ensure that each flight crew member undergoes a line check on the aircraft to demonstrate his competence in carrying out normal line operations as described in the Operations Manual of the national air operator.

(6) The period of validity of a line check under subregulation (5), shall be the remainder of the month of which such check is issued plus twelve months thereafter.

(7) Where a new line check is issued within the final three months of validity of a previous line check, the period of validity of the new line check shall extend from the date of issue until twelve months from the expiry date of the previous line check.

(8) A national air operator shall ensure that each crew member undergoes training and checking on the location and use of all emergency and safety equipment carried.

(9) The period of validity of an emergency and safety equipment check under subregulation (8), shall be the remainder of the month in which the check is issued plus twelve months thereafter.

(10) Where an emergency and safety equipment check is issued within the final three months of validity of a previous emergency and safety check, the period of validity of the new emergency and safety equipment check shall extend from the date of issue to twelve months from the expiry date of that previous emergency and safety equipment check.

(11) A national air operator shall ensure that—

*(a)* elements of Crew Resource Management training are integrated in all appropriate phases of the recurrent training; and

*(b)* each flight crew member undergoes specific modular Crew Resource Management training;

*(c)* all major topics of Crew Resource Management training shall be covered over a period not exceeding three years.

(12) A national air operator shall ensure that each flight crew member undergoes appropriate recurrent training every twelve months.

(13) Where the training under subregulation (12), is conducted within three months prior to the expiry of the twelve months period, the next recurrent training shall be completed within twelve months of the original expiry date of the previous ground and recurrent training.

(14) A national air operator shall ensure that each flight crew member undergoes flight training in an aircraft or flight simulator every twelve months.

(15) Where the training under subregulation (14), is conducted within three months prior to the expiration of the previous twelve months period, the next flight training shall be completed within twelve months of the original expiration date of the previous flight training.

(16) Recurrent training for flight crew required by this regulation shall meet the requirements of Part N of Schedule 9. Schedule 9. Part N.

**RECURRENT TRAINING FOR CABIN CREW**

**261.** (1) A national air operator shall ensure that each cabin crew member undergoes recurrent training and checking covering the actions assigned to each crew member in normal and emergency procedures and drills relevant to the type and variant of aircraft on which he operates. Recurrent training for cabin crew.

(2) A national air operator shall ensure that the recurrent training and checking programme is approved by the Authority and includes theoretical and practical instructions, together with individual practice.

(3) The period of validity of recurrent training and the associated checking shall be the remainder of the month in which the training occurs plus twelve months thereafter.

(4) Where a new check was issued within the final three months of validity of a previous check, the period of validity of the new check shall extend from the date of issue until twelve months from the expiration of that previous check.

(5) A national air operator shall ensure that all recurrent training and checking for cabin crew is conducted by suitably qualified cabin crew.

(6) A cabin crew shall undergo recurrent training and emergency procedures and drills relevant to his assigned positions and type and variant of aircraft on which he operates on the areas and for the intervals set out in Part O of Schedule 9.

Schedule 9. Part O.

**RE-ESTABLISHING RECENCY OF EXPERIENCE FOR CABIN CREW**

Refresher training for cabin crew recurrent training is still valid.

**262.** (1) A national air operator shall ensure that each cabin crew member who has been absent from all flying duties for more than six months, and still remains within the period of validity of the previous check, completes recurrent training specified in the Operations Manual of the national air operator.

(2) A national air operator shall ensure that when a cabin crew member who, during the preceding six months had not undertaken duties as a cabin crew member on a particular type of aircraft, before undertaking such duties on that aircraft type such cabin crew member—

*(a)* completes recurrent training on the type; or

*(b)* operates two re-qualification sectors.

(3) A national air operator shall ensure that recurrent training is conducted by suitably qualified persons and, for each cabin crew member, includes at least the following:

*(a)* emergency procedures including pilot incapacitation;

*(b)* evacuation procedures including crowd control techniques;

*(c)* the operation and actual opening of all normal and emergency exits for passenger evacuation in an aircraft or representative training device;

*(d)* demonstration of the operation of all other exits including flight deck windows; and

*(e)* the location and handling of emergency equipment, including oxygen systems, and the donning of life vests, portable oxygen and protective breathing equipment.

**RECURRENT TRAINING FOR FLIGHT OPERATIONS OFFICERS**

Required recurrent training for Flight Operations Officers.

**263.** (1) A person shall not serve and a national air operator shall not use a person in commercial air transport operations as a Flight Operations Officer unless within the preceding twelve months that person has completed the recurrent ground training programme approved by the Authority.

(2) The recurrent ground training programme under subregulation (1), shall include training on—

*(a)* aircraft-specific flight preparation;

*(b)* emergency assistance to flight crew;

*(c)* crew resource management; and

*(d)* recognition of and transportation of dangerous goods.

(3) A national air operator shall ensure that all recurrent ground training is conducted by a suitably qualified Flight Operations Officer.

**FLIGHT INSTRUCTOR TRAINING**

Required Flight Instructor Training.

**264.** (1) A person shall not serve and a national air operator shall not use a person in commercial air transport operations as a Flight Instructor unless he—

*(a)* holds a Flight Instructor Rating under the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations; Sub. Leg.

*(b)* meets the following requirements:

(i) holds the pilot licences and rating required to serve as a pilot in command or a Flight Engineer;

(ii) has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training, that are required in order to serve as a pilot in command or Flight Engineer;

(iii) has satisfactorily completed the appropriate proficiency, competency and recency of experience checks that are required to serve as a pilot in command or Flight Engineer;

(iv) has satisfactorily completed the applicable initial or transitional training requirements and the in-flight competency check; and

(v) holds the appropriate medical certificate.

(2) A national air operator shall ensure that a person meeting the requirements of subregulation (1)(*b)* completes the requirements set out in Part P of Schedule 9. Schedule 9. Part P.

**FLIGHT INSTRUCTOR QUALIFICATIONS**

Qualification requirements for Flight Instructors.

**265.** A national air operator shall not use a person nor may any person serve as a Flight Instructor in an approved training programme unless, with respect to the aicraft type involved, that person—

*(a)* holds the airman licences and rating required to serve as a pilot in command or a flight engineer, as applicable;

*(b)* has satisfactorily completed the appropriate training phases for the aicraft, including recurrent training, that are required to serve as a pilot in command or flight engineer, as applicable;

*(c)* has satisfactorily completed the appropriate proficiency, competency and recency of experience checks that are required to serve as a pilot in command or flight engineer, as applicable;

*(d)* has satisfactorily completed the applicable initial or transitional training requirements and the Authority has observed in-flight competency check; and

*(e)* holds at least a Class III medical certificate unless serving as a required flight crew member, in which case holds a Class I or a Class II medical certificate as appropriate.

**CHECK AIRMAN**

Restrictions on use of person as check airman.

**266.** (1) A person shall not serve and a national air operator shall not use a person as a check airman unless he has completed the curricula approved by the Authority for those functions for which he is to serve.

(2) A national air operator shall ensure that the initial and transition training for a check airman under subregulation (1) includes the areas set out in Part Q of Schedule 9.

Schedule 9. Part Q.

**CHECK AIRMAN APPROVAL**

Restriction on use of check airmen.

**267.** Subject to regulations 268 and 269, a person shall not serve nor may any national air operator use a person as a check airman for any flight check unless that person has been designated by such national air operator and approved by the Authority as a check airman for a specific function, within the preceding twelve months.

**CHECK AIRMAN QUALIFICATIONS**

Required check airman qualifications.

**268.** A person shall not serve and a national air operator shall not use a person as a check airman in an established training programme unless, with respect to the aircraft type involved, such person—

*(a)* holds the pilot licences and ratings required to serve as a pilot in command or a Flight Engineer;

*(b)* has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training, that are required to serve as a pilot in command or Flight Engineer;

*(c)* has satisfactorily completed the appropriate proficiency, competency and recency of experience checks that are required to serve as a pilot in command or Flight Engineer;

*(d)* has satisfactorily completed the applicable training requirements and the Authority has observed in-flight competency check;

*(e)* holds the appropriate medical certificate; and

*(f)* has been approved by the Authority for the check airman duties involved.

**CHECK AIRMAN LIMITATIONS**

Check airman limitations.

**269.** A person shall not serve nor shall any national air operator use a person as a check airman on commercial air transport operations for any check—

*(a)* in an aircraft as a required pilot flight crew member unless that person holds the required pilot licences and ratings and has completed all applicable training, qualification and currency requirements of these Regulations applicable to the crew position and the flight operations being checked;

*(b)* in an aircraft as an observer check airman unless such person holds the pilot licences and ratings

and has completed all applicable training, qualification and line observation requirements of these Regulations applicable to the position and the flight operations being checked; or

*(c)* in a flight simulator unless such person has completed or observed all training, qualification and line observation requirements of these Regulations applicable to the position and flight operations being checked.

**SUBSTITUTION OF SIMULATOR EXPERIENCE**

Substitution of simulator experience.

**270.** (1) A national air operator shall not use a flight simulator for training or checking unless such flight simulator has been specifically approved for the national air operator in writing, by the Authority.

(2) A national air operator shall not use a flight simulator for any purpose other than that specified in the approval of the Authority.

**LINE QUALIFICATION FOR CHECK AIRMAN AND INSTRUCTOR**

Required line qualification for check airman and instructor.

**271.** A person shall not serve nor shall any national air operator use a person as a check airman or Simulator Flight Instructor in commercial air transport operations unless, since the beginning of the twelfth month before that service, such person has—

*(a)* flown at least five sectors as a required crew member for the type of aircraft involved; or

*(b)* observed, on the flight deck, the conduct of two complete flights in the aircraft type to which the person is assigned.

**TERMINATION OF A PROFICIENCY, COMPETENCY OR LINE CHECK**

Termination of a proficiency, competence or line check.

**272.** Where it is necessary to terminate a check for any reason, a national air operator shall not use the crew member or Flight Operations Officer involved in such check in

commercial air transport operations until the completion of a satisfactory re-check.

**RECORDING OF CREW MEMBER QUALIFICATIONS**

Recording of crew member qualifications.

**273.** (1) The national air operator shall record in his records for each crew member and Flight Operations Officer, the completion of each of the qualifications required by these Regulations in a manner acceptable to the Authority.

(2) A pilot may complete the curricula required by these Regulations concurrently or intermixed with other required curricula, but completion of each curriculum shall be recorded separately in sufficient detail to satisfy the Authority.

**MONITORING OF TRAINING AND CHECKING ACTIVITIES**

Monitoring of training and checking activities.

**274.** (1) To enable adequate supervision of his training and checking activities, a national air operator shall forward to the Authority at least seven days prior to the scheduled activity, the dates, times and locations of all—

(*a*) training in the training programme of the national air operator which required the approval of the Authority; and

(*b*) proficiency, competency and line checks.

(2) Failure to provide the information required by subregulation (1), may invalidate the training or check and the Authority may require that it be repeated for observation purposes.

**REDUCTIONS IN REQUIREMENTS**

Procedure for the reduction in training requirements.

**275.** (1) A national air operator may submit a request to the Director-General in writing for the reduction or waiver of any training requirement or portion thereof, and such request shall be accompanied by a detailed justification.

(2) The Director-General on receipt of a request under subregulation (1), may recommend the Authority authorise the reductions in, or waiver of certain portions of the training requirements of this Part, taking into account the previous experience of the crew members.

(3) Where a request under subregulation (1), is for a specific crew member, the written authorisation, including the supporting justification, shall be filed in the records which the national air operator maintains for that crew member.

## PART X

# CREW AND FLIGHT DUTY LIMITATIONS

### REST PERIODS, DUTY AND FLIGHT TIME LIMITATIONS

Definitions of certain terms and applicability of this Part.

**276.** (1) This Part applies in relation to any duty carried out on behalf of a national air operator by both flight crew and cabin crew as applicable.

(2) In this Part—

"crew" means flight crew and cabin crew;

"day" means the period of elapsed time using Co-ordinated Universal Time or local time that begins at midnight and ends twenty-four hours later at the next midnight;

"dispatch crew" means a fully qualified crew member authorised to carry out pre-flight duties as defined by the national air operator;

"duty" means any continuous period during which a crew member is required to carry out any task associated with the business of the national air operator;

"minimum rest period" means a period during which a crew member is free from all duties, is not interrupted by the national air operator and is provided with an opportunity to obtain not less than eight consecutive hours of sleep in suitable accommodation, time to travel to and from that accommodation and time for personal hygiene and meals and where applicable, time to check-in and out of accommodation;

"positioning" means the practice of transferring crew from place to place as passengers in surface or air transport on behalf of the national air operator;

"reporting time" means the time at which a crew member is required by the national air operator to report for any duty;

"reserve duty" means a period during which the national air operator requires a crew member who would otherwise be off duty to be available to assume duty where necessary;

"rest period" means the period of time before starting a flying duty period that is designed to give crew members adequate opportunity to rest before a flight;

"rostered duty" means the duty period or series of duty periods, with stipulated start and finish times, notified by the national air operator to crews in advance;

"scheduled duty" means the allocation of specific flight or flights or other duties to a crew member within the pre-notified rostered series of duty periods;

"sector" means a period of flight time when an aircraft first moves under its own power until it next comes to rest at the designated parking position after landing;

"split duty" means flying duty period which consists of two or more sectors separated by period less than a minimum rest period;

"standby crew" means a crew member who has been designated by a national air operator to remain at a specified location in order to be available to report for flight duty on notice of one hour or less;

"suitable accommodation" means a furnished bedroom which is subject to minimum noise, is well ventilated and has the facility to control the levels of light and temperature; and

"travelling" means all time spent by a crew member transiting between the place of rest and the place of reporting for duty and shall not count as duty time.

(3) This Part shall not apply to a flight conducted in an aircraft of which the maximum total weight does not exceed 1,600 kilogrammes and which is not flying for the purposes of commercial air transport or aerial work.

**RESPONSIBILITIES OF THE NATIONAL AIR OPERATOR**

Responsibilities of national air operator.

**277.** (1) A national air operator shall not cause or permit an aircraft to make a flight unless—

*(a)* he has established a scheme for the regulation of flight times for every person flying in such aircraft as a member of its crew;

*(b)* the scheme under paragraph *(a)* is approved by the Authority and subject to such conditions as the Authority thinks fit;

*(c)* the scheme under paragraph *(b)* is incorporated in the Operations Manual of the national air operator;

*(d)* he has taken steps to ensure that the provisions of the scheme under paragraph *(b)* shall be complied with by every person flying in that aircraft as a member of its crew.

(2) A crew member shall not fly, and a national air operator shall not require him to fly where either has reason to believe that such crew member is suffering or likely to suffer while flying, from such fatigue as may endanger the safety of the aircraft or its occupants.

(3) A crew member shall inform the national air operator of all flying undertaken so that the cumulative flight and duty times can be assessed against the limitations contained in these Regulations.

(4) A national air operator shall publish crew rosters in advance to allow operating crews to plan adequate pre-duty rest.

(5) The national air operator and crew members are jointly responsible for the proper control of flight and duty times.

(6) Crew members have the responsibility to make optimum use of the opportunities for rest facilities provided, and for planning and using their rest periods properly in order to minimise the risk of incurring fatigue.

(7) A crew member shall not act as a member of an operating crew where he knows or suspects that his physical or mental condition renders him unfit to perform his duties.

**MONITORING SYSTEM**

Monitoring System.

**278.** (1) A national air operator shall establish a system to monitor the flight time, flight duty time and rest periods of each of his crew and shall include in his Operations Manual the details of such system.

(2) Where a person becomes aware that an assignment by a national air operator to act as a crew member on a flight would result in the maximum flight time referred to in regulation 279 or the maximum flight duty time referred to in regulation 280 being exceeded, the person shall so notify the national air operator.

**FLIGHT TIME LIMITATIONS**

Flight time limitations.

**279.** (1) Subject to subregulation (2), a national air operator shall not assign flight time to a flight crew member and a flight crew member shall not accept such an assignment where at the beginning of the flight, the aggregate of all his previous flight times will, as a result exceed—

*(a)* one hundred hours in any twenty-eight consecutive days;

*(b)* one thousand hours in any three hundred and sixty-five consecutive days; and

*(c)* eight hours in any twenty-four hours where the flight crew member conducts single-pilot consecutive hours Instrument Flight Rules flights or single pilot helicopter flights.

(2) Notwithstanding the requirements outlined in subregulation (1), a national air operator may assign a flight crew member for flight time, and a flight crew member may accept such an assignment, where the increase in flight time is authorised in the national air operator certificate.

(3) Subject to regulation 283, a flight crew member who reaches a flight time limitation established by this regulation shall not continue on flight duty or be reassigned to flight duty until such time as the flight crew member has had the rest period required by regulation 280(4).

**FLIGHT DUTY LIMITATIONS AND REST PERIODS**

Flight duty limitations and rest periods.

**280.** (1) Subject to regulations 281 through 283, a national air operator shall not assign a crew member for flight duty time, and a crew member shall not accept such an assignment, where the crew member's flight duty time will, as a result, exceed fourteen consecutive hours in any twenty-four consecutive hours.

(2) A crew member shall receive at least twenty-four consecutive hours free from flight duty following three consecutive flight duty time assignments that exceed twelve consecutive hours unless the crew member has received at least twenty-four consecutive hours free from flight duty between each of the three consecutive flight duty time assignments.

(3) Following a flight duty time assignment, a national air operator shall provide a crew member with the minimum rest period and any additional rest period required by these Regulations.

(4) The minimum rest period for crew shall be—

*(a)* at least as long as the preceding duty period; or

*(b)* such as to allow the crew member to have a minimum of eight hours of sleep opportunity in suitable accommodation,

whichever is greater.

(5) In computing the minimum rest at subregulation (4)*(b)*, the air operator shall take into consideration—

*(a)* expected travel times to and from the rest facility;

*(b)* hotel check-in and check-out time;

*(c)* time for personal hygiene and meals,

so as to allow eight consecutive hours of sleep opportunity in suitable accommodation.

(6) Where any of the variables under subregulation (5), is longer than expected or there is a further delay in crews being afforded the required eight hours sleep opportunity, the minimum rest shall be increased accordingly.

(7) A pilot in command may, at his discretion, and after taking note of the circumstances of other members of the crew, reduce the rest period under subregulation (4).

(8) The rest period under subregulation (7) shall not be less than ten hours.

(9) The exercise of his discretion under subregulation (7), by the pilot in command shall be exceptional and shall not be used to reduce successive rest periods.

(10) Where the preceding flight duty period was extended, the rest period may be reduced under subregulation (7), provided that subsequent flight duty period is also reduced by the same amount.

(11) The maximum flight duty hours for cabin crew shall not exceed—

*(a)* sixty hours in one week but may be increased to sixty-five hours when a rostered duty covering a series of duty periods, once commenced, is subject to unforeseen delays;

*(b)* one hundred and five hours in any two consecutive weeks; or

*(c)* two hundred and ten hours in any four consecutive weeks.

(12) Notwithstanding subregulation (1), the flight duty time applicable to cabin crew may be one hour greater than for flight crew.

(13) A national air operator may, where a flight is conducted using an aircraft other than a helicopter, and the number of cabin crew is increased by the addition of at least one qualified cabin crew more than the minimum complement required, extend the flight duty time of such cabin crew on duty to sixteen consecutive hours.

(14) A national air operator may, where a flight is conducted using an aircraft other than a helicopter, and the number of cabin crew is increased by the addition of at least two qualified cabin crew more than the minimum complement required, extend the flight duty time of such cabin crew on duty to seventeen consecutive hours.

**EXTENSION OF FLIGHT DUTY TIME BY SPLIT DUTY**

Extension of flight duty time by split duty.

**281.** (1) Where flight duty time includes a rest period, such flight duty time may be extended beyond the maximum flight duty time referred to in regulation 280(1) by one-half the length of the rest period to a maximum of three hours, where—

*(a)* the national air operator provides the crew member with advance notice of the extension of flight duty time;

*(b)* the national air operator provides the crew member with a rest period of at least four consecutive hours in suitable accommodation; and

*(c)* the rest of a crew member is not interrupted by the national air operator during the rest period.

(2) The minimum rest period following flight duty time referred to in regulation 280(1) and prior to the next flight duty time shall be at least as long as the preceding duty period.

**EXTENSION OF FLIGHT DUTY BY CREW AUGMENTATION**

Extension of flight duty by crew augmentation.

**282.** (1) The national air operator may where a flight is conducted using an aircraft other than a helicopter, and the number of flight crew is increased by the addition of at least one qualified flight crew member, extend the flight duty time to fifteen consecutive hours if—

*(a)* the additional flight crew member occupies a flight deck observer seat during take-offs and landings unless the observer seat is required by

an Inspector, in which case, a passenger seat shall be made available for the flight crew member; and

*(b)* the subsequent minimum rest period is increased by at least two hours.

(2) Where the flight crew complement is increased by the addition of at least one flight crew member and a flight relief facility is provided, the division of duty and rest shall be balanced between the flight crew members.

(3) The flight duty time under subregulation (2), may be extended to—

*(a)* seventeen consecutive hours, where the flight relief facility is a seat in which case the maximum flight deck duty time for any flight crew member shall be twelve hours;

*(b)* twenty consecutive hours, where the flight relief facility is a bunk in which case the maximum flight deck duty time for any flight crew member shall be fourteen hours;

*(c)* a maximum of three sectors.

(4) The subsequent minimum rest period under this regulation shall be equal to the length of the preceding flight duty time.

(5) Where a flight crew is increased by the addition of at least one flight crew member in accordance with subregulation (1) or (2), the total flight time accumulated during the flight shall be logged by all flight crew members for the purposes of calculating the maximum flight times in regulation 279.

**UNFORESEEN OPERATIONAL CIRCUMSTANCES**

Unforeseen operational circumstances.

**283.** (1) Flights shall be planned to be completed within the maximum flight time and maximum flight duty time taking into account—

*(a)* the time necessary for pre-flight and post-flight duties;

*(b)* the sector time or times of the series of sectors comprising the flight;

*(c)* the forecast weather;

*(d)* turn-around times; and

*(e)* the nature of the operation.

(2) The maximum flight duty time referred to in subsection 280 (1) may be exceeded by a maximum of two hours where—

*(a)* the flight is extended as a result of unforeseen operational circumstances, such as—

(i) unforecast weather;

(ii) an equipment malfunction; or

(iii) air traffic control delay,

that is beyond the control of the national air operator;

*(b)* the pilot in command, after taking note of the flight and duty time circumstances of the other crew members, considers it safe to exceed the maximum flight time and flight duty time.

(3) When flight duty time is extended—

*(a)* the subsequent minimum rest period for the crew shall be at least as long as the preceding duty period;

*(b)* the pilot in command shall notify the national air operator, in accordance with procedures outlined in the Operations Manual of the national air operator, of the length of and the reason for the extension;

*(c)* the national air operator shall retain the notifications until the completion of the next audit; and

*(d)* the national air operator shall notify the Authority on the appropriate form within fourteen days of the return to base of the aircraft.

**DELAYED REPORTING TIME**

Delayed reporting time.

**284.** Where a crew member is notified of a delay in reporting time before leaving a rest facility and the delay is in excess of three hours, the flight duty time of the crew member is considered to have started three hours after the original reporting time.

**REQUIREMENTS FOR TIME FREE FROM DUTY**

Requirements for time free from duty. [223/2005].

**285.** (1) A national air operator shall provide each crew member with time free from duty amounting to one period of at least thirty-six consecutive hours within each seven consecutive days.

(2) Where a crew member is a crew member on reserve, a national air operator shall provide him with time free from duty amounting to one period of at least thirty-six consecutive hours within each seven consecutive days.

(3) A national air operator shall notify a flight crew member on reserve of the commencement and duration of his time free from duty.

**POSITIONING TIME**

Positioning time to count as duty time.

**286.** (1) Where crew spend time performing required positioning responsibilities, all time spent on such responsibilities shall count as duty time.

(2) The flight duty period commences at the time at which the crew member reports for the positioning journey.

(3) A flight duty period may include—

*(a)* positioning;

*(b)* any form of ground duty and standby duty at an airport which preceded flying duty,

and shall be subject to maximum allowable flight duty period limits specified.

(4) Positioning and ground duties immediately following a flying duty shall not be part of the flight duty period, but shall count in computing the length of the subsequent rest period.

(5) The time spent between reporting for a flight and the completion of post flight tasks shall determine the length of the subsequent rest period.

**OTHER FLYING BY FLIGHT CREW MEMBERS**

Flight crew members to inform of other times of flying.

**287.** (1) A flight crew member shall inform the national air operator and any other employer of his services as a flight crew member, of all flight times and flying duty periods undertaken, whether professionally or privately.

(2) The flight times and flying duty period required to be reported under subregulation (1) shall not include flight in aircraft not exceeding 1 600 kilogrammes maximum weight and not flying for the purpose of commercial air transport operations or aerial work.

(3) Aerial work under subregulation (2) shall include—

*(a)* flying instruction for which the pilot is remunerated; and

*(b)* where valuable consideration is given specifically for flying instruction.

(4) A national air operator shall ensure that a pilot employed as a member of a flight crew shall not exceed the flight time limitation prescribed by these Regulations.

(5) A pilot under subregulation (2) shall ensure that his flight time with the national air operator plus any other flight time he accumulates shall not exceed any flight time limitation prescribed by these Regulations.

**CREW MEMBERS ON RESERVE**

Requirements for flight crew members on reserve.

**288.** (1) A national air operator shall within each twenty-four-hour period of operations provide crew members on reserve during such twenty-four-hour period, an opportunity to obtain at least eight consecutive hours sleep.

(2) In reserving crew members for duty a national air operator may—

*(a)* provide the crew member with twenty-four hours notice of the time of commencement and duration of the rest period to ensure that the designated rest period, is not shifted more than three hours earlier or later than the corresponding time of the preceding designated or actual rest period in the preceding twenty-four hours, nor more than a total of eight hours in any seven consecutive days;

*(b)* provide the crew member a minimum of ten hours notice of the assignment and shall not assign him to any duty for these ten hours; or

*(c)* not assign the crew member to flight duty time or interrupt his rest period between 22:00 and 06:00 local time.

(3) Where a national air operator is unable to provide a crew member with a rest period required by subregulation (1), and the crew member is notified to report for flight duty or the reporting time occurs between 22:00 and 06:00 local time—

*(a)* the maximum flight duty time shall be ten consecutive hours; and

*(b)* the subsequent minimum rest period shall be increased by at least one-half of the length of the preceding flight duty time.

(4) A national air operator shall outline in his operations manual a method for ensuring compliance with these Regulations.

**FLIGHTS CROSSING MORE THAN FOUR TIME ZONES**

Requirements for flights crossing more than four time zones.

**289.** (1) A flight or series of flights which terminates more than four one-hour time zones from the point of departure, shall be limited to three sectors and shall be followed by a rest period that is at least equal to the length of the preceding flight duty period.

(2) Where a flight referred to in subregulation (1), is a transoceanic flight, only one sector may be completed after such transoceanic sector.

(3) An unscheduled technical stop shall not be included in computing the number of sectors for a transoceanic flight.

**EXAMPLE OF FLIGHT DUTY TIME SCHEMES**

**290.** Flight duty time schemes for aeroplane and helicopter operations shall be in the manner set out in Schedule 10, as applicable to the operations.

Example of flight and duty time schemes for aeroplane and helicopter operations. Schedule 10.

**PART XI**

## COMMERCIAL AIR TRANSPORT FLIGHT RELEASE

**APPLICABILITY**

**291.** This Part prescribes the requirements for a person designated by a national air operator to issue a flight release.

Applicability of Part XI.

**QUALIFIED PERSONS REQUIRED FOR OPERATIONAL CONTROL FUNCTIONS**

**292.** (1) A national air operator shall assign a qualified person to exercise the functions and responsibilities for operational control of each flight undertaken by him in commercial air transport.

Qualified persons required for operational control functions. [46/2007].

(1A) Where the approved method of control and supervision of flight operations of a national air operator requires the use of a flight operations officer, the operator shall delegate the responsibility for operational control only to the pilot in command and a flight operations officer.

(2) A national air operator shall ensure that—

*(a)* for passenger-carrying flights conducted on a published schedule, a person holding a Flight Operations Officer Authorisation issued in accordance with the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations or a person with equivalent

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qualification shall be on-duty at an operations base to perform the operational control functions; and

*(b)* for all other flights, the qualified person exercising operational control responsibilities shall be available for consultation prior to, during and immediately following the flight operation.

(3) The pilot in command shall for all flights share the responsibility for operational control of the aircraft and has the authority to make decisions regarding operational control issues in-flight.

(4) Where a decision of the pilot in command differs from that recommended by the Flight Operations Officer or person with equivalent qualification such Flight Operations Officer or person shall make a record of the associated facts.

**FLIGHT OPERATIONS OFFICER**

Restrictions on flight operation officer or flight dispatcher. [46/2007].

**293.** (1) A national air operator shall ensure that a flight operation officer shall not be assigned to duty unless that officer has satisfactorily completed an operator-specific training course that addresses all the specific components of its approved method of control and supervision of flight operations—

*(a)* made within the preceding twelve months, at least a one-way qualification flight including landings at as many aerodromes as practicable, on the flight deck of an aircraft over any area in which that individual is authorised to exercise flight supervision;

*(b)* demonstrated to the national air operator adequate knowledge of—

(i) the contents of his Operations Manual;

(ii) the radio equipment in the aircraft used; and

(iii) the navigation equipment in the aircraft used;

*(c)* demonstrate to the national air operator knowledge of the following details concerning

operations for which the officer is responsible and areas in which that individual is authorised to exercise flight supervision—

(i) the seasonal meteorological conditions and the sources of meteorological information;

(ii) the effect of meteorological conditions on radio reception in the aircraft used;

(iii) the peculiarities and limitations of each navigation system which is used by the national air operator; and

(iv) the aircraft loading instructions;

*(d)* demonstrate to the national air operator knowledge and skill related to human performance relevant to the duties of a Flight Operations Officer; and

*(e)* demonstrate to the national air operator the ability to perform the duties of a Flight Operations Officer specified in these Regulations.

(2) A national air operator shall ensure that a Flight Operations Officer who is assigned to flight supervision duties maintains complete familiarisation with all features of the operations which are pertinent to his duties, including knowledge and skill related to human performance.

(3) A national air operator shall ensure that a Flight Operations Officer is not assigned to duty after twelve consecutive months of absence from such duty unless the appropriate retraining is accomplished.

**FUNCTIONS AND DUTIES OF OPERATIONAL CONTROL**

Functions and duties of operational control. [46/2007].

**294.** (1) A Flight Operations Officer or person holding the equivalent qualification, in exercising responsibility for operational control for a national air operator shall—

*(a)* authorise the specific flight operation;

*(b)* ensure that an airworthy aircraft properly equipped for the flight is available;

*(c)* ensure that qualified personnel and adequate facilities are available to support and conduct the flight;

*(d)* ensure that proper flight planning and flight preparation is carried out;

*(e)* ensure that flight locating and flight following procedures are followed; and

*(f)* for scheduled, passenger-carrying flights, ensure the monitoring of the progress of the flight and the provision of information that may be necessary to safety.

(2) A national air operator shall ensure that for passenger-carrying flights conducted on a published schedule, the Flight Operations Officer using a method of control and supervision of flight operations shall—

*(a)* assist the pilot in command in flight preparation and provide the relevant information;

*(b)* assist the pilot in command in preparing the operational and Air Traffic Control flight plans;

*(c)* sign the dispatch copy of the flight release; and

*(d)* furnish the pilot in command while in flight, by appropriate means, with information which may be necessary for the safe conduct of the flight;

*(e)* ***(Deleted by LN 46/2007).***

(3) In the event of an emergency a flight operations officer performing the operational control duties shall—

*(a)* initiate such procedures as outlined in the operations manual while avoiding taking any action that would conflict with Air Traffic Control procedures; and

*(b)* convey safety-related information to the pilot in command that may be necessary for the safe conduct of the flight, including information related to any amendment to the flight plan that become necessary in the course of the flight.

(4) A Flight Operations Officer performing the operational control duties shall avoid taking any action that would conflict with the procedures established by—

*(a)* air traffic control;

*(b)* the meteorological service;

*(c)* the communications service; or

*(d)* the national air operator.

(5) Where a flight operations officer performing the operational control duties first becomes aware of an emergency situation which endangers the safety of the aircraft or persons, he shall, in addition to taking the actions required by subregulation (2), without delay notify the appropriate authorities of the nature of the situation and request assistance, where required.

**CONTENTS OF A FLIGHT RELEASE OR OPERATIONAL FLIGHT PLAN**

Contents of a flight release or operational flight plan.

**295.** A national air operator shall ensure that the flight release or operational flight plan when used as a flight release document contains at least the following information concerning each flight:

*(a)* the company or organisation name;

*(b)* make, model, and registration number of the aircraft being used;

*(c)* the flight or trip number, and date of flight;

*(d)* the name of each crew member;

*(e)* the departure aerodrome, destination aerodromes, alternates aerodromes and route;

*(f)* the minimum fuel on board, in imperial or metric measurements;

*(g)* a statement of the type of operation such as Instrument Flight Rules or Visual Flight Rules;

*(h)* the latest available weather reports and forecasts for the destination aerodrome and alternate aerodromes; and

*(i)* any additional available weather information that the pilot in command considers necessary.

**AIRCRAFT REQUIREMENTS FOR FLIGHT RELEASE**

Requirements for aircraft flight release.

**296.** (1) A national air operator shall ensure that a flight release for a commercial air transport operation is not issued unless the aircraft is airworthy and properly equipped for the intended flight operation.

(2) A national air operator shall ensure that a flight release for a commercial air transport operation using an aircraft with inoperative instruments and equipment installed is not issued, except as specified in the Minimum Equipment List approved for the national air operator for that type aircraft.

**FACILITIES AND NOTICES TO AIRMEN FOR FLIGHT RELEASE**

Required facilities and notices to airmen for flight release.

**297.** (1) A national air operator shall ensure that an aircraft over any route or route segment is not issued a flight release unless there are adequate communications and navigational facilities in satisfactory operating condition as necessary to conduct the flight safely.

(2) A Flight Operations Officer or person holding equivalent qualification shall ensure that the pilot in command is provided all available current reports or information on aerodrome conditions and irregularities of navigation facilities that may affect the safety of the flight.

(3) A Flight Operations Officer or person holding equivalent qualification shall ensure that a pilot in command is provided with all available Notices to Airmen with respect to the routing, facilities and aerodromes for his review of the operational flight plan.

**WEATHER REPORTS AND FORECASTS REQUIRED FOR FLIGHT RELEASE**

Weather reports and forecasts required for flight release.

**298.** (1) A Flight Operations Officer or a person holding equivalent qualification shall not release a flight unless he is thoroughly familiar with reported and forecasted weather conditions on the route to be flown.

(2) A Flight Operations Officer or person holding equivalent qualification shall not release a flight unless he has

communicated all information and concerns he may have regarding weather reports and forecasts to the pilot in command.

**FLIGHT RELEASE IN ICING CONDITIONS**

Procedures for flight release in icing conditions.

**299.** (1) A Flight Operations Officer or person holding equivalent qualification shall not release an aircraft, when in his opinion or that of the pilot in command, expected or actual icing conditions exceed that for which the aircraft is certified and has sufficient operational de-icing or anti-icing equipment.

(2) A national air operator shall ensure that an aircraft is not released when weather conditions are such that frost, ice or snow may reasonably be expected to adhere to the aircraft, unless there is available to the pilot in command at the aerodrome of departure, adequate facilities and equipment to accomplish the ground de-icing and anti-icing procedures approved for the national air operator by the Authority.

(3) A national air operator shall ensure that before an aircraft is released in icing conditions the requirements set out in Schedule 11 are met.

Schedule 11.

**FLIGHT RELEASE UNDER VISUAL FLIGHT RULES OR INSTRUMENT FLIGHT RULES**

Flight release under Visual Flight Rules or Instrument Flight Rules.

**300.** A national air operator shall ensure that a flight is not released under Visual Flight Rules or Instrument Flight Rules unless the weather reports and forecasts indicate that the flight can reasonably be expected to be completed as specified in the release.

**MINIMUM FUEL FOR FLIGHT RELEASE**

Required minimum fuel supply for flight release.

**301.** (1) A national air operator shall ensure that a flight release is not issued for a commercial air transport operation unless the fuel on board specified in the release is equivalent to or greater than the minimum flight planning requirements of these Regulations, including anticipated contingencies.

(2) A national air operator shall issue operating instructions and provide information on aircraft climb performance with all engines operating to enable the pilot in

command to determine the climb gradient that can be achieved during the departure phase for the existing take-off conditions and intended take-off technique.

**AIRCRAFT LOADING AND AIRCRAFT PERFORMANCE REQUIREMENT FOR FLIGHT RELEASE**

Aircraft loading and performance requirement for flight release.

**302.** A Flight Operations Officer or a person holding equivalent qualification shall not issue a flight release unless he is familiar with the anticipated loading of the aircraft and is reasonably certain that the proposed operation shall not exceed the—

*(a)* center of gravity limits;

*(b)* aircraft operating limitations; and

*(c)* minimum performance requirements,

of the aircraft.

**AMENDMENT OR RE-RELEASE EN ROUTE REQUIREMENT FOR FLIGHT RELEASE**

Amendment or re-release en route requirements for flight release.

**303.** (1) A Flight Operations Officer or a person holding equivalent qualification and pilot in command who amends a flight release while the flight is en route shall record the details of such amendment.

(2) A Flight Operations Officer or a person holding equivalent qualification and pilot in command shall not amend the original flight release to change the destination or alternate aerodrome while the aircraft is en route unless the flight preparation requirements for routing, aerodrome selection and minimum fuel requirements are met at the time of amendment or re-release.

(3) A pilot in command shall ensure that a flight is not allowed to continue to an aerodrome to which it has been released where the weather reports and forecasts indicate changes which would render that aerodrome unsuitable for the original flight release.

**FLIGHT RELEASE WITH AIRBORNE WEATHER RADAR EQUIPMENT**

Flight release with airborne weather radar equipment. [223/2005].

**304.** A national air operator shall not release a large aircraft carrying passengers under Instrument Flight Rules or at night

conditions when current weather reports indicate that thunderstorms or other potentially hazardous weather conditions that can be detected with airborne weather radar, may reasonably be expected along the route to be flown, unless the airborne weather radar equipment is in satisfactory operating condition.

**IMPLEMENTING STANDARDS**

Air operator to comply with minimum standards. Schedule 12. [223/2005 186/2006].

**305.** The holder of an airman licence under these Regulations in meeting the requirements of regulations 8, 12, 13, 15 through 25, 30, 32, 33, 46(4), 46(5), 50, 52, 61, 62, 66, 67 through 74, 77, 94, 95, 100, 104, 106, 118, 130, 136, 143, 189, 190 through 191, 194, 199, 200, 201, 208, 210, 211, 212, 214, 215, 216, 219, 260(5), 270 and 297 through 299, shall ensure that he complies with the minimum implementing standards set out in Schedule 12.

**DIRECTOR-GENERAL MAY AMEND SCHEDULES**

Director-General may amend the Schedules.

**306.** The Director-General may by Order amend any of the Schedules.

**TRANSITIONAL PROVISIONS**

Transitional Provisions. [274/2004 31/2005 223/2005 285/2006 30/2008].

**307.** (1) The requirements of these Regulations shall come into effect ten months from the date of publication of these Regulations.

(2) Notwithstanding subregulation (1), a person exercising the privileges of an operator immediately prior to the commencement of these Regulations, may continue to do so under the conditions of his existing approvals until 24th September 2005 and thereafter shall meet the requirements of these Regulations.

(3) Notwithstanding subregulation (2), an operator of an aircraft of maximum certified take-off mass of less than 20 000 kilogrammes, shall meet the requirements of these Regulations on or before 30th September 2009.

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Regulation 29.

## SCHEDULE 1

The frequency and details of the progressive inspections under regulation 29 shall be as follows:

*(a)* provide for the complete inspection of the aircraft within each twelve-month period;

*(b)* be consistent with the current recommendations of the manufacturer, field service experience;

*(c)* be appropriate to the kind of operation in which the aircraft is engaged;

*(d)* the progressive inspection schedule under regulation 29(8)*(b)*(ii), shall ensure that the aircraft, at all times, is airworthy and conforms to all applicable aircraft specifications, type certificate data sheets, airworthiness directives and other approved data acceptable to the authority;

*(e)* where the progressive inspection under this regulation is discontinued, the operator shall immediately notify the authority, in writing, of such discontinuance;

*(f)* where a progressive inspection is discontinued under paragraph *(e)*, the first annual inspection required by these Regulations shall be due within twelve months after the last complete inspection of the aircraft under the progressive inspection programme;

*(g)* the one hundred-hour inspection under regulation (29)(3)*(c)* shall be due within one hundred hours of that complete inspection;

*(h)* a complete inspection of an aircraft, for the purpose of determining when the annual and one hundred-hour inspections are due, requires a detailed inspection of the aircraft and all its components in accordance with the progressive inspection programme;

*(i)* a routine inspection of an aircraft and a detailed inspection of several components are not considered to be a complete inspection, required under paragraph *(h)*.

## SCHEDULE 2

Regulation 95.

The weather conditions for an Extended Range Operations en route alternate under regulation 95 shall be at or above the planning minima shown in Table 1.

### TABLE 1

| **Type of Approach** | **Planning Minima** | |
|---|---|---|
| | **(RVR/visibility required and ceiling, if applicable)** | |
| | **Aerodome with** | |
| | at least 2 separate approach procedures based on 2 separate aids serving 2 separate runways (*See* note 1) | at least 2 separate approach procedures based on 2 separate aids serving 1 runway or, at least 1 approach procedure based on 1 aid serving 1 runway |
| Precision Approach Cat II, III (ILS, MLS) | Precision Approach Cat I Minima | Non-Precision Approach Minima |
| Precision Approach Cat I (ILS, MLS) | Non-Precision Approach Minima | Circling minima or, if not available, non-precision approach minima plus 200 feet/1 000 metres |
| Non-Precision Approach | The lower of non-precision approach minima plus 200 feet/1 000 metres or circling minima | The higher of non-precision approach minima plus 200 feet/1 000 metres or circling minima |
| Circling Approach | Circling Minima | |

Note: *Runways on the same aerodrome are considered to be separate runways when they are separate landing surfaces which may overlay or cross such that if one of the runways is blocked, it will not prevent the planned type of operations on the other runway and each of the landing surfaces has a separate approach based on a separate aid.*

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Regulation 100(6).

## SCHEDULE 3

Mass and balance documentation under regulation 100(6), shall be set out in the following manner:

*(a)* mass and balance documentation shall contain the following information:

(i) the aircraft registration and type;

(ii) the flight identification number and date;

(iii) the identity of the pilot in command;

(iv) the identity of the person who prepared the document;

(v) the dry operating mass and the corresponding centre of gravity of the aircraft;

(vi) the mass of the fuel at take-off and the mass of trip fuel;

(vii) the mass of consumables other than fuel;

(viii) the components of the load including passengers, baggage, freight and ballast;

(ix) the take-off mass, landing mass and zero fuel mass;

(x) the load distribution;

(xi) the applicable aircraft centre of gravity positions; and

(xii) the limiting mass and centre of gravity values;

*(b)* subject to the approval of the Authority, an operator may omit some of this data from the mass and balance documentation;

*(c)* where any last minute change occurs after the completion of the mass and balance documentation, this shall be brought to the attention of the pilot in command and the last minute change shall be entered on the mass and balance documentation. The maximum allowed change in the number of passengers or hold load acceptable as a last minute change shall be specified in the Operations Manual. If this number is exceeded, new mass and balance documentation shall be prepared;

*(d)* where mass and balance documentation is generated by a computerised mass and balance system, the operator shall verify the integrity of the output data. He shall establish a system to check that amendments of his input data are incorporated properly in the system and that the system is operating correctly on a continuous basis by verifying the output data at intervals not exceeding six months; and

*(e)* where an operator wishes to use an onboard mass and balance computer system as a primary source for dispatch, he shall obtain the approval of the Authority.

## SCHEDULE 4

Regulation 103.

The requirements for an Operational Flight Plan in Commercial Air Transport Operations under regulation 103 are as follows:

*(a)* the minimum contents of an operational flight plan shall be determined by the method of flight supervision and the type of operations conducted by the operator. An international air operator shall adhere to the 30 items operational flight plan as listed below whereas an operator conducting local flight within 25 minutes from the departure aerodrome and Visual Flight Rules flights may use an informal operational flight plan, being either an Air Traffic Control flight plan, a flight itinerary or other flight following information approved by the Authority;

*(b)* the format of the full operational flight plan shall allow the crew to record the fuel state and the progress of the flight relative to the plan. The operational flight plan may be computer generated or produced manually, working from charts and tables, by either the Flight Operations Officer or the flight crew. When an operational flight plan is prepared manually, an approved form displaying the requisite information and providing the necessary space to make flight following entries as the flight progresses shall be used;

*(c)* the national air operator shall specify, in its company operations manual, how formal acceptance of the operational flight plan by the pilot in command and, if applicable, the Flight Operations Officer shall be recorded;

*(d)* the Minimum Required Content of an Operational Flight Plan which are as follows:

(i) *air operator's name;

(ii) *date;

(iii) *aeroplane registration;

(iv) *aeroplane tail number (as applicable);

(v) *aeroplane type and model (as applicable);

(vi) *flight number (as applicable);

(vii) type of flight (Instrument Flight Rules or Visual Flight Rules) (not required if all the national air operator's flights are the same);

(viii) *pilot in command's name;

(ix) *Flight Operations Officer's name (as applicable);

(x) *departure aerodrome;

(xi) *destination aerodrome;

(xii) *alternate aerodrome (as applicable), including en route alternates where required;

(xiii) routing to destination by successive navigational way points and a method to obtain associated tracks for each;

(xiv) routing to alternate aerodrome (as applicable);

(xv) specification of any way points en route to satisfy special operations requirements (Extended Range Twin-engine Operations, etc.);

(xvi) *planned cruise altitudes to destination and alternate (as applicable);

(xvii) planned cruise true air speed;

(xviii) planned cruise indicated air speed, or mach number (as applicable);

(xix) winds at planned cruise altitude: these may be expressed in terms of direction/velocity or as a component/drift angle;

(xx) temperature at cruise altitude;

(xxi) ground speed or wind component during cruise;

(xxii) *estimated time en route: if broken down into way point time components, a total shall be specified;

(xxiii) time from destination to alternate (as applicable);

(xxiv) distance to destination: if broken down into way point distance components, a total shall be specified;

(xxv) distance from destination to alternate (as applicable);

(xxvi) *fuel burn en route and from destination to alternate;

(xxvii) *fuel required for the type of flight plan as applicable for—

(A) taxi;

(B) destination;

(C) alternate;

(D) holding reserve; and

(E) additional requirements or en route reserve (as applicable);

(xxviii) *weights for—

(A) total fuel on board;

(B) zero fuel weight; and

(C) planned maximum take-off weight;

(xxix) *signature of pilot in command and the Flight Operations Officer (as applicable) or alternate means of certifying acceptance; and

(xxx) *number of persons on board, crew and passengers, as amended by final load figures.

Note: *The items with asterisk (*) denote the minimum items which shall be adhered to by national air operators on short range operations of less than thirty minutes, night Visual Flight Rules operations and domestic operations.*

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## SCHEDULE 4A

Regulation 106(5).

The requirements for unmanned free balloons referred to in regulation 106(5) are as follows:

## CLASSIFICATION OF UNMANNED FREE BALLOONS

1. An unmanned free balloon shall be classified as—

*(a)* light: where the unmanned free balloon carries a payload of one or more packages with a combined mass of less than 4 kilogrammes unless qualifying as a heavy balloon in accordance with paragraph *(c)*(ii), (iii) and (iv);

*(b)* medium: where the unmanned free balloon which carries a payload of two or more packages with a combined mass of 4 kilogrammes or more, but less than 6 kilogrammes unless qualifying as a heavy balloon in accordance with paragraph *(c)*(ii), (iii) and (iv); or

*(c)* heavy: where the unmanned free balloon which carries a payload which—

(i) has a combined mass of 6 kilogrammes or more;

(ii) includes a package of 3 kilogrammes or more;

(iii) includes a package of 2 kilogrammes or more with an area density of more than 13 grammes per square centimetre; or

(iv) uses a rope or other device for suspension of the payload that requires an impact force of 230 newton or more to separate the suspended payload from the balloon.

Note 1: *The area density referred to in subparagraph (c)(iii) is determined by dividing the total mass in grammes of the payload package by the area in square centimetres of its smallest surface.*

Note 2: *Figure 1 gives the classification of unmanned free balloon.*

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## GENERAL OPERATING RULES

2. (1) An unmanned free balloon shall not be operated without appropriate authorisation from the State from which the launch is made.

(2) An unmanned free balloon, other than a light balloon used exclusively for meteorological purposes and operated in the manner prescribed by the Authority, shall not be operated across the territory of another State without appropriate authorisation from that other State concerned.

(3) The authorisation referred to in paragraph (2) shall be obtained prior to the launching of the balloon if there is reasonable expectation, when planning the operation, that the balloon may drift into airspace over the territory of another State. Such authorisation may be obtained for a series of balloon flights or for a particular type of recurring flight, e.g., atmospheric research balloon flights.

(4) An unmanned free balloon shall be operated in accordance with conditions specified by the State of Registry and the State(s) expected to be over-flown.

(5) An unmanned free balloon shall not be operated in such a manner that impact of the balloon, or any part thereof, including its payload, with the surface of the earth, creates a hazard to persons or property not associated with the operation.

(6) A heavy unmanned free balloon shall not be operated over the high seas without prior co-ordination with the appropriate Air Traffic Services Authority.

## OPERATING LIMITATIONS AND EQUIPMENT REQUIREMENTS

3. (1) A heavy unmanned free balloon shall not be operated without authorisation from the appropriate Air Traffic Services Authority at or through any level below 18 000 metres (60,000 feet) pressure-altitude at which—

*(a)* there are clouds or obscuring phenomena of more than four oktas coverage; or

*(b)* the horizontal visibility is less than 8 kilometres.

(2) A heavy or medium unmanned free balloon shall not be released in a manner that will cause it to fly lower than 300 metres (1,000 feet) over the congested areas of cities, towns or settlements or an open-air assembly of persons not associated with the operation.

(3) A heavy unmanned free balloon shall not be operated unless—

*(a)* it is equipped with at least two payload flight termination devices or systems, whether automatic or operated by tele-command, that operate independently of each other;

*(b)* for polyethylene zero-pressure balloons, at least two methods, systems, devices, or combinations thereof, that function independently of each other are employed for terminating the flight of the balloon envelope;

Note: *Super-pressure balloons do not require these devices as they quickly rise after payload discharge and burst without the need for a device or system designed to puncture the balloon envelope. In this context a super-pressure balloon is a simple non-extensible envelope capable of withstanding a differential of pressure, higher inside than out. It is inflated so that the smaller night-time pressure of the gas still fully extends the envelope. Such a super-pressure balloon will keep essentially constant level until too much gas diffuses out of it.*

*(c)* the balloon envelope is equipped with either a radar reflective device or radar reflective material that will present an echo to surface radar operating in the 200 megahertz to 2 700 megahertz frequency range, or the balloon is equipped with such other devices as will permit continuous tracking by the operator beyond the range of ground-based radar.

(4) A heavy unmanned free balloon shall not be operated under the following conditions:

*(a)* in an area where ground-based secondary surveillance radar equipment is in use, unless it is equipped with a secondary surveillance radar transponder, with pressure altitude reporting capability, which is continuously operating on an assigned code, or which can be turned on when necessary by the tracking station; or

*(b)* in an area where ground-based Auto Dependent Surveillance-Broadcast equipment is in use, unless it is equipped with Auto Dependent Surveillance-Broadcast Transmitter, with pressure-altitude reporting capability, which is continuously operating or which can be turned on when necessary by the tracking station.

(5) An unmanned free balloon that is equipped with a trailing antenna that requires a force of more than 230 newtons to break it at any point shall not be operated unless the antenna has coloured pennants or streamers that are attached at not more than 15 metres intervals.

(6) A heavy unmanned free balloon shall not be operated below 18 000 metres (60,000 feet) pressure-altitude between sunset and sunrise or such other period between sunset and sunrise, corrected to the altitude of operation as may be prescribed by the Authority, unless the balloon and its attachments and payload, whether or not they become separated during the operation, are lighted.

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(7) A heavy unmanned free balloon that is equipped with a suspension device (other than a high conspicuously coloured open parachute) more than 15 metres long shall not be operated between sunrise and sunset below 18 000 metres (60,000 feet) pressure-altitude unless the suspension device is coloured in alternate bands of high conspicuity colours or has coloured pennants attached.

## TERMINATION

4. The operator of a heavy unmanned free balloon shall activate the appropriate termination devices required by clause 3(3)*(a)* and *(b)* above—

*(a)* when it becomes known that weather conditions are less than those prescribed for the operation;

*(b)* if a malfunction or any other reason makes further operation hazardous to air traffic or to persons or property on the surface; or

*(c)* prior to unauthorised entry into the airspace over another State's territory.

## FLIGHT NOTIFICATION

5. (1) Pre-flight notification—

*(a)* early notification of the intended flight of an unmanned free balloon in the medium or heavy category shall be made to the appropriate air traffic services unit not less than seven days before the date of the intended flight;

*(b)* notification of the intended flight shall include the following information as may be required by the appropriate air traffic services unit:

(i) balloon flight identification or project code name;

(ii) balloon classification and description;

(iii) Secondary Surveillance Radar Code, aircraft address or Non-Directional Beacon frequency as applicable;

(iv) operator's name and telephone number;

(v) launch site;

(vi) estimated time of launch or time of commencement and completion of multiple launches;

(vii) number of balloons to be launched and the scheduled interval between launches if multiple launches;

(viii) expected direction of ascent;

(ix) cruising level(s) or pressure-altitude;

(x) the estimated elapsed time to pass 18 000 metres (60,000 feet) pressure-altitude or to reach cruising level if at or below 18 000 metres (60,000 feet), together with the estimated location;

Note: *If the operation consists of continuous launchings, the time to be included is the estimated time at which the first and the last in the series will reach the appropriate level (e.g., 122136Z–130330Z).*

(xi) the estimated date and time of termination of the flight and the planned location of the impact or recovery area. In the case of balloons carrying out flights of long duration, as a result of which the date and time of termination of the flight and the location of impact cannot be forecast with accuracy, the term "long duration" shall be used.

Note: *If there is to be more than one location of impact/recovery, each location is to be listed together with the appropriate estimated time of impact. If there is to be a series of continuous impacts, the time to be included is the estimated time of the first and the last in the series (e.g., 070330Z–072300Z).*

*(c)* any changes in the pre-launch information notified in accordance with paragraph *(b)* above shall be forwarded to the air traffic services unit concerned not less than 6 hours before the estimated time of launch, or in the case of solar or cosmic disturbance investigations involving a critical time element, not less than 30 minutes before the estimated time of the commencement of the operation.

(2) Notification of launch—

Immediately after a medium or heavy unmanned free balloon is launched the operator shall notify the appropriate Air Traffic Services Unit of the following:

*(a)* balloon flight identification;

*(b)* launch site;

*(c)* actual time of launch;

*(d)* estimated time at which 18000 metres (60,000 feet) pressure-altitude will be passed, or the estimated time at which the cruising level will be reached if at or below 18 000 metres (60,000 feet) and the estimated location; and

*(e)* any changes to the information previously notified in accordance with paragraph (1)*(b)*(vii) and (viii).

(3) Notification of cancellation—

The operator shall notify the appropriate Air Traffic Services Unit immediately after it is known that the intended flight of a medium or heavy unmanned free balloon, previously notified in accordance with clause 5(1), has been cancelled.

## POSITION RECORDING AND REPORTS

6. (1) The operator of a heavy unmanned free balloon operating at or below 18 000 metres (60,000 feet) pressure-altitude shall monitor the flight path of the balloon and forward reports of the balloon's position as requested by Air Traffic Services.

(2) Unless Air Traffic Services require reports as specified under subclause (1) at more frequent intervals, the operator shall record the position every 2 hours.

(3) The operator of a heavy unmanned free balloon operating above 18 000 metres (60,000 feet) pressure-altitude shall monitor the flight progress of the balloon and forward reports of the balloon's position as requested by Air Traffic Services.

(4) Unless Air Traffic Services require reports as specified under subclause (3) at more frequent intervals, the operator shall record the position every 24 hours.

(5) If a position cannot be recorded in accordance with subclauses (1), (2), (3) and (4) the operator shall immediately notify the appropriate Air Traffic Services Unit.

(6) The notification under subclause (5) shall include the last recorded position.

(7) Where tracking of a balloon is re-established, the appropriate Air Traffic Services Unit shall be notified immediately.

(8) One hour before the beginning of planned descent of a heavy unmanned free balloon, the operator shall forward to the appropriate Air Traffic Services Unit the following information regarding the balloon:

*(a)* the current geographical position;

*(b)* the current level or pressure-altitude;

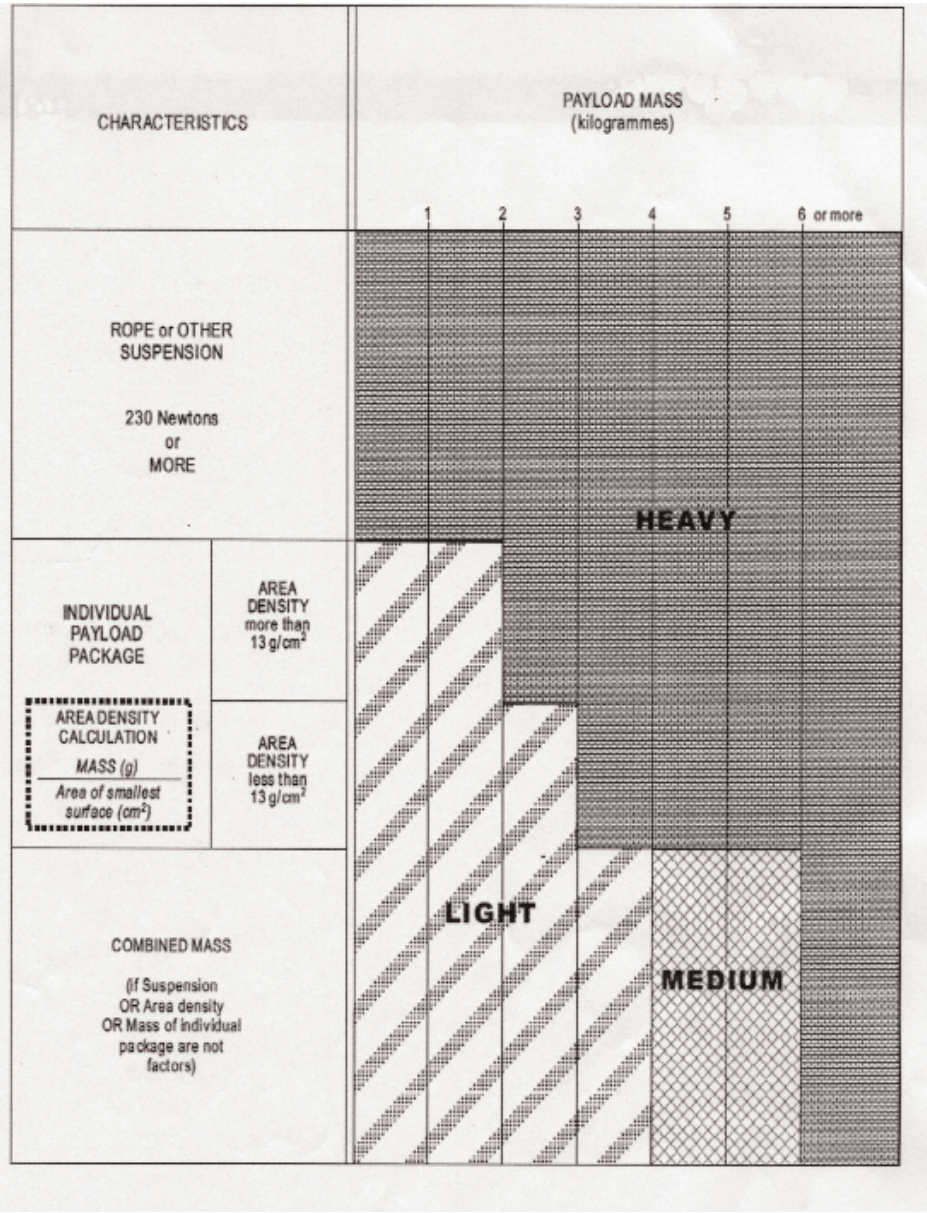
*(c)* the forecast time of penetration of 18 000 metres (60,000 feet) pressure-altitude, if applicable; and

*(d)* the forecast time and location of ground impact.

(9) The operator of a heavy or medium unmanned free balloon shall notify the appropriate Air Traffic Services Unit when the operation is ended.

**FIGURE 1**

## CLASSIFICATION OF UNMANNED FREE BALLOONS




*L.R.O.*

Regulation 131.

## SCHEDULE 5

The Category II and Category III manual under regulation 131 shall meet the following minimum standards:

*(a)* where the Category II or III programme submitted by an operator in support of his application under regulation 131 contains an evaluation stage, the Cat II or III manual of the operator shall include the following:

(i) the location of the aircraft and the place where the demonstrations are to be conducted; and

(ii) the date the demonstrations are to commence (at least ten days after filing the application).

*(b)* a Category II or III manual shall contain—

(i) the registration number, make, and model of the aircraft to which it applies;

(ii) a maintenance programme; and

(iii) the procedures and instructions related to recognition of DH, use of runway visual range information, approach monitoring, the decision region (the region between the middle marker and the decision height), the maximum permissible deviations of the basic ILS indicator within the decision region, a missed approach, use of airborne low approach equipment, minimum altitude for the use of the autopilot, instrument and equipment failure warning systems, instrument failure, and other procedures, instructions, and limitations that may be found necessary by the Authority.

## SCHEDULE 6

Regulation 118A. [186/2006 285/2006].

Airworthiness and operational requirements referred to in Regulation 118A, shall satisfy the following:

## TURBINE ENGINE RELIABILITY

*1. (1) Turbine engine reliability shall be shown to have a power loss rate of less than 1 per 100 000 engine hours.

(2) The operator shall be responsible for engine trend monitoring.

(3) To minimise the probability of in-flight engine failure, the engine shall be equipped with—

*(a)* an ignition system that activates automatically, or is capable of being operated manually, for take-off and landing, and during flight, in visible moisture;

*(b)* a magnetic particle detection or equivalent system that monitors the engine, accessories gearbox, and reduction gearbox, and which includes a flight deck caution indication; and

*(c)* an emergency engine power control device that permits continuing operation of the engine through a sufficient power range to safely complete the flight in the event of any reasonably probable failure of the fuel control unit.

## SYSTEMS AND EQUIPMENT

2. (1) Single-engine turbine-powered aeroplanes approved to operate at night and/or in IMC shall be equipped with the following systems and equipment intended to ensure continued safe flight and to assist in achieving a safe forced landing after an engine failure, under all allowable operating conditions:

*(a)* two separate electrical generating systems, each one capable of supplying all probable combinations of continuous in-flight electrical loads for instruments, equipment and systems required at night and/or in IMC;

*(b)* a radio altimeter;

*(c)* an emergency electrical supply system of sufficient capacity and endurance, following loss of all generated power, at a minimum to:

(i) maintain the operation of all essential flight instruments, communication and navigation systems during a descent from the maximum certificated altitude in a glide configuration to the completion of a landing;

* Note: Power loss in this context is defined as any loss of power, the cause of which may be traced to faulty engine or engine component design or installation, including design or installation of the fuel ancillary or engine control systems.

(ii) lower the flaps and landing gear, if applicable;

(iii) provide power to one pilot heater, which must serve an air speed indicator clearly visible to the pilot;

(iv) provide for operation of the landing light specified in subparagraph *(j)*;

(v) provide for one engine restart, if applicable; and

(vi) provide for the operation of the radio altimeter;

*(d)* two attitude indicators, powered from independent sources;

*(e)* a means to provide for at least one attempt at engine re-start;

*(f)* airborne weather radar;

*(g)* a certified area navigation system capable of being programmed with the positions of aerodromes and safe forced landing areas, and providing instantly available track and distance information to those locations;

*(h)* for passenger operations, passenger seats and mounts which meet dynamically-tested performance standards and which are fitted with a shoulder harness or a safety belt with a diagonal shoulder strap for each passenger seat;

*(i)* in pressurised aeroplanes, sufficient supplemental oxygen for all occupants for descent following engine failure at the maximum glide performance from the maximum certificated altitude to an altitude at which supplemental oxygen is no longer required;

*(j)* a landing light that is independent of the landing gear and is capable of adequately illuminating the touchdown area in a night forced landing; and

*(k)* an engine fire warning system.

## MINIMUM EQUIPMENT LIST

3. The minimum equipment list shall be approved in accordance with regulation 118A of these Regulations to specify the operating equipment required for night and/or IMC operations, and for day/VMC operations.

## FLIGHT MANUAL INFORMATION

4. The flight manual shall include limitations, procedures, approval status and other information relevant to operations by single-engine turbine-powered aeroplanes at night and/or in IMC.

## EVENT REPORTING

5. (1) An operator approved for operations by single-engine turbine powered aeroplanes at night and/or in IMC shall report all significant failures, malfunctions or defects to the State of the Operator who in turn will notify the State of Design.

(2) The State of the Operator shall review the safety data and monitor the reliability information so as to be able to take any actions necessary to ensure that the intended safety level is achieved. The State of the Operator will notify major events or trends of particular concern to the appropriate Type Certificate Holder and the State of Design.

## OPERATOR PLANNING

6. (1) Operator route planning shall take account of all relevant information in the assessment of intended routes or areas of operations, including the following:

*(a)* the nature of the terrain to be overflown, including the potential for carrying out a safe forced landing in the event of an engine failure or major malfunction;

*(b)* weather information, including seasonal and other adverse meteorological influences that may affect the flight; and

*(c)* other criteria and limitations as specified by the State of the Operator.

(2) An operator shall identify aerodromes or safe forced landing areas available for use in the event of engine failure, and the position of these shall be programmed into the area navigational system.

## FLIGHT CREW EXPERIENCE, TRAINING AND CHECKING

7. (1) The minimum flight crew experience required for night/IMC operations by single-engine turbine-powered aeroplanes shall be in accordance with the requirements prescribed by the Director-General.

(2) An operator's flight crew training and checking shall be appropriate to night of IMC operations by single-engine turbine-powered aeroplanes, covering normal, abnormal and emergency procedures and, in particular, engine failure, including descent to a forced landing in night and/or in IMC conditions.

## ROUTE LIMITATIONS OVER WATER

8. Route limitation criteria for single-engine turbine-powered aeroplanes operating at night or in IMC on over water operations shall be applied by the Director-General if beyond gliding distance from an area suitable for a safe forced landing/ditching having regard to the characteristics of the aeroplane, seasonal weather influences, including likely sea state and temperature, and the availability of search and rescue services.

*L.R.O.*

## OPERATOR CERTIFICATION OR VALIDATION

9. The operator shall demonstrate the ability to conduct operations by single-engine turbine-powered aeroplanes at night or in IMC through a certification and approval process specified by the State of the Operator.

Note 1: *A "safe" forced landing in this context means a landing in an area at which it can reasonably be expected that it will not lead to serious injury or loss of life, even though the aeroplane may incur extensive damage.*

Note 2: *Operation over routes and in weather conditions that permit a safe forced landing in the event of an engine failure, as specified in regulation 111(4) of these Regulations, is not required by paragraph 6(1) and 6(2) of this Schedule for aeroplanes approved in accordance with regulation 118A of these Regulations.*

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Regulation 118B.

## SCHEDULE 6A

Airworthiness and operations requirements referred to in regulation 118B, shall satisfy the following:

## ENGINE RELIABILITY

1. Attaining and maintaining approval for engines used by helicopters operating in performance Class 3 in Instrument Meteorological Conditions—

*(a)* in order to attain initial approval for existing in-service engine types, the operator shall assure the Authority that the reliability of the engine has a nominal power loss rate of less than 1 per 100 000 engine hours based on a risk management process;

Note: *Power loss in this context is defined as any significant loss of power, the cause of which may be traced to engine or engine component, design, maintenance or installation, including design or installation of the fuel ancillary or engine control systems.*

*(b)* in order to attain initial approval for new engine types, the operator shall assure the Authority that the State of Design has assessed the engine model for acceptance for operations in performance Class 3 in Instrument Meteorological Conditions;

*(c)* in order to maintain approval, the operator shall assure the Authority that the State of Design, through the continuing airworthiness process, ensures that engine reliability remains consistent with the intent of the Standard contained in paragraph *(a)*.

2. The operator shall be responsible for a programme for ongoing engine trend monitoring.

3. To minimise the probability of in-flight engine failure, the operator shall ensure that the engine is equipped with—

*(a)* four turbine engines, a re-ignition system that activates automatically or a manually selectable continuous ignition system unless the engine certification has determined that such a system is not required, taking into consideration the likely environmental conditions in which the engine is to be operated;

*(b)* a magnetic particle detection, or equivalent system that monitors the engine, accessories gearbox, and reduction gearbox, and which includes a flight deck caution indication; and

*(c)* a means that would permit continuing operation of the engine through a sufficient power range to safely complete the flight in the event of any reasonably probable failure of the fuel control unit.

## SYSTEMS AND EQUIPMENT

4. Helicopters operating in performance Class 3 in Instrument Meteorological Conditions shall be equipped with the following systems and equipment intended to ensure continued safe flight or to assist in achieving a safe forced landing after an engine failure, under all allowable operating conditions—

*(a)* either two separate electrical generating systems, each one capable of supplying all probable combinations of continuous in-flight electrical loads for instruments, equipment and systems required in Instrument Meteorological Conditions; or a primary electrical source and a standby battery or other alternate source of electric power that is capable of supplying 150 per cent of electrical loads of all required instruments and equipment necessary for safe emergency operations of the helicopter for at least one hour; and

*(b)* an emergency electrical supply system of sufficient capacity and endurance, following loss of all normally generated power to, as a minimum:

Note: *If a battery is used to satisfy the requirement for a second power source [see clause 4(a) above], an additional electrical power supply may not be required.*

(i) maintain the operation of all essential flight instruments, communication and navigation systems during a descent from the maximum certificated altitude in an auto-rotational configuration to the completion of a landing;

(ii) maintain the operation of the stabilisation system, if applicable;

(iii) lower the landing gear, if applicable;

(iv) where required, provide power to one pilot heater, which must serve an air speed indicator clearly visible to the pilot;

(v) provide for landing light operation;

(vi) provide for one engine restart, if applicable; and

(vii) provide for the operation of the radio altimeter;

*(c)* a radio altimeter;

*(d)* an autopilot, if intended as a substitute for a second pilot in these cases, the State of Operator shall ensure the operator's approval clearly states any conditions or limitations on its use;

*(e)* a means to provide for at least one attempt at engine re-start;

*(f)* an area navigation system approved for use in Instrument Flight Rules, capable of being used to locate suitable landing areas in the event of an emergency;

*(g)* a landing light that is independent of retractable landing gear and is capable of adequately illuminating the touchdown area in a night forced landing; and

*(h)* an engine fire warning system.

## MINIMUM SERVICEABILITY REQUIREMENTS— OPERATING EQUIPMENT

5. The Authority shall specify the minimum serviceability requirements for operating equipment in helicopters operating in performance Class 3 in Instrument Meteorological Conditions.

## OPERATIONS MANUAL INFORMATION

6. The operations manual shall include limitations, procedures, approval status and other information relevant to operations in performance Class 3 in Instrument Meteorological Conditions.

## EVENT REPORTING

7. (1) An operator approved to conduct operations by helicopters in performance Class 3 in Instrument Meteorological Conditions shall report all significant failures, malfunctions or defects to the Authority, the State of Manufacture and the State of Design.

(2) The Authority shall monitor operations in performance Class 3 in Instrument Meteorological Conditions so as to be able to take any actions necessary to ensure that the intended safety level is maintained.

(3) The Authority shall notify major events or trends of particular concern to the appropriate Type Certificate holder, the State of Manufacture and the State of Design.

## OPERATOR PLANNING

8. During route planning, an operator shall take account of all relevant information in the assessment of intended routes or areas of operations, including the following:

*(a)* the nature of the terrain to be over-flown, including the potential for carrying out a safe forced landing in the event of an engine failure or major malfunction;

*(b)* weather information, including seasonal and other adverse meteorological influences that may affect the flight; and

*(c)* all other criteria and limitations specified by the Authority.

## FLIGHT CREW EXPERIENCE, TRAINING AND CHECKING

9. (1) The Authority shall prescribe the minimum flight crew experience for helicopters operating in performance Class 3 in Instrument Meteorological Conditions.

(2) An operator's flight crew training and checking programme shall be appropriate to operations in performance Class 3 in Instrument Meteorological Conditions, covering normal, abnormal and emergency procedures and, in particular, detection of engine failure including descent to a forced landing in Instrument Meteorological Conditions and, for single engine helicopters, entry into a stabilised auto-rotation.

## OPERATOR CERTIFICATION OR VALIDATION

10. An operator shall demonstrate the ability to conduct operations in performance Class 3 in Instrument Meteorological Conditions through a certification and approval process specified by the Authority.

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*L.R.O.*

Regulation 160.
[186/2006].

## SCHEDULE 7

The universal signs to be used in air transport operations shall have the following meanings:

*(a)* distress signals. The following signals, used either together or separately, mean that grave and imminent danger threatens, and immediate assistance is requested:

(i) a signal made by radio-telegraphy or by any other signaling method consisting of the group SOS (• • • — — — • • • in the Morse Code);

(ii) a signal sent by radio-telephony consisting of the spoken word MAYDAY;

(iii) rockets or shells throwing red lights, fired one at a time at short intervals; and

(iv) a parachute flare showing a red light;

*(b)* none of the provisions in this clause shall prevent the use, by an aircraft in distress, of any means at its disposal to attract attention, make known its position and obtain help;

*(c)* the following signals, used either together or separately, means that an aircraft wishes to give notice of difficulties which compel it to land without requiring immediate assistance:

(i) the repeated switching on and off of the landing lights; or

(ii) the repeated switching on and off of the navigation lights in such manner as to be distinct from flashing navigation lights;

*(d)* the following signals, used either together or separately, means that an aircraft has a very urgent message to transmit concerning the safety of a ship, aircraft or other vehicle, or of some person on board or within sight:

(i) a signal made by radiotelegraphy or by any other signaling method consisting of the group XXX; and

(ii) a signal sent by radiotelephony consisting of the spoken words PAN, PAN;

*(e)* the following signals shall be used in the event of interception:

(i) signals initiated by intercepting aircraft and responses by intercepted aircraft;

| *Series* | *INTERCEPTING Aircraft Signals* | *Meaning* | *INTERCEPTED Aircraft Responds* | *Meaning* |
|---|---|---|---|---|
| 1. | DAY or NIGHT—Rocking aircraft and flashing navigational lights at irregular intervals (and landing lights in the case of a helicopter) from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft (or to the right if the intercepted aircraft is a helicopter) and, after acknowledgement, a slow level turn, normally to the left, (or to the right in the case of a helicopter) on the desired heading.<br>*Note 1.—Meteorlogical conditions or terrain may require the intercepting aircraft to reverse the positions and direction of turn given above in Series 1.*<br>*Note 2.—If the intercepted aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of racetrack patterns and to rock the aircraft each time it passes the intercepted aircraft.* | Follow me | Following | |
| 2. | DAY or NIGHT—An abrupt break-away manoeuvre from the intercepted aircraft consisting of a climbing turn of 90 degrees or more without crossing the line of flight of the intercepted aircraft. | You may proceed | DAY or NIGHT—Rocking the aircraft | Understood, will comply |
| 3. | DAY or NIGHT—Lowering landing gear (if fitted), showing steady landing lights and overlying runway in use or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. In the case of helicopters, the intercepting helicopter makes a landing approach, coming to hover near to the landing area. | Land at this aerodrome | DAY or NIGHT—Lowering landing gear (if fitted), showing steady landing lights and following the intercepting aircraft and, if, after overlying the runway in use or helicopter landing area, landing is considered safe, proceeding to land. | Understood, will comply |

(ii) signals initiated by intercepted aircraft and responses by intercepting aircraft;

| *Series* | *INTERCEPTED Aircraft Signals* | *Meaning* | *INTERCEPTING Aircraft Responds* | *Meaning* |
|---|---|---|---|---|
| 4. | DAY or NIGHT—Raising landing gear (if fitted) and flashing landing lights while passing over runway in use or helicopter landing area at a height exceeding 300 metres (1,000 feet) but not exceeding 600 metres (2,000 feet)(in the case of a helicopter, at a height exceeding 50 metres (170 feet) but not exceeding 100 metres (330 feet) above the aerodrome level, and continuing to circle runway in use or helicopter landing area. If unable to flash landing lights, flash any other lights available. | Aerodrome you have designated is inadequate | DAY or NIGHT—If it is desired that the intercepted aircraft follow the intercepting aircraft to an alternate aerodrome, the intercepting aircraft raises its landing gear (if fitted) and uses Series 1 signals prescribed for intercepting aircraft.<br>If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft. | Understood follow me<br>Understood you may proceed |
| 5. | DAY or NIGHT—Regular switching on and off of all available lights but in such a manner as to be distinct from flashing lights. | Cannot comply | DAY or NIGHT—Use Series 2 signals prescribed for intercepting aircraft. | |
| 6. | DAY or NIGHT—Irregular flashing of all available lights. | In distress | DAY or NIGHT—Use Series 2 signals prescribed for intercepting aircraft | Understood |

*L.R.O.*

*(f)* visual signals used to warn an unauthorised aircraft. By day and by night, a series of projectiles discharged from the ground at intervals of 10 seconds, each showing, on bursting, red and green lights or stars will indicate to an unauthorised aircraft that it is flying in or about to enter a restricted, prohibited, or danger area, and that the aircraft is to take such remedial action as may be necessary;

*(g)* signals for aerodrome traffic. Aerodrome controllers shall use and pilots shall obey the following light and pyrotechnic signals:

| **Light** | | **From Aerodrome Control to:** | |
|---|---|---|---|
| | | **Aircraft in flight** | **Aircraft on the ground** |
| Directed towards aircraft concerned (*See* Figure 1.1) | Steady green | • Cleared to land | Cleared for take-off |
| | Steady red | • Give way to other aircraft and continue circling | Stop |
| | Series of green flashes | • Return for landing* | Cleared to taxi |
| | Series of red flashes | • Aerodrome unsafe, do not land | Taxi clear of landing area in use |
| | Series of white flashes | • Land at this aerodrome and proceed to apron* | Return to starting point on the aerodrome |
| | Red pyrotechnic | • Notwithstanding any previous instructions, do not land for the time being. | |

* *Clearances to land and to taxi will be given in due course.*

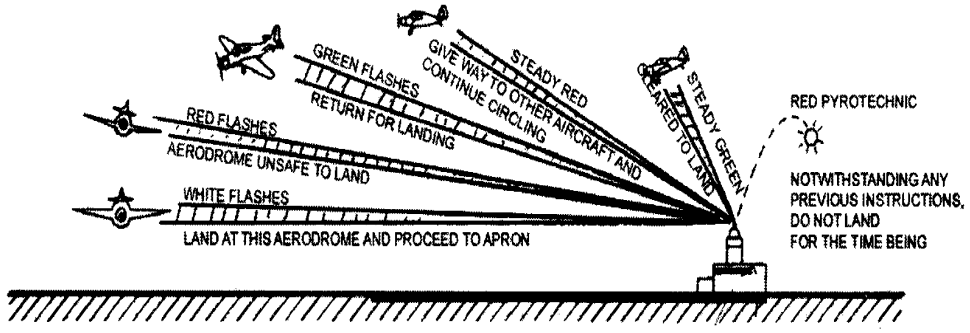



Figure 8.1

*(h)* Pilots shall acknowledge the aerodrome controller signals as follows:

(i) when in flight—

(A) during the hours of daylight by rocking the aircraft's wings; and

Note: *This signal should not be expected on the base and final legs of the approach.*

(B) during the hours of darkness by flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights;

(ii) when on the ground—

(A) during the hours of daylight by moving the aircraft's ailerons or rudder; and

(B) during the hours of darkness by flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights;

*(i)* aerodrome authorities shall use the following: visual ground signals shall be used during the following situations:

(i) prohibition of landing:

A horizontal red square panel with yellow diagonals (Figure 8.2) when displayed in a signal area indicates that landings are prohibited and that the prohibition is liable to be prolonged; and



Figure 8.2

(ii) need for special precautions while approaching or landing:

A horizontal red square panel with one yellow diagonal (Figure 8.3) when displayed in a signal area indicates that owing to the bad state of the

manoeuvring area, or for any other reason, special precautions shall be observed in approaching to land or in landing;



Figure 8.3

(iii) use of runways and taxiways:
A horizontal white dumb-bell (Figure 8.4) when displayed in a signal area indicates that aircraft are required to land, take-off and taxi on runways and taxiways only;



Figure 8.4

(iv) the same horizontal white dumb-bell as in Figure 8.4, but with a black bar placed perpendicular to the shaft across each circular portion of the dumb-bell (Figure 8.5) when displayed in a signal area indicates that aircraft are required to land and take-off on runways only, but other manoeuvres need not be confined to runways and taxiways;



Figure 8.5

(v) closed runways or taxiways. Crosses of a single contrasting colour, yellow or white (Figure 8.6), displayed horizontally on runways and taxiways or parts thereof indicate an area unfit for movement of aircraft;



Figure 8.6

(vi) directions for landing or take-off:

A horizontal white or orange landing T (Figure 8.7) indicates the direction to be used by aircraft for landing and take-off, which shall be in a direction parallel to the shaft of the T towards the cross arm;

Note: *When used at night, the landing T is either illuminated or outlined in white coloured lights.*



Figure 8.7

(vii) a set of two digits (Figure 8.8) displayed vertically at or near the aerodrome control tower indicates to aircraft on the manoeuvring area the direction for take-off, expressed in units of 10 degrees to the nearest 10 degrees of the magnetic compass;




Figure 8.8

(viii) right-hand traffic:

When displayed in a signal area, or horizontally at the end of the runway or strip in use, a right-hand arrow of conspicuous colour (Figure 8.9) indicates that turns are to be made to the right before landing and after take-off;

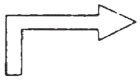


Figure 8.9

(ix) air traffic services reporting office:

The letter C displayed vertically in black against a yellow background (Figure 8.10) indicates the location of the air traffic services reporting office;




Figure 8.10

*L.R.O.*

(x) glider flights in operation:

A double white cross displayed horizontally (Figure 8.11) in the signal area indicates that the aerodrome is being used by gliders and that glider flights are being performed:

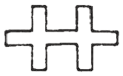


Figure 8.11

*(j)* the following marshalling signals shall be used from a signalman to an aircraft:

These signals are designed for use by the signalman, with hands illuminated as necessary to facilitate observation by the pilot, and facing the aircraft in a position—

(i) for fixed-wing aircraft, the signalman shall be positioned forward of the left-wing tip within view of the pilot and, for helicopters, where the signalman can best be seen by the pilot;

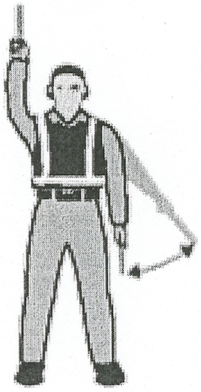
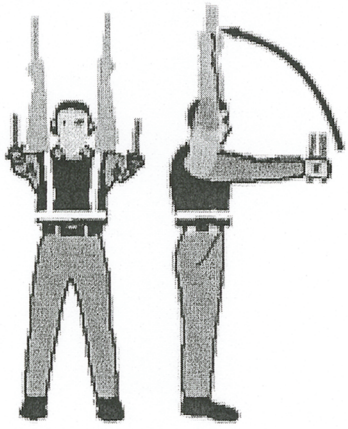
The meaning of the relevant signals remains the same if bats, illuminated wands or torch lights are held;

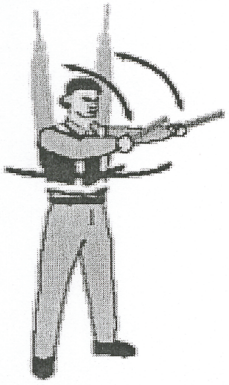
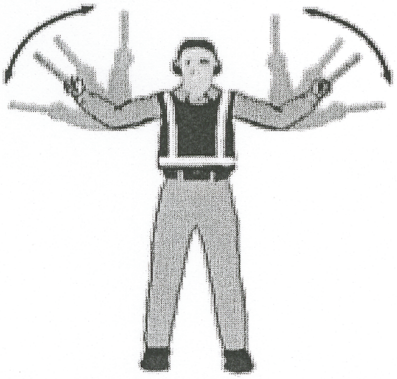
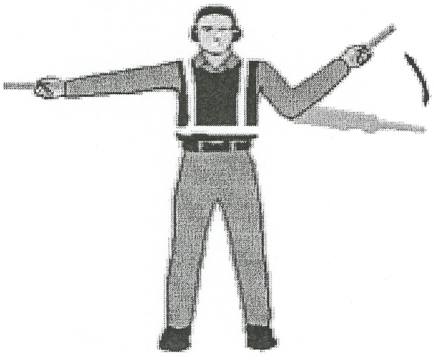
Note: *The aircraft engines are numbered, for the signalman facing the aircraft, from right to left (i.e., No. I engine being the port outer engine).*

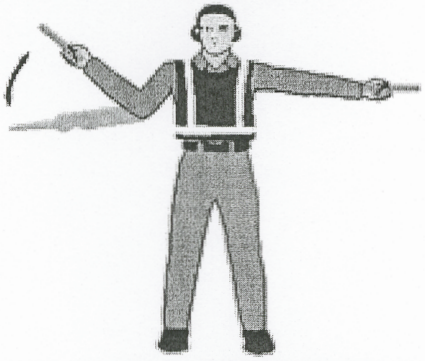
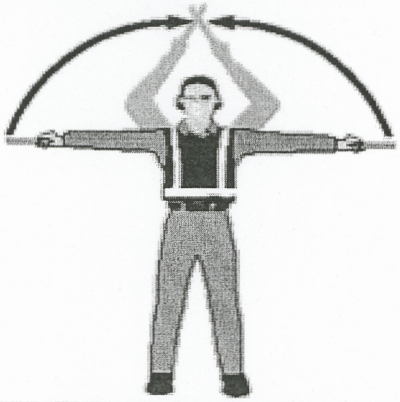
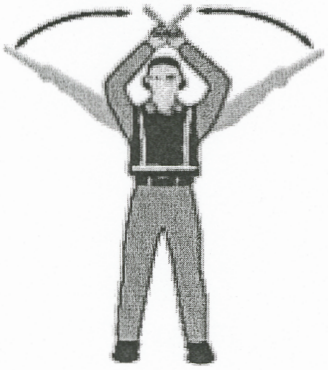
Note: *Signals marked with an asterisk are designed for use to hovering helicopters.*

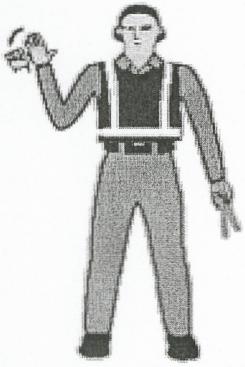
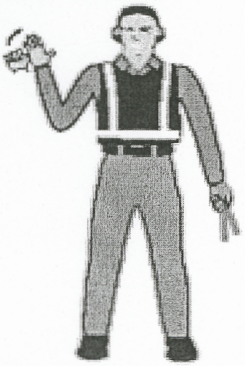
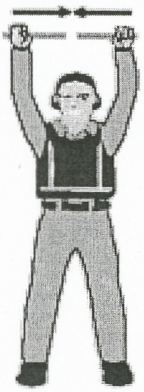
(ii) prior to using the following signals, the signalman shall ascertain that the area within which an aircraft is to be guided is clear of objects which the aircraft might otherwise strike;

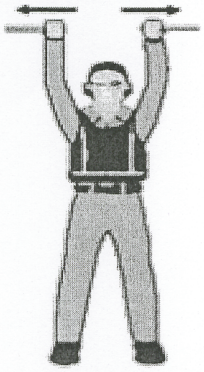
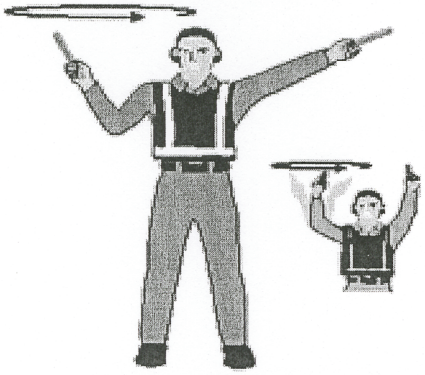
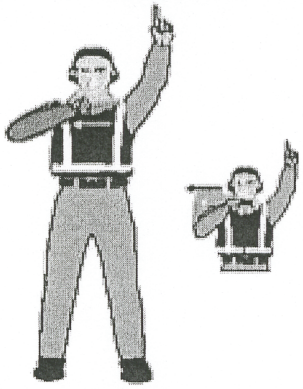
Note: *The design of many aircraft is such that the path of the wing tips, engines and other extremities cannot always be monitored visually from the flight deck while the aircraft is being manoeuvred on the ground.*

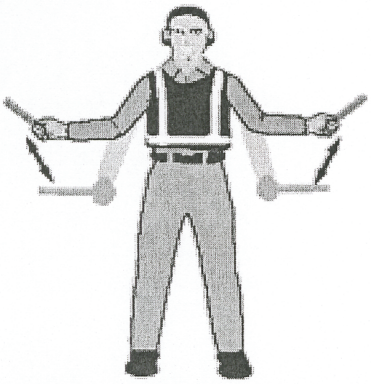
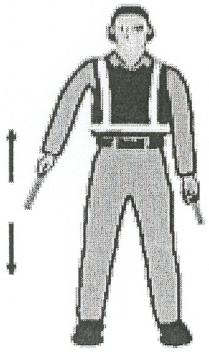
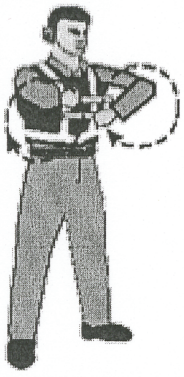
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|---|---|
| Marshalling Signal No. 1 | |
|  | **1. Wingwalker/guide**<br><br>Raise right hand above head level with wand pointing up; move left-hand wand pointing down toward body.<br><br>*Note—This signal provides an indication at the aircraft wing tip, to the pilot/marshaller/push-back operator, that the aircraft movement on/off a parking position would be unobstructed.* |
| Marshalling Signal No. 2 | |
|  | **2. Identify gate**<br><br>Raise fully extended arms straight above head with wands pointing up. |
| | |

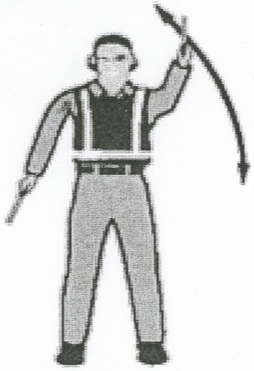
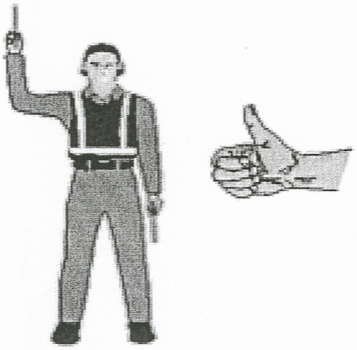
| Marshalling Signal No. 3 | |
|---|---|
|  | **3. Proceed to next signalman or as directed by tower/ground control**<br><br>Point both arms upward; move and extend arms outward to sides of body and point with wands to direction of next signalman or taxi area. |
| Marshalling Signal No. 4 | |
|  | **4. Straight ahead**<br><br>Bend extended arms at elbows and move wands up and down from chest height to head. |
| Marshalling Signal No. 5(a) | |
|  | **5(a). Turn left (from pilot's point of view)**<br><br>With right arm and wand extended at a 90-degree angle to body, make "come ahead" signal with left hand. The rate of signal motion indicates to pilot the rate of aircraft turn. |
| | |

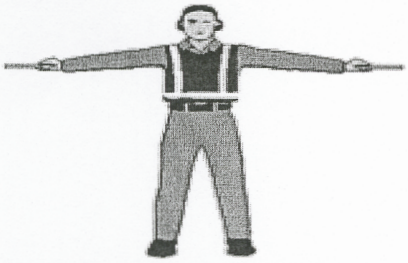
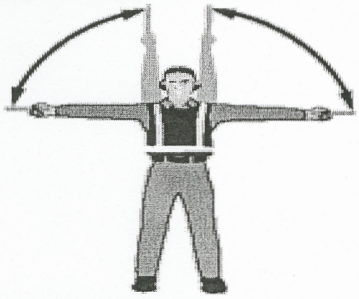
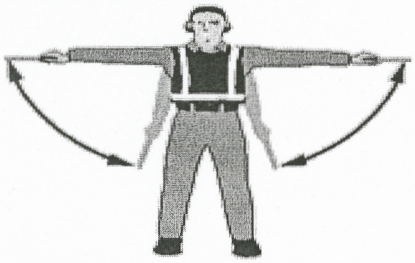
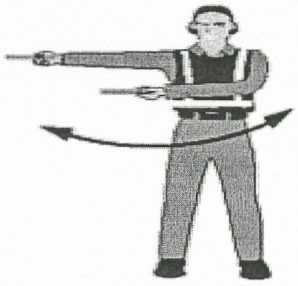
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| Marshalling Signal No. 5(b) | |
|  | **5(b). Turn right (from pilot's point of view)**<br><br>With left arm and wand extended at a 90-degree angle to body, make "come ahead" signal with right hand. The rate of signal motion indicates to pilot the rate of aircraft turn. |
| Marshalling Signal No. 6(a) | |
|  | **6(a). Normal stop**<br><br>Fully extend arms and wands at a 90-degree angle to sides and slowly move to above head untill wands cross. |
| Marshalling Signal No. 6(b) | |
|  | **6(b). Emergency stop**<br><br>Abruptly extend arms and wands to top of head, crossing wands. |
| | |

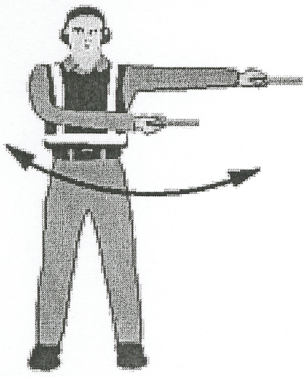
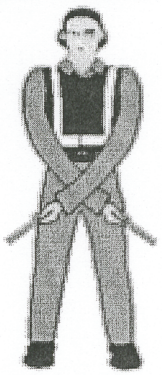
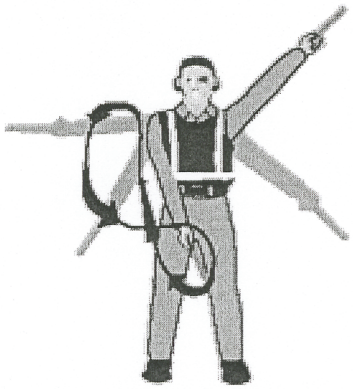
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| Marshalling Signal No. 7(a) | |
|  | **7(a). Set brakes**<br><br>Raise hand just above shoulder height with open palm. Ensuring eye contact with flight crew, close hand into a fist.<br><br>**Do not** move until receipt of "thumbs up" acknowledgement from flight crew. |
| Marshalling Signal No. 7(b) | |
|  | **7(b). Release brakes**<br><br>Raise hand just above shoulder height with hand closed in a fist. Ensuring eye contact with flight crew, open palm.<br><br>**Do not** move until receipt of "thumbs up" acknowledgement from flight crew. |
| Marshalling Signal No. 8(a) | |
|  | **8(a). Chocks inserted**<br><br>With arms and wands fully extended above head move wands inward in a "jabbing" motion until wands touch.<br><br>**Ensure** acknowledgement is received from flight crew. |

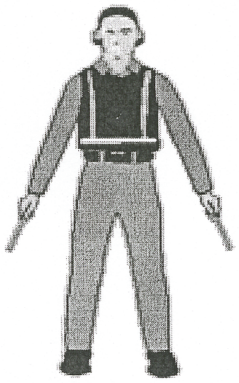
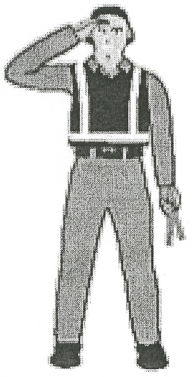
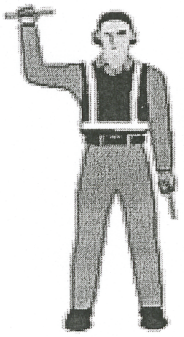
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|---|---|
| Marshalling Signal No. 8(b) | |
|  | **8(b). Chocks removed**<br><br>With arms and wands fully extended above head, move wands outward in a "jabbing" motion.<br><br>**Do not** remove chocks until authorised by flight crew. |
| Marshalling Signal No. 9 | |
|  | **9. Start engine(s)**<br><br>Raise right arm to head level with wand pointing up and start a circular motion with hand; at the same time, with left arm raised above head level, point to engine to be started. |
| Marshalling Signal No. 10 | |
|  | **10. Cut engines**<br><br>Extend arm with wand forward of body at shoulder level; move hand and wand to top of left shoulder and draw wand to top of right shoulder in a slicing motion across throat. |
| | |

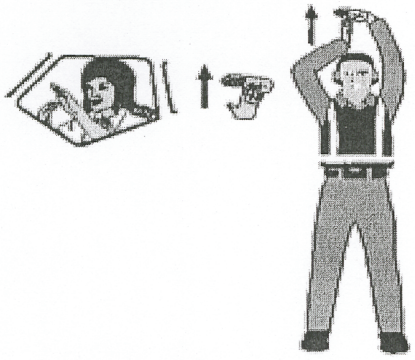
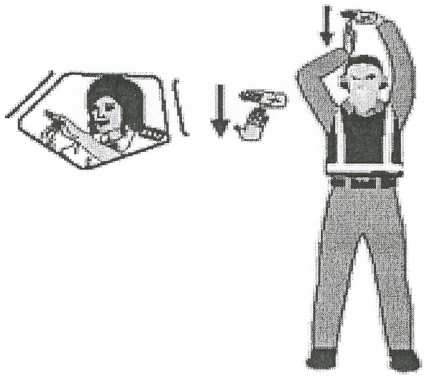
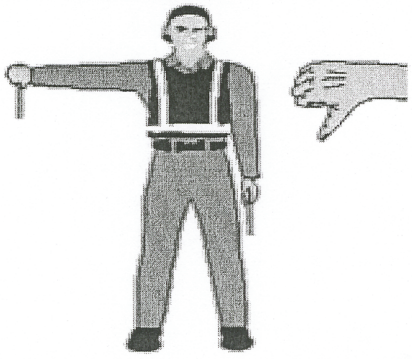
| Marshalling Signal No. 11 | |
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|  | **11. Slow down**<br><br>Move extended arms downwards in a "patting" gesture, moving wands up and down from waist to knees. |
| Marshalling Signal No. 12 | |
|  | **12. Slow down engine(s) on indicated side**<br><br>With arms down and wands toward ground, wave either right or left wand up and down indicating engine(s) on left or right side respectively should be slowed down. |
| Marshalling Signal No. 13 | |
|  | **13. Move back**<br><br>With arms in front of body at waist height, rotate arms in a forward motion. To stop rearward movement, use signal 6(a) or 6(b). |

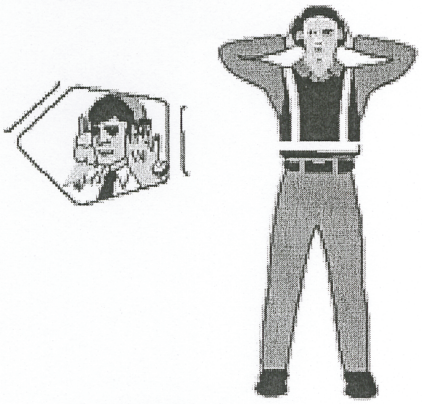
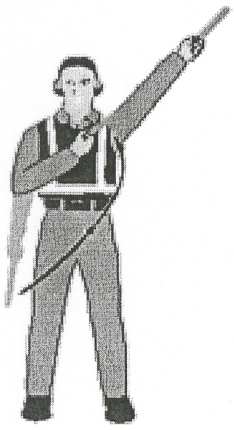
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|---|---|
| Marshalling Signal No. 14(a) | |
|  | **14(a). Turns while backing (for tail to starboard)**<br><br>Point left arm with wand down and bring right arm from overhead vertical position to horizontal forward position, repeating right-arm movement. |
| Marshalling Signal No. 14(b) | |
|  | **14(b). Turns while backing (for tail to port)**<br><br>Point right arm with wand down and bring left arm from overhead vertical position to horizontal forward position, repeating left-arm movement. |
| Marshalling Signal No. 15 | |
|  | **15. Affirmative /all clear**<br><br>Raise right arm to head level with wand pointing up or display hand with "thumbs up"; left arm remains at side by knee.<br><br>Note.—*This signal is also used as a technical/servicing communication signal.* |
| | |

| Marshalling Signal No. 16 | |
|---|---|
|  | **16. Hover**<br><br>Fully extend arms and wands at a 90-degree angle to sides. |
| Marshalling Signal No. 17 | |
|  | **17. Move upwards**<br><br>Fully extend arms and wands at a 90-degree angle to sides and, with palms turned up, move hands upwards. Speed of movement indicates rate of ascent. |
| Marshalling Signal No. 18 | |
|  | **18. Move downwards**<br><br>Fully extend arms and wands at a 90-degree angle to sides and, with palms turned down, move hands downwards. Speed of movement indicates rate of descent. |
| Marshalling Signal No. 19(a) | |
|  | **19(a). Move horizontally left (from pilot's point of view)**<br><br>Extend arm horizontally at a 90-degree angle to right side of body. Move other arm in same direction in a sweeping motion. |

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| Marshalling Signal No. 19(b) | |
|  | **19(b). Move horizontally right (from pilot's point of view)**<br><br>Extend arm horizontally at a 90-degree angle to left side of body. Move other arm in same direction in a sweeping motion. |
| Marshalling Signal No. 20 | |
|  | **20. Land**<br><br>Cross arms with wands downwards and in front of body. |
| Marshalling Signal No. 21 | |
|  | **21. Fire**<br><br>Move right-hand wand in a "fanning" motion from shoulder to knee, while at the same time pointing with left-hand wand to area of fire. |
| | |

| Marshalling Signal No. 22 | |
|---|---|
|  | **22. Hold position/stand by**<br><br>Fully extend arms and wands downwards at a 45-degree angle to sides. Hold position until aircraft is clear for next manoeuvre. |
| Marshalling Signal No. 23 | |
|  | **23. Dispatch aircraft**<br><br>Perform a standard salute with right hand and/or wand to dispatch the aircraft. Maintain eye contact with flight crew until aircraft has begun to taxi. |
| Marshalling Signal No. 24 | |
|  | **24. Do not touch controls (technical/servicing communication signal)**<br><br>Extend right arm fully above head and close fist or hold wand in horizontal position; left arm remains at side by knee. |
| | |

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| Marshalling Signal No. 25 | |
|  | **25. Connect ground power (technical/ servicing communication signal)**<br><br>Hold arms fully extended above head; open left hand horizontally and move finger tips of right hand into and touch open palm of left hand (forming a "T"). At night, illuminated wands can also be used to form the "T" above head. |
| Marshalling Signal No. 26 | |
|  | **26. Disconnect power (technical/servicing communication signal)**<br><br>Hold arms fully extended above head with finger tips of right hand touching open horizontal palm of left hand (forming a "T"); then move right hand away from the left. Do not disconnect power until authorised by flight crew. At night, illuminated wands can also be used to form the "T" above head. |
| Marshalling Signal No. 27 | |
|  | **27. Negative (technical/servicing communication signal)**<br><br>Hold right arm straight out at 90 degrees from shoulder and point wand down to ground or display hand with "thumbs down"; left hand remains at side by knee. |

| Marshalling Signal No. 28 | |
|---|---|
|  | **28. Establish communication via interphone (technical/servicing communication signal)**<br><br>Extend both arms at 90 degrees from body and move hands to cup both ears. |
| **Marshalling Signal No. 29** | |
|  | **29. Open/close stairs (technical/servicing communication signal)**<br><br>With right arm at side and left arm raised above head at a 45-degree angle, move right arm in a sweeping motion towards top of left shoulder.<br><br>*Note.—This signal is intended mainly for aircraft with the set of integral stairs at the front.* |

*(k)* signals from the pilot of an aircraft to a signalman—

The pilot in command or co-pilot shall use the following signals when communicating with a signalman:

(i) brakes engaged: raise arm and hand, with fingers extended, horizontally in front of face, then clench fist;

(ii) brakes released: raise arm, with fist clenched, horizontally in front of face, then extend fingers;

Note: *These signals are designed for use by a pilot in the cockpit with hands plainly visible to the signalman, and illuminated as necessary to facilitate observation by the signalman.*

Note: *The aircraft engines are numbered in relation to the signalman facing the aircraft, from right to left (i.e., No. I engine being the port outer engine).*

Note: *The moment the fist is clenched or the fingers are extended indicates, respectively, the moment of brake engagement or release.*

(iii) insert chocks arms extended, palms outwards, move hands inwards to cross in front of face;

(iv) remove chocks hands crossed in front of face, palms outwards, move arms outwards; and

(v) ready to start engine(s). Raise the appropriate number of fingers on one hand indicating the number of the engine to be started;

*(l)* interception of Civil Aircraft:

(i) principles to be observed by States:

(A) to achieve the uniformity in regulations which is necessary for the safety of navigation of civil aircraft, due regard shall be had by Contracting States to the following principles when developing regulations and administrative directives:

(I) interception of civil aircraft will be undertaken only as a last resort;

(II) if undertaken, an interception will be limited to determining the identity of the aircraft, unless it is necessary to return the aircraft to its planned track, direct it beyond the boundaries of national airspace, guide it away from a prohibited, restricted or danger area or instruct it to effect a landing at a designated aerodrome;

(III) practice interception of civil aircraft will not be undertaken;

(IV) navigational guidance and related information will be given to an intercepted aircraft by radiotelephony, whenever radio contact can be established; and

(V) in the cast where an intercepted civil aircraft is required to land in the territory overflown, the aerodrome designated for the landing is to be suitable for the safe landing of the aircraft type concerned;

Note: *In the unanimous adoption by the 25th Session (Extraordinary) of the ICA0 Assembly on 10th May 1984 of Article 3 is to the Convention on International Civil Aviation, the Contracting States have recognised that "every State shall refrain from resorting to the use of weapons against civil aircraft in flight".*

(B) Contracting States shall publish a standard method that has been established for the manoeuvring of aircraft intercepting a civil aircraft. Such method shall be designed to avoid any hazard for the intercepted aircraft;

(C) Contracting States shall ensure that provision is made for the use of secondary surveillance radar, where available, to identify civil aircraft in areas where they may be subject to interception;

(ii) action by intercepted aircraft—

(A) an aircraft which is intercepted by another aircraft shall immediately—

(I) follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals specified in Implementing standard 1;

(II) notify, if possible, the appropriate air traffic services unit;

(III) attempt to establish radio communication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121.5 MHz, giving the identity of the intercepted aircraft and the nature of the flight; and if no contact has been established and if practicable, repeating this call on the emergency frequency 243 MHz;

(IV) if equipped with Secondary Surveillance Radar transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate air traffic services unit;

(V) where equipped with Automatic Dependent Surveillance-Broadcast or Automatic Dependent Surveillance-Contract, select the appropriate emergency functionality, where available, unless otherwise instructed by the appropriate Air Traffic Services Unit;

(B) if any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft;

(C) if any instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft;

*(m)* radio communication during interception—

If radio contact is established during interception but communication in a common language is not possible, attempts shall be made to convey instructions, acknowledgement of instructions and essential at information by using the phrases and pronunciations in the table below and transmitting each phrase twice:

| *Phrases for use by INTERCEPTING aircraft* | | | *Phrases for use by INTERCEPTED aircraft* | | |
|---|---|---|---|---|---|
| ***Phrase*** | ***Pronunciation*[1]** | ***Meaning*** | ***Phrase*** | ***Pronunciation*[1]** | ***Meaning*** |
| CALL SIGN | KOL SA-IN | What is your call sign? | CALL SIGN (call sign)[2] | KOL SA-IN (call sign) | My call sign is (call sign) |
| FOLLOW | FOL-LO | Follow me | WILCO | VILL-KO | Understood Will comply |
| DESCEND | DEE-SEND | Descend for landing | CAN NOT | KANN NOTT | Unable to comply |
| YOU LAND | YOU LAAND | Land at this aerodrome | REPEAT | REE-PEET | Repeat your instruction |
| PROCEED | PRO-SEED | You may proceed | AM LOST | AM LOSST | Position unknown |
| | | | MAYDAY | MAYDAY | I am in distress |
| | | | HIJACK[3] | HI-JACK | I have been hijacked |
| | | | LAND (place name) | LAAND (place name) | I request to land at (place name) |
| | | | DESCEND | DEE-SEND | I require descent |

*1. In the second column, syllables to be emphasized are underlined.*

*2. The call sign required to be given is that used in radio-telephone, communications with air traffic services units and corresponding to the aircraft identification in the flight plan.*

*3. Circumstances may not always permit, nor make desirable, the use of the phrase "HIJACK".*

*L.R.O.*

*(n)* Cruising Levels—

The pilot in command shall observe the following cruising levels except when, on the basis of regional air navigation agreements, a modified table of cruising levels based on a nominal vertical separation minimum of less than 600 metres (2,000 feet) but not less than 300 metres (1,000 feet) is prescribed for use, under specified conditions, by aircraft operating above FL 290 within designated portions of the airspace:

**TRACK***

| From 000 Degrees to 179 Degrees† | | | | | | From 180 Degrees to 359 Degrees† | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Instruments Flight Rules Flights | | | Visual Flight Rules Flights | | | Instruments Flight Rules Flights | | | Visual Flight Rules Flights | | |
| | Altitude | | | Altitude | | | Altitude | | | Altitude | |
| F L | Metres | Feet | F L | Metres | Feet | F L | Metres | Feet | F L | Metres | Feet |
| -90 | — | — | — | — | — | 0 | — | — | — | — | — |
| 10 | 300 | 1000 | — | — | — | 20 | 600 | 2000 | — | — | — |
| 30 | 900 | 3000 | 35 | 1050 | 3500 | 40 | 1200 | 4000 | 45 | 1350 | 4500 |
| 50 | 1500 | 5000 | 55 | 1700 | 5500 | 60 | 1850 | 6000 | 65 | 2000 | 6500 |
| 70 | 2150 | 7000 | 75 | 2300 | 7500 | 50 | 2450 | 8000 | 85 | 2600 | 8500 |
| 90 | 2750 | 9000 | 95 | 2900 | 9500 | 100 | 3050 | 10000 | 105 | 3200 | 10500 |
| 110 | 3350 | 11000 | 115 | 3500 | 11500 | 120 | 3650 | 12000 | 125 | 3800 | 12500 |
| 130 | 3950 | 13000 | 135 | 4100 | 13500 | 140 | 4250 | 14000 | 145 | 4400 | 14500 |
| 150 | 4550 | 15000 | 155 | 4700 | 15500 | 160 | 4900 | 16000 | 165 | 5050 | 16500 |
| 170 | 5200 | 17000 | 175 | 5300 | 17500 | 180 | 5500 | 18000 | 185 | 5650 | 18500 |
| 190 | 5800 | 19000 | 195 | 950 | 19500 | 200 | 6100 | 20000 | 205 | 6250 | 20500 |
| 210 | 6400 | 21000 | 215 | 6550 | 21500 | 220 | 6700 | 22000 | 225 | 6850 | 22500 |
| 230 | 7000 | 23000 | 235 | 7150 | 23500 | 240 | 7300 | 24000 | 245 | 7450 | 24500 |
| 250 | 7600 | 25000 | 255 | 7750 | 25500 | 260 | 7900 | 26000 | 265 | 8100 | 26500 |
| 270 | 8250 | 27000 | 275 | 8100 | 27500 | 280 | 8550 | 28000 | 285 | 8700 | 28500 |
| 290 | 8850 | 29000 | 300 | 9150 | 30000 | 310 | 9450 | 31000 | 320 | 9750 | 32000 |
| 330 | 10050 | 33000 | 340 | 10350 | 34000 | 350 | 10650 | 35000 | 360 | 10950 | 36000 |
| 370 | 11300 | 37000 | 380 | 11600 | 38000 | 390 | 11900 | 39000 | 400 | 12200 | 40000 |
| 410 | 12500 | 41000 | 420 | 12500 | 42000 | 430 | 13100 | 43000 | 440 | 13400 | 44000 |
| 450 | 13700 | 45000 | 460 | 14000 | 46000 | 470 | 14350 | 47000 | 480 | 14650 | 48000 |
| 490 | 14950 | 49000 | 500 | 15250 | 50000 | 510 | 15550 | 51000 | 520 | 15850 | 52000 |

* Magnetic track, or in polar areas at latitudes higher than 70 degrees and within such extensions to those areas as may be prescribed by the appropriate ATS authorities, grid tracks as determined by a network of lines parallel to the Greenwich Meridian superimposed on a polar stereographic chart in which the direction towards the North Pole is employed as the Grid North.

† Except where, on the basis of regional air navigation agreements, from 090 to 269 degrees and from 270 to 089 degrees is prescribed to accommodate predominant traffic directions and appropriate transition procedures to be associated therewith are specified.

## SCHEDULE 8

Regulation 162. [186/2006].

| *Airspace and Visual Meteorological Condition Minima Table | | | |
|---|---|---|---|
| **Altitude Band** | **Airspace Class** | **Flight visibility** | **Distance from cloud** |
| At and above 3 050 m (10,000 ft) AMSL | A ‡ BCDEFG | 8 km | 1 500 m horizontally 300 m (1,000 ft) vertically |
| Below 3 050 m (10,000 ft) and above 900 m (3,000 ft) AMSL, or above 300 m (1,000 ft) above terrain, whichever is the higher | A ‡ BCDEFG | 5 km | 1 500 m horizontally 300 m (1,000 ft) vertically |
| At and below 900 m (3,000 ft) AMSL, or 300 m (1,000 ft) above terrain, whichever is the higher | A ‡ BCDE | 5 km | 1 500 m horizontally 300 m (1,000 ft) vertically |
| | FG | 5 km† | Clear of clouds and with the surface in sight |

* When the height of the transition altitude is lower than 3050 m (10,000 ft) AMSL, FL 100 should be used in lieu of 10,000 ft.

† When so prescribed by the appropriate air traffic services authority—

*(a)* Flight visibilities reduced to not less than 1 500 m may be permitted for flights operating:

(i) at speeds that, in the prevailing visibility, will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision; or

(ii) in circumstances in which the probability of encounters with other traffic would normally be low, e.g., in areas of low volume traffic and for aerial work at low levels;

*(b)* Helicopters may be permitted to operate in less than 1 500 m flight visibility, if manoeuvred at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.

‡ The VMC minima in Class A airspace are included for guidance to pilots and do not imply acceptance of VFR flights in Class A airspace.

*L.R.O.*

Regulation 229. [223/2005].

## SCHEDULE 9

### PART A

Company procedures indoctrination training for national air operators shall include as applicable, the following:

*(a)* Trinidad and Tobago Civil Aviation Regulations and Implementing Standards;

*(b)* air operator certificate and operating conditions;

*(c)* company organisation, reporting relationships and communication procedures;

*(d)* flight planning and operating procedures;

*(e)* fuelling procedures including procedures for fuelling with passengers on board and fuel contamination precautions;

*(f)* critical surface contamination and safety awareness programme;

*(g)* passenger safety briefings and safe movement of passengers to/from the aeroplane;

*(h)* use and status of company operations manual including maintenance release procedures and accident/incident reporting procedures;

*(i)* use of minimum equipment lists (where applicable);

*(j)* windshear, aeroplane icing, and other meteorological training appropriate to the area of operations;

*(k)* navigation procedures and other specialised operations applicable to the operator;

*(l)* accident/incident reporting;

*(m)* passenger on board medical emergency;

*(n)* handling of disabled passengers;

*(o)* air operator's flight safety programme;

*(p)* operational control system;

*(q)* weight and balance system procedures;

*(r)* standard operating procedures (where applicable); and

*(s)* pre-flight crew-member briefing.

Regulation 232.

### PART B

1. A Crew Resource Management Training Programme under regulation 232 shall include—

*(a)* an initial indoctrination or awareness segment;

*(b)* a method to provide recurrent practice and feedback; and

*(c)* a method of providing continuing reinforcement.

2. Curriculum topics to be contained in an initial Crew Resource Management training course include—

*(a)* communications processes and decision behaviour;

*(b)* internal and external influences on interpersonal communications;

*(c)* barriers to communication;

*(d)* listening skills;

*(e)* decision making skills;

*(f)* effective briefings;

*(g)* developing open communications;

*(h)* inquiry, advocacy, and assertion training;

*(i)* crew self-critique;

*(j)* conflict resolution;

*(k)* team building and maintenance;

*(l)* leadership and follow-ship training;

*(m)* interpersonal relationships;

*(n)* workload management;

*(o)* situational awareness;

*(p)* how to prepare, plan and monitor task completions;

*(q)* workload distribution;

*(r)* distraction avoidance;

*(s)* individual factors; and

*(t)* stress reduction.

**PART C**

Regulation 233.

## INITIAL EMERGENCY EQUIPMENT DRILLS

1. Each aircraft crew member shall accomplish emergency training during the specified training periods, using those items of installed emergency equipment for each type of aeroplane in which he or she is to serve.

2. During initial training, each aircraft crew member shall perform the following one-time emergency drills:

*(a)* protective Breathing Equipment and Fire-fighting Drill—

(i) locate source of fire or smoke (actual or simulated fire);

(ii) implement procedures for effective crew co-ordination and communication, including notification of flight crew members about fire situation;

(iii) on and activate installed PBE or approved PBE simulation device;
(iv) manoeuvre in limited space with reduced visibility;
(v) effectively use the aircraft's communication system;
(vi) identify class of fire;
(vii) select the appropriate extinguisher;
(viii) properly remove extinguisher from securing device;
(ix) prepare, operate and discharge extinguisher properly; and
(x) utilise correct firefighting techniques for type of fire;

*(b)* emergency Evacuation Drill:

(i) recognise and evaluate an emergency;
(ii) assume appropriate protective position;
(iii) command passengers to assume protective position;
(iv) implement crew co-ordination procedures;
(v) ensure activation of emergency lights;
(vi) assess aircraft conditions;
(vii) initiate evacuation (dependent on signal or decision);
(viii) command passengers to release seat belts and evacuate;
(ix) assess exit and redirect, if necessary; to open exit, including deploying slides and commanding helpers to assist;
(x) command passengers to evacuate at exit and run away from aircraft;
(xi) assist special need passengers, such as handicapped, elderly, and persons in a state of panic;
(xii) actually exit aircraft or training device using at least one of the installed emergency evacuation slides.

Note: *The crew member may either observe the aircraft exits being opened in the emergency mode and the associated exit slide or/raft pack being deployed and inflated, or perform the tasks resulting in the accomplishment of these actions.*

3. Each aircraft crew member shall accomplish additional emergency drills during initial training, including performing the following emergency drills:

*(a)* emergency exit drill:

(i) correctly pre-flight each type of emergency exit and evacuation slide or slide-raft (if part of cabin crew's assigned duties);

(ii) disarm and open each type of door exit in normal mode;

(iii) close each type of door exit in normal mode;

(iv) arm of each type of door exit in emergency mode;

(v) opening each type of door exit in emergency mode;

(vi) use manual slide inflation system to accomplish or ensure slide or slide-raft inflation;

(vii) open each type of window exit; and

(viii) remove escape rope and position for use;

*(b)* hand fire extinguisher drill:

(i) pre-flight each type of hand fire extinguisher;

(ii) locate source of fire or smoke and identify class of fire;

(iii) select appropriate extinguisher and remove from securing device;

(iv) prepare extinguisher for use;

(v) actually operate and discharge each type of installed hand fire extinguisher;

Note: *Fighting an actual or a simulated fire is not necessary during this drill.*

(vi) utilise correct fire-fighting techniques for type of fire; and

(vii) implement procedures for effective crew co-ordination and communication, including notification of crew members about the type of fire situation;

*(c)* emergency oxygen system drill:

(i) actually operate portable oxygen bottles, including masks and tubing;

(ii) verbally demonstrate operation of chemical oxygen generators;

(iii) prepare for use and operate oxygen device properly, including donning and activation;

(iv) administer oxygen to self, passengers, and to those persons with special oxygen needs;

(v) utilise proper procedures for effective crew co-ordination and communication;

(vi) activate PBE;

(vii) manually open each type of oxygen mask compartment and deploy oxygen masks;

(viii) identify compartments with extra oxygen masks;

(ix) implement immediate action decompression procedures; and

(x) reset oxygen system, if applicable;

*(d)* flotation device drill:

(i) don and inflate life vests;

(ii) remove and use flotation seat cushions; and

(iii) demonstrate swimming techniques using a seat cushion;

*(e)* ditching drill, (if applicable):

Note: *During a ditching drill students shall perform the "prior to impact"and "after impact" procedures for a ditching, as appropriate to the specific operator's type of operation.*

(i) implement crew co-ordination procedures, including briefing with captain to obtain pertinent ditching information and briefing cabin crews;

(ii) co-ordinate time frame for cabin and passenger preparation;

(iii) adequately brief passengers on ditching procedures;

(iv) ensure cabin is prepared, including the securing of carry-on baggage, lavatories, and galleys;

(v) demonstrate how to properly deploy and inflate slide rafts;

(vi) remove, position, attach slide-rafts to aircraft;

(vii) inflate rafts;

(viii) use escape ropes at over-wing exits;

(ix) command helpers to assist;

(x) use slides and seat cushions as flotation devices;

(xi) remove appropriate emergency equipment from aircraft;

(xii) board rafts properly;

(xiii) initiate raft management procedures (i.e., disconnecting rafts from aircraft, applying immediate first aid, rescuing persons in water, salvaging floating rations and equipment, deploying sea anchor, tying rafts together, activating or ensuring operation of emergency locator transmitter);

(xiv) initiate basic survival procedures (i.e., removing and utilising survival kit items, repairing and maintaining raft, ensuring protection from exposure, erecting canopy, communicating location, providing continued first aid, providing sustenance);

(xv) use heaving line to rescue persons in water;

(xvi) tie slide-rafts or rafts together;

(xvii) use life-line on edge of slide-raft or raft as a handhold; and

(xviii) secure survival kit items.

4. Each aircraft crew member shall accomplish additional emergency drill requirements during initial and recurrent training including observing the following emergency drills:

*(a)* life-raft removal and inflation drill, if applicable:

(i) removal of a life raft from the aircraft or training device; and

(ii) inflation of a life raft.

*(b)* slide-raft transfer drill:

(i) transfer of each type of slide-raft pack from an unusable door to a usable door;

(ii) disconnect slide-raft at unusable door;

(iii) redirect passengers to usable slide-raft; and

(iv) installation and deployment of slide-raft at usable door.

*(c)* slide and slide-raft deployment, inflation, and detachment drill:

(i) engage slide girt bar in floor brackets;

(ii) inflate slides with and without quick-release handle (manually and automatically);

(iii) disconnecting slide from aircraft for use as a flotation device;

(iv) arm slide-rafts for automatic inflation; and

(v) disconnecting slide-raft from the aircraft.

*(d)* emergency evacuation slide drill:

(i) open armed exit with slide or slide-raft deployment and inflation; and

(ii) egress from aircraft via the evacuation slide and run away to a safe distance.

**PART D**

Regulation 234.

## INITIAL AIRCRAFT GROUND TRAINING

1. Flight crew—

*(a)* a national air operator shall have an initial aircraft ground training curriculum for the flight crew applicable to the type

of operations conducted and aircraft flown. Instructions shall include at least the following general subjects:

(i) air operator's dispatch, flight release, or flight locating procedures;

(ii) principles and methods for determining weight and balance, and runway limitations for take-off; and

(iii) adverse weather recognition and avoidance, and flight procedures which shall be followed when operating in the following conditions:

(A) icing;

(B) fog;

(C) turbulence;

(D) heavy precipitation;

(E) thunderstorms;

(F) low-level windshear and microburst; and

(G) low visibility;

(iv) normal and emergency communications procedures and navigation equipment including the national air operator communications procedures and Air Traffic Control clearance requirements;

(v) navigation procedures used in area departure, en route, area arrival, approach and landing phases;

(vi) approved crew resource management training;

(vii) air traffic control systems, procedures, and phraseology; and

(viii) aircraft performance characteristics during all flight regimes, including—

(A) the use of charts, tables, tabulated data and other related manual information;

(B) normal, abnormal, and emergency performance problems;

(C) meteorological and weight limiting performance factors (such as temperature, pressure, contaminated runways, precipitation, climb/runway limits);

(D) inoperative equipment performance limiting factors (such as SMEL/CDL, inoperative anti skid); and

(E) special operational conditions (such as unpaved runways, high altitude aerodromes and drift down requirements);

*(b)* a national air operator shall have an initial aircraft ground training curriculum for the flight crew applicable to the type of operations conducted and aircraft flown, including at least the following aircraft systems:

(i) aircraft:

(A) aircraft dimensions, turning radius, panel layouts, cockpit and cabin configurations; and

(B) other major systems and components or appliances of the aircraft;

(ii) power plants:

(A) basic engine description;

(B) engine thrust ratings; and

(C) engine components such as accessory drive, ignition, oil, fuel control, hydraulic, and bleed air features;

(iii) electrical:

(A) sources of aircraft electrical power (engine driven generators, APU generator, and external power);

(B) electrical buses;

(C) circuit breakers;

(D) aircraft battery; and

(E) standby power systems;

(iv) hydraulic:

(A) hydraulic reservoirs, pumps, accumulators; filters, check valves, interconnects and actuators; and

(B) other hydraulically operated components;

(v) fuel:

(A) fuel tanks (location and quantities);

(B) engine driven pumps;

(C) boost pumps;

(D) system valves and crossfeeds;

(E) quantity indicators; and

(F) provisions for fuel jettisoning;

(vi) pneumatic:

(A) bleed air sources (APU or external ground air); means of routing, venting and controlling bleed air via valves; and

(B) ducts, chambers, and temperature and pressure limiting devices;

(vii) air-conditioning and pressurisation:
- (A) heaters, air-conditioning packs, fans, and other environmental control devices;
- (B) pressurisation system components such as outflow and negative pressure relief valves; and
- (C) automatic, standby, and manual pressurisation controls and annunciators;

(viii) flight controls:
- (A) primary controls (yaw, pitch, and roll devices);
- (B) secondary controls (leading and trailing edge devices, flaps, trim, and damping mechanisms);
- (C) means of actuation (direct, indirect or fly by wire); and
- (D) redundancy devices;

(ix) landing gear:
- (A) landing gear extension and retraction mechanism including the operating sequence of struts, doors, and locking devices, and brake and antiskid systems, if applicable;
- (B) steering (nose or body steering gear);
- (C) bogie arrangements;
- (D) air and ground sensor relays; and
- (E) visual downlock indicators;

(x) ice and rain protection:
- (A) rain removal systems; and
- (B) anti-icing and de-icing system(s) affecting flight controls, engines, pitot static probes, fluid outlets, cockpit windows, and aircraft structures;

(xi) equipment and furnishings:
- (A) exits;
- (B) galleys;
- (C) water and waste systems;
- (D) lavatories;
- (E) cargo areas;
- (F) crew member and passenger seats;
- (G) bulkheads;
- (H) seating and/or cargo configurations; and
- (I) non-emergency equipment and furnishings;

(xii) navigation equipment:
- (A) flight directors;
- (B) horizontal situation indicator;
- (C) radio magnetic indicator;
- (D) navigation receivers (GPS, ADF, VOR, LORAN-C, RNAV, Marker Beacon, DME);
- (E) inertial systems (INS, IRS);
- (F) functional displays;
- (G) fault indications and comparator systems;
- (H) aircraft transponders;
- (I) radio altimeters;
- (J) weather radar; and
- (K) Cathode Ray Tube or computer generated displays of aircraft position and navigation information;

(xiii) auto flight system:
- (A) autopilot;
- (B) auto throttles;
- (C) flight director and navigation systems;
- (D) automatic approach tracking;
- (E) auto land; and
- (F) automatic fuel and performance management systems;

(xiv) flight instruments:
- (A) panel arrangement;
- (B) flight instruments (attitude indicator, directional gyro, magnetic compass, airspeed indicator, vertical speed indicator, altimeters, standby instruments); and
- (C) instrument power sources, and instrument sensory sources (e.g., Pitot static pressure);

(xv) display systems:
- (A) weather radar; and
- (B) other Cathode Ray Tube displays (e.g., checklist, vertical navigation or longitudinal navigation displays);

(xvi) communication equipment:
- (A) VHF and HF radios;
- (B) audio panels;
- (C) in-flight interphone and passenger address systems;
- (D) voice recorder; and

(E) air ground passive communications systems (ACARS);

(xvii) warning systems:

(A) aural, visual, and tactile warning systems (including the character and degree of urgency related to each signal); and

(B) warning and caution annunciators systems (including ground proximity and take-off warning systems);

(xviii) fire protection:

(A) fire and overheat sensors, loops, modules, or other means of providing visual and/or aural indications of fire or overheat detection;

(B) procedures for the use of fire handles, automatic extinguishing systems and extinguishing agents; and

(C) power sources necessary to provide protection for fire and overheat conditions in engines, APU, cargo bay or wheel well, cockpit, cabin and lavatories;

(xix) oxygen:

(A) passenger, crew, and portable oxygen supply systems;

(B) sources of oxygen (gaseous or solid);

(C) flow and distribution networks;

(D) automatic deployment systems;

(E) regulators, pressure levels and gauges; and

(F) servicing requirements;

(xx) lighting:

(A) cockpit, cabin, and external lighting systems;

(B) power sources;

(C) switch positions; and

(D) spare light bulb locations;

(xxi) emergency equipment:

(A) fire and oxygen bottles;

(B) first aid kits;

(C) life rafts and life vests;

(D) crash axes;

(E) emergency exits and lights;

(F) slides and slide rafts;

(G) escape straps or handles; and

(H) hatches, ladders and movable stairs;

(xxii) Auxiliary Power Unit (APU):

(A) electric and bleed air capabilities;

(B) interfaces with electrical and pneumatic systems;

(C) inlet doors and exhaust ducts; and

(D) fuel supply;

*(c)* a national air operator shall have an initial aircraft ground training curriculum for the flight crew applicable to the type of operations conducted and aircraft flown, including at least the following aircraft systems integration items:

(i) use of checklist:

(A) safety chocks;

(B) cockpit preparation (switch position and checklist flows);

(C) checklist callouts and responses; and

(D) checklist sequence;

(ii) flight planning:

(A) performance limitations (meteorological, weight, and MEL and CDL tems);

(B) required fuel loads;

(C) weather planning (lower than standard take-off minimums or alternate requirements);

(iii) navigation systems:

(A) pre-flight and operation of applicable receivers;

(B) onboard navigation systems; and

(C) flight plans information input and retrieval;

(iv) auto flight autopilot, auto thrust, and flight director systems, including the appropriate procedures, normal and abnormal indications, and annunciators;

(v) cockpit familiarisation:

(A) activation of aircraft system controls and switches to include normal, abnormal and emergency switches; and

(B) control positions and relevant annunciators, lights, or other caution and warning systems.

2. Cabin Crew—

*(a)* a national air operator shall have an initial ground-training curriculum for cabin crew applicable to the type of operations conducted and aircraft flown, including at least the following general subjects:

(i) aircraft familiarisation:
- (A) aircraft characteristics and description;
- (B) flight deck configuration;
- (C) cabin configuration;
- (D) galleys;
- (E) lavatories; and
- (F) stowage areas;

(ii) aircraft equipment and furnishings:
- (A) cabin crew stations;
- (B) cabin crew panels;
- (C) passenger seats;
- (D) passenger service units and convenience panels;
- (E) passenger information signs;
- (F) aircraft markings; and
- (G) aircraft placards;

(iii) aircraft systems:
- (A) air-conditioning and pressurisation system;
- (B) aircraft communication systems (call, interphone and passenger address);
- (C) lighting and electrical systems;
- (D) oxygen systems (flight crew, observer and passenger); and
- (E) water system;

(iv) aircraft exits:
- (A) general information;
- (B) exits with slide or slide-rafts (pre-flight and normal operation);
- (C) exits without slides (pre-flight and normal operations); and
- (D) window exits;

(v) crew member communication and co-ordination:
- (A) authority of pilot in command;
- (B) routine communication signals and procedures; and
- (C) crew member briefing;

(vi) routine crew member duties and procedures:
- (A) crew member general responsibilities;
- (B) reporting duties and procedures for specific aircraft;
- (C) pre-departure duties and procedures prior to passenger boarding;
- (D) passenger boarding duties and procedures;
- (E) prior to movement on the surface duties and procedures;
- (F) prior to take-off duties and procedures applicable to specific aircraft;
- (G) in-flight duties and procedures;
- (H) prior to landing duties and procedures;
- (I) movement on the surface and arrival duties and procedures;
- (J) after arrival duties and procedures; and
- (K) intermediate stops;

(vii) passenger handling responsibilities:
- (A) crew member general responsibilities;
- (B) infants, children, and unaccompanied minors;
- (C) passengers needing special assistance;
- (D) passengers needing special accommodation;
- (E) carry-on stowage requirements;
- (F) passenger seating requirements; and
- (G) smoking and no smoking requirements;

*(b)* a national air operator shall have an initial ground training curriculum for cabin crew applicable to the type of operations conducted and aircraft flown, including at least the following aircraft specific emergency subjects:

(i) emergency equipment:
- (A) emergency communication and notification systems;
- (B) aircraft exits;
- (C) exits with slide or slide rafts (emergency operation);
- (D) slides and slide-rafts in a ditching;
- (E) exits without slides (emergency operation);
- (F) window exits (emergency operation);
- (G) exits with tail cones (emergency operation);
- (H) cockpit exits (emergency operation);

(I) ground evacuation and ditching equipment;
(J) first aid equipment;
(K) portable oxygen systems [oxygen bottles, chemical oxygen generators, protective breathing equipment (PBE)];
(L) firefighting equipment;
(M) emergency lighting systems; and
(N) additional emergency equipment;

(ii) emergency assignments and procedures:
(A) general types of emergencies specific to aircraft;
(B) emergency communication signals and procedures;
(C) rapid decompression;
(D) insidious decompression and cracked window and pressure seal leaks;
(E) fires;
(F) ditching;
(G) ground evacuation;
(H) unwarranted evacuation (i.e., passenger initiated);
(I) illness or injury;
(J) abnormal situations involving passengers or crew members;
(K) hijacking;
(L) bomb threat;
(M) turbulence;
(N) other unusual situations; and
(O) previous aircraft accidents and incidents;

(iii) aircraft specific emergency drills:
(A) emergency exit drill;
(B) hand fire extinguisher drill;
(C) emergency oxygen system drill;
(D) flotation device drill;
(E) ditching drill, if applicable;
(F) life raft removal and inflation drill, if applicable;
(G) slide-raft pack transfer drill, if applicable;
(H) slide or slide-raft deployment, inflation, and detachment drill, if applicable; and
(I) emergency evacuation slides drill, if applicable;

*(c)* a national air operator shall ensure that initial ground training for cabin crew includes a competence check to determine his or her ability to perform assigned duties and responsibilities; and

*(d)* a national air operator shall ensure that initial ground training for cabin crew consists of at least the following programmed hours of instruction:

(i) Multi-engine turbine: 16 hours; and

(ii) Multi-engine reciprocating: 8 hours.

3. Flight Operations Officer—

*(a)* a national air operator shall provide initial aircraft ground training for flight operations officers that include instruction in at least the following general dispatch subjects:

(i) normal and emergency communications procedures;

(ii) available sources of weather information;

(iii) actual and prognostic weather charts;

(iv) interpretation of weather information;

(v) adverse weather phenomena (e.g., clear air turbulence, windshear, and thunderstorms);

(vi) notices to Airmen system;

(vii) navigational charts and publications;

(viii) air traffic control and instrument procedures;

(ix) familiarisation with operational area;

(x) characteristics of special aerodromes and other operationally significant aerodromes which the operator uses (i.e., terrain, approach aids, or prevailing weather phenomena);

(xi) joint flight operations officer and pilot responsibilities; and

(xii) approved Crew Resource Management (Crew Resource Management) training for flight operations officers;

*(b)* a national air operator shall provide initial aircraft ground training for flight operations officers that include instruction in at least the following aircraft characteristics:

(i) general operating characteristics of the national air operator's aircraft; and

(ii) aircraft specific training with emphasis on the following topics:

(A) aircraft operating and performance characteristics;

(B) navigation equipment;

(C) instrument approach and communications equipment;

(D) emergency equipment;

(iii) flight manual training; and

(iv) equipment training;

*(c)* a national air operator shall provide initial aircraft ground training for flight operations officers that include instruction in at least the following emergency procedures:

(i) assisting the flight crew in an emergency; and

(ii) alerting of appropriate governmental, company and private agencies;

*(d)* a national air operator shall ensure that initial ground training for flight operations officers includes a competence check given by an appropriate supervisor or ground instructor that demonstrates the required knowledge and abilities.

Regulation 235(4).

**PART E**

A national air operator shall ensure that pilot initial flight training includes at least the following:

Note: *Flight training may be conducted in an appropriate aircraft or adequate training simulator (simulator shall have landing capability).*

*(a)* preparation:

(i) visual inspection (for aircraft with a flight engineer, use of pictorial display authorised);

(ii) pre-taxi procedures; and

(iii) performance limitations;

*(b)* surface operation:

(i) pushback;

(ii) power back taxi, if applicable to type of operation to be conducted;

(iii) starting;

(iv) taxi; and

(v) pre-take-off checks;

*(c)* take-off:

(i) normal;

(ii) crosswind;

(iii) rejected;

(iv) power failure after $V_1$; and

(v) lower than standard minimum, if applicable to type of operation to be conducted;

*(d)* climb:

(i) normal; and

(ii) one-engine inoperative during climb to en route altitude;

*(e)* en route:

(i) steep turns (pilot in command only);

(ii) approaches to stalls (take-off, en route, and landing configurations);

(iii) in-flight power plant shutdown;

(iv) in-flight power plant restart; and

(v) high speed handling characteristics;

*(f)* descent:

(i) normal; and

(ii) maximum rate;

*(g)* approaches:

(i) visual Flight Rules procedures;

(ii) visual approach with 50% loss of power on one-engine (2 engines; inoperative on 3-engine aeroplanes) (pilot in command only);

(iii) visual approach with slat or flap malfunction;

(iv) Instrument Flight Rules precision approaches (Instrument Landing System normal and Instrument Landing System with one-engine inoperative);

(v) Instrument Flight Rules non-precision approaches (Non-directional beacon normal and VHF omni Range normal); and

(vi) non-precision approach with one-engine inoperative (Loaliser back course procedures, SDF and LDA, GPS, TACAN and circling approach procedures);

Note: *Simulator shall be qualified for training and checking on the circling manoeuvre.*

(vii) missed approach from precision approach;

(viii) missed approach from non-precision approach; and
(ix) missed approach with power plant failure;

*(h)* landings:
(i) normal with a pitch mis-trim (small aircraft only);
(ii) normal from precision instrument approach;
(iii) normal from precision instrument approach with most critical engine inoperative;
(iv) normal with 50% loss of power on one side (2 engines inoperative on 3-engine aeroplanes) (pilot in command only);
(v) normal with flap or slat malfunction;
(vi) rejected landings;
(vii) crosswind;
(viii) manual reversion or degraded control augmentation;
(ix) short or soft field (small aircraft only); and
(x) glassy or rough water (seaplanes only);

*(i)* after landing:
(i) parking;
(ii) emergency evacuation; and
(iii) docking, mooring and ramping (seaplanes only);

*(j)* other flight procedures during any airborne phase:
(i) holding;
(ii) ice accumulation on airframe;
(iii) air hazard avoidance; and
(iv) windshear and microburst;

*(k)* normal, abnormal and alternate systems procedures during any phase:
(i) pneumatic or pressurisation;
(ii) air conditioning;
(iii) fuel and oil;
(iv) electrical;
(v) hydraulic;
(vi) flight controls;
(vii) anti-icing and de-icing systems;
(viii) autopilot;
(ix) flight management guidance systems or automatic or other approach and landing aids;

(x) stall warning devices, stall avoidance devices, and stability augmentation systems;

(xi) airborne weather radar;

(xii) flight instrument system malfunction;

(xiii) communications equipment; and

(xiv) navigation systems;

*(l)* emergency systems procedures during any phase:

(i) aircraft fires;

(ii) smoke control;

(iii) power plant malfunctions;

(iv) fuel jettison;

(v) electrical, hydraulic, pneumatic systems;

(vi) flight control system malfunction; and

(vii) landing gear and flap system malfunction.

**PART F**

Regulation 236.

## INITIAL SPECIALISED OPERATIONS TRAINING

A national air operator shall provide initial specialised operations training to ensure that each pilot and Flight Operations Officer is qualified in the type of operation in which he or she serves and in any specialised or new equipment, procedures and techniques, such as—

*(a)* Class II navigation:

(i) knowledge of specialised navigation procedures, such as MNPS; and

(ii) knowledge of specialised equipment, such as INS, LORAN, GPS;

*(b)* CAT II and CAT III approaches:

(i) special equipment, procedures and practice; and

(ii) a demonstration of competency;

*(c)* lower than standard minimum take-offs:

(i) runway and lighting requirements;

(ii) rejected take-offs at, or near, $V_1$ with a failure of the most critical engine;

(iii) taxi operations; and

(iv) procedures to prevent runway incursions under low visibility conditions;

*(d)* extended range operations with two-engine aeroplanes;

*(e)* airborne radar approaches; and

*(f)* autopilot instead of co-pilot.

Regulation 239(8).

**PART G**

## CONVERSION TRAINING AND CHECKING

A national air operator shall ensure that conversion training and checking meet the following requirements:

1. An operator's conversion course for flight crew shall include:

*(a)* ground training and checking including aircraft systems, normal, abnormal and emergency procedures;

*(b)* emergency and safety equipment training and checking which shall be completed before aircraft training commences;

*(c)* aircraft/STD training and checking; and

*(d)* line flying under supervision and line check.

2. The conversion course for flight crew shall be conducted in the order set out in subparagraph (1) above.

3. Elements of Crew Resource Management for flight crew shall be integrated into the conversion course, and conducted by suitably qualified personnel.

4. When a flight crew member has not previously completed an operator's conversion course, the operator shall ensure that in addition to subparagraph (1) above, the flight crew member undergoes general first-aid training and, if applicable, ditching procedures training using the equipment in water.

### CABIN CREW

5. An operator shall ensure that conversion and differences training for cabin crew—

*(a)* is conducted by suitably qualified persons; and

*(b)* during conversion and differences training, training is given on the location, removal and use of all safety and survival equipment carried on the aeroplane, as well as all normal and emergency procedures related to the aeroplane type, variant and configuration to be operated.

6. Fire and smoke training:

An operator shall ensure that cabin crew members are given fire and smoke training as follows:

Each cabin crew member shall be given realistic and practical training in the use of all fire fighting equipment including protective clothing representative of that carried in the aeroplane. Such training shall include the following activities:

(i) each cabin crew member extinguishing a fire characteristic of an aeroplane interior fire except that, in the case of halon extinguishers, an alternative extinguishing agent may be used; and

(ii) the donning and use of protective breathing equipment by each cabin crew member in an enclosed, simulated smoke-filled environment.

7. Operation of doors and exits:

An operator shall ensure that cabin crew members are given training in the operation of aircraft doors and exits as follows:

*(a)* each cabin crew member shall operate and actually open all normal and emergency exits for passenger evacuation in an aircraft or representative training device; and

*(b)* the operation of all other exits, such as flight deck windows is demonstrated.

8. Evacuation slide training:

An operator shall ensure that cabin crew members are given training in aircraft evacuation and slide training as follows:

*(a)* each cabin crew member descends an evacuation slide from a height representative of the aeroplane main deck sill height; and

*(b)* the slide is fitted to an aeroplane or a representative training device.

9. Evacuation procedures and other emergency situations:

An operator shall ensure that cabin crew members are given training in evacuation procedures and other emergency situations as follows:

*(a)* emergency evacuation training includes the recognition of planned or unplanned evacuations on land or water. This training shall include recognition of when exits are unusable or when evacuation equipment is unserviceable; and

*(b)* each cabin crew member is trained to deal with the following:

(i) an in-flight fire, with particular emphasis on identifying the actual source of the fire;

(ii) severe air turbulence;

(iii) sudden decompression, including the donning of portable oxygen equipment by each cabin crew member; and

*(c)* other in-flight emergencies.

10. Crowd control:

An operator shall ensure cabin crew members are given training on the practical aspects of crowd control in various emergency situations, as applicable to the aeroplane type.

11. Pilot incapacitation:

An operator shall ensure that cabin crew members are trained to render assistance where a pilot becomes incapacitated. This training shall include a demonstration of:

*(a)* the pilot's seat mechanism;

*(b)* fastening and unfastening the pilot's seat harness;

*(c)* use of the pilot's oxygen equipment; and

*(d)* use of pilots' checklists.

12. Safety equipment:

An operator shall ensure that each cabin crew member is given realistic training on, and demonstration of, the location and use of safety equipment including the following:

*(a)* slides, and where non self-supporting slides are carried, the use of any associated ropes;

*(b)* life-rafts and slide-rafts, including the equipment attached to or carried in, the raft;

*(c)* life jackets, infant life jackets and flotation cots;

*(d)* dropout oxygen system;

*(e)* first-aid oxygen;

*(f)* fire extinguishers;

*(g)* fire axe or crowbar;

*(h)* emergency lights including torches;

*(i)* communications equipment, including megaphones;

*(j)* survival packs, including their contents;

*(k)* pyrotechnics (actual or representative devices);

*(l)* first-aid kits, their contents and emergency medical equipment; and

*(m)* other cabin safety equipment or systems where applicable.

13. Passenger Briefing and Safety Demonstrations:

An operator shall ensure that cabin crew members are given training in the preparation of passengers for normal and emergency situations in accordance these Regulations.

14. An operator shall ensure that all appropriate Regulatory requirements are included in the training of cabin crew members.

**PART H**

Regulation 240(5).

The Aircraft and Instrument Proficiency Check for a Pilot shall contain the following:

*(a)* satisfactory completion of a pilot in command proficiency check following completion of an approved air operator training programme for the particular type aircraft, satisfies the requirement for an aircraft type rating practical test if—

(i) that proficiency check includes all manoeuvres and procedures required for a type rating practical test; and

(ii) proficiency checks are conducted by a check airman;

*(b)* aircraft and instrument proficiency checks for pilot in command and co-pilot shall include the following operations and procedures listed in Table A. As noted, check airmen may waive certain events on the flight test based on an assessment of the pilot's demonstrated level of performance;

Table A

| TYPE OF OPERATION OR PROCEDURE | PIC or Co-Pilot | Notes |
|---|---|---|
| **Ground Operations** | | |
| Preflight inspection | PIC and Co-Pilot | |
| Taxiing | PIC and Co-Pilot | Both pilots may take simultaneous credit |
| Power plant checks | PIC and Co-Pilot | Both pilots may take simultaneous credit |
| **Take-offs** | | |
| Normal | PIC and Co-Pilot | |
| Instrument | PIC and Co-Pilot | |
| Crosswind | PIC and Co-Pilot | |
| With power plant failure | PIC and Co-Pilot | |
| Rejected take-off | PIC and Co-Pilot | Both pilots may take simultaneous credit<br>May be waived |
| **Instrument Procedures** | | |
| Area departure | PIC and Co-Pilot | May be waived |
| Area arrival | PIC and Co-Pilot | May be waived |
| Holding | PIC and Co-Pilot | May be waived |
| Normal ILS approach | PIC and Co-Pilot | |
| Engine-out ILS | PIC and Co-Pilot | |
| Coupled ILS approach | PIC and Co-Pilot | |
| Non-precision approach | PIC and Co-Pilot | Both pilots may take simultaneous credit |
| Second non-precision approach | PIC and Co-Pilot | |
| Missed approach from an ILS | PIC and Co-Pilot | |
| Second missed approach | PIC only | |
| Circling approach | PIC and Co-Pilot | Only when authorised in the AOC holder's Operations Manual. May be waived |

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| TYPE OF OPERATION OR PROCEDURE | PIC or Co-Pilot | Notes |
|---|---|---|
| **Inflight Manoeuvres** | | |
| Steep turns | PIC only | May be waived |
| Specific flight characteristics | PIC and Co-Pilot | |
| Approaches to stalls | PIC and Co-Pilot | May be waived |
| Power plant failure | PIC and Co-Pilot | |
| 2 engine inoperative approach (3 and 4 engine aircraft) | PIC and Co-Pilot | |
| Normal landing | PIC and Co-Pilot | |
| Landing from an ILS | PIC and Co-Pilot | |
| Crosswind landing | PIC and Co-Pilot | |
| Landing with engine-out | PIC and Co-Pilot | |
| Landing from circling approach | PIC and Co-Pilot | Only if authorised in Operations Manual<br>May be waived |
| **Normal and Non-Normal Procedures** | PIC and Co-Pilot | |
| Rejected landing | PIC and Co-Pilot | |
| 2 engine inoperative approach (3 and 4 engine aircraft) | PIC only | |
| **Other events** | PIC and Co-Pilot | Check airman's discretion |

*(c)* the oral and flight test phases of a proficiency check should not be conducted simultaneously;

*(d)* when the check airman determines that an applicant's performance is unsatisfactory, the check airman may terminate the flight test immediately or, with the consent of the applicant, continue with the flight test until the remaining events are completed;

*(e)* where the check is terminated for mechanical or other reasons, and there are events which still need to be repeated, the check airman shall issue a letter of discontinuance, valid for 60 days, listing the specific areas of operation that have been successfully completed.

Regulation 242.

**PART I**

The training and checking programme for a pilot to operate in either pilot seat shall take the following matters into consideration:

*(a)* a pilot in command whose duties also requires him to operate in the co-pilot seat and carry out the duties of co-pilot, or pilot in command required to conduct training or examining duties from the co-pilot seat, shall complete additional training and checking as specified in the Operations Manual, concurrent with the operator proficiency checks prescribed in these Regulations. This additional training shall include at least the following:

(i) an engine failure during take-off;

(ii) a one-engine inoperative approach and go-around; and

(iii) a one-engine inoperative landing.

*(b)* when engine-out manoeuvres are carried out in an aircraft, the engine failure shall be simulated;

*(c)* when operating in the right-hand seat, the checks required for operating in the left-hand seat shall, in addition, be valid and current;

*(d)* a pilot relieving the pilot in command shall have demonstrated, concurrent with the operator proficiency checks prescribed in these Regulations, practice of drills and procedures which would not, normally, be the relieving pilot's responsibility. Where the differences between left and right seats are not significant (for example, because of use of autopilot) then practice may be conducted in either seat;

*(e)* a pilot other than the pilot in command occupying the left-hand seat shall demonstrate practice of drills and procedures, concurrent with the operator proficiency checks prescribed in these Regulations, which would otherwise have been the pilot in command's responsibility acting as pilot non-flying. Where the differences between left and right seats are not significant (for example, because of use of autopilot) then practice may be conducted in either seat.

**PART J**

Regulation 248.

Flight Engineer proficiency check shall include the following:

Examiners shall include during proficiency checks for flight engineers an oral or written examination of the normal, abnormal, and emergency procedures listed below:

*(a)* normal procedures:

(i) interior pre-flight;
(ii) panel set-up;
(iii) fuel load;
(iv) engine start procedures;
(v) taxi and before take-off procedures;
(vi) take-off and climb pressurisation;
(vii) cruise and fuel management;
(viii) descent and approach;
(ix) after landing and securing;
(x) crew co-ordination;
(xi) situational awareness, traffic scan, etc.;
(xii) performance computations; and
(xiii) anti-ice, de-ice;

*(b)* abnormal and emergency procedures:

(i) troubleshooting;

(ii) knowledge of checklist;

(iii) ability to perform procedures;

(iv) crew co-ordination;

(v) minimum equipment list and configuration deviation list; and

(vi) emergency or alternate operation of aircraft flight systems.

Regulation 249.

**PART K**

Cabin Crew competency check shall include the following:

Examiners shall include during each cabin crew competency check a demonstrated knowledge of:

*(a)* emergency equipment:

(i) emergency communication and notification systems;

(ii) aircraft exits;

(iii) exits with slides or slide rafts (emergency operation);

(iv) slides and slide rafts in a ditching;

(v) exits without slides (emergency operation);

(vi) window exits (emergency operation);

(vii) exits with tail cones (emergency operation);

(viii) cockpit exits (emergency operation);

(ix) ground evacuation and ditching equipment;

(x) first-aid equipment;

(xi) portable oxygen systems [oxygen bottles, chemical oxygen generators, protective breathing equipment (PBE)];

(xii) firefighting equipment;

(xiii) emergency lighting systems; and

(xiv) additional emergency equipment;

*(b)* emergency procedures:

(i) general types of emergencies specific to aircraft;

(ii) emergency communication signals and procedures;

(iii) rapid decompression;

(iv) insidious decompression and cracked window and pressure seal leaks;

(v) fires;
(vi) ditching;
(vii) ground evacuation;
(viii) unwarranted evacuation (i.e., passenger initiated);
(ix) illness or injury;
(x) abnormal situations involving passengers or crew members;
(xi) turbulence; and
(xii) other unusual situations;

*(c)* emergency drills:
(i) location and use of all emergency and safety equipment carried on the aircraft;
(ii) the location and use of all types of exits;
(iii) actual donning of a life jacket where fitted;
(iv) actual donning of protective breathing equipment; and
(v) actual handling of fire extinguishers;

*(d)* crew resource management:
(i) decision making skills;
(ii) briefings and developing open communication;
(iii) inquiry, advocacy and assertion training; and
(iv) workload management;

*(e)* dangerous goods:
(i) recognition of and transportation of dangerous goods;
(ii) proper packaging, marking and documentation; and
(iii) instructions regarding compatibility, loading, storage and handling characteristics;

*(f)* security:
(i) hijacking; and
(ii) disruptive passengers;

*(g)* elements of training which require individual practical participation should be combined with practical checks;

*(h)* the checks required by the Act or Regulations made thereunder shall be accomplished by the method appropriate to the type of training including—
(i) practical demonstration; and/or
(ii) computer based assessment; and/or

(iii) in-flight checks; and

(iv) oral or written tests.

Regulation 250.

**PART L**

Flight Operations Officers competency check shall include the following:

*(a)* evaluators shall conduct competency checks for a Flight Operations Officer to demonstrate that the candidate's proficiency level is sufficient to ensure the successful outcome of all dispatch operations;

*(b)* a qualified supervisor or inspector, approved by the Authority, shall observe and evaluate competency checks for a Flight Operations Officer;

*(c)* each competency check for a Flight Operations Officer shall include—

(i) an evaluation of all aspects of the dispatch function;

(ii) a demonstration of the knowledge and abilities in normal and abnormal situations; and

(iii) an observation of actual flights being dispatched;

*(d)* each evaluator of newly hired Flight Operations Officer shall include during initial competency checks an evaluation of all of geographic areas and types of aircraft the Flight Operations Officer will be qualified to dispatch. (Note: The supervisor may approve a competency check of representative aircraft types when, in the supervisor's judgment, a check including all types is impractical or unnecessary);

*(e)* evaluators may limit initial equipment and transition competency checks solely to the dispatch of the types of aeroplanes on which the Flight Operations Officer is qualifying (unless the check is to simultaneously count as a recurrent check);

*(f)* each evaluator of a Flight Operations Officer shall include, during recurrent and requalification competency checks, a representative sample of aircraft and routes for which the Flight Operations Officer maintains current qualification; and

*(g)* the Authority requires special operations competency checks before a Flight Operations Officer is qualified in ETOPS or other special operations authorised by the Authority.

**PART M** (Regulation 253).

Supervised line experience for Cabin Crew shall include the following:

The following areas of operation are required for supervised line experience for cabin crew:

***New entrant cabin crew***

*(a)* each new entrant cabin crew member having no previous comparable operating experience should—

(i) participate in a visit to the aircraft to be operated; and

(ii) participate in familiarisation flights as described in paragraph *(c)* below;

***Cabin crew operating on a subsequent aircraft type***

*(b)* a cabin crew member assigned to operate on a subsequent aircraft type with the same operator should either—

(i) participate in a familiarisation flight as described in paragraph 3 below; or

(ii) participate in an aircraft visit to the aircraft to be operated;

*(c)* for familiarisation flights the following:

(i) during familiarisation flights, the cabin crew member should be additional to the minimum number of cabin crew required under the Act or Regulations made thereunder;

(ii) familiarisation flights should be conducted under the supervision of the senior cabin crew member;

(iii) familiarisation flights should be structured and involve the cabin crew member in the participation of safety related pre-flight, in-flight and post-flight duties;

(iv) familiarisation flights should be operated with the cabin crew member in the operator's uniform; and

(v) familiarisation flights should form part of the training record for each cabin crew member;

***Aircraft visits***

*(d)* the purpose of aircraft visits is to familiarise each cabin crew member with the aircraft environment and its equipment. Accordingly, aircraft visits should be conducted by suitably qualified persons and in accordance with a syllabus described in the Operations Manual, Part D. The aircraft visit

should provide an overview of the aircraft's exterior, interior and systems including the following:

(i) interphone and public address systems;

(ii) evacuation alarm systems;

(iii) emergency lighting;

(iv) smoke detection systems;

(v) safety/emergency equipment;

(vi) flight deck;

(vii) cabin crew stations;

(viii) toilet compartments;

(ix) galleys, galley security and water shut-off;

(x) cargo areas if accessible from the passenger compartment during flight;

(xi) circuit breaker panels located in the passenger compartment;

(xii) crew rest areas; and

(xiii) exit location and its environment.

Regulation 260. [223/2005].

## PART N

## RECURRENT TRAINING FOR FLIGHT CREW

A national air operator shall ensure that flight crew member recurrent ground training includes at least the following:

*(a)* general subjects:

(i) flight locating procedures;

(ii) principles and method for determining mass and balance and runway limitations;

(iii) meteorology to ensure practical knowledge of weather phenomena including the principles of frontal system, icing, fog, thunderstorms, windshear and high altitude weather situations;

(iv) ATC systems and phraseology;

(v) navigation and use of navigational aids;

(vi) normal and emergency communication procedures;

(vii) visual cues before descent to MDA;

(viii) accident, incident and occurrence review; and

(ix) other instructions necessary to ensure the pilot's competence;

*(b)* aircraft systems and limitations:

(i) normal, abnormal and emergency procedures;

(ii) aircraft performance characteristics;

(iii) engines and or propellers;

(iv) major aircraft components;

(v) major aircraft systems (i.e., flight controls, electric, hydraulic and other systems as appropriate); and

(vi) ground icing and de-icing procedures and requirements;

*(c)* emergency equipment and drills:

(i) every twelve months—

(A) instruction on the location and use of all emergency and safety equipment carried on the aircraft;

(B) instruction on the location and use of all types of exits;

(C) actual donning of a life jacket where fitted;

(D) actual donning of protective breathing equipment; and

(E) actual handling of fire extinguishers;

(ii) every three years—

(A) actual operation of all types of exits;

(B) demonstration of the method used to operate a slide, where fitted;

(C) firefighting using equipment representative of that carried in the aircraft on an actual or simulated fire;

Note: *With halon extinguishers, an alternative method acceptable to the Authority may be used.*

(D) effects of smoke in an enclosed area and actual use of all relevant equipment in a simulated smoke-filled environment;

(E) actual handling of pyrotechnics, real or simulated, where fitted;

(F) demonstration of the use of life-raft(s), where fitted;

(G) an emergency evacuation drill;

(H) a "dry" ditching drill; and

(I) a rapid decompression drill, if applicable;

*(d)*
*(e)* } ***(Deleted by LN 223/2005);***

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*(f)* every twelve months, crew resource management:
- (i) decision making skills;
- (ii) briefings and developing open communication;
- (iii) inquiry, advocacy and assertion training;
- (iv) workload management; and
- (v) situational awareness;

*(g)* every twenty-four months, dangerous goods:
- (i) recognition of and transportation of dangerous goods;
- (ii) proper packaging, marking and documentation; and
- (iii) instructions regarding compatibility, loading, storage and handling characteristics;

*(h)* every twelve months, security:
- (i) hijacking; and
- (ii) disruptive passengers;

*(i)* a national air operator shall verify knowledge of the recurrent ground training by an oral or written examination;

**(j)* a national air operator shall ensure that pilot recurrent flight training include at least the following:
- (i) preparation:
  - (A) visual inspection (use of pictorial display authorised); and
  - (B) pre-taxi procedures;
- (ii) surface operation:
  - (A) performance limitations;
  - (B) cockpit management;
  - (C) securing cargo;
  - (D) pushback;
  - (E) powerback taxi;
  - (F) starting;
  - (G) taxi; and
  - (H) pre-take-off checks;
- (iii) take-off:
  - (A) normal;
  - (B) crosswind;
  - (C) rejected;
  - (D) power failure after $V_1$;

*Note: *Flight Training may be conducted in an Appropriate Aircraft or Adequate Training Simulator (Simulator shall have Landing Capability).*

(E) power plant failure during second segment; and
(F) lower than standard minimum;

(iv) climb:
(A) normal; and
(B) one-engine inoperative during climb to en route altitude;

(v) en route:
(A) steep turns;
(B) approaches to stalls (take-off, en route, and landing configurations);
(C) in-flight power plant shutdown;
(D) in-flight power plant restart; and
(E) high-speed handling characteristics;

(vi) descent:
(A) normal; and
(B) maximum rate;

(vii) approaches:
(A) visual flight rules procedures;
(B) visual approach with 50% loss of power on one-engine (2 engines inoperative on 3-engine aeroplanes) (pilot in command only);
(C) visual approach with slat or flap malfunction;
(D) instrument flight rules precision approaches (instrument landing system normal and instrument landing system with one-engine inoperative);
(E) instrument flight rules non-precision approaches (non- directional beacon normal and VHF omni range normal); and
(F) non-precision approach with one engine inoperative (localizer back course, SDF or LDA, GPS, TACAN and circling approach procedures);
Note: *Simulator shall be qualified for training and checking on the circling manoeuvre.*
(G) missed approach from precision approach;
(H) missed approach from non-precision approach; and
(I) missed approach with power plant failure;

(viii) landings:
- (A) normal with a pitch mis-trim (small aircraft only);
- (B) normal from precision instrument approach;
- (C) normal from precision instrument approach with most critical engine inoperative;
- (D) normal with 50% loss of power on one side (2 engines inoperative on 3-engine aeroplanes) (pilot in command only);
- (E) normal with flap or slat malfunction;
- (F) rejected landings;
- (G) crosswind;
- (H) short or soft field (small aircraft only); and
- (I) glassy or rough water (seaplanes only);

(ix) after landing:
- (A) parking;
- (B) emergency evacuation; and
- (C) docking, mooring and ramping (seaplanes only);

(x) other flight procedures during any airborne phase:
- (A) holding;
- (B) ice accumulation on airframe;
- (C) air hazard avoidance; and
- (D) windshear and microburst;

(xi) normal, abnormal and alternate systems procedures during any phase:
- (A) pneumatic or pressurisation;
- (B) air conditioning;
- (C) fuel and oil;
- (D) electrical; and
- (E) hydraulic;

(xii) flight controls:
- (A) anti-icing and de-icing systems;
- (B) flight management guidance systems or automatic or other approach and landing aids;
- (C) stall warning devices, stall avoidance devices, and stability augmentation systems;
- (D) airborne weather radar;
- (E) flight instrument system malfunction;
- (F) communications equipment;
- (G) navigation systems;

(H) autopilot;
(I) approach and landing aids; and
(J) flight instrument system malfunction;

(xiii) emergency systems procedures during any phase:
(A) aircraft fires;
(B) smoke control;
(C) power plant malfunctions;
(D) fuel jettison;
(E) electrical, hydraulic, pneumatic systems;
(F) flight control system malfunction; and
(G) landing gear and flap system malfunction;

*(k)* the national air operator may combine training with the national air operator's proficiency check;

*(l)* the national air operator shall ensure that the aeroplane or flight simulator training programme is established such that all major failures of aeroplane systems and associated procedures will have been practiced in the preceding three-year period;

*(m)* recurrent ground and flight training curricula may be accomplished concurrently or intermixed, but completion of each of these curricula shall be recorded separately.

**PART O**

Regulation 261. [223/2005].

## RECURRENT TRAINING FOR CABIN CREW

The current training for cabin crew shall meet the following requirements:

*(a)* a national air operator shall ensure that, every twelve months, each cabin crew receive recurrent training in at least the following:

(i) emergency equipment:
(A) emergency communication and notification systems;
(B) aircraft exits;
(C) exits with slides or slide-rafts (emergency operation);
(D) slides and slide-rafts in a ditching;
(E) exits without slides (emergency operation);
(F) window exits (emergency operation);
(G) exits with tail cones (emergency operation);
(H) cockpit exits (emergency operation);
(I) ground evacuation and ditching equipment;

(J) first aid equipment;
(K) portable oxygen systems [oxygen bottles, chemical oxygen generators, protective breathing equipment (PBE)];
(L) firefighting equipment;
(M) emergency lighting systems; and
(N) additional emergency equipment;

(ii) emergency procedures:
(A) general types of emergencies specific to aircraft;
(B) emergency communication signals and procedures;
(C) rapid decompression;
(D) insidious decompression and cracked window and pressure seal leaks;
(E) fires;
(F) ditching;
(G) ground evacuation;
(H) unwarranted evacuation (i.e., passenger initiated);
(I) illness or injury;
(J) abnormal situations involving passengers or crew members;
(K) turbulence; and
(L) other unusual situations; and
(M) emergency drills;

(iii) every twelve months:
(A) location and use of all emergency and safety equipment carried on the aircraft;
(B) the location and use of all types of exits;
(C) actual donning of a life jacket where fitted;
(D) actual donning of protective breathing equipment; and
(E) actual handling of fire extinguishers;

(iv) every three years:
(A) operation of all types of exits;
(B) demonstration of the method used to operate a slide, where fitted; and
(C) firefighting using equipment representative of that carried in the aircraft on an actual or simulated fire;

Note: *With Halon extinguishers, an alternative method acceptable to the Authority may be used.*

(D) effects of smoke in an enclosed area and actual use of all relevant equipment in a simulated smoke-filled environment;
(E) actual handling of pyrotechnics, real or simulated, where fitted;
(F) demonstration in the use of the life-raft(s), where fitted;
(G) an emergency evacuation drill;
(H) a "dry" ditching drill, if applicable;
(I) a rapid decompression drill, if applicable;

(v) every twelve months, crew resource management:
(A) decision making skills;
(B) briefings and developing open communication;
(C) inquiry, advocacy and assertion training; and
(D) workload management;

(vi) every twenty-four months, dangerous goods:
(A) recognition of and transportation of dangerous goods;
(B) proper packaging, marking and documentation; and
(C) instructions regarding compatibility, loading, storage and handling characteristics;

(vii) every twelve months, security:
(A) hijacking; and
(B) disruptive passengers;

*(b)* a national air operator may administer each of the recurrent training curricula concurrently or intermixed, but shall record completion of each of these curricula separately;

*(c)* a national air operator should ensure that a formalised course of recurrent training is provided for cabin crew in order to ensure continued proficiency with all equipment relevant to the aircraft types that they operate.

**PART P**

Regulation 264.

## FLIGHT INSTRUCTOR TRAINING

1. Within the preceding twenty-four calendar months, that person satisfactorily conducts instruction under the observation of an inspector from the Authority, a national air operator's check airman, or an examiner employed by the national air operator.

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2. A national air operator may accomplish the observation check for a flight instructor, in part or in full, in an aircraft, a flight simulator, or a flight training device.

3. A national air operator shall ensure that initial ground training for flight instructors includes the following:

*(a)* flight instructor duties, functions and responsibilities;

*(b)* applicable regulations and the national air operator's policies and procedures;

*(c)* appropriate methods, procedures and techniques for conducting the required checks;

*(d)* proper evaluation of student performance including the detection of—

(i) improper and insufficient training; and

(ii) personal characteristics of an applicant that could adversely affect safety;

*(e)* appropriate corrective action in the case of unsatisfactory checks;

*(f)* approved methods, procedures, and limitations for performing the required normal, abnormal and emergency procedures in the aircraft;

*(g)* except for holders of a flight instructor licence—

(i) the fundamental principles of the teaching-learning process;

(ii) teaching methods and procedures; and

(iii) the instructor-student relationship;

4. A national air operator shall ensure that the transition ground training for flight instructors includes the approved methods, procedures, and limitations for performing the required normal, abnormal and emergency procedures applicable to the aircraft to which the flight instructor is in transition.

5. A national air operator shall ensure that the initial and transition flight training for flight instructors includes the following:

*(a)* the safety measures for emergency situations that are likely to develop during instruction;

*(b)* the potential results of improper, untimely, or non-execution of safety measures during instruction;

*(c)* for pilot flight instructor:

(i) in-flight training and practice in conducting flight instruction from the left and right pilot seats in the

required normal, abnormal and emergency procedures to ensure competence as an instructor; and

(ii) the safety measures to be taken from either pilot seat for emergency situations that are likely to develop during instruction;

*(d)* for Flight Instructors assigned to Flight Engineer instruction, in-flight training to ensure competence to perform assigned duties.

6. A national air operator may accomplish the flight training requirements for Flight Instructors in full or in part in flight, in a flight simulator, or in a flight training device, as appropriate.

7. A national air operator shall ensure that the initial and transition flight training for Simulator Flight Instructors includes the following:

*(a)* training and practice in the required normal, abnormal and emergency procedures to ensure competence to conduct the flight instruction required by this Part. This training and practice shall be accomplished in full or in part in a flight simulator or in a flight training device;

*(b)* training in the operation of flight simulators or flight training devices, or both, to ensure competence to conduct the flight instruction required by this Part.

**PART Q**

Regulation 266.

## INITIAL GROUND TRAINING CHECK AIRMAN

1. A national air operator shall ensure that initial ground training for check airman includes—

*(a)* check airman duties, functions, and responsibilities;

*(b)* applicable regulations and the national air operator's policies and procedures;

*(c)* appropriate methods, procedures, and techniques for conducting the required checks;

*(d)* proper evaluation of student performance including the detection of—

(i) improper and insufficient training; and

(ii) personal characteristics of an applicant that could adversely affect safety;

*(e)* appropriate corrective action in the case of unsatisfactory checks; and

*(f)* approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aeroplane.

2. Transition ground training for all check airmen shall include the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aeroplane to which the check airman is in transition.

3. A national air operator shall ensure that the initial and transition flight training for check airmen (aeroplane) includes—

*(a)* training and practice in conducting flight evaluations (from the left and right pilot seats for pilot check airmen) in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight checks;

*(b)* the potential results of improper, untimely, or non-execution of safety measures during an evaluation; and

*(c)* the safety measures (to be taken from either pilot seat for pilot check airmen) for emergency situations that are likely to develop during an evaluation.

4. A national air operator shall ensure that the initial and transition flight training for Simulator check airmen includes—

*(a)* training and practice in conducting flight checks in the required normal, abnormal, and emergency procedures to ensure competence to conduct the evaluations checks required by this Part (this training and practice shall be accomplished in a flight simulator or in a flight training device); and

*(b)* training in the operation of flight simulators or flight training devices, or both, to ensure competence to conduct the evaluations required by this Part.

5. A national air operator may accomplish flight training for check airmen in full or in part in an aircraft, in a flight simulator, or in a flight training device, as appropriate.

## SCHEDULE 10

Regulation 290.
[223/2005].

## EXAMPLE FLIGHT AND DUTY TIME SCHEME—AEROPLANE OPERATIONS

### REST PERIODS, DUTY, AND FLIGHT TIME: COMMERCIAL AIR TRANSPORT—AEROPLANE

***Applicability***

1. The scheme shall apply in relation to any duty carried out at the behest of the national air operator by both flight crew and cabin crew.

***Responsibilities***

2. (1) A national air operator shall have a scheme for the regulation of flight times of crews. The scheme shall be approved by the Authority and included in the national air operator's Operations Manual. The Operations Manual shall be readily available to every person employed by the national air operator as a member of an aircraft crew.

(2) A crew member shall not fly, and an operator shall not require him to fly, if either has reason to believe that such crew member is suffering or likely to suffer while flying, from such fatigue as may endanger the safety of the aeroplane or of its occupants.

(3) A flight crew member shall inform the operator of all flying undertaken so that the cumulative flight and duty times can be assessed against the limitations contained in this section.

(4) The national air operator will publish crew rosters showing planned duty sufficiently in advance so that operating crews can plan adequate pre-duty rest.

(5) The national air operator and crew member are jointly responsible for the proper control of flight and duty times. A crew member has the responsibility to make optimum use of the opportunities and rest facilities provided. He is responsible for planning and using his rest periods properly in order to minimise the risk of incurring fatigue.

(6) A crew member shall not act as operating crew if he knows or suspects that his physical or mental condition renders him unfit to operate.

***Definitions***

3. For the purpose of this clause—

"calendar day" means the period of elapsed time using Co-ordinated Universal Time or local time that begins at midnight and ends twenty-four hours later at the next midnight;

"days off" means the periods available for leisure and relaxation free from all duties. A rest period may be included as part of a day off;

"dispatch crew" means a fully qualified and current flight crew or cabin crew authorised to carry out pre-flight duties as defined by the national air operator;

"duty" means any continuous period during which a crew member is required to carry out any task associated with the business of the national air operator;

"flight crew" means those members of the crew of an aircraft who act as pilot or pilot engineer;

"flight time" means the total time from the moment an aircraft first moves under its own power for the purpose of taking off until the moment it finally comes to rest at the end of the flight;

"flight duty period" means any time during which a person operates in an aircraft as a member of its crew. It starts when the crew member is required by the national air operator to report for a flight and finishes at the end of the flight time on the final sector. This term is used interchangeably with flying duty period and flight duty time;

"minimum rest period" means a period during which a flight crew member is free from all duties, is not interrupted by the national air operator or private operator, and is provided with an opportunity to obtain not less than eight consecutive hours of sleep in suitable accommodation, time to travel to and from that accommodation and time for personal hygiene and meals;

"positioning" means the practice of transferring crews from place to place as passengers in surface or air transport on behalf of the national air operator. Positioning time counts as duty time;

"reporting time" means the time at which a crew member is required by the national air operator to report for any duty;

"rest period" means a period of time before starting a flight duty period that is designed to give crew members adequate opportunity to rest before a flight;

"rostered duty" means a planned duty period, or series of planned duty periods, with stipulated start and finish times, notified by the national air operator to crews in advance;

"scheduled duty" means the allocation of specific flight or flights or other duties to a crew member within the pre-notified series of planned duty periods;

"sector" means the time between an aircraft first moving under its own power until it next comes to rest at the designated parking position after landing;

"split duty" means a flight duty period which consists of two or more sectors separated by less than the prescribed minimum rest period;

"standby" means a flight crew member who has been designated by a national air operator to remain at a specified location in order to be available to report for flight duty on notice of one hour or less;

"reserve duty" means a period during which the national air operator places restraints on a crew member who would otherwise be off duty;

"suitable accommodation" means a furnished bedroom which is subject to minimum noise, is well ventilated, and has the facility to control the levels of light and temperature; and

"travelling" means all time spent by a crew member transiting between the place of rest and the place of reporting for duty. Travelling time does not count as duty time.

***Monitoring system***

4. (1) A national air operator shall establish a system that monitors the flight time, flight duty time and rest periods of each of its flight crew members and shall include in its company operations manual the details of that system.

(2) Where a person becomes aware that an assignment by a national air operator to act as a flight crew member on a flight would result in the maximum flight time or the maximum flight duty time specified in these Regulations being exceeded, the person shall so notify the national air operator.

5. A crew member shall not act as a member of the operating crew if he knows, or suspects, that his physical or mental condition renders him unfit to operate. A crew member shall not fly if he knows that he is or is likely to be, in breach of this section.

***Calculation of a flight duty period***

6. The maximum flight duty period, in hours and fractions of hours, will be in accordance with paragraph 17. The times extracted may be extended at the discretion of the pilot in command under the terms of paragraphs 18, 19 and 30 as applicable.

***Additional limits on flying—early starts***

7. A flight crew member should normally not be rostered to operate more than three consecutive days where duties start or finish in any part of the period 0001 to 0559 local time. There will be no more than four such duties in seven consecutive days.

8. However, when a crew member is in suitable accommodation provided by the company which is less than sixty minutes travelling time of the reporting point, then 0559 may be changed to 0459 local time.

9. Should any duties be scheduled to be carried out within any part of the period 0200 to 0459 local time, for a maximum of three consecutive nights, then a crew member will finish the duty preceding this series by 2100 hours local time before covering the block of consecutive night duties. However, if the preceding duty period extends beyond 2100 hours local time but not later than 2259 hours due to an unforeseen delay the crew member is expected to operate the scheduled flight.

***Mixed duties***

10. When a crew member is required to report for duty in advance of the stipulated report time for a scheduled flight, to carry out a task on behalf of the national air operator, then the time spent on that task shall be part of the subsequent flight duty period.

***Mixed simulator and aircraft flying***

11. When a crew member flies in the simulator, either on a check or training, or as an Instructor or check airman, and when within the same duty period he operates as a flight crew member in commercial air transport operations, all the flight time and flight duty time spent in the simulator is counted in full towards the subsequent flight duty period and for helicopters towards the daily flying hour maxima. Simulator flying does not count as a sector, but the flight duty period allowable is calculated from one hour prior to the scheduled simulator start time.

***Positioning and combinations of flying and other duty***

12. All time spent on positioning as required by the operator shall count as duty but does not count as a sector when calculating the maximum allowable flight duty period. In such circumstances the flight duty period commences at the time at which the crew member reports for the positioning journey.

13. Positioning, any form of ground duty and standby duty at an airport which immediately preceded flight duty, shall be included in the flight duty period and be subject to maximum allowable flight duty period limits specified. Positioning and ground duties immediately following a flight duty shall not be part of the flight duty period, but shall count in computing the length of the subsequent rest period. The time spent between reporting for a flight and the completion of post flight tasks determines the length of the subsequent rest period.

14. If, after the positioning journey, a crew member spends less than the minimum rest period at a suitable accommodation provided by the national air operator, and then carries out the flight duty period, the positioning will be counted as a sector if a split duty is claimed when calculating the allowable flight duty period. If it is not, a split duty flight duty period will not be used.

***Reserve duty***

15. When at home or in suitable accommodation provided by the national air operator, crew members may be on reserve duty for twenty-four hours but the time of start, end and nature of the reserve duty will be defined to crew members so that they can plan their rest.

16. When a crew member is required to be on standby at the airport or a designated reporting place, the flight duty period commences at the reported time.

***Maximum flight duty period—aeroplanes***

17. The maximum flight duty periods for aeroplane crews is shown in the tables below—

**TWO (2) PILOT CREW—AEROPLANE**

| Local Time at Start | Sectors | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 or more |
| | | | | | | | | | | |
| 0600—1259 | 14 | 14 | 14 | 13 | 12 | 11 | 10 | 10 | 9 | 9 |
| 1300—1759 | 14 | 14 | $13\frac{1}{4}$ | $12\frac{1}{2}$ | $11\frac{3}{4}$ | 11 | 10 | 10 | 9 | 9 |
| 1800—2159 | 14 | $13\frac{1}{4}$ | $12\frac{1}{2}$ | $11\frac{3}{4}$ | 11 | 10 | 10 | 10 | 9 | 9 |
| 2200—0559 | 12 | $11\frac{1}{2}$ | $10\frac{3}{4}$ | 10 | 10 | 10 | 10 | 10 | 9 | 9 |

**TWO (2) PILOTS AND ONE (1) FLIGHT ENGINEER—AEROPLANE**

| Local Time at Start | Sectors | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 or more |
| | | | | | | | | |
| 0600—1259 | 14 | 14 | 14 | $13\frac{1}{2}$ | $12\frac{1}{2}$ | 11 | 10 | 10 |
| 1300—2159 | 14 | 14 | $13\frac{1}{2}$ | $12\frac{3}{4}$ | $12\frac{1}{2}$ | 11 | 10 | 10 |
| 2200—0559 | 12 | 12 | $11\frac{1}{2}$ | 11 | 11 | 11 | 10 | 9 |

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**SINGLE (1) PILOT CREW—AEROPLANE**

| Local Time at Start | Sectors | | | | |
|---|---|---|---|---|---|
| | Up to 4 | 5 | 6 | 7 | 8 or more |
| | | | | | |
| 0600—1259 | 10 | $9\frac{1}{4}$ | $8\frac{1}{2}$ | 8 | 8 |
| 1300—1759 | 11 | $10\frac{1}{4}$ | $9\frac{1}{2}$ | $8\frac{3}{4}$ | 8 |
| 1800—2159 | 10 | $9\frac{1}{4}$ | $8\frac{1}{2}$ | 8 | 8 |
| 2200—0559 | 9 | $8\frac{1}{4}$ | 8 | 8 | 8 |

***Extension of maximum rostered flight duty period by augmented crew—aeroplanes***

18. When an augmented crew is used to extend the maximum flight duty period the additional crew member or members shall hold qualifications which meet the requirements of the operational duty he will perform. The qualifications shall be specified by the operator and approved by the Authority.

19. Where a flight crew is augmented by the addition of at least one flight crew member, the division of duty and rest is balanced between the flight crew members and, when a flight relief facility is provided, flight duty time may be extended if—

*(a)* where a flight relief facility—seat is provided, the flight duty time may be extended to sixteen consecutive hours, in which case the maximum flight deck duty time for any flight crew member shall be twelve hours;

*(b)* where a flight relief facility—bunk is provided, the flight duty time may be extended to twenty consecutive hours, in which case the maximum flight deck duty time for any flight crew member shall be fourteen hours;

*(c)* the subsequent minimum rest period shall be at least equal to the length of the preceding flight duty time; and

*(d)* a maximum of three sectors may be completed.

20. Where a flight crew is augmented by the addition of at least one flight crew member, the total flight time accumulated during the flight shall be logged by all flight crew members for the purposes of calculating the maximum flight times.

***Extensions of flight duty period by split duty***

21. When a flight duty period consists of two or more sectors—of which one can be a positioning journey counted as a sector—but separated by less than a minimum rest period, then the flight duty period will extend by the amounts indicated below.

| *Consecutive Hours Rest* | *Maximum Extension of the FDP* |
|---|---|
| Less than 3 | NIL |
| 3–10 | A period equal to half the consecutive hours rest taken. |

22. The rest period shall not include the time allowed for immediate post and pre-flight duties. When the rest period is less than six hours it will suffice if a quiet and comfortable place, not open to the public, is available. If rest is to be taken in the aircraft on the ground, the crew shall have adequate control of the temperature and ventilation. Passengers shall not be on board. If the rest period is more than six consecutive hours, then suitable accommodation shall be provided.

***Delayed reporting time***

23. When a crew member is informed of a delay before leaving his place of rest the flight duty period shall start at the new reporting time, or three hours after the original reporting time, whichever is the earlier. This paragraph shall not apply if the crew member is given ten hours or more notice of a new reporting time.

***Rest periods***

24. The national air operator shall endeavour to notify the crew member of a flight duty period assignment in good time so that sufficient pre-flight rest can be obtained. When away from base, opportunities and facilities for adequate pre-flight rest will be provided by the national air operator.

25. The minimum rest period which shall be provided prior to a flight duty period shall be—

*(a)* at least as long as the preceding duty period; or

*(b)* eleven hours,

whichever is greater.

Note: *The minimum rest period of eleven hours includes travel time to and from the rest facility, hotel check-in and check-out time and time for personal hygiene and meals allowing eight consecutive hours of sleep opportunity in suitable accommodation. If any of the variables is longer than expected, or there is any further delay in the crews being afforded the required eight hours sleep opportunity, the minimum rest shall be increased accordingly.*

26. If the preceding duty period exceeded sixteen hours, the minimum rest shall be no less than sixteen hours plus two hours for every hour or part of an hour that the previous duty period exceeded sixteen hours.

27. Following a sequence of reduced rest and extended flight duty period the subsequent rest period shall not be reduced.

28. At least thirty-six consecutive hours rest each seven days shall be provided. These rest periods may be taken on layovers in suitable accommodation.

29. Following any three consecutive twenty-four hours periods in which there have been three periods of twelve hours or more of flight duty, the flight crew member shall have twenty-four hours of uninterrupted rest.

30. Following any two consecutive twenty-four-hour periods during which there have been two (2) fifteen hours of flight duty the flight crew shall have thirty hours uninterrupted rest.

31. A crew member who has difficulty in achieving adequate pre-flight rest shall inform the Head of Flight Operations and will be given the opportunity to seek medical assistance.

***Pilot in command discretion to extend a flight duty period in unforeseen circumstances***

32. The pilot in command may, at his discretion, and after taking note of the circumstances of other members of the crew, extend a flight duty period in unforseen circumstances, beyond that permitted in paragraph 17, provided he is satisfied that the flight can be made safely. The extension shall be calculated according to what actually happens, not on what was planned to happen. An extension of two hours is the maximum permitted, except in cases of emergency.

Note: *In respect of an extension to a flight duty, an emergency is a situation which in the judgment of the pilot in command presents a serious risk to the health or safety of crew and passengers, or endangers the lives of others.*

33. Whenever a pilot in command extends a flight duty period, he shall report it to the national air operator on a Discretion Report Form acceptable to the Authority. If the extension is greater than one hour, or when exercised after any reduced rest period, then the operator shall submit the pilot in command's written report together with the operator's comments to the Authority within fourteen days of the return of the aircraft to base.

***Pilot in command discretion to reduce a rest period***

34. A pilot in command may, at his discretion, and after taking note of the circumstances of other members of the crew, reduce the rest period. The rest period will not be less than ten hours. The exercise of such discretion will be exceptional and shall not be used to reduced successive rest periods. If the preceding flight duty period was extended, the rest period may be reduced, provided that subsequent allowable flight duty period is also reduced by the same amount.

***Reporting exercise of discretion***

35. When a pilot in command extends a flight duty period or reduces a rest period it shall be reported to the Chief Pilot on a Captains Voyage Report Form outlining the duty and rest periods.

***Days off***

36. Wherever possible, days off should be taken in the home environment. A planned rest period may be included as part of the day off.

37. Crew Members shall be granted an average of two days off per week, not counting periods of leave. A minimum of six days off in any consecutive four weeks is permissible, provided the shortfall is made good in the preceding or following four weeks.

***Absolute limits on flying hours***

38. A person shall not act as a member of the flight crew of an aircraft if at the beginning of the flight the aggregate of all previous flight times—

(1) during the period of seven consecutive days expiring at the end of the day on which the flight begins exceeds thirty-five hours;

(2) during the period of twenty-eight consecutive days expiring at the end of the day on which the flight begins exceeds one hundred hours; or

(3) during the period of twelve months expiring at the end of the previous month exceeds one thousand hours.

***Rules relating to cabin crew***

39. The maximum flight duty periods for cabin crew may be one hour longer than those for flight crew.

40. The maximum flight duty hours for cabin crew shall not exceed—

(1) sixty hours in one week but may be increased to sixty-five hours when a rostered duty covering a series of duty periods, once commenced, is subject to unforeseen delays;

(2) one hundred and five hours in any two consecutive weeks;

(3) two hundred and ten hours in any four consecutive weeks.

***Air taxi or sole use charter, including pleasure flying and air ambulance supplement***

41. The content of this supplement is designed for use by companies conducting the business of Air Taxi or Sole Use Charter. In the context of this document this type of operation is being carried out when the operator utilises an aircraft which contains nineteen or fewer passenger seats. The maximum duty periods at paragraph 17 will apply as the case may be.

***Records to be maintained***

42. The monitoring system shall include records for the duty and rest periods of all flying staff as follows:

*(a)* for each crew member: the beginning, end and duration of each duty and flight duty period, and the function performed during the period; duration of each rest period prior to a flight duty period; dates of days off; weekly totals of duty;

*(b)* for each flight crew member: daily and weekly flying hours.

43. Records shall be preserved for at least twelve calendar months. Additionally, copies of all pilot in commands' discretion reports of extended flight duty periods and reduced rest periods will be retained for a period of at least six months after the event.

## EXAMPLE FLIGHT AND DUTY TIME SCHEME— HELICOPTER OPERATIONS

### REST PERIODS, DUTY, AND FLIGHT TIME: HELICOPTERS

***Applicability***

1. (1) The content of this section is designed for use by those companies holding an Air Operator Certificate, which operate helicopters only. This section is not applicable to those organisations that have a mixed fleet of fixed and rotary wing aircraft.

(2) The scheme has been compiled on the assumption that—

*(a)* operations are confined within an area where local time varies by not more than one hour;

*(b)* use of in-flight relief to obtain an extension to the allowable flight duty period is not exercised.

(3) The main body of the scheme is complemented by additions that allow for commercial pleasure flying and air ambulance work. In the context of this annex the following applies:

*(a)* commercial pleasure flying:

when the helicopter takes-off from and lands at the same aerodrome or approved pleasure flying site, without making an intermediate landing, but does not take into account any positioning flight to or from that aerodrome or pleasure flying site;

*(b)* air ambulance:

when the sole reason for the flight is to carry an ill or injured person to a recognised medical facility, or the carriage of a human organ necessary for the conduct of a transport operation.

(4) It is accepted that a few operations have helicopters based on oil rigs and provide emergency cover. The application of limits placed on allowable flight duty periods in such circumstances is detailed and complex, and not of interest to the wider audience. Therefore, although what is understood by these terms is detailed below, the construction of such schemes will be arranged between the operator and the Authority:

*(a)* Offshore based and Remote Site Operations:

those operations in support of the oil/gas industry, where the helicopter and crew are based on a rig or at a remote operating site;

*(b)* Emergency Flights:

a flight undertaken for the sole purpose of assisting in the resolution of an emergency, which is, or under slightly different circumstances could be, a threat to human life.

***Responsibilities***

2. (1) The national air operator shall have a scheme for the regulation of flight times of crews. The scheme shall be approved by the Authority and included in the national air operator's Operations Manual. The Operations Manual shall be readily available to every person employed by the national air operator as a member of an aircraft crew.

(2) A crew member shall not fly, and an operator shall not require him to fly, if either has reason to believe that he is suffering or likely to suffer while flying, from such fatigue as may endanger the safety of the aircraft or of its occupants.

(3) Every flight crew member is required to inform the operator of all flying undertaken so that the cumulative flight and duty times can be assessed against the limitations contained in this section.

(4) The national air operator will publish crew rosters/planned duty sufficiently in advance so that operating crews can plan adequate pre-duty rest.

(5) The national air operator and crew members are jointly responsible for the proper control of flight and duty times. Crew members have the responsibility to make optimum use of the opportunities and rest facilities provided. They are responsible for planning and using their rest periods properly in order to minimise the risk of incurring fatigue.

(6) Crew members shall not act as operating crew if they know or suspect that their physical or mental condition renders them unfit to operate.

***Definitions***

3. For the purpose of this section—

"calendar day" means the period of elapsed time using Co-ordinated Universal Time or local time that begins at midnight and ends twenty-four hours later at the next midnight;

"days off" means periods available for leisure and relaxation free from all duties. A rest period may be included as part of a day off;

"dispatch crew" means a fully qualified and current flight crew or cabin crew authorised to carry out pre-flight duties as defined by the national air operator;

"duty" means any continuous period during which a crew member is required to carry out any task associated with the business of the national air operator;

"flight crew" means those members of the crew of an aircraft who act as pilot or pilot engineer;

"flight time (helicopter)" means the total time from the moment a helicopter first moves under its own power for the purpose of taking-off until the rotors are next stopped;

"flight duty period" means any time during which a person operates in an aircraft as a member of its crew. It starts when the crew member is required by the national air operator to report for a flight and finishes at

the end of the flight time on the final sector. This term is used interchangeably with flight duty period and flight duty time;

"minimum rest period" means a period during which a flight crew member is free from all duties, is not interrupted by the national air operator or private operator, and is provided with an opportunity to obtain not less than eight consecutive hours of sleep in suitable accommodation, time to travel to and from that accommodation and time for personal hygiene and meals;

"positioning" means the practice of transferring crews from place to place as passengers in surface or air transport on behalf of the national air operator. Positioning time counts as duty time;

"reporting time" means the time at which a crew member is required by the national air operator to report for any duty;

"rest period" means a period of time before starting a flight duty period that is designed to give crew members adequate opportunity to rest before a flight;

"rostered duty" means a duty period, or series of duty periods, with stipulated start and finish times, notified by the national air operator to crews in advance;

"scheduled duty" means the allocation of specific flight or flights or other duties to a crew member within the pre-notified rostered series of duty periods;

"sector" means the time between an aircraft first moving under its own power until it next comes to rest after landing, on the designated parking position;

"split duty" means a flight duty period which consists of two or more sectors separated by less than a minimum rest period;

"standby" means a flight crew member who has been designated by a national air operator to remain at a specified location in order to be available to report for flight duty on notice of one hour or less;

"reserve duty" means a period during which the national air operator places restraints on a crew member who would otherwise be off duty;

"suitable accommodation" means a furnished bedroom which is subject to minimum noise, is well ventilated, and has the facility to control the levels of light and temperature; and

"travelling" means all time spent by a crew member transiting between the place of rest and the place of reporting for duty. Travelling time does not count as duty time.

***Monitoring system***

4. (1) Every air operator shall establish a system that monitors the flight time, flight duty time and rest periods of each of its flight crew members and shall include in its company operations manual the details of that system.

(2) Where a person becomes aware that an assignment by a national air operator to act as a flight crew member on a flight would result in the maximum flight time or the maximum flight duty time specified in these Regulations being exceeded, the person shall so notify the national air operator.

5. Crew members shall not act as operating crew if they know, or suspect, that their physical or mental condition renders them unfit to operate. Crew members shall not fly if they know that they are or are likely to be, in breach of this section.

***Calculation of a flight duty period***

6. The maximum flight duty period, in hours and fractions of hours, will be in accordance with paragraph 20. The times extracted may be extended at the pilot in command discretion under the terms of paragraphs 21 and 30 as applicable.

***Additional limits on flying—early starts***

7. A flight crew member should normally not be rostered to operate more than three consecutive days where duties start or finish in any part of the period 0001 to 0559 local time. There will be no more than four such duties in seven consecutive days.

8. However, when a crew member is in suitable accommodation provided by the company which is less than sixty minutes travelling time of the reporting point, then 0559 may be changed to 0459 local time.

9. Should any duties be scheduled to be carried out within any part of the period 0200 to 0459 local time, for a maximum of three consecutive nights, then crew members will finish the duty preceding this series by 2100 hours local time before covering the block of consecutive night duties. However, if the preceding duty period extends beyond 2100 hours local time but not later than 2259 hours due to an unforeseen delay the crew member is expected to operate the scheduled flight.

***Mixed duties***

10. When the crew member is required to report for duty in advance of the stipulated report time for a scheduled flight, to carry out a task at the behest of the national air operator, then the time spent on that task shall be part of the subsequent flight duty period.

***Mixed simulator and aircraft flying***

11. When a crew member flies in the simulator, either on a check or training, or as an Instructor, and when within the same duty period flies as a flight crew member on a commercial air transport flight, all the time spent in the simulator is counted in full towards the subsequent flight duty period and the daily flying hour maxima. Simulator flying does not count as a sector, but the flight duty period allowable is calculated from one (1) hour prior to the scheduled simulator start time.

***Mixed single pilot/two pilot operations***

12. In one duty period, a pilot may fly as single flight crew up to the point where the total flying and duty hours reach the single flight crew flight duty period limit. During this time the pilot may fly either in command, or as a co-pilot on a two flight crew helicopter. The pilot may then continue beyond the single flight crew flight duty period limit in a two flight crew operation up to the two flight crew flight duty period and flying hour maxima, but may only fly as co-pilot.

***Positioning and combinations of flying and other duty***

13. All time spent on positioning as required by the operator shall count as duty but does not count as a sector when calculating the maximum allowable flight duty period. In these circumstances the flight duty period commences at the time at which the crew member reports for the positioning journey.

14. Positioning, any form of ground duty and standby duty at an airport which immediately preceded flight duty, shall be included in the flight duty period and be subject to maximum allowable flight duty period limits specified. Positioning and ground duties immediately following a flight duty shall not be part of the flight duty period, but shall count in computing the length of the subsequent rest period. The time spent between reporting for a flight and the completion of post flight tasks determines the length of the subsequent rest period.

15. If, after the positioning journey, the crew member spends less than a minimum rest period at suitable accommodation provided by the national air operator, and then carries out the flight duty period, the positioning will be counted as a sector if a split duty is claimed when calculating the allowable flight duty period.

***Reserve duty—helicopters***

16. When at home or in suitable accommodation provided by the national air operator, crew members may be rostered on reserve duty. The time of start, end and the nature of the reserve duty will be defined and notified to crew members. The time a reserve duty starts determines the allowable flight duty period. When the actual flight duty period starts in a more limiting time band, the flight duty period limit will apply. When a crew member is called out from a reserve period 2200 to 0800 hours local time and a crew member is given two hours or less notice of report time, then the allowable flight duty period starts at the report time at the designated reporting place.

17. When a crew member is called out from reserve, the reserve duty will cease at the notified start of the flight duty period, when the crew member reports at the designated reporting point.

18. The following limits will apply in respect of reserve or standby and subsequent flight duty period:

| *Duty* | *Maximum Duration* |
|---|---|
| Standby or Reserve duty | 12 hours |
| Standby or Reserve followed by an FDP | As in cases A and B below |

Case A—

If a crew member is called out from standby or reserve to conduct a flight duty period before completing six hours standby or reserve duty, then the total duty period allowed is the sum of the time spent on standby and the flight duty period from paragraph 20.

Case B—

If a crew member is called out from standby or reserve to conduct a flight duty period after completing more than six hours standby or reserve duty, then the total duty allowed is the sum of all the time spent on standby or reserve and the flight duty period, reduced by the amount of standby worked in excess of six hours.

19. When a crew member is required to be on standby at the airport or a helicopter operating site, the flight duty period commences at the reported time.

***Maximum flight duty period—helicopters***

20.

| Local Time of Start | Single Pilot | | Two Pilots | |
|---|---|---|---|---|
| | Max. length of flight duty period (Hours) | Max. Flying Time (Hours) | Max. length of flight duty period (Hours) | Max. Flying Time (Hours) |
| 0600—0759<br>0800—1359<br>1400—2159<br>2200—0559 | 10<br>11<br>10<br>8 | 7<br>7<br>6<br>5 | 14<br>14<br>14<br>12 | 8<br>8<br>8<br>7 |

***Extension of flight duty period by split duty—helicopters***

21. (1) When a flight duty period consists of two or more sectors—of which one can be a positioning journey counted as a sector—but separated by less than a minimum rest period, then the flight duty period can be extended by the amounts indicated below—

| *Consecutive Hours Rest* | *Maximum extension of the FDP* |
|---|---|
| Less than 2 | Nil |
| 2 – 10 | A period equal to half the consecutive hours rest taken. |

Note: *Consecutive hours of rest between two and three hours will only be used once in any single flight duty period.*

(2) The rest period shall not include the time allowed for immediate post and pre-flight duties. When the rest period is six hours or less it will suffice if a quiet and comfortable place, not open to the public, is available. Rest cannot be taken in the helicopter. If the rest period is more than six consecutive hours, then suitable accommodation will be provided.

***Delayed reporting time***

22. When crew members are informed of a delay before leaving their place of rest the flight duty period shall start at the new reporting time, or three hours after the original reporting time, whichever is the earlier. This paragraph shall not apply if crew members are given ten hours or more notice of a new reporting time.

***Rest periods—helicopters***

23. (1) Crew members will be notified in good time of flight duty period so that sufficient and uninterrupted pre-flight rest can be obtained. The Company will provide suitable accommodation to crews when away from base to allow opportunities and facilities for adequate pre-flight rest. When flights are carried out at such short notice that it is impracticable for the Company to arrange suitable accommodation, then this responsibility devolves to the aircraft pilot in command.

(2) The minimum rest period which shall be taken before undertaking a flight duty period shall be—

*(a)* at least as long as the preceding duty period; or

*(b)* eleven hours,

whichever is the greater.

Note: *The minimum rest period of eleven hours includes travel time to and from the rest facility, hotel check in and out time and time for personal hygiene and meals allowing eight consecutive hours of sleep opportunity in suitable accommodation. If any of the variables are longer than expected, or there is further delay in the crews being afforded the required eight hours sleep opportunity, the minimum rest shall be increased accordingly.*

24. If the preceding duty exceeded sixteen hours, not less than sixteen hours plus two hours for every hour or part of an hour that the previous duty exceeded sixteen hours.

25. Following a sequence of reduced rest and extended flight duty period the subsequent rest period cannot be reduced.

26. At least thirty-six consecutive hours rest each seven days shall be provided. These rest periods may be taken on layovers in suitable accommodation.

27. Following any three consecutive twenty-four hours periods in which there have been three (3) twelve hours or more of flight duty, the flight crew member shall have twenty-four hours of uninterrupted rest.

28. Following any two consecutive twenty-four hours periods during which there have been two (2) fifteen hours of flight duty the flight crew shall have thirty hours uninterrupted rest.

29. Crew members who have difficulty in achieving adequate pre-flight rest shall inform the Director, Flight Operations, and then will be given the opportunity to seek medical assistance.

***Pilot in command discretion to extend a flight duty period in unforseen circumstances***

30. The pilot in command may, at his discretion, and after taking note of the circumstances of other members of the crew, extend a flight duty period in unforeseen circumstances, beyond that permitted in paragraph 19, provided he is satisfied that the flight can be made safely. The extension shall be calculated according to what actually happens, not on what was planned to happen. An extension of two hours is the maximum permitted, except in cases of emergency.

Note: *In respect of an extension to a flight duty, an emergency is a situation which in the judgment of the pilot in command presents a serious risk to the health or safety of crew and passengers, or endangers the lives of others.*

***Pilot in command discretion to reduce a rest period***

31. A pilot in command may, at his discretion, and after taking note of the circumstances of other members of the crew, reduce the rest period. The rest period will not be less than ten hours. The exercise of such discretion will be exceptional and shall not be used to reduced successive rest periods. If the preceding flight duty period was extended, the rest period may be reduced, provided that subsequent allowable flight duty period is also reduced by the same amount.

32. Whenever a pilot in command extends a flight duty period, it shall be reported to the national air operator on a Discretion Report Form acceptable to the Director-General. If the extension is greater than two hours or when exercised after any reduced rest period, then the operator shall submit the pilot in command's written report together with the operator's comments to the Director-General within fourteen days of the aircraft's return to base.

***Mixed single/two pilot operations—helicopters***

33. In a flight duty period a pilot may fly as a single flight crew up to the point where the total flight duty hours reaches the single flight crew limit. During this time the pilot may fly either in command or as a co-pilot on a two flight crew aircraft. The pilot may then continue beyond the single flight crew flight duty period limit in a two flight crew operation up to the two flight crew flight duty period and flying hours maxima, but may only fly as a co-pilot.

***Repetitive short sectors—helicopters***

34. (1) Crews flying repetitive short sectors, for example pleasure flying, off-shore sector shuttles, at an average rate of 10 or more landings per hour, shall have a break of at least 30 minutes away from the helicopter within any continuous period of three hours.

(2) When carrying out the more demanding roles of helicopter flying, for example, winching and external load carrying, crews shall have a break of thirty minutes away from the helicopter within any continuous period of three hours.

***Additional Limits on Flying Early Starts—helicopters***

34A. A crew member should not normally operate more than three consecutive days where duties start or finish in any part of the period 0001 to 0559 local time. There will be no more than four such duties in seven consecutive days.

***Days off—helicopters***

35. Wherever possible, days off should be taken in the home environment. A planned rest period may be included as part of the day off. Crew members shall be granted an average of two days off per week, not counting periods of leave. A minimum of six days off in any consecutive four weeks is permissible, provided the shortfall is made good in the preceding or following four weeks.

***Absolute limits on flying hours***

36. A person shall not act as a member of the flight crew of an aircraft if at the beginning of the flight the aggregate of all previous flight times—

*(a)* during the period of seven consecutive days expiring at the end of the day on which the flight begins exceeds thirty-five hours.

*(b)* during the period of twenty-eight consecutive days expiring at the end of the day on which the flight begins exceeds one hundred hours; or

*(c)* during the period of 12 months expiring at the end of the previous month exceeds one thousand hours.

***Rules relating to cabin crew if carried***

37. The maximum flight duty periods for cabin crew may be one hour longer than those for flight crew.

38. The maximum flight duty hours for cabin crew shall not exceed—

*(a)* sixty hours in one week but may be increased to sixty-five hours when a rostered duty covering a series of duty periods, once commenced, is subject to unforeseen delays;

*(b)* one hundred and five hours in any two consecutive weeks; and

*(c)* two hundred and ten hours in any four consecutive weeks.

***Records to be maintained***

39. The monitoring system shall include records for the duty and rest periods of all flying staff as follows:

*(a)* for each crew member: the beginning, end and duration of each duty and flight duty period, and the function performed during the period; duration of each rest period prior to a flight duty period; dates of days off; weekly totals of duty; and

*(b)* for each flight crew member: daily and weekly flying hours.

40. Records shall be preserved for at least twelve calendar months. Additionally, copies of all pilot in command's discretion reports of extended flight duty periods and reduced rest periods will be retained for a period of at least six months after the event.

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## SCHEDULE 11

Regulation 299.

1. A national air operator shall not authorise an aeroplane to take-off and a pilot shall not take-off an aeroplane any time conditions are such that frost, ice or snow may reasonably be expected to adhere to the aeroplane unless the pilot has completed all applicable training and unless one of the following requirements is met:

*(a)* a pre-take-off contamination check, that has been established by the certificate holder and approved by the Authority for the specific aeroplane type, has been completed within five minutes prior to beginning take-off. A pre-take-off contamination check is a check to make sure the wings and control surfaces are free of frost, ice, or snow;

*(b)* the certificate holder has an approved alternative procedure and under that procedure the aeroplane is determined to be free of frost, ice, or snow; and

*(c)* the certificate holder has an approved de-icing and anti-icing programme that complies with this chapter and the take-off complies with that programme.

2. Except for an aeroplane that has ice protection provisions for transport category aeroplane type certification, a pilot shall not fly—

*(a)* under Instrument Flight Rules into known or forecast light or moderate icing conditions; or

*(b)* under Visual Flight Rules into known light or moderate icing conditions; unless the aircraft has functioning de-icing or anti-icing equipment protecting each rotor blade, propeller, windshield, wing, stabilising or control surface, and each airspeed, altimeter, rate of climb, or flight attitude instrument system.

3. A pilot shall not fly a helicopter under Instrument Flight Rules into known or forecast icing conditions or under Visual Flight Rules into known icing conditions unless it has been type certificated and appropriately equipped for operations in icing conditions.

4. Except for an aeroplane that has ice protection provisions for transport category aeroplane type certification, a pilot shall not fly an aircraft into known or forecast severe icing conditions.

5. If current weather reports and briefing information relied upon by the pilot in command indicate that the forecast icing condition that would otherwise prohibit the flight will not be encountered during the flight because of changed weather conditions since the forecast, the restrictions in paragraphs (2), (3), and (4) of this section based on forecast conditions do not apply.

6. A person shall not dispatch or release an aircraft, continue to operate an aircraft en route, or land an aircraft when in the opinion of the pilot in command or flight operations officer, icing conditions are expected or met that might adversely affect the safety of the flight.

7. A person shall not take-off an aircraft when frost, ice, or snow is adhering to the wings, control surfaces, propellers, engine inlets, or other critical surfaces of the aircraft or when the take-off would not be in compliance with paragraph (2) of this section. Take-offs with frost under the wing in the area of the fuel tanks may be authorised by the Authority.

8. Except as provided in paragraph (3) of this section, a person shall not dispatch, release, or take-off an aircraft any time conditions are such that frost, ice, or snow may reasonably be expected to adhere to the aircraft, unless the certificate holder has an approved ground de-icing/anti-icing programme in its operations specifications and unless the dispatch, release, and take-off comply with that programme. The approved ground de-icing/anti-icing programme shall include at least the following items:

*(a)* a detailed description of—

(i) how the certificate holder determines that conditions are such that frost, ice, or snow may reasonably be expected to adhere to the aircraft and that ground de-icing and anti-icing operational procedures shall be in effect;

(ii) who is responsible for deciding that ground de-icing and anti-icing operational procedures shall be in effect;

(iii) the procedures for implementing ground de-icing and anti-icing operational procedures;

(iv) the specific duties and responsibilities of each operational position or group responsible for getting the aircraft safely airborne while ground de-icing and anti-icing operational procedures are in effect;

(v) initial and annual recurrent ground training and testing for flight crew members and qualification for all other affected personnel (e.g., flight operations officers, ground crews, contract personnel) concerning the specific requirements of the approved programme and each person's responsibilities and duties under the approved programme, specifically covering the following areas:

(A) the use of holdover times;

(B) aircraft de-icing and anti-icing procedures, including inspection and check procedures and responsibilities;

(C) communications procedures;

(D) aircraft surface contamination (i.e., adherence of frost, ice, or snow) and critical area identification, and how contamination adversely affects aircraft performance and flight characteristics;

(E) types and characteristics of de-icing and anti-icing fluids;

(F) cold weather preflight inspection procedures;

(G) techniques for recognising contamination on the aircraft.

9. The certificate holder's holdover timetables and the procedures for the use of these tables by the certificate holder's personnel. Holdover time is the estimated time de-icing or anti-icing fluid will prevent the formation of frost or ice and the accumulation of snow on the protected surfaces of an aircraft. Holdover time begins when the final application of de-icing or anti-icing fluid commences and expires when the de-icing or anti-icing fluid applied to the aircraft loses its effectiveness. The holdover times shall be supported by data acceptable to the Authority. The certificate holder's programme shall include procedures for flight crew members to increase or decrease the

determined holdover time in changing conditions. The programme shall provide that take-off after exceeding any maximum holdover time in the certificate holder's holdover timetable is permitted only when at least one of the following conditions exists:

*(a)* a pre-take-off contamination check, as defined in paragraph 10 determines that the wings, control surfaces, and other critical surfaces, as defined in the certificate holder's programme, are free of frost, ice, or snow;

*(b)* it is otherwise determined by an alternate procedure approved by the Authority in accordance with the certificate holder's approved programme that the wings, control surfaces, and other critical surfaces, as defined in the certificate holder's programme, are free of frost, ice, or snow; and

*(c)* the wings, control surfaces, and other critical surfaces are re-de-iced and a new holdover time is determined.

10. Aircraft de-icing and anti-icing procedures and responsibilities, pre-take-off check procedures and responsibilities, and pre-take-off contamination check procedures and responsibilities. A pre-take-off check is a check of the aircraft's wings or representative aircraft surfaces for frost, ice, or snow within the aircraft's holdover time. A pre-take-off contamination check is a check to make sure the wings, control surfaces, and other critical surfaces, as defined in the certificate holder's programme, are free of frost, ice, and snow. It shall be conducted within five minutes prior to beginning take-off. This check shall be accomplished from outside the aircraft unless the programme specifies otherwise.

11. A certificate holder may continue to operate under this section without a programme as required in paragraph (1)*(c)* of this section, if it includes in its operations specifications a requirement that, any time conditions are such that frost, ice, or snow may reasonably be expected to adhere to the aircraft, no aircraft will take-off unless it has been checked to ensure that the wings, control surfaces, and other critical surfaces are free of frost, ice, and snow. The check shall occur within five minutes prior to beginning take-off. This check shall be accomplished from outside the aircraft.

## SCHEDULE 12

Regulation 305. [223/2005 186/2006 285/2006].

## IMPLEMENTING STANDARDS

The following standards are numbered to correspond numerically with the relevant provisions in the Regulations:

***Regulation 8***

Inoperative Instruments and equipment under regulation 8 shall meet the following minimum standards:

*(a)* this implementing standard authorises flight operations with inoperative instruments and equipment installed in situations where no master minimum equipment list is available and no Minimum Equipment List is required for the specific aircraft operation under these Regulations;

*(b)* the inoperative instruments and equipment shall not be—

(i) part of the Visual Flight Rules-day instruments and equipment prescribed in the Act or Regulations made thereunder;

(ii) required on the aircraft's equipment list or the operations equipment list for the kind of flight operation being conducted;

(iii) required by the Act or Regulations made thereunder for the specific kind of flight operation being conducted; or

(iv) required to be operational by an airworthiness directive;

*(c)* to be eligible for these provisions, the inoperative instruments and equipment shall be—

(i) determined by the pilot in command not to be a hazard to safe operation;

(ii) de-activated and placarded "Inoperative"; and

(iii) removed from the aircraft, the flight deck control placarded and the maintenance recorded in accordance with regulation 8;

*(d)* ***(Deleted by LN 223/2005).***

***Regulation 12***

The transport of dangerous goods under regulation 12 shall meet the following minimum standards:

*(a)* owners and operators desirous of transporting dangerous goods shall be approved by the Authority; and

*(b)* an applicant shall satisfy the requirements of the International Civil Aviation Organisation Technical Instructions as amended, to be granted the approval.

***Regulation 13***

The safe transport of dangerous goods under regulation 13 shall meet the following minimum standards:

*(a)* the Authority shall stipulate the scope of approval after being satisfied that the applicant has complied with the provisions of the International Civil Aviation Organisation Technical Instructions;

*(b)* notwithstanding, where dangerous goods are to be transported outside the territory of Trinidad and Tobago, the operator shall comply with the appropriate variations noted by contracting States the International Civil Aviation Organisation Technical Instructions as amended.

***Regulation 15***

The classification of goods as dangerous goods under regulation 15 shall meet the applicable minimum standards of the International Civil Aviation Organisation Technical Instructions as amended.

***Regulation 16***

The method of packing of goods under regulation 16 shall meet the applicable minimum standards of the International Civil Aviation Organisation Technical Instructions as amended.

***Regulation 17***

The method and procedures for labelling and marking dangerous goods under regulation 17 shall meet the applicable minimum standards of the International Civil Aviation Organisation Technical Instructions as amended.

***Regulation 18***

The Dangerous Goods Transport Document under regulation 18 shall meet the minimum standards set out in the International Civil Aviation Organisation Technical Instructions as amended.

***Regulation 19***

The method of acceptance of dangerous goods under regulation 19 shall meet the minimum standards set out in procedures in the International Civil Aviation Organisation Technical Instructions as amended.

***Regulation 20***

The inspection for damage, leakage or contamination of dangerous goods under regulation 20 shall meet the minimum standards set out in the International Civil Aviation Organisation Technical Instructions as amended.

***Regulation 21***

Removal of contamination caused by dangerous goods as a result of damage, leakage or contamination of dangerous goods under regulation 21 shall meet the minimum standards set out in the International Civil Aviation Organisation Technical Instructions as amended.

***Regulation 22***

Loading restrictions of dangerous goods under regulation 22 shall meet the minimum standards set out in the International Civil Aviation Organisation Technical Instructions as amended.

***Regulation 23***

The information regarding the transport of dangerous goods which is to be provided to ground staff, passengers, acceptance point personnel, crew members, pilot in command and the relevant civil aviation authorities in the event of an accident or incident, inspection for damage, leakage or contamination of dangerous goods under regulation 23 shall meet the minimum standards set out in the International Civil Aviation Organisation Technical Instructions as amended from time to time.

***Regulation 24***

Training programmes for initial and recurrent dangerous goods training under regulation 24 shall meet the following minimum standards:

*(a)* the training programme and training curricula or content of the training programme shall be in accordance with the International Civil Aviation Organisation Technical Instructions as amended;

*(b)* the training of personnel of an operator approved to carry dangerous goods shall cover the areas identified in Column 1 of Table 1 and be to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods and how to identify such goods; and

*(c)* the training of crew members personnel of a national air operator approved to carry dangerous goods Aircraft, passenger handling staff; and security staff employed by the national air operator who deal with the screening of passengers and their baggage, have received training which, as a minimum, shall cover the areas identified in Column 2 of Table 1 and be to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods, how to identify them and what requirements apply to the carriage of such goods by passengers;

**Table 1**

| **Areas of Dangerous Goods Training** | 1 | 2 |
|---|---|---|
| General Philosophy | x | x |
| Limitations On Dangerous Goods in Air Transport | x | x |
| Package Marking and Labelling | x | x |
| Dangerous Goods in Passengers Baggage | | x |
| Emergencey Procedures | | x |

Note: *x indicates an area to be covered.*

*(d)* an operator holding a permanent approval to carry dangerous goods shall ensure that—

(i) personnel engaged in the acceptance of dangerous goods have received training and are qualified to carry out their duties. As a minimum, such training shall cover the areas identified in Column 1 of Table 2 and be to a depth sufficient to ensure that staff can make decisions on the acceptance or refusal of dangerous goods offered for carriage by air;

(ii) personnel engaged in ground handling, storage and loading of dangerous goods have received training to enable them to carry out their duties in respect of dangerous goods. At a minimum, this training shall cover the areas identified in Column 2 of Table 2 and be to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods, how to identify such goods and how to handle and load them;

(iii) personnel engaged in general cargo handling have received training to enable them to carry out their duties in respect of dangerous goods. As a minimum, this training shall cover the areas identified in Column 3 of Table 2 and be to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods, how to identify such goods and how to handle and load them;

(iv) flight crew members have received training which, as a minimum, shall cover the areas identified in Column 4 of Table 2. Training shall be to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods and how they should be carried on an aeroplane; and

(v) passenger handling staff; security staff employed by the operator who deal with the screening of passengers and their baggage; and crew members (other than flight crew members) have received training which, as a minimum, shall cover the areas identified in Column 5 of Table 2. Training shall be to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods and what requirements apply to the carriage of such goods by passengers or, more generally, their carriage on an aeroplane;

*(e)* a national air operator shall ensure that all personnel who require dangerous goods training receive recurrent training at intervals of not longer than two years;

*(f)* a national air operator shall ensure that records of dangerous goods training are maintained for all personnel who required such training and that these records are maintained at the location where the personnel perform such duties;

*(g)* a national air operator shall ensure that its handling agent's staff is trained in accordance with the applicable column of Table 1 or Table 2;

**Table 2**

| **Area of Training** | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| General Philosophy | x | x | x | x | x |
| Limitations On Dangerous Goods in the Air Transport | x | x | x | x | x |
| Classification and List of Dangerous Goods | x | x | | x | |
| General Packing Requirements and Packing Instructions | x | | | | |
| Packaging Specifications Marking | x | | | | |
| Package Marking and Labelling | x | x | x | x | x |
| Documentation from the Shipper | x | | | | |
| Acceptance of Dangerous Goods, including the use of a checklist | x | | | | |
| Loading, Restrictions on Loading and Segregation | x | x | x | x | |
| Inspections for damage or leakage and Decontamination Procedures | x | x | | | |
| Provision of information to pilot in command | x | x | | x | |
| Dangerous Goods in Passengers' Baggage | x | | | x | x |
| Emergency Procedures | x | x | | x | x |

Note: x *indicates an area to be covered.*

*(h)* a national air operator shall provide dangerous goods training manuals which contain adequate procedures and information to assist personnel in identifying packages marked or labelled as containing hazardous materials including—

(i) instructions on the acceptance, handling, and carriage of hazardous materials;

(ii) instructions governing the determination of proper shipping names and hazard classes; and

(iii) packaging, labelling, and marking requirements.

***Regulation 25***

Dangerous Goods incidents and accidents under regulation 25 shall be reported in accordance with the following minimum standards:

*(a)* reports of dangerous goods incidents and accidents are to be made to the civil aviation authority of the State in which the incident or accident occurred, and to the Authority by the pilot in command; and

*(b)* an operator shall also report to the Authority undeclared dangerous goods or inaccurately declared dangerous goods which are discovered in cargo or passengers' baggage. An initial report shall be dispatched within seventy-two hours of the discovery unless exceptional circumstances prevent this.

***Regulation 30***

1. A change to an Aircraft Maintenance Programme under regulation 30 shall meet the following minimum standards:

2. The Authority shall use information generated from local operators' reliability reports, information from service information letters and service difficulty reports from manufacturers, International Safety Organisations and experiences from the aviation industry worldwide to influence a decision on an operator's approved inspection programme.

***Regulation 32***

The retention of maintenance records under regulation 32 shall meet the requirements of the Civil Aviation [(No. 3)Air Operators Certification and Administration] Regulations. Sub. Leg.

***Regulation 33***

The transfer of maintenance records under regulation 33 shall meet the requirements of Civil Aviation [(No. 3) Air Operators Certification and Administration] Regulations. Sub. Leg.

***Regulation 35***

Training to competency in the use of ACAS II equipment and the avoidance of collisions may be evidenced by, the following:

*(a)* possession of a type rating for an aeroplane equipped with ACASII, where the operation and use of ACAS II are included in the training syllabus for the type rating;

*(b)* possession of a document issued by a training organisation or person approved by the Authority to conduct training for pilots in the use of ACAS II, indicating that the holder has been trained in accordance with guidelines referred to in paragraph *(a)*; or

*(c)* a comprehensive pre-flight briefing by a pilot who has been trained in the use of ACAS II in accordance with the guidelines referred to in paragraph *(a)*.

***Regulations 46(4), 46(5) and 50***

The fitness of flight crew members under regulation 46(4), 46(5) and 50 shall meet the following minimum standards:

Whenever there is reasonable basis to believe that a person may not be in compliance with regulation 46(4), 46(5) or 50 and upon the request of the Authority, that person shall furnish the Authority or authorise any clinic, doctor, or other person to release to the Authority, the results of each blood test taken for presence of alcohol or narcotic substances up to 8 hours before or immediately after acting or attempting to act as a crew member.

***Regulation 52***

Flight crew members at duty stations under regulation 52 shall meet the following minimum standards:

a required flight crew member shall leave the assigned duty station if he is taking a rest period, and relief is provided—

(i) for the assigned pilot in command during the en route cruise portion of the flight by a pilot who holds an Airline Transport Pilot Licence and an appropriate type rating, and who is currently qualified as pilot in command or co-pilot, and is qualified as pilot in command of that aircraft during the en route cruise portion of the flight; and

(ii) in the case of the assigned co-pilot, by a pilot qualified to act as pilot in command or co-pilot of that aircraft during en route operations.

***Regulation 61***

The management of fuel in flight under regulation 61 shall meet the following minimum standards:

*(a)* in-flight fuel checks:

(i) a pilot in command shall ensure that fuel checks are carried out in flight at regular intervals. The remaining fuel shall be recorded and evaluated to—

(A) compare actual consumption with planned consumption;

(B) check that the remaining fuel is sufficient to complete the flight;

(C) determine the expected fuel remaining on arrival at the destination; and

(ii) the relevant fuel data shall be recorded;

*(b)* in-flight fuel management:

(i) if, as a result of an in-flight fuel check, the expected fuel remaining on arrival at the destination is less than the required alternate fuel plus final reserve fuel, the pilot in command shall take into account the traffic and the operational conditions prevailing at the destination aerodrome, along the diversion route to an alternate aerodrome and at the destination alternate aerodrome, when deciding whether to proceed to the destination aerodrome or to divert, so as to land with not less than final reserve fuel; and

(ii) on a flight to an isolated aerodrome the last possible point of diversion to any available en route alternate aerodrome shall be determined. Before reaching this point, the pilot in command shall assess the fuel expected to remain overhead the isolated aerodrome, the weather conditions, and the traffic and operational conditions prevailing at the isolated aerodrome and at any of the en route aerodromes before deciding whether to proceed to the isolated aerodrome or to divert to an en route aerodrome.

***Regulation 62***

A flight crew member under regulation 62 during critical phases of flight shall meet the following minimum standards:

*(a)* duties such as company required calls made for such non-safety related purposes as ordering galley supplies and confirming passenger connections, announcements made to passengers promoting the air operator or pointing out sights of interest, and filling out company payroll and related records are not duties required for the safe operation of the aircraft; and

*(b)* activities such as eating meals, engaging in non-essential conversations within the cockpit and non-essential communications between the cabin and cockpit crews, and reading publications not related to the proper conduct of the flight are not duties required for the safe operation of the aircraft.

***Regulation 66***

The reporting of mechanical irregularities under regulation 66 shall comply with the following minimum standards:

*(a)* a national air operator shall provide an aircraft technical log to be carried on board each aircraft for recording or deferring mechanical irregularities and their correction;

*(b)* the pilot in command shall enter or have entered in the aircraft technical log each mechanical irregularity that comes to his attention during flight time. Before each flight, the pilot in command shall, where the pilot does not already know, determine the status of each irregularity entered in the technical log at the end of the preceding flight;

*(c)* a person who takes corrective action or defers action concerning a reported or observed failure or malfunction of an airframe, power plant, propeller, rotor, or personnel and shall include that procedure in the maintenance control manual appliance, shall record the action taken in the aircraft technical log under the applicable maintenance requirements of the Act or Regulations made thereunder;

*(d)* a national air operator shall establish a procedure for keeping copies of the aircraft technical log required by this section in the aircraft for access by appropriate representatives of the Authority.

***Regulation 67 through 74***

Trinidad and Tobago Civil Aviation Authority Advisory Circular No. 031 (TAC—031) as amended from time to time meets the minimum requirement for occurrence reports. Operators may be guided by TAC—031 in meeting the requirements for Trinidad and Tobago Occurrence Reports.

***Regulation 77***

1. When interference with an aircraft system or equipment is suspected from use of a portable electronic device, crew members of the aircraft shall—

*(a)* confirm passenger use of such portable electronic device;

*(b)* instruct the passenger using such portable electronic device to terminate the use of such portable electronic device;

*(c)* prohibit the use of suspected portable electronic device; and

*(d)* recheck the affected systems and equipment of the aircraft.

2. The pilot in command shall report incidents of portable electronic device interference to the national air operator and include the following information in the report:

*(a)* aircraft type, registration, date and Universal Co-ordinated Time of incident, aircraft location using VHF Omni Range bearing and distance or latitude and longitude co-ordinates, altitude, weather conditions, pilot name and telephone number;

*(b)* description of effects on cockpit indicators, audio or systems, including radio frequency, identification, duration, severity and other pertinent information;

*(c)* action taken by the pilot or crew to identify cause or source of interference;

*(d)* description of device, brand name, model, serial number, mode of operation, device location (seat location), and regulatory approval number;

*(e)* name and telephone number of passenger operating the device; and

*(f)* additional information, as determined pertinent by the flight crew.

*L.R.O.*

***Regulation 94***

The United States of America, Federal Aviation Administration, Advisory Circular AC120-42, as amended from time to time, meets the minimum International Civil Aviation Organisation requirements for giving effect to the Chicago Convention in respect of the minimum standards relating to regulation 94 which are for Extended Range Operations with two engine-aeroplanes. National air operators may be guided by the current AC120-42 in meeting the Trinidad and Tobago ETOPS requirements.

***Regulation 95***

The United States of America, Federal Aviation Administration, Circular AC120-42, as amended from time to time, meets the minimum International Civil Aviation Organisation requirements for giving effect to the Chicago Convention in respect of the minimum standards relating to regulation 95 which are for En Route Alternate Aerodrome –ETOPS operations. National air operators may be guided by the current AC120-42 in meeting the Trinidad and Tobago ETOPS requirements.

***Regulation 100***

The loading mass and balance of an aircraft under regulation 100 shall meet the following minimum standards:

*(a)* An operator shall ensure that during any phase of operation, the loading, mass and centre gravity of the aircraft complies with the limitations specified in the approved Aeroplane Flight Manual or the Helicopter Flight Manual, or the Operations Manual where more restrictive;

*(b)* Trinidad and Tobago Civil Aviation Authority Advisory Circular No. 006 (TAC—006) as amended from time to time meets the minimum requirements for this regulation. Operators may be guided by the current TAC—006 in meeting the requirements for mass and balance.

***Regulation 104***

The record of emergency and survival equipment carried on board an aircraft under regulation 104 shall meet the following minimum standards:

Where a life raft is required to be carried in accordance with regulation 104, it shall be equipped with an attached survival kit containing at least the following:

*(a)* a pyrotechnic signalling device;

*(b)* a life raft repair kit;

*(c)* a bailing bucket and sponge;

*(d)* a signalling mirror;

*(e)* a whistle;

*(f)* a raft knife;

*(g)* an inflation pump;

*(h)* dye marker;

*(i)* a waterproof flashlight;

*(j)* a two-day supply of water, calculated using the overload capacity of the raft, consisting of one pint of water per day for each person or a means of desalting or distilling salt water sufficient to provide an equivalent amount;

*(k)* a book on sea survival; and

*(l)* a first aid kit containing antiseptic swabs, burn dressing compresses, bandages and anti-motion sickness pills.

***Regulation 106***

The following established international performance codes meet the minimum international civil aviation requirements for giving effect to the Chicago Convention in respect of the minimum standards relating to the performance requirements of these Regulations as applicable:

*(a)* Federal Aviation Regulations of the United States of America;

*(b)* Joint Aviation Requirements;

*(c)* Canadian Aviation Regulations; and

*(d)* British Civil Authority and Requirement.

***Regulation 118***

The landing performance limitations for aircraft under regulation 118 shall meet the following minimum standards:

The in-flight determination of the landing distance should be based on the latest available report, preferably not more than thirty minutes before the expected landing time.

***Regulation 130***

The United States of America, Federal Aviation Administration, Advisory Circular AC120-28 and AC120-29, as amended from time to time, meet the

minimum International Civil Aviation Organisation requirements for giving effect to the Chicago Convention in respect of the minimum standards relating to regulation 130 which are for the approval of Category II and III operations. National air operators may be guided by the current AC120-28 and AC120-29 in meeting the Category II or Category III requirements.

***Regulation 136***

Lights other than those specified shall not be displayed if they are likely to be mistaken for the specified lights.

***Regulation 143***

The United States of America, Federal Aviation Administration, 91—RVSM, Guidance Material on the Approval of Operators or Aircraft for RVSM Operations, as amended from time to time, meets the minimum International Civil Aviation Organisation requirements for giving effect to the Chicago Convention in respect of the minimum standards relating to regulation 143 for operations in RVSM airspace. Operators may be guided by the current 91—RVSM in meeting the RVSM requirements.

***Regulation 143A***

## ALTIMETRY SYSTEM PERFORMANCE REQUIREMENTS FOR OPERATIONS IN RVSM AIRSPACE

1. In respect of groups of aeroplanes that are nominally of identical design and build with respect to all details that could influence the accuracy of height-keeping performance, the height-keeping performance capability shall be such that the total vertical error (TVE) for the group of aeroplanes shall have a mean no greater than 25 metres (80 feet) in magnitude and shall have a standard deviation no greater than $28 - 0.013z^2$ for 0 less than or equal to z less than or equal to 25 when z is the magnitude of the mean TVE in metres, or $92 - 0.004z^2$ for 0 less than or equal to z less than or equal to 80 where z is in feet. In addition, the components of TVE shall have the following characteristics:

*(a)* the mean altimetry system error (ASE) of the group shall not exceed 25 metres (80 feet) in magnitude;

*(b)* the sum of the absolute value of the mean ASE and of three standard deviations of ASE shall not exceed 75 metres (245 feet); and

*(c)* the difference between cleared flight level and the indicated pressure altitude actually flown shall be symmetric about a mean of 0 metre, with a standard deviation no greater than 13.3 metres (43.7 feet), and in addition, the decrease in the frequency of differences with increasing difference magnitude shall be at least exponential.

2. In respect of aeroplanes for which the characteristics of the airframe and altimetry system fit are unique and so cannot be classified as belonging to a group of aeroplanes encompassed by paragraph 1, the height-keeping performance capability shall be such that the components of the TVE of the aeroplane have the following characteristics:

*(a)* the ASE of the aeroplane shall not exceed 60 metres (200 feet) in magnitude under all flight conditions; and

*(b)* the differences between the cleared flight level and the indicated pressure altitude actually flown shall be symmetric about a mean of 0 metre, with a standard deviation no greater than 13.3 metres (43.7 feet), and in addition, the decrease in the frequency of differences with increasing difference magnitude shall be at least exponential.

***Regulation 152***

## COMMUNICATION FAILURE

1. Air—Ground.

When an aircraft station fails to establish contact with the aeronautical station on the designated frequency, it shall attempt to establish contact on another frequency appropriate to the route. If this attempt fails, the aircraft station shall attempt to establish communication with other aircraft or other aeronautical stations on frequencies appropriate to the route. In addition, an aircraft operating within a network shall monitor the appropriate VHF frequency for calls from nearby aircraft.

If the attempts detailed in the preceding paragraph fail, the aircraft station shall transmit its message twice on the designated frequency, preceded by the phrase "TRANSMITTING BLIND" and, if necessary, include the addressee for which the message is intended.

In network operation, a message that is transmitted blind should be transmitted on the primary and secondary frequencies. Before changing frequency, the aircraft station should announce the frequency to which it is changing.

2. Receiver failure.

When an aircraft station is unable to establish communication due to receiver failure, it shall transmit reports at the scheduled times, or position, on the frequency in use, preceded by the phrase "TRANSMITTING BLIND DUE TO RECEIVER FAILURE". The aircraft station shall transmit the intended message, following this by a complete repetition. During this procedure, the aircraft shall also advise the time of its next intended transmission.

An aircraft, which is provided with air traffic control or advisory service, shall, in addition to complying with the preceding paragraph, transmit information regarding the intention of the pilot in command with respect to the continuation of the flight of the aircraft.

When an aircraft is unable to establish communication due to airborne equipment failure it shall, when so equipped, select the appropriate SSR code to indicate radio failure.

***Regulation 189***

An operator shall ensure that where alcohol and drugs are used on board an aircraft by passengers under regulation 189 such use shall meet the following minimum standards:

*(a)* a person shall not drink any alcoholic beverage aboard an aircraft unless the operator has served that beverage to him;

*(b)* an operator shall not serve any alcoholic beverage to any person aboard any of its aircraft who—

(i) appears to be intoxicated; and

(ii) is escorting a person or being escorted in accordance with security regulations;

*(c)* an operator shall not allow any person to board any of its aircraft where such person appears to be intoxicated;

*(d)* an operator shall, within five days after the incident, report to the Authority the refusal of any person to comply with paragraph *(a)*, or of any disturbance caused by a person who appears to be intoxicated aboard any of his aircraft;

*(e)* except in an emergency, no pilot of a civil aircraft may allow a person who appears to be intoxicated or who demonstrates by manner or physical indications that the individual is under the influence of drugs (except a medical patient under proper care) to be carried in that aircraft;

*(f)* a crew member shall do the following:

(i) on request of the Authority, submit to a test to indicate the percentage by weight of alcohol in the blood, when—

(A) the Authority is authorised to have the test conducted; and

(B) the Authority is requesting submission to the test to investigate a suspected violation of State law governing the same or substantially similar conduct prohibited regulation 46(5);

(ii) whenever the Authority has a reasonable basis to believe that a person may have violated regulation 46(5), that person shall, upon request by the Authority, furnish the Authority, or authorise any clinic, hospital, doctor, or other person to release to the Authority, the results of each test taken within four hours after acting or attempting to act as a crew member that indicates percentage by weight of alcohol in the blood; and

*(g)* any test information obtained by the Authority under paragraph *(f)* of this section may be evaluated in determining a person's qualifications for any airman certificate or possible violations of the Act or Regulations made thereunder.

***Regulation 190***

In establishing procedures with respect to the refueling of an aircraft with passengers on board in accordance with regulation 190, an operator shall meet the following minimum standards:

*(a)* one qualified person shall remain at a specified location during fuelling operations with passengers on board. This qualified person shall be capable of handling emergency procedures concerning fire protection and firefighting, handling communications and initiating and directing an evacuation;

*(b)* crew, staff and passengers shall be warned that refuelling or defuelling will take place;

*(c)* "Fasten Seat Belts" signs shall be off;

*(d)* "No Smoking" sign shall be on, together with interior lighting to enable emergency exits to be identified;

*(e)* passengers shall be instructed to unfasten their seat belts and refrain from smoking;

*(f)* sufficient qualified personnel shall be on board and be prepared for an immediate emergency evacuation;

*(g)* if the presence of fuel vapour is detected inside the aeroplane, or any other hazard arises during the re/defuelling, fuelling shall be stopped immediately;

*(h)* the ground area beneath the exits intended for emergency evacuation and slide deployment areas shall be kept clear; and

*(i)* provision is made for a safe and rapid evacuation.

***Regulation 191***

An operator shall ensure that passenger seats, safety belts, and shoulder harnesses under regulation 191 shall meet the following minimum standards:

Each sideward facing seat shall comply as follows:

*(a)* an occupant of a seat that makes more than an 18-degree angle with the vertical plane containing the aircraft centerline shall be protected from head injury by a safety belt and an energy absorbing rest that will support the arms, shoulders, head and spine, or by a safety belt and shoulder harness that will prevent the head from contacting any injurious objects; and

*(b)* an occupant of any other seat shall be protected from head injury by a safety belt and, as appropriate to the type, location, and angle of facing of each seat, by one or more of the following:

(i) a shoulder harness that will prevent the head from contacting any injurious objects;

(ii) the elimination of any injurious objects within striking radius of the head; and

(iii) an energy absorbing rest that will support the arms, shoulders, head and spine.

***Regulation 194***

An operator shall ensure that the supply and use of passenger oxygen under regulation 194 meets the following minimum standards:

*(a)* passenger cabin occupants. When the aeroplane is operating at flight altitudes above 10,000 feet, the following supply of oxygen shall be provided for the use of passenger cabin occupants:

(i) when an aeroplane certificated to operate at flight altitudes up to and including flight level 250, can at

any point along the route to be flown, descend safely to a flight altitude of 14,000 feet or less within four minutes, oxygen shall be available at the rate prescribed by this part for a 30-minute period for at least 10 per cent of the passenger cabin occupants;

(ii) when an aeroplane is operated at flight altitudes up to and including flight level 250 and cannot descend safely to a flight altitude of 14,000 feet within four minutes, or when an aeroplane is operated at flight altitudes above flight level 250, oxygen shall be available at the rate prescribed by this part for not less than 10 percent of the passenger cabin occupants for the entire flight after cabin depressurisation, at cabin pressure altitudes above 10,000 feet up to and including 14,000 feet and, as applicable, except that there shall be not less than a 10-minute supply for the passenger cabin occupants; and

(iii) for first-aid treatment of occupants who for physiological reasons might require undiluted oxygen following descent from cabin pressure altitudes above flight level 250, a supply of oxygen shall be provided for two percent of the occupants for the entire flight after cabin depressurisation at cabin pressure altitudes above 8,000 feet, but in no case to less than one person. An appropriate number of acceptable dispensing units, but in no case less than two, shall be provided, with a means for the cabin crew to use this supply;

*(b)* passenger briefing: Before flight is conducted above flight level 250, a crew member shall instruct the passengers on the necessity of using oxygen in the event of cabin depressurisation and shall point out to them the location and demonstrate the use of the oxygen-dispensing equipment.

***Regulation 199***

A national air operator shall ensure that where transportation is denied under regulation 199, the procedures for such denial meet the following minimum standards:

*(a)* a national air operator shall provide the Authority with a copy of each procedure it establishes in accordance with regulation 199; and

*(b)* whenever the Authority finds that the procedures established by the national air operator under regulation 198 does not meet the requirements prescribed by the Authority for safety, it may advise the national air operator to ensure that all procedures meet the Authority's requirements for safety;

*(c)* a national air operator shall make available to the public at each airport it serves a copy of each procedure it establishes under regulation 199.

***Regulation 200***

**EXEMPTIONS ON CERTAIN PASSENGERS CARRYING REQUIREMENTS**

1. An operator shall ensure that where passengers are carried under regulation 200 that they are carried in accordance with the following minimum standards:

The provisions of regulation 200 apply to the following persons:

(i) a crew member;

(ii) a company employee;

(iii) a Civil Aviation Authority air carrier inspector who is performing official duties;

(iv) a person necessary for the—

(A) safety of the flight;

(B) safe handling of animals;

(C) safe handling of hazardous materials;

(D) security of valuable or confidential cargo;

(E) preservation of fragile or perishable cargo;

(F) Experiments on, or testing of, cargo containers or cargo-handling devices;

(G) operation of special equipment for loading or unloading cargo; and

(H) loading or unloading of outsize cargo;

(v) a person described in paragraph *(a)*(iv) of this section, when travelling to or from his assignment;

(vi) a person performing duty as an honour guard accompanying a shipment made by or under the authority of the States;

(vii) a dependant of an employee of the certificate holder when travelling with the employee on company business to or from outlying stations not served by adequate regular passenger flights.

2. A national air operator shall not operate an aeroplane carrying a person covered by paragraph (1) unless—

*(a)* each person has unobstructed access from his seat to a regular or emergency exit;

*(b)* the pilot in command has a means of notifying such person when smoking is prohibited and when safety belts shall be fastened; and

*(c)* the aeroplane has an approved seat with an approved safety belt for such person. The seat shall be located so that the occupant is not in any position to interfere with the flight crew members performing their duties.

3. Before each take-off, a national air operator operating an aeroplane carrying persons covered by this regulation shall ensure that such person has been orally briefed by the appropriate crew member on—

*(a)* smoking;

*(b)* the use of seat belts;

*(c)* the location and operation of emergency exits;

*(d)* the use of oxygen and emergency oxygen equipment; and

*(e)* for extended over-water operations, the location of life rafts, and the location and operation of life vest including a demonstration of the method of donning and inflating a life vest.

4. A national air operator operating an aeroplane carrying persons covered under regulation 200 shall incorporate procedures for the safe carriage of such persons into the certificate holder's operations manual.

***Regulation 201***

A national air operator shall ensure that where cabin crew are at duty stations under regulation 201 the following minimum standards are met:

*(a)* when determining cabin crew seating positions, the national air operator shall ensure that they are—

(i) close to a floor level exit;

(ii) provided with a good view of the area of the passenger cabin for which the cabin crew member is responsible; and

(iii) evenly distributed throughout the cabin, in the above order of priority;

*(b)* nothing in these standards shall be interpreted, where there are more cabin stations than cabin crew, as requiring the number of cabin crew members to be increased.

***Regulation 208***

A national air operator shall ensure that the procedures to be followed in respect of exit row seating under regulation 208 meets the following minimum standards:

*(a)* the standards to be utilised in determining whether a cabin crew may seat a person in a passenger exit seat are listed below. A cabin crew will not seat a person in a passenger exit where—

(i) such person lacks sufficient mobility, strength, or dexterity in both arms and hands, and both legs—

(A) to reach upward, sideways, and downward to the location of emergency exit and exit-slide operating mechanisms;

(B) to grasp and push, pull, turn, or otherwise manipulate those mechanisms;

(C) to push, shove, pull, or otherwise open emergency exits;

(D) to lift out, hold, deposit on nearby seats, or manoeuvre over the seat backs to the next row objects the size and weight of over-wing window exit doors;

(E) to remove obstructions of size and weight similar over-wing exit doors;

(F) to reach the emergency exit expeditiously;

(G) to maintain balance while removing obstructions;

(H) to exit expeditiously;

(I) to stabilize an escape slide after deployment; or

(J) to assist others in getting off an escape slide;

(ii) such person is less than fifteen years of age or lacks the capacity to perform one or more of the applicable functions listed above without the assistance of an adult companion, parent, or other relative;

(iii) the person lacks the ability to read and understand instructions required by this section and related to emergency evacuation provided by the national air operator in printed or graphic form or the ability to understand oral crew commands;

(iv) the person lacks sufficient visual capacity to perform one or more of the above functions without the assistance of visual aids beyond contact lenses or eyeglasses;

(v) the person lacks sufficient aural capacity to hear and understand instructions shouted by cabin crews, without assistance beyond a hearing aid;

(vi) the person lacks the ability adequately to impart information orally to other passengers; or

(vii) the person has a condition or responsibilities, such as caring for small children that might prevent the person from performing one or more of the functions listed above; or a condition that might cause the person harm if he or she performs one or more of the functions listed above;

*(b)* determination as to the suitability of each person permitted to occupy an exit seat shall be made by the cabin crew or other persons designated in the operations manual of the national air operator;

*(c)* in the event a cabin crew determines that a passenger assigned to an exit seat would be unable to perform the emergency exit functions, or if a passenger requests a non-exit seat, the cabin crew shall expeditiously relocate the passenger to a non-exit seat;

*(d)* in the event of full booking in the non-exit seats, and if necessary to accommodate a passenger being relocated from an exit seat, the cabin crew shall move a passenger who is willing and able to assume the evacuation functions, to an exit seat;

*(e)* each air operator agent shall, prior to boarding, assign seats consistent with the passenger selection criteria and the emergency exit functions, to the maximum extent feasible;

*(f)* each air operator ticket agent shall make available for inspection by the public at all passenger loading gates and ticket counters at each aerodrome where it conducts passenger operations, written procedures established for making determinations in regard to exit row seating;

*(g)* a cabin crew shall include in their passenger briefings a request that a passenger identify himself or herself to allow reseating if he or she—

(i) cannot meet the selection criteria;

(ii) has a non-discernible condition that will prevent him or her from performing the evacuation functions;

(iii) may suffer bodily harm as the result of performing one or more of those functions; or

(iv) does not wish to perform emergency exit functions;

*(h)* each cabin crew shall include in their passenger briefings a reference to the passenger information cards and the functions to be performed in an emergency exit;

*(i)* each passenger shall comply with instructions given by a crew member or other authorised employee of the national air operator-implementing exit seating restrictions; and

*(j)* a pilot in command shall not allow taxi or pushback unless at least one required crew member has verified that all exit rows and escape paths are unobstructed and that no exit seat is occupied by a person the crew member determines is likely to be unable to perform the applicable evacuation functions.

***Regulation 210***

A national air operator shall ensure where oxygen is available for the medical use of passengers such oxygen and its use meets the following minimum standards:

*(a)* a national air operator may allow a passenger to use and operate equipment for the storage, generation, or dispensing of oxygen when the following conditions are met:

(i) the equipment is—

(A) furnished by the national air operator;

(B) approved;

(C) maintained by the certificate holder in accordance with an approved maintenance programme;

(D) free of flammable contaminants on all exterior surfaces;

(E) capable of providing a minimum mass flow of oxygen to the user of four litres per minute;

(F) structured so that all valves, fittings, and gauges are protected from damage; and

(G) appropriately secured;

(ii) when the oxygen is stored in the form of a liquid, the equipment has been under the certificate holder's approved maintenance programme of the national air operator since its purchase new or since the storage container was last purged;

(iii) when the oxygen is stored in the form of a compressed gas—

(A) the equipment has been under the certificate holder's approved maintenance programme since its purchase new or since the last hydrostatic test of the storage cylinder; and

(B) the pressure in any oxygen cylinder does not exceed the rated cylinder pressure;

(iv) each person using the equipment has a medical need to use it evidenced by a written statement to be kept in that person's possession, signed by a licensed physician which specifies the maximum quantity of oxygen needed each hour and the maximum flow rate needed for the pressure altitude corresponding to the pressure in the cabin of the aeroplane under normal operating conditions. This paragraph does not apply to the carriage of oxygen in an aeroplane in which the only passengers carried are persons who may have a medical need for oxygen during flight, no more than one relative or other interested person for each of those persons, and medical attendants;

(v) when a physician's statement is required by paragraph *(a)*(iv), the total quantity of oxygen carried is equal to the maximum quantity of oxygen needed each hour, as specified in the physician's statement, multiplied by the number of hours used to compute the amount of aeroplane fuel required by this Part;

(vi) the pilot in command is advised when the equipment is on board, and when it is intended to be used; and

(vii) the equipment is stowed, and each person using the equipment is seated, so as not to restrict access to or use of any required emergency, or regular exit or of the aisle in the passenger compartment;

*(b)* a person shall not, nor shall a national air operator or its representative allow any person to smoke within 10 feet of oxygen storage and dispensing equipment carried in accordance with paragraph *(a)*;

*(c)* a national air operator shall not allow any person to connect or disconnect oxygen dispensing equipment, to or from a gaseous oxygen cylinder while any passenger is aboard the aeroplane; and

*(d)* the requirements of these paragraphs do not apply to the carriage of supplemental or first aid oxygen and related equipment required by the Act.

***Regulation 211***

A national air operator shall ensure that where carry-on baggage is allowed on board an aircraft it meets and its allowance on board meets the following minimum standards:

*(a)* a national air operator shall not allow the boarding of carry-on baggage on an aeroplane unless each passenger's baggage has been scanned to control the size and amount carried on board in accordance with an approved carry-on baggage programme in its operations specifications. In addition, a passenger shall not board an aeroplane where his carry-on baggage exceeds the baggage allowance prescribed in the carry-on baggage programme in the operations specifications of the national air operator;

*(b)* a national air operator shall not allow all passenger entry doors of an aeroplane to be closed in preparation for taxi or pushback unless at least one required crew member has verified that each article of carry-on baggage is stowed;

*(c)* a national air operator shall not allow an aeroplane to take-off or land unless each article of carry-on baggage is stowed—

(i) in a suitable closet or baggage or cargo stowage compartment placarded for its maximum weight and providing proper restraint for all baggage or cargo stowed within, and in a manner that does not hinder the possible use of any emergency equipment; or

(ii) under a passenger seat;

*(d)* carry-on baggage, other than articles of loose clothing, shall not be placed in an overhead rack unless that rack is equipped with approved restraining devices or doors;

*(e)* a national air operator shall ensure that a passenger seat under which carry-on baggage is allowed to be stowed shall be fitted with a means to prevent articles of carry-on baggage stowed under it from sliding forward. In addition, each aisle seat shall be fitted with a means to prevent articles of carry-on baggage stowed under it from sliding sideward into the aisle under crash impacts severe enough to induce the ultimate inertia forces specified in the emergency landing condition regulations under which the aeroplane was type certificated;

*(f)* in addition to the methods of stowage in paragraph *(c)*, flexible travel canes carried by blind individuals may be stowed—

(i) under any series of connected passenger seats in the same row, where the cane does not protrude into an aisle and where the cane is flat on the floor; or

(ii) between a non-emergency exit window seat and the fuselage, where the cane is flat on the floor; or

(iii) beneath any two non-emergency exit window seats, where the cane is flat on the floor; or

(iv) in accordance with any other method approved by the Authority.

***Regulation 212***

1. A national air operator shall ensure that where cargo is carried in the passenger compartment of an aircraft its carriage meets the following minimum standards for submission to the Authority for approval:

*(a)* cargo may be carried anywhere in the passenger compartment where it is carried in an approved cargo bin that meets the following requirements;

*(b)* the bin shall withstand the load factors and emergency landing conditions applicable to the passenger seats of the aeroplane in which the bin is installed, multiplied by a factor of 1.15, using the combined weight of the bin and the maximum weight of cargo that may be carried in the bin;

*(c)* the maximum weight of cargo that the bin is approved to carry and any instructions necessary to ensure proper weight distribution within the bin shall be conspicuously marked on the bin;

*(d)* the bin shall not impose any load on the floor or other structure of the aeroplane that exceeds the load limitations of that structure;

*(e)* the bin shall be attached to the seat tracks or to the floor structure of the aeroplane, and its attachment shall withstand the load factors and emergency landing conditions applicable to the passenger seats of the aeroplane in which the bin is installed, multiplied by either the factor 1.15 or the seat attachment factor specified for the aeroplane, whichever is greater, using the combined weight of the bin and the maximum weight of cargo that may be carried in the bin;

*(f)* the bin shall not be installed in a position that restricts access to or use of any required emergency exit, or of the aisle in the passenger compartment;

*(g)* the bin shall be fully enclosed and made of material that is at least flame resistant;

*(h)* suitable safeguards shall be provided within the bin to prevent the cargo from shifting under emergency landing conditions; and

*(i)* the bin shall not be installed in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passenger is provided.

2. Cargo, including carry-on baggage, may be carried anywhere in the passenger compartment of a small aeroplane if it is carried in an approved cargo rack, bin, or compartment installed in or on the aeroplane, if it is secured by an approved means, or if it is carried in accordance with each of the following:

*(a)* for cargo, it is properly secured by a safety belt or other tie-down having enough strength to eliminate the possibility of shifting under all normally anticipated flight and ground conditions, or for carry-on baggage, it is restrained so as to prevent its movement during air turbulence;

*(b)* it is packaged or covered to avoid possible injury to occupants;

*(c)* it does not impose any load on seats or in the floor structure that exceeds the load limitation for those components;

*(d)* it is not located in a position that obstructs the access to, or use of, any required emergency or regular exit, or the use of the aisle between the crew and the passenger compartment, or is located in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign or placard, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passengers is provided;

*(e)* it is not carried directly above seated occupants;

*(f)* it is stowed in compliance with these restrictions during take-off and landing;

*(g)* for cargo-only operations, if the cargo is loaded so that at least one emergency or regular exit is available to provide all occupants of the aeroplane a means of unobstructed exit from the aeroplane if an emergency occurs.

3. A national air operator shall not carry cargo, including carry-on baggage, in or on any aircraft unless—

*(a)* it is carried in an approved cargo rack, bin, or compartment installed in or on the aircraft;

*(b)* it is secured by an approved means; or

*(c)* it is carried in accordance with each of the following:

(i) for cargo, it is properly secured by a safety belt or other tie-down having enough strength to eliminate the possibility of shifting under all normally anticipated flight and ground conditions, or for carry-on baggage, it is restrained so as to prevent its movement during air turbulence;

(ii) it is packaged or covered to avoid possible injury to occupants;

(iii) it does not impose any load on seats or on the floor structure that exceeds the load limitation for those components;

(iv) it is not located in a position that obstructs the access to, or use of, any required emergency or regular exit, or the use of the aisle between the crew and the passenger compartment, or located in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passengers is provided;

(v) it is not carried directly above seated occupants;

(vi) it is stowed in compliance with this standard for take-off and landing;

(vii) for cargo only operations, paragraph (3)(iv) does not apply where the cargo is loaded so that at least one emergency or regular exit is available to provide all occupants of the aircraft a means of unobstructed exit from the aircraft where an emergency occurs.

4. Each passenger seat under which baggage is stowed shall be fitted with a means to prevent articles of baggage stowed under it from sliding under crash impacts severe enough to induce the ultimate inertia forces specified in the emergency landing condition regulations under which the aircraft was type certificated.

5. When cargo is carried in cargo compartments that are designed to require the physical entry of a crew member to extinguish any fire that may occur during flight, the cargo shall be loaded so as to allow a crew member to effectively reach all parts of the compartment with the contents of a hand fire extinguisher.

***Regulation 214***

A national air operator shall ensure that passenger briefings under regulation 214 meets the following minimum standards:

*(a)* a national air operator operating a passenger-carrying aircraft shall ensure that all passengers are orally briefed by the appropriate crew member as follows:

(i) before each take-off, on each of the following:

(A) each passenger shall be briefed on when, where, and under what conditions smoking is prohibited including, but not limited to, any applicable regulations. This briefing shall include a statement that the Civil Aviation Regulations require passenger compliance with the illuminated passenger information signs, posted placards, areas designated for safety purposes as no smoking areas, and crew member instructions with regard to these items. The briefing shall also include a statement that Civil Aviation Regulations prohibits tampering with, disabling, or destroying any smoke detector in an aeroplane lavatory; smoking in lavatories and, when applicable, smoking in passenger compartments;

(B) the location of emergency exits;

(C) the use of safety belts, including instructions on how to fasten and unfasten the safety belts. Each passenger shall be briefed on when, where, and under what conditions the safety belt shall be fastened about that passenger. This briefing shall include a statement that the Civil Aviation

Regulations require passenger compliance with lighted passenger information signs and crew member instructions concerning the use of safety belts;

(D) the location and use of any required emergency flotation means;

(E) on operations that do not use a cabin crew, the following additional information:

(I) the placement of seat backs in an upright position before take-off and landing;

(II) location of survival equipment; and

(III) where the flight involves operations above 12,000 MSL, the normal and emergency use of oxygen;

(ii) after each take-off, immediately before or immediately after turning the seat belt sign off, an announcement shall be made that passengers should keep their seat belts fastened, while seated, even when the seat belt sign is off;

(iii) except as provided in paragraph *(a)*(iv) of this standard, before each take-off a required crew member assigned to the flight shall conduct an individual briefing of each person who may need the assistance of another person to move expeditiously to an exit in the event of an emergency. In the briefing the required crew member shall—

(A) brief the person and his attendant, where any, on the routes to each appropriate exit and on the most appropriate time to begin moving to an exit in the event of an emergency; and

(B) inquire of the person and his attendant, where any, as to the most appropriate manner of assisting the person so as to prevent pain and further injury;

(iv) the requirements of paragraph *(a)*(iii) of this standard shall not apply to a person who has been given a briefing before a previous leg of a flight in the same aircraft when the crew members on duty have been advised as to the most appropriate manner of assisting the person so as to prevent pain and further injury; and

*(b)* a national air operator shall carry on each passenger-carrying aircraft, in convenient locations for use of each passenger, printed cards supplementing the oral briefing and containing—

(i) diagrams of, and methods of operating, the emergency exits;

(ii) other instructions necessary for use of emergency equipment; and

(iii) the certificate holder shall describe in its manual the procedure to be followed in the briefing required by paragraph *(a)* of this standard.

***Regulation 215***

A national air operator shall ensure that passenger briefings for extended over-water operations under regulation 215 meets the following minimum standards:

*(a)* a national air operator operating an aeroplane in extended over-water operations shall ensure that all passengers are orally briefed by the appropriate crew member on the location and operation of life vests, life rafts, and other flotation means, including a demonstration of the method of donning and inflating a life vest;

*(b)* a national air operator shall describe in his manual the procedure to be followed in the briefing required by paragraph *(a)* of this standard;

*(c)* where the aeroplane proceeds directly over water after take-off, the briefing required by paragraph *(b)* of this standard shall be done before take-off; and

*(d)* where the aeroplane does not proceed directly over water after take-off, no part of the briefing required by paragraph *(a)* of this standard has to be given before take-off, but the entire briefing shall be given before reaching the over-water part of the flight.

***Regulation 216***

A national air operator shall ensure that in using passenger seat belt signs and information signs under regulation 216, the following minimum standards are met:

*(a)* passenger information signs shall meet the requirements of Civil Aviation [(No. 7) Instruments and Equipment] Regulations. The signs shall be constructed so that the crew members can turn them on and off;

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*(b)* a person shall not operate an aeroplane on a flight on which smoking is prohibited unless either the "No Smoking" passenger information signs are illuminated during the entire flight, or one or more "No Smoking" placards are posted during the entire flight segment. If both the illuminated signs and the placards are used, the signs shall remain illuminated during the entire flight segment;

*(c)* there shall be at least one legible sign or placard that reads "Fasten Seat Belt While Seated" which is visible from each passenger seat; and

*(d)* there shall be installed in each lavatory a sign or placard that prohibits by law any tampering with the smoke detector installed in the lavatory.

***Regulation 219***

A national air operator shall ensure that the security of items of mass in the passenger compartment under regulation 219, meets the following minimum standards:

A national air operator shall provide and use means to prevent each item of galley equipment and each serving cart, when not in use, and each item of crew baggage, which is carried in a passenger or crew compartment from becoming a hazard by shifting under the appropriate load factors corresponding to the emergency landing conditions under which the aeroplane was type certificated.

***Regulation 224 A***

An aeroplane shall not be operated under the Instrument Flight Rules or at night by a single pilot in commercial air transport operations unless the following standards are met:

*(a)* the aeroplane flight manual does not require a flight crew of more than one;

*(b)* the aeroplane is propeller driven;

*(c)* the maximum approved passenger seating configuration is not more than nine;

*(d)* the maximum certified take-off mass does not exceed 5 700 kg;

*(e)* the aeroplane is equipped with—

(i) a serviceable autopilot that has at least altitude hold and heading select modes;

(ii) a headset with boom microphone or equivalent; and

(iii) means of displaying charts that enables them to be readable in all ambient light conditions;

*(f)* the pilot in command has satisfied requirements of experience, training, checking and recency as follows:

(i) for operations under the Instrument Flight Rules or at night, has accumulated at least 50 hours flight time on the class of aeroplane, of which at least 10 hours shall be as pilot in command;

(ii) for operations under the Instrument Flight Rules—

(A) have accumulated at least 25 hours flight time under the Instrument Flight Rules on the class of aeroplane, which may form part of the 50 hours flight time in paragraph (i) above; and

(B) have acquired recent experience as pilot engaged in single pilot operations under the Instrument Flight Rules of at least five Instrument Flight Rules flights, including three instruments approaches carried out during the preceding 90 days on the class of aeroplane in the single pilot role; or an Instrument Flight Rules instrument approach check carried out on such an aeroplane during the preceding 90 days;

(iii) for operations at night—

(A) have accumulated at least 15 hours flight time at night, which may form part of the 50 hours flight time in paragraph (i);

(B) have made at least three take-offs and landings at night in the class of aeroplane in the single pilot role in the preceding 90 days;

(iv) have successfully completed training programmes that include, in addition to the requirements of regulation 260—

(A) passenger briefing with respect to emergency evacuation;

(B) autopilot management; and

(C) the use of simplified in-flight documentation; and

*(g)* the initial and recurrent training required by regulations 233, 234, 235 and 236 and proficiency checks required by regulation 240 are performed by the pilot in command in the single pilot role on the class of aeroplane in an environment representative of the operation.

***Regulation 260(5)***

A national air operator shall ensure that the line check under regulation 260(5), meets the following minimum standards:

*(a)* line checks shall establish the ability to perform satisfactorily, a complete line operation including preflight and post flight procedures and use of the equipment provided, as specified in the Operations Manual;

*(b)* the flight crew shall be assessed on their crew resource management skills in accordance with a methodology acceptable to the Authority and published in the Operations Manual. The purpose of such assessment is to—

(i) provide feedback to the crew collectively and individually and serve to identify re-training; and

(ii) be used to improve the crew resource management training system;

*(c)* a pilot shall, where required to perform such functions, be checked on either pilot flying or pilot non-flying duties or both;

*(d)* line checks shall be completed in an aircraft;

*(e)* line checks shall be conducted by pilots in command nominated by the operator and acceptable to the Authority. The person conducting the line check, who is described in regulation 260(1)*(g)*(ii), shall be trained in crew resource management concepts and the assessment of crew resource management skills and shall occupy an observer's seat where installed; and

*(f)* in the case where additional operating flight crew are carried for crew augmentation under regulation 282, the person conducting the line check may fulfil the function of a cruise relief pilot and shall not occupy either pilot's seat during take-off, departure, initial cruise, descent, approach and landing. His crew resource management assessments shall be based solely on observations made during the initial briefing, cabin briefing, cockpit briefing and those phases where he occupies the observer's seat.

***Regulation 270***

A national air operator shall ensure that where simulator experience is substituted under regulation 270, it meets the following minimum standards:

*(a)* each aeroplane simulator and other training device that is used in a training course shall—

(i) be specifically approved for—

(A) the certificate holder;

(B) the type aeroplane and, if applicable, the particular variation within type, for which the training or check is being conducted; and

(C) the particular manoeuvre, procedure, or crew member function involved;

(ii) maintain the performance, functional, and other characteristics that are required for approval;

(iii) be modified to conform with any modification to the aeroplane being simulated that results in changes to performance, functional, or other characteristics required for approval;

(iv) be given a daily functional preflight check before being used;

(v) have a daily discrepancy log kept with each discrepancy entered in that log by the appropriate instructor or check airman at the end of each training or check flight;

*(b)* a particular aeroplane simulator or other training device may be approved for use by more than one certificate holder;

*(c)* an aeroplane simulator may be used instead of the aeroplane to satisfy the in-flight requirements of this Part, if the simulator—

(i) is approved under this section and meets the appropriate simulator requirements; and

(ii) is used as part of an approved programme that meets the training requirements; and

*(d)* an aeroplane simulator approved under this section shall be used instead of the aeroplane to satisfy the pilot flight training requirements prescribed in the certificate holder's approved low-altitude wind shear flight training programme.

**TRAINING COURSES USING AEROPLANE SIMULATORS AND OTHER TRAINING DEVICES**

1. Training courses utilising aeroplane simulators and other training devices may be included in the certificate holder's approved training programme for use as provided in this section.

2. A course of training in an aeroplane simulator may be included for use if that course—

*(a)* provides at least four hours of training at the pilot controls of an aeroplane simulator as well as a proper briefing before and after the training;

*(b)* provides training in at least the procedures and manoeuvres set forth in the Act or Regulations made thereunder; or

*(c)* provides line-oriented training that—

(i) utilises a complete flight crew;

(ii) includes at least the manoeuvres and procedures (abnormal and emergency) that may be expected in line operations;

(iii) is representative of the flight segment appropriate to the operations being conducted by the certificate holder; and

*(d)* is given by an instructor who meets the applicable requirements.

Note: *The satisfactory completion of the course of training shall be certified by either the Authority or a qualified check airman.*

3. The programmed hours of flight training set forth in this sub-part do not apply if the training programme for the aeroplane type includes—

*(a)* a course of pilot training in an aeroplane simulator; or

*(b)* a course of flight engineer training in an aeroplane simulator or other training device.

4. Each certificate holder required to comply shall use an approved simulator for each aeroplane type in each of its pilot training courses that provides training in at least the procedures and manoeuvres set forth in the certificate holder's approved low-altitude windshear flight training programme. The approved low-altitude wind shear flight training, if applicable, shall be included in each of the pilot flight training courses.

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***Regulation 297–298***

A national air operator shall ensure that where a flight is released, the notices to airmen under regulation 297 and 298, meets the following minimum standards:

*(a)* before beginning a flight, the flight operations officer shall provide the pilot in command with all available weather reports and forecasts of weather phenomena that may affect the safety of flight, including adverse weather phenomena, such as clear air turbulence, thunderstorms, and low altitude wind shear, for each route to be flown and each airport to be used; and

*(b)* during a flight, the flight operations officer shall provide the pilot in command any additional available information of meteorological conditions (including adverse weather phenomena, such as clear air turbulence, thunderstorms, and low altitude wind shear), and irregularities of facilities and services that may affect the safety of the flight.

***Regulation 299***

A national air operator shall ensure that where a flight is released in icing conditions under regulation 299 its release meets the minimum standard as follows:

A pilot shall not take-off an aircraft that has frost, ice, or snow adhering to any rotor blade, propeller, windshield, wing, stabilising or control surface, to a power plant installation, or to an airspeed, altimeter, rate of climb, or flight attitude instrument system.

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# CIVIL AVIATION [(NO. 3) AIR OPERATOR CERTIFICATION AND ADMINISTRATION] REGULATIONS

*made under section 33*

102/2004. [275/2004 303/2004 32/2005 224/2005 187/2006 286/2006 47/2007 31/2008 35/2009 198/2009].

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations.

Interpretation. [303/2004 224/2005 187/2006 47/2007 198/2009].

**2.** (1) In these Regulations—

"Accountable Manager" means the manager who has corporate authority for ensuring that all prescribed actions are performed to the standard required by the Authority in accordance with regulation 14;

"aeronautical product" means aircraft engine, propeller, or sub-assembly, appliance, material, part or component to be installed thereon or any aircraft;

"aeroplane" means a power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight;

"aircraft" means any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface;

"aircraft technical log", means a document pertaining to an aircraft—

*(a)* for recording defects and malfunctions discovered during operations;

*(b)* for recording details of all maintenance carried out whilst the aircraft is operating between scheduled visits to the main maintenance base facility; and

*(c)* which contains operating information relevant to flight safety and maintenance data needed by the operating crew;

"air operator" means a person, organisation or enterprise which undertakes to engage in domestic commercial air transport or international commercial air transport, whether directly or indirectly or by a lease or any other arrangement;

"Air Operator Certificate" means a certificate authorising an operator to carry out specified commercial air transport operations;

"aircraft category" means the classification of aircraft according to specified basic characteristics such as aeroplane, rotocraft, glider or lighter-than-air;

"aircraft type" means all aircraft of the same basic design;

"aircraft interchange" means an arrangement between two air operators in which the aircraft of the first air operator is crewed by the crew of the second air operator at an interchange point linking their respective routes where operational control is transferred to the second operator for the period of the interchange;

"Aircraft Maintenance Programme" means a maintenance programme approved by the Authority;

"airworthy" means that an aircraft or aeronautical product is in a fit and safe state for flight and is in conformity with its type design;

"Authority" means the Civil Aviation Authority established under the Civil Aviation Act; Ch. 49:03.

"Aircraft Maintenance Engineer" means a person approved by the Authority to perform defined maintenance upon aeronautical products and includes persons similarly qualified by other Contracting States and referred to as "licensed mechanic", "certified mechanic", "aircraft maintenance licence holder", "aviation maintenance engineer", "aviation repair specialist", or by any other term which means an Aircraft Maintenance Engineer;

"area navigation" means a method of navigation which permits aircraft operation on any desired flight path within the coverage of ground or space-based navigation aids or within the limits of the capability of self-contained aids, or a combination of these;

"CARICOM national" means a person who is a citizen of any Member State of the Caribbean Community;

"Certificate of Release to Service", means a document certifying an aircraft as being released to service;

"commercial air transport" means the transport by air of passengers, cargo and mail for remuneration or hire;

"co-pilot" means a licensed pilot serving in a piloting capacity other than the pilot in command who is designated as the second in command and who meets the requirements of a co-pilot;

"directly in charge", means a person assigned to a position in which he is responsible for the work of a shop or station that performed maintenance, preventive maintenance, or modifications, or other functions affecting aircraft airworthiness;

"dry lease" means a contractual arrangement where a leased aircraft is operated by the flight crew members of the lessee;

"equivalent system of maintenance" means an air operator may conduct maintenance activities through an arrangement with an approved maintenance organisation or may conduct his own maintenance, preventive maintenance, or modification, as long as the maintenance system of the air operator is approved by the Authority and is equivalent to that of an approved maintenance organisation, except that the Certificate of Release to Service of an aircraft or aeronautical product shall be made by an appropriately licensed Aircraft Maintenance Engineer or aviation repair specialists under Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations as appropriate;

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"flight dispatcher" means a person who holds a flight dispatcher licence or certificate from another Contracting State;

"flight operations officer" means a person designated by the operator to engage in the control and supervision of flight operations who is qualified in accordance with the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations and who supports, briefs and assists the pilot in command in the safe conduct of the flight;

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"Flight safety document system" means a set of inter-related documentation established by the operator, compiling and organising information necessary for flight and ground operations, and comprising, as a minimum, the Operations Manual and the Maintenance Control Manual of the operator;

"Ground handling" means services, other than air traffic services, necessary for the arrival of an aircraft at, and the departure of an aircraft from an airport;

"handling agent" means an agency which performs on behalf of the operator some or all of the latter's functions including receiving, loading, unloading, transferring or other processing of passengers or cargo;

"holdover time" means the estimated time that de-icing or anti-icing fluid will prevent the formation of frost or ice and the accumulation of snow on protected surfaces of an aircraft which benibs when the final application of de-icing or anti-icing fluid commences and expires when the de-icing fluid applied to the aircraft loses its effectiveness;

"Interchange agreement" means an arrangement which permits a national air operator to enter into a short-term dry lease and temporarily take or relinquish operational control of an aircraft at an airport during the life of the agreement;

"large aircraft" means an aeroplane having a maximum certified take-off mass of five thousand and seven hundred kilogrammes or more or a helicopter having a maximum certified take-off mass of three thousand one hundred and seventy-five kilogrammes or more;

"life limited part" means that a part as a condition of the type certificate, shall not exceed a specified time or number of cycles in service;

"Maintenance Control Manual", means a manual containing policies, procedures, instructions and guidance for use by maintenance and operational personnel in the execution of their duties;

"modification" means the alteration of an aircraft or aeronautical product in conformity with an approved standard;

"national air operator" means a person who has been issued a Trinidad and Tobago Air Operator Certificate in accordance with regulation 6;

"navigation specification" means a set of aircraft and flight crew requirements needed to support performance-based navigation operations within a defined airspace as follows:

*(a)* required navigation performance specification which is a navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, such as RNP4, RNP, APCH; and

*(b)* area navigation specification which is navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV, for example, RNAV 5, RNAV 1;

"Operations Manual" means a manual containing procedures, instructions and guidance for use by operational personnel in the execution of their duties;

"operations specifications" means the authorisations, conditions and limitations associated with the air operator certificate and subject to the conditions in the operations manual;

"Overhaul life part" means that a part as a condition of the type certificate shall not exceed a specified time or number of cycles in service unless a complete overhaul is performed on it;

"performance-based navigation" means area navigation based on performance requirements for aircraft operating along an air traffic service route, on an instrument approach procedure in a designated airspace.

"pilot in command" means a pilot responsible for the operation and safety of the aircraft during flight time;

"release to service" means an aircraft or aircraft component is certified as either airworthy or serviceable and is permitted to return to normal operations;

"safe forced-landing" means an unavoidable landing or ditching of an aircraft with a reasonable expectancy of no injuries to persons in the aircraft or on the surface;

"safety programme" means an integrated set of regulations and activities aimed at improving safety;

"safety management system" means a systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures;

"small aircraft" means an aeroplane having a maximum certified take-off mass of less than five thousand and seven hundred kilogrammes and a helicopter of a maximum certified take-off mass of less than three thousand, one hundred and seventy-five kilogrammes;

"State of Registry" means the Contracting State on whose register an aircraft is registered;

"Technical Instructions" means the International Civil Aviation Organisation, Technical instructions for the Safe Transport of Dangerous Goods by Air;

"training to proficiency", means the process of the Flight Instructor administering each prescribed manoeuvre and procedure to a pilot as necessary until it is performed successfully during the training period; and

"wet lease" means a contractual arrangement where a leased aircraft is operated by the flight crew members of the lessor.

(2) These Regulations apply to the carriage of passengers, cargo or mail for remuneration or hire by persons whose principal place of business or permanent residence is located in the CARICOM community.

(3) These Regulations prescribe requirements for the original certification and continued validity of air operator certificates issued by the Authority.

(4) Except where specifically noted, these Regulations apply to all commercial air transport operations by air operators for which Trinidad and Tobago is the State of the Operator under the definitions provided in Annex 6 to the Chicago Convention.

(5) The provisions of Part I of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations with respect to the surrender, suspension or revocation of aviation documents apply to certificates, authorisations and ratings issued under these Regulations. Sub. Leg.

## PART I

## GENERAL REQUIREMENTS

Prohibition on operation of aircraft in Trinidad and Tobago. [303/2004 224/2005].

**3.** (1) A person shall not operate an aircraft in commercial air transport operations in Trinidad and Tobago, unless he—

*(a)* holds a Trinidad and Tobago Air Operator Certificate issued by the Authority, (hereinafter referred to as a "national air operator"); or

*(b)* holds an Air Operator Certificate issued by another contracting state which is accepted by the Authority under Civil Aviation [(No. 10) Foreign Operator] Regulations, (hereinafter referred to as a "foreign air operator"), Sub. Leg.

for the operations being conducted.

(2) A national air operator shall, at all times comply with—

*(a)* the specifications of his Trinidad and Tobago Air Operator Certificate;

*(b)* the terms and conditions of the issuance of the Trinidad and Tobago Air Operator Certificate specified in regulation 7; and

*(c)* maintenance requirements specified in Part VI, in order to hold such Trinidad and Tobago Air Operator Certificate.

(3) Where a national air operator fails to comply with any provision in these Regulations, the Authority may revoke or suspend his certificate.

(4) A national air operator shall conduct commercial air transport operations in accordance with such conditions and limitations as may be specified by the Authority.

(5) A Trinidad and Tobago Air Operator Certificate issued by the Authority under these Regulations shall be dependent upon the national air operator demonstrating adequate Organisation, method of control and supervision of flight operations, training programme as well as ground handling and maintenance arrangements consistent with the nature and extent of the operations specified.

**APPLICATION FOR TRINIDAD AND TOBAGO AIR OPERATOR CERTIFICATE**

Application for a national Air Operator Certificate.

**4.** (1) Where a person (hereinafter referred to as "the applicant"), wishes to apply for a Trinidad and Tobago Air Operator Certificate, he shall—

*(a)* make such application to the Authority in the form and manner prescribed by the Authority; and

*(b)* pay the prescribed fee.

(2) An application under subregulation (1), shall contain—

*(a)* a detailed statement showing how the procedures and manuals required by these Regulations are complied with; and

*(b)* any information the Director-General requires the applicant to submit.

(3) An application under subregulation (1), shall be accompanied by—

*(a)* documentation showing that the applicant has or can obtain use of at least one aircraft and has or can obtain appropriate facilities in respect of such operation;

*(b)* any partial or completed manuals required by these Regulations;

*(c)* an aviation security programme in accordance with Civil Aviation [(No. 8) Aviation Security] Regulations; Sub. Leg.

*(d)* curricula, syllabi of personnel training; and

*(e)* a schedule of events.

(4) The manuals referred to in subregulation (3) are as follows:

*(a)* Operations Manual;

*(b)* Maintenance Control Manual;

*(c)* Aircraft Maintenance Manual;

*(d)* Aircraft Operating Manual; and

*(e)* Training Manual.

(5) An applicant under these Regulations shall make the application for an initial issue of a Trinidad and Tobago Air Operator Certificate at least ninety days before the date of intended operation.

(6) Notwithstanding subregulations (3)*(b)* and (4), the Operations Manual specified in regulation 34 and Maintenance Control Manual specified in regulation 76 shall be submitted no less than sixty days before the date of intended operation.

(7) An applicant shall standardise company procedures for all aircraft operations, except where aircraft specific procedures may necessitate a deviation from standard procedure.

**AVIATION MANUALS**

Contents of aviation manuals. [303/2004 35/2009].

**5.** (1) The Manuals referred to in regulation 4(4) shall—

*(a)* include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;

*(b)* be in a form that is easy to revise and contain a system which allows personnel to determine the current revision status of each manual;

*(c)* have a date of the last revision on each page concerned;

*(d)* not be contrary to any applicable law and the specific operating provisions of the Trinidad and Tobago Air Operator; and

*(e)* include a reference, where applicable, to the appropriate civil aviation regulations.

(2) In addition to the matters set out in subregulation (1), the manuals referred to in regulation 4(4), may be produced either—

*(a)* in a series of parts;

*(b)* as a series of volumes; or

*(c)* as a single document.

(3) ***(Deleted by LN 35/2009).***

**CONDITIONS FOR ISSUE OF A TRINIDAD AND TOBAGO AIR OPERATOR CERTIFICATE**

Issuance or denial of Air Operator Certificate. [224/205].

**6.** (1) The Director-General may recommend that the Authority issue an Air Operator Certificate where he is satisfied that the applicant—

*(a)* is a CARICOM national;

*(b)* has his principal place of business and its registered office within the Caribbean Community;

*(c)* meets the applicable regulations and standards for the holder of a Trinidad and Tobago Air Operator Certificate;

*(d)* is properly and adequately equipped for safe operations in commercial air transport;

*(e)* is properly and adequately equipped for maintenance of the aircraft; and

*(f)* has sufficient financial resources to conduct safe operations.

(2) The Director-General shall not recommend the issue of an Air Operator Certificate—

*(a)* where the applicant—

(i) does not meet the requirements of these Regulations;

(ii) has provided incomplete, inaccurate, fraudulent or false information in applying for the Air Operator Certificate;

(iii) held a certificate or licence issued by the Authority which was revoked or suspended within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such person; or

(iv) employs or proposes to employ a person in a management position or supervisory capacity who—

(A) held a certificate or licence issued by the Authority which was revoked or suspended within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such person; or

(B) contributed materially to the revocation or suspension of an aviation document issued by the Authority; or

*(b)* where a person having substantial ownership of the organisation—

(i) held a certificate or licence issued by the Authority which was revoked or suspended within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such person; or

(ii) contributed materially to the revocation or suspension of an aviation document issued by the Authority.

**CONTENTS OF TRINIDAD AND TOBAGO AIR OPERATOR CERTIFICATE**

Contents of Trinidad and Tobago Air Operator Certificate. Schedule 1. Form 1.

**7.** (1) A Trinidad and Tobago Air Operator Certificate shall be in the form set out as Form I in Schedule 1 and shall comprise—

*(a)* a document for public display signed by the Authority; and

*(b)* a document containing the Operations Specifications with the terms and conditions and the authorisations applicable to the Air Operator Certificate.

(2) The documents under subregulation (1) shall contain—

*(a)* the name of the national air operator and his main base of operation;

*(b)* the date of issue and period of validity;

*(c)* the descriptions of the types of operations authorised;

*(d)* the types of aircraft authorised for use; and

*(e)* the authorised areas of operation or routes.

(3) The authority may by means of Operations Specifications under subregulation (1)*(b)*, define which specific operations shall be authorised, prohibited, limited or subject to certain conditions, in the interest of public safety.

(4) The document containing the Operations Specifications referred to in subregulation (1)*(b)*, shall contain—

*(a)* general provisions;

*(b)* en route authorisation and limitations;

*(c)* aerodrome authorisations and limitations;

*(d)* maintenance;

*(e)* mass and balance;

*(f)* interchange of equipment operations; and

*(g)* aircraft leasing operations.

**DURATION OF A TRINIDAD AND TOBAGO AIR OPERATOR CERTIFICATE**

Duration of a Trinidad and Tobago Air Operator Certificate.

**8.** A Trinidad and Tobago Air Operator Certificate, or any portion thereof, issued by the Authority, shall be valid for twelve calendar months or until the—

*(a)* Authority amends, suspends, revokes or otherwise terminates the certificate;

*(b)* national air operator surrenders it to the Authority; or

*(c)* national air operator suspends operations for more than sixty days.

**AMENDMENT OF A TRINIDAD AND TOBAGO AIR OPERATOR CERTIFICATE**

Amendment of a Trinidad and Tobago Air Operator Certificate.

**9.** (1) The Director-General may recommend that the Authority amend any Trinidad and Tobago Air Operator Certificate where—

*(a)* the Director-General determines that safety in commercial air transport and the public interest require the amendment; or

*(b)* the air operator applies for an amendment, and the Director-General determines that safety in commercial air transport and the public interest allows the amendment.

(2) Where the Director-General recommends to the Authority that an emergency exists requiring immediate amendment to a Trinidad and Tobago Air Operator Certificate, in the public interest with respect to safety in commercial air transportation, a notification shall be issued to the national air operator and such an amendment is effective on the date that the national air operator receives such notification.

(3) A national air operator may appeal the amendment, under subregulation (2), but shall operate in accordance with it, unless it is subsequently withdrawn.

(4) Amendments under subregulation (1)*(a)*, which are recommended by the Director-General, other than emergency amendments, become effective thirty days after notification to the national air operator unless he appeals the proposal in writing prior to the effective date.

(5) The filing of an appeal under subregulation (4), stays the effective date until the appeal process is completed.

(6) Amendments proposed by the national air operator under subregulation (1)*(b)*, shall be made at least thirty days prior to the intended date of any operation under that amendment.

(7) A national air operator shall not perform a commercial air transport operation for which a Trinidad and Tobago Air Operator Certificate amendment is required, unless he has received notice of approval from the Authority.

**ACCESS FOR INSPECTION**

Air operator to give access for inspection.

**10.** (1) A national air operator shall—

*(a)* grant the Director-General access to and co-operation with any of its organisations, facilities, aircraft and records related to flight operations and maintenance;

*(b)* ensure that the Director-General is granted access to and co-operation with any organisation or facilities that it has contracted for services associated with commercial air transport operations and maintenance for services; and

*(c)* grant the Director-General free and uninterrupted access to the flight deck of the aircraft during flight operations.

(2) A national air operator shall provide the Authority with a forward observer's seat on each aircraft of the national air operator from which the actions and conversations and radio communications of the flight crew may be easily observed.

(3) The suitability of the seat location under subregulation (2), to monitor crew members actions, conversations and radio communications shall be determined by the Director-General.

(4) In this section "record" means all operations and maintenance manuals, lease agreements, exclusive of their financial components, and records pertaining to flight licensing and aircraft use.

**CONDUCTING TESTS AND INSPECTIONS**

Director-General to conduct tests and inspections.

**11.** (1) The Director-General shall conduct ongoing validation of the continued eligibility of a national air operator to hold his Trinidad and Tobago Air Operator Certificate and associated approvals.

(2) A national air operator shall allow the Director-General to conduct tests and inspections, at any time or place, to determine whether he is complying with the applicable laws, regulations and standards.

(3) A national air operator shall make available at his main base—

*(a)* his current Trinidad and Tobago Air Operator Certificate;

*(b)* all portions of his Operations Manual and Maintenance Manual referred to in regulation 4(4);

*(c)* a current listing that includes the persons responsible for each record, document and report required to be kept by the air operator under the applicable aviation law, regulations or standards and the position he holds in the organisation; and

*(d)* records which are related to flight operations and maintenance.

(4) A national air operator shall—

*(a)* give the Director-General or person authorised by the Director-General access to any records which are related to flight operations or maintenance; and

*(b)* produce all such records, when requested to do so by the Director-General within a reasonable period of time.

(5) A pilot in command shall, when requested to do so by a person authorised by the Authority or any other Civil Aviation Authority of an International Civil Aviation Organisation Member State, produce to that person the documentation required to be carried on board an aircraft.

(6) Where a national air operator fails to—

*(a)* make available to the Director-General upon request, any portion of the—

(i) Trinidad and Tobago Air Operator Certificate;

(ii) the manuals referred to in regulation 4(4); or

(iii) any required record or report; or

*(b)* grant access for inspection of the documents referred to in paragraph *(a)*,

the Director-General may recommend that the Authority suspend all or part of the Trinidad and Tobago Air Operator Certificate.

## PART II

## TRINIDAD AND TOBAGO AIR OPERATOR CERTIFICATION AND CONTINUED VALIDITY

### APPLICABILITY

Applicability.

**12.** This Part provides requirements applicable to the certification and continued validity of all national air operators.

### BASES OF OPERATIONS

Applicant for a Trinidad and Tobago Air Operator Certificate to maintain base of operations.

**13.** (1) An applicant shall establish and maintain a main base of operations.

(2) An applicant may establish and maintain a main maintenance base facility at the same location as the main base of operations, or at a separate location.

(3) An applicant shall maintain operational and airworthiness support facilities at the main operations base, appropriate for the area and type of operation.

(4) An applicant shall arrange appropriate ground handling facilities at each airport used to ensure the safe servicing and loading of its flights.

(5) An applicant shall provide written notification to the Director-General of his intention to establish or change the location of any of his bases at least thirty days before the proposed establishment or change.

### MANAGEMENT PERSONNEL OF A NATIONAL AIR OPERATOR

Management personnel required for commercial air transport operations of a national air operator. [35/2009].

**14.** (1) A national air operator shall have a manager (hereinafter referred to as "the Accountable Manager"), acceptable to the Authority, who shall ensure that all prescribed actions are performed to the standards required by the Authority.

(2) An Accountable Manager under subregulation (1), shall have corporate authority for ensuring that all flight operations and maintenance activities can be financed and carried out to the highest degree of safety standards required by the Authority.

(3) When conducting commercial air transport operations, a national air operator shall have qualified personnel, with proven competency in civil aviation, available and serving in the following required management personnel positions or their equivalent:

*(a)* Director of Operations;
*(b)* Chief Pilot;
*(c)* Director of Safety;
*(d)* Director of Maintenance;
*(e)* Quality Manager; and
*(f)* Security Manager.

(4) In this regulation "competency in civil aviation" means that an individual shall have a technical qualification and management experience acceptable to the Authority for the position served.

(5) The Director-General may recommend the Authority approve positions, other than those listed in subregulation (3), where the national air operator is able to show that he can perform the operation with the highest degree of safety under the direction of a combination of, fewer or different categories of management personnel due to the—

*(a)* kind of operations involved;
*(b)* number of aircraft used; and
*(c)* area of operation.

**COMPANY INDOCTRINATION TRAINING**

Training requirements for company indoctrination training.

**15.** (1) A person shall not serve as a Quality Manager or the Director of Maintenance with a national air operator, unless he has completed the company indoctrination training approved by the Director-General.

(2) The company indoctrination training under subregulation (1), shall include a complete review of the contents

of the Operations Manual and Maintenance Control Manual of the air operator and the procedures relating to the respective duties of the Quality Manager and Director of Maintenance.

**QUALITY SYSTEM**

National air operator to establish a quality system.

**16.** (1) A national air operator shall establish a quality system headed by a Quality Manager.

(2) The Quality Manager under subregulation (1), shall monitor compliance with, and adequacy of, the procedures required to ensure safe operational practices and airworthy aircraft.

(3) A national air operator may nominate one Quality Manager for operations and one Quality Manager for maintenance.

(4) Where a national air operator nominates one Quality Manager for operations and one Quality Manager for maintenance under subregulation (3), he shall establish one Quality Management unit to ensure that the quality system is applied uniformly throughout the entire operation.

(5) The monitoring of compliance under subregulation (2), shall include a feedback system to the Accountable Manager to ensure corrective action as necessary, which shall specify who is required to rectify discrepancies and non-compliance in each case and the procedure to be followed where corrective action is not completed within an appropriate timeframe.

(6) The quality system and the Quality Managers under this Part shall be acceptable to the Authority.

(7) A national air operator shall describe the quality system under subregulation (1), in relevant documentation.

(8) Notwithstanding subregulation (1), the Accountable Manager shall have overall responsibility for—

*(a)* the quality system of the air operator including frequency, format and structure of the internal management evaluation activities; and

*(b)* resourcing the corrective action and ensuring through the Quality Manager that the corrective action has re-established compliance with the standards required by the Authority.

(9) In carrying out the functions under subregulation (2), the Quality Manager shall verify that the standards required by the Authority and any additional requirements defined by the national air operator are being carried out by monitoring activities in the fields of flight operations, maintenance, crew training and ground operations.

(10) A national air operator shall ensure that a quality system meets the standards set out in Schedule 2. Schedule 2.

(11) The Quality Manager shall ensure that the Quality Assurance programme is properly established, implemented and maintained.

**REQUIREMENTS OF MANAGEMENT PERSONNEL**

**17.** (1) The minimum initial qualifications for— Minimum qualifications of Management Personnel. [35/2009].

*(a)* a Director of Operations under regulation 14(3)*(a)* shall be as follows:

(i) holds or has held the appropriate licence and ratings for which a pilot in command is required to hold for one of the aircraft operated;

(ii) has acquired not less than three years related managerial experience with a commercial air operator whose flight operations are similar in size and scope; and

(iii) demonstrates knowledge to the Authority with respect to the content of the Operations Manual, the Air Operator Certificate, operations specifications, regulations and standards necessary to carry out the duties and responsibilities to ensure safety and the maintenance of the Air Operator Certificate;

*(b)* a Chief Pilot under regulations 14(3)*(b)* shall be—

(i) an Airline Transport Pilot Licence with the appropriate ratings for at least one of the aircraft used in the operations of the air operator; and

(ii) three years experience as pilot in command in commercial air transport operations;

*(c)* Director of Safety shall be—

(i) extensive operational experience normally achieved as a flight crew member or equivalent experience in technical aviation management; and

(ii) successfully completed a recognised Air Safety training course acceptable to the Director-General;

*(d)* Director of Maintenance and Quality Manager shall be—

(i) possession of an Aircraft Maintenance Engineer licence; and

(ii) three years experience in maintaining the same aircraft category and aircraft class used by the national air operator including one year in the capacity of returning aircraft to service; and

*(e)* the Security Manager shall have—

(i) extensive operational experience normally achieved as a security officer;

(ii) five years experience in aviation security management; and

(iii) successfully completed a recognised aviation security management training course acceptable to the Director-General.

(2) A national air operator may employ a person who does not meet the appropriate qualifications or experience required under subregulation (1), where the Authority issues a deviation that that person has comparable experience and can effectively perform the required management functions.

**SUBMISSION AND REVISION OF POLICY AND PROCEDURES**

Requirements for submission and revision of policy and procedures.

**18.** (1) An applicant shall submit any proposed policy or procedures or any revision thereof, to the Director-General at least thirty days prior to the date of intended implementation.

(2) An applicant shall not cause the use of any policy and procedure for flight operations or airworthiness function without the approval of the Director-General.

## PART III

## AIRCRAFT OPERATIONS

### APPLICABILITY

Applicability of Part III.

**19.** This Part prescribes aircraft operations requirements and includes leasing and interchange operations by a national air operator.

### RESTRICTIONS ON OPERATION OF AIRCRAFT IN COMMERCIAL AIR TRANSPORT OPERATION

Restrictions on operation of aircraft in commercial air transport. [224/2005 35/2009].

**20.** (1) A national air operator shall not operate an aircraft in commercial air transport unless that aircraft—

*(a)* has an appropriate current Certificate of Airworthiness;

*(b)* is in airworthy condition; and

*(c)* meets the applicable airworthiness requirements for these operations, including those related to identification instruments and equipment.

(2) A national air operator shall not operate any specific type of aircraft in commercial air transport until it has completed satisfactory initial certification, which includes the issuance of a Trinidad and Tobago Air Operator Certificate listing that type of aircraft.

(2A) A national air operator shall not operate a helicopter on flights—

*(a)* in off-shore operations;

*(b)* over water in a hostile environment at a distance from land corresponding to more than ten minutes at normal cruise speed when operating in Performance Class 1 and Performance Class 2; or

*(c)* over water beyond auto-rotational or safe forced landing distance from land when operating in Performance Class 3,

unless the helicopter is certified for ditching and the sea state is part of ditching information.

(3) A national air operator shall not operate additional or replacement aircraft of a type for which it is currently authorised or unauthorised unless it can show that for each aircraft, an evaluation process was completed for inclusion in the fleet of the air operator.

**LEASING OPERATIONS**

Leasing operations.

**21.** (1) A person wishing to operate a leased aircraft in Trinidad and Tobago, shall apply to the Authority in the form prescribed by the Director-General for approval to so operate.

(2) A lease under subregulation (1) may be either a dry lease or wet lease operation.

**DRY LEASING OPERATIONS**

Dry leasing operations.

**22.** The dry lease operation under regulation 21 shall apply to the following persons in respect of the operation of a leased aircraft by the lessee where the aircraft is registered in the name of the lessor:

*(a)* a national air operator that leases a Trinidad and Tobago aircraft;

*(b)* a foreign air operator that leases a Trinidad and Tobago aircraft; and

*(c)* a national air operator that leases an aircraft from a foreign State.

Evidence to be provided by a dry lease operator under regulation 22*(a)*.

**23.** An applicant for a dry lease operation under regulation 22*(a)*, shall provide the Authority with evidence establishing that—

*(a)* throughout the term of the lease, the aircraft shall—

(i) be in the legal custody and control of the lessee; and

(ii) not be made the subject of another lease during the term of the lease except with the approval of the Authority;

*(b)* the lessee of the aircraft holds a Trinidad and Tobago Air Operator Certificate or an approved Aviation Training Organisation certificate issued under the Act; and

*(c)* the lessee is responsible for—

(i) the maintenance of the aircraft in accordance with the applicable standards of airworthiness;

(ii) the maintenance control system and maintenance schedules approved by the Authority; and

(iii) any requirements set out in the authorisation issued.

**DRY LEASE CONDITIONS**

Evidence to be provided by a dry lease operator under regulation 22*(b)*.

**24.** (1) An applicant for a dry lease operation under regulation 22*(b)* shall provide the Authority with evidence establishing that—

*(a)* throughout the term of the lease the aircraft shall—

(i) be registered to the lessor;

(ii) be in the legal custody and control of the lessee; and

(iii) not be made the subject of another lease during the term of the lease authorised for that aircraft except with the approval of the Authority;

*(b)* the lessee—

(i) is a citizen of a foreign state or an entity incorporated or formed by or under the laws of a foreign Contracting State;

(ii) holds an Air Operator Certificate or equivalent document, issued by the foreign Contracting State in respect of the aircraft type being leased;

(iii) shall operate the aircraft on such basis as approved by the Authority; and

(iv) has demonstrated the ability and qualification to maintain the aircraft in accordance with the maintenance control system and approved maintenance schedule;

*(c)* the main operations base facility of the lessee, during the term of the lease, will be located in the state of the lessee;

*(d)* the aircraft—

(i) has a valid certificate of airworthiness;

(ii) shall not undergo modification unless it is authorised by the Authority;

(iii) shall continue to meet the maintenance control system and the maintenance schedule approved by the Authority;

(iv) shall be maintained in accordance with an inspection programme approved by the Authority and any additional requirements set out in the authorisation issued;

*(e)* every crew member assigned to the aircraft by the lessee—

(i) where the aircraft will be operated by a lessee of a Contracting State, holds the licence appropriate to the duties of the crew member issued by the Authority or issued by the State of the lessee and validated by the Authority;

(ii) where the aircraft will be operated outside the State of the lessee and that foreign State is not a contracting State, holds the licence appropriate to the duties of the crew member issued by the Authority;

(iii) in the case of a large aircraft, has received training equivalent to that described in Annex 6 to the Chicago Convention.

(2) Where an aircraft is dry leased under this Part and is to be re-registered in the State of the lessee it shall be first de-registered by the Authority before such re-registration.

**AIRCRAFT FOR DRY LEASE OPERATIONS**

Evidence to be provided by a dry lease operator under regulation 22*(c)*.

**25.** (1) An applicant for a dry lease operation under regulation 22*(c)* shall provide the Authority with evidence establishing that—

*(a)* the aircraft—

(i) is of a type and model designation to be eligible for a Trinidad and Tobago Certificate of Airworthiness and complies with all environmental and operational requirements;

(ii) has a valid Certificate of Airworthiness issued in respect of the aircraft by the State of Registry where the State of Registry is a contracting State; and

(iii) will not be made the subject of another lease during the term of the lease except as approved by the Authority;

*(b)* the lessee holds a Trinidad and Tobago Air Operator Certificate or an approved Aviation Training Organisation Certificate;

*(c)* the lessee provides the Authority with evidence establishing that—

(i) the aircraft complies with the type approval issued in respect of the aircraft or other equivalent document and meets the applicable standards of airworthiness and maintenance control system and the maintenance schedules approved by the Authority;

(ii) the lease will not affect the registration of the aircraft or the certificate of airworthiness issued in respect of the aircraft by the State of Registry;

*(d)* the aircraft crew members are in the employ of the lessee; and

*(e)* during the term of the lease authorised by the Authority, the aircraft shall be—

(i) in the legal custody and control of the lessee;

(ii) maintained in accordance with the applicable standards of airworthiness and maintenance control system and the maintenance schedules approved by the Authority; and

(iii) maintained in accordance with an inspection programme approved by the Authority and any requirements set out in the authorisation issued.

(2) Notwithstanding subregulation (1)*(c)*(ii) a lessee may apply for registration of an aircraft in Trinidad and Tobago which is the subject of a dry lease operation under regulation 22*(c)*.

**RESTRICTIONS ON DRY LEASE OPERATIONS**

Restrictions on dry lease operations.

**26.** (1) A person shall not operate an aircraft as part of a dry lease operation unless—

*(a)* the maintenance control system and the maintenance schedule approved by the Authority are, during the term of the lease, equivalent for the lessor and the lessee;

*(b)* the crew members of the aircraft are employed by the lessee; and

*(c)* the national air operator provides the Authority in writing with the following information:

(i) the registration mark, manufacturer model designation and serial number of the aircraft;

(ii) the names, addresses and telephone numbers, and any other contact means as applicable, of the registered owner;

(iii) the Trinidad and Tobago Air Operator Certificate number of a Trinidad and Tobago lessee and details of the maintenance arrangements pertinent to the aircraft as agreed between the lessor and lessee, including the name of the person who is responsible for the maintenance of the aircraft during the

term of the lease, and the address of the main maintenance base for the aircraft;

(iv) the certificate of airworthiness and statement from the registered owner that the aircraft fully complies with the continuing airworthiness requirements of the State of Registry;

(v) the name, address and signature of the lessee or person responsible for operational control of the aircraft under the lease agreement, including a statement that such individual and the parties to the lease agreement fully understand their respective responsibilities under the applicable regulations; and

(vi) the commencement and termination dates of the lease.

(2) A national air operator may dry lease an aircraft for commercial air transport to any air operator of a Contracting State.

(3) A national air operator shall provide the Authority with a copy of the dry lease agreement to be executed.

(4) A national air operator shall not operate a foreign registered aircraft unless there is in existence an agreement between the Authority and the State of Registry that—

*(a)* while the aircraft is operated by the national air operator, the operations regulations of Trinidad and Tobago are applicable;

*(b)* while the aircraft is operated by the national air operator, the airworthiness regulations of the State of Registry are applicable; or

*(c)* where the State of Registry agrees to transfer some or all of the responsibility for airworthiness to the Authority under Article 83 *bis* of the Chicago Convention, the airworthiness regulations of Trinidad and Tobago shall apply to the extent agreed upon by the Authority and State of Registry.

(5) The agreement under subregulation (4), shall provide that the Director-General has free and uninterrupted access to the aircraft at any place and any time.

(6) Where an authorisation has been issued in respect of a Trinidad and Tobago aircraft, the registered owner of the aircraft shall, immediately on receipt of the authorisation, forward to the lessee all airworthiness directives that apply to the aircraft.

(7) Where an authorisation has been issued in respect of an aircraft registered in a foreign State, the Trinidad and Tobago lessee shall ensure that the aircraft conforms with all applicable airworthiness directives.

(8) A copy of the lease authorisation pursuant to this regulation shall be carried on board the aircraft at all times during the period of the lease.

**AIRCRAFT INTERCHANGE**

Aircraft interchange.

**27.** (1) A national air operator shall not interchange his aircraft with another air operator without the approval of the Authority.

(2) Before operating under an interchange agreement under subregulation (1), an air operator shall satisfy the Authority that—

*(a)* the procedures of the interchange operation conform to safe operating practices;

*(b)* the required crew members and flight operations officers meet approved training requirements for the aircraft and equipment used and are familiar with the communications and dispatch procedures to be used;

*(c)* maintenance personnel meet training requirements for the aircraft and equipment and are familiar with the maintenance procedures to be used;

*(d)* flight crew members and flight operations officers meet appropriate route and airport qualifications;

*(e)* the aircraft to be operated is essentially similar to the aircraft of the national air operator with whom the interchange is effected; and

*(f)* the arrangement of flight instruments and controls that are critical to safety are essentially similar unless the authority determines that the national air operator has adequate training to ensure that any potentially hazardous disssimilarities are safely overcome by flight crew familiarisation.

(3) Where a national air operator conducts an interchange agreement he shall—

*(a)* ensure that the pertinent provisions and procedures of the agreement are included in his Operations Manual; and

*(b)* apply to the Authority for the amendment of his operations specifications to reflect an interchange agreement.

(4) A national air operator shall comply with the applicable regulations of the State of Registry of an aircraft involved in an interchange agreement while he has operational control of that aircraft.

**WET LEASING OPERATIONS**

Wet leasing operations.

**28.** (1) A national air operator shall not conduct wet lease operations on behalf of another air operator except in accordance with the applicable laws and regulations of the country in which the operation occurs and the conditions imposed by the Authority.

(2) A national air operator shall not allow another air operator to conduct wet lease operations on his behalf unless such a lease is approved by the Authority.

(3) The national air operator shall in allowing another air operator to conduct wet lease operations on his behalf under subregulation (2), ensure that—

*(a)* the safety standards of the lessor with respect to maintenance and operations are equivalent to Regulations made under the Act;

*(b)* the air operator holds a Trinidad and Tobago Air Operator Certificate or its equivalent from a Contracting State that authorises those operations; and

*(c)* the aircraft has a Certificate of Airworthiness issued in accordance with Annex 8 of the Chicago Convention.

(4) A national air operator engaged in a wet leasing operation shall apply to the Authority for an amendment to his operations specifications to contain the following information:

*(a)* the names of the parties to the agreement and the duration of the agreement;

*(b)* the make, model and series of each aircraft involved in the agreement;

*(c)* the kind of operation;

*(d)* the expiration date of the wet lease agreement;

*(e)* a statement specifying the party deemed to have operational control; and

*(f)* any other item, condition or limitation that the Authority deems necessary.

**EMERGENCY EVACUATION DEMONSTRATIONS**

Requirement for national air operator to carry out full capacity emergency evacuation demonstration.

**29.** (1) A person shall not use an aircraft of a particular type and model in commercial air transport passenger-carrying operations unless he has first applied to and conducted for the Authority, an actual full capacity emergency evacuation demonstration for the configuration, in ninety seconds or less.

(2) The actual full capacity emergency evacuation demonstration under subregulation (1), may not be required, where the applicant provides a written petition for deviation with evidence that—

*(a)* a satisfactory full capacity emergency evacuation for the aircraft to be operated was demonstrated during the aircraft type certification or during the certification by another air operator; and

*(b)* there is an engineering analysis which shows that an evacuation is still possible within the ninety second standard, where the aircraft configuration of the applicant differs with regard to number of exits or exit types or number of cabin crew or location of the attendants.

(3) Where an actual full capacity emergency evacuation demonstration is not required, under this regulation an applicant may not use an aircraft of a particular type and model in commercial air transport passenger-carrying operations unless he has first demonstrated to the Authority that his available personnel, procedures and equipment are able to provide sufficient open exits for evacuation in fifteen seconds or less.

(4) An applicant shall not use a land plane in extended over-water operations unless he has first demonstrated to the Authority in respect of that aircraft type, that he has the ability and equipment to efficiently carry out his ditching procedures.

(5) Cabin crew who participate in emergency evacuation demonstrations shall—

*(a)* be selected randomly by the Authority;

*(b)* have completed the approved training of the Authority for the type and model of aircraft; and

*(c)* have passed the drills and competence check on the emergency equipment and procedures.

**DEMONSTRATION FLIGHTS**

Demonstration flights. [224/2005 187/2006].

**30.** (1) A person shall not operate an aircraft type in commercial air transport unless he first conducts satisfactory demonstration flights for the Authority in that aircraft type.

(2) A person shall not operate an aircraft in a designated special area, or using a specialised navigation system, unless he conducts a satisfactory demonstration flight for the Authority.

(3) Demonstration flights required under subregulations (1) and (2), shall be conducted in accordance with the regulations applicable to the type of operation and aircraft type used.

(4) Demonstration flights under this regulation shall comprise at least—

*(a)* one hundred total hours of flight time unless the Authority determines that a satisfactory level of proficiency has been demonstrated in fewer hours;

*(b)* five hours of night time, where night flights are authorised;

*(c)* five instrument approach procedures under simulated or actual instrument weather conditions, where Instrument Flight Rules flights are to be authorised; and

*(d)* entry into a representative number of en route airports, as determined by the Authority.

(5) No person other than those needed to make a demonstration flight or those designated by the Authority may be carried as passengers on an aircraft during demonstration flights.

(6) Where an aeroplane is less than five thousand, seven hundred kilogrammes maximum certified take-off mass and a helicopter is less than three thousand, one hundred and seventy-five kilogrammes the necessity and extent of demonstration under this regulation shall be determined by the Authority.

(7) An applicant shall arrange appropriate ground handling facilities to ensure the safe servicing and loading of its demonstration flights.

(8) The Authority may authorise deviations from this regulation where it finds that special circumstances make full compliance with this regulation unnecessary.

### TIME FOR PROPER SERVICING OF AIRCRAFT

National air operator to allow time for proper servicing of aircraft.

**31.** In establishing flight operations schedules, a national air operator conducting scheduled operations shall ensure the safe servicing and loading of its aircraft allow enough time for the proper servicing of aircraft at intermediate stops, and shall consider the prevailing winds en route and cruising speed for the type of aircraft.

## PART IV

## NATIONAL AIR OPERATOR CERTIFICATE FLIGHT OPERATIONS MANAGEMENT

Applicability of Part IV.

**32.** This Part provides those certification requirements that apply to management of flight operations personnel and their functions.

**SAFE AND EFFICIENT FLIGHT OPERATIONS MANAGEMENT**

National air operator to ensure safe and efficient flight operations management. [303/2004].

**33.** (1) A national air operator shall ensure safe and efficient flight operations management.

(2) In ensuring safe and efficient Flight Operations Management an air operator shall make provision for the following areas:

*(a)* operations administration and supervision;
*(b)* accident prevention and flight safety programmes;
*(c)* personnel training;
*(d)* crew fatigue and flight time limitations;
*(e)* flight operations;
*(f)* aircraft performance;
*(g)* route guides and charts;
*(h)* minimum flight altitudes;
*(i)* aerodrome operating minima;
*(j)* search and rescue;
*(k)* dangerous goods;
*(l)* navigation;
*(m)* communications;
*(n)* security;
*(o)* human factors;
*(p)* an Operational Flight Plan; and
*(q)* a chain of command appropriate to ensure proper supervision and accountability at all times.

(3) An operator shall establish a flight safety document system for the use and guidance of his operational personnel.

**OPERATIONS MANUAL**

National air operator to prepare and keep Operations Manual. [303/2004 224/2005 35/2009].

**34.** (1) A national air operator shall prepare and keep an Operations Manual which contains a description of how he plans to meet the provisions of regulation 33.

(2) An Operations Manual shall contain the procedures and policies of the national air operator for the use and guidance

of its personnel regarding the flight operations it conducts to include but not limited to critical functions such as flight planning data acquisition, flight following, operational control, aircraft fuelling and airport emergency duties.

(3) A national air operator shall—

*(a)* maintain and keep current;

*(b)* issue to members of the crew and all persons required to use it;

*(c)* assign to the person responsible for operational functions, station and ground handling personnel,

a complete Operations Manual or pertinent portions of an Operations Manual together with all amendments and revisions.

(4) A national air operator shall not provide for use of its personnel in commercial air transport any Operations Manual or portion thereof which has not been reviewed and found acceptable or approved for use of the national air operator by the Authority.

(5) The Operations Manual under subregulation (4), shall be numbered and assigned to specific personnel by number.

(6) Notwithstanding subregulation (2), a national air operator of—

*(a)* an aeroplane shall provide for the use and guidance of operational personnel an Operations Manual as set out in Part A of Schedule 3; and

Schedule 3. Part A.

*(b)* a helicopter shall provide for the use and guidance of operational personnel an Operations Manual as set out in Part B of Schedule 3.

Schedule 3. Part B.

(7) ***(Deleted by LN 35/2009).***

**FLIGHT SUPERVISION AND JOURNEY LOG**

National air operator to have adequate system for flight supervision and journey log.

**35.** (1) A national air operator shall, for operations on a published schedule have an adequate system approved by the Authority for proper dispatch and monitoring of the progress of the scheduled flights.

(2) The dispatch and monitoring system under subregulation (1) shall have enough dispatch centers, adequate

for the operations to be conducted, located at points necessary to ensure adequate flight preparation, dispatch and in-flight contact with the scheduled flight operations.

(3) A national air operator shall provide enough qualified flight operations officers at each dispatch centre to ensure proper operational control of each flight for scheduled operations.

(4) A national air operator shall maintain a journey log which may be part of the Technical Log.

(5) A journey log under subregulation (4), shall contain the following information for each flight:

*(a)* aircraft nationality and registration;
*(b)* date;
*(c)* names of crew members;
*(d)* duty assignments of crew members;
*(e)* place of departure;
*(f)* place of arrival;
*(g)* time of departure;
*(h)* time of arrival;
*(i)* hours of flight;
*(j)* nature of flight (private, aerial work, scheduled, non-scheduled);
*(k)* incidents, observations; and
*(l)* signature of person in charge.

**CHARTER FLIGHT SUPERVISION**

National air operator to have flight following system. [187/2006].

**36.** (1) A national air operator shall have for charter flight operations, a flight following system approved by the Authority providing flight preparation documents and determining the departure and arrival times of its flights at all airports.

(2) The system described in subregulation (1), shall have a means of communication by private or available public facilities to monitor the departure and arrival at all airports, including flight diversions.

(3) A national air operator shall not be required for aeroplane under fifty-seven hundred kilogrammes maximum certified take-off mass or a helicopter under three thousand, one hundred and seventy-five kilogrammes to have a flight following system for each flight in which an Air Traffic Control flight plan is filed and remains active until arrival at destination.

(4) Where a national air operator conducting charter operations arranges to have flight following facilities provided by persons other than his employees, he shall continue to be primarily responsible for operational control of each flight.

(5) A national air operator conducting charter operations using a flight following system shall show that—

*(a)* the system has adequate facilities and personnel to provide the information necessary for the initiation and safe conduct of each flight to—

(i) the flight crew of each aircraft; and

(ii) the persons designated by the certificate holder to perform the function of operational control of the aircraft;

*(b)* the personnel required to perform the function of operational control are able to perform their duties.

**ACCIDENT PREVENTION AND FLIGHT SAFETY**

National air operator to establish and maintain accident prevention and flight safety programme. [224/2005].

**37.** (1) A national air operator shall establish and maintain an accident prevention and flight safety system, which may be integrated with the Quality System under regulation 16, including—

*(a)* procedures to achieve and maintain risk awareness by all persons involved in operations;

*(b)* an occurrence reporting scheme to enable the collation and assessment of relevant incident and accident reports in order to identify adverse trends or to address deficiencies in the interests of flight safety;

*(c)* a system for the evaluation of relevant information relating to incidents and accidents and the promulgation of related information, but not the attribution of blame;

*(d)* the appointment of a person accountable for managing the system; and

*(e)* from 1st January 2005, a flight data monitoring programme for aeroplanes in excess of 27 000 kilogrammes maximum certified take-off mass.

(1A) For the purposes of this regulation "flight data monitoring" is the pro-active use of digital flight data from routine operations to improve aviation safety.

(1B) The flight data monitoring programme under subregulation (1), shall be non-punitive and contain adequate safeguards to protect the source of the data.

(1C) Proposals for corrective action identified by the accident prevention and flight safety system shall be the responsibility of the person to whom accountability for managing the system is assigned.

(1D) The effectiveness of changes resulting from proposals for corrective action identified by the accident prevention and flight safety system shall be monitored by the Quality Manager under regulation 16.

(2) A flight safety system under this regulation shall include the following elements which shall also be described in the appropriate manuals:

*(a)* qualifications of the flight safety person;

*(b)* responsibilities of the flight safety person;

*(c)* training for the flight safety person;

*(d)* incident management;

*(e)* flight safety committee;

*(f)* emergency response planning; and
*(g)* communication and safety education.

**SAFETY MANAGEMENT SYSTEM**

Safety Management System. [47/2007 35/2009].

**37A.** (1) From 1st January 2009, air operators shall implement a safety management system acceptable to the Authority that—

*(a)* identifies safety hazards;
*(b)* ensures that remedial action necessary to maintain the acceptable level of safety established by the Director-General under subregulation (1), is implemented;
*(c)* provides for continuous monitoring and regular assessment of the safety level achieved; and
*(d)* aims to make continuous improvement to the overall level of safety.

(2) The Director-General shall establish the acceptable level of safety to be achieved in the operations of aircraft.

(3) As part of the safety management programme required by subregulation (1), an air operator shall clearly define lines of safety accountability throughout its organisation, including a direct accountability for safety on the part of senior management.

(4) An operator of an aeroplane of a maximum certificated take-off mass in excess of 27 000 kilogrammes shall establish and maintain a flight data analysis programme as part of his safety management system.

(5) A flight data analysis programme under subregulation (4) shall be non-punitive and contain adequate safeguards to protect the source of the data.

**TRAINING**

National air operator to ensure operations personnel know their duties and responsibilities. Schedule 4.

**38.** (1) A national air operator shall have a Training Programme Manual approved by the Authority containing the general training, checking and record keeping policies and the items listed in Schedule 4.

(2) A national air operator shall ensure that all operations personnel are properly instructed in their duties

and responsibilities and the relationship of such duties to the operation as a whole.

(3) A national air operator shall provide adequate ground and flight training facilities and properly qualified instructors as determined by Authority.

(4) A national air operator shall have a training curriculum, which is approved by the Authority and any revisions thereto, for the purpose of qualifying and maintaining proficiency as a crew member, or person performing operational control functions, for duties in commercial air transport.

(5) A national air operator shall submit to the Authority the schedule of training, proficiency checks and other qualification checks and revisions prior to the conduct of these activities.

(6) A national air operator shall submit to the Authority for approval initial, transition and recurrent training programmes for all crew member duty positions.

(7) A training programme under subregulation (6) shall include records to show completion of training and qualifications to the satisfaction of the Authority.

**TRAINING TO PROFICIENCY—PILOTS**

**39.** A national air operator shall train its pilots to proficiency on those manoeuvres and procedures that are prescribed by the Authority for pilot to meet the requirements of each check.

National air operator to train pilots to proficiency.

**FLIGHT AND DUTY TIME SCHEMES**

**40.** A national air operator shall submit a flight duty time scheme in accordance with the Civil Aviation [(No. 2) Operations] Regulations for approval by the Authority.

National air operator to submit flight and duty time scheme.
Sub. Leg.

**DESIGNATION OF PILOT IN COMMAND**

**41.** A national air operator shall, for each commercial air transport operation, designate in writing one pilot as the pilot in command.

National air operator to designate pilot in command for commercial air transport.

**CABIN CREW**

**42.** (1) A national air operator shall schedule, and the pilot in command shall ensure that at least the minimum number of required cabin crew are on board a passenger-carrying flight.

Required cabin crew and qualifications.

(2) The number of cabin crew shall not be less than—

*(a)* one cabin crew for a seating capacity of twenty to fifty passengers; or

*(b)* one cabin crew for each fifty passengers seat or part thereof.

(3) Where passengers are on board a parked aircraft, the minimum number of cabin crew shall be no less than one-half of that required for the flight operation rounded down to the next whole number where a fraction, but never less than one cabin crew or another person qualified in the emergency evacuation procedures for the aircraft.

(4) A national air operator shall ensure that each member of the cabin crew—

*(a)* is at least eighteen years of age;

*(b)* has passed an initial medical examination or assessment and is found medically fit to discharge the duties specified in the Operations Manual; and

*(c)* remains medically fit to discharge the duties specified in the Operations Manual.

(5) A national air operator shall ensure that each member of the cabin crew is competent to perform his duties in accordance with procedures specified in the Operations Manual.

### CARRIAGE OF INADMISSIBLE PASSENGERS, DEPORTEES OR PERSONS IN CUSTODY

Restrictions and exceptions to the carriage of inadmissible passengers, deportees or persons in custody.

**43.** A national air operator shall not permit the transportation of inadmissible passengers, deportees or persons in custody except—

*(a)* as provided in his Operations Manual; and

*(b)* with the knowledge and concurrence of the pilot in command.

### CREW MEMBER CHECKING AND STANDARDISATION PROGRAMME

National air operator to have crew member checking and standardisation programme.

**44.** A national air operator shall have a programme approved by the Authority with respect to the checking and standardisation of crew members.

**COCKPIT CHECKLIST**

National air operator shall cause flight deck checklist procedure to be made available.

**45.** (1) A national air operator shall issue to the flight crew and make available on each aircraft, a condensed checklist of flight deck procedures approved by the Authority appropriate to the type and variant of aircraft.

(2) A national air operator shall ensure that approved procedures under subregulation (1), include each item necessary for members of the flight crew to check for safety before starting engines, taking off, or landing, and for engine and systems abnormalities and emergencies.

(3) A national air operator shall ensure that the checklist of flight deck procedures is designed to observe human factor principles so that a member of the flight crew shall not need to rely upon his memory for items to be checked.

(4) A national air operator shall make the approved procedures readily useable, accounting for human factor principles, in the cockpit of each aircraft and the flight crew shall be required to follow them when operating the aircraft.

**MINIMUM EQUIPMENT LIST AND CONFIGURATION DEVIATION LIST**

National air operator to provide Minimum Equipment List and Configuration Deviation List. [224/2005].

**46.** (1) A national air operator shall provide as part of his Operations Manual, a Minimum Equipment List approved by the Authority, for the use of—

*(a)* the members of the flight crew;

*(b)* maintenance personnel; and

*(c)* persons assigned operational control functions during the performance of their duties.

(2) The Minimum Equipment List shall be specific to the aircraft type and variant and shall contain the circumstances, limitations and procedures for release or continuance of flight of the aircraft with inoperative components, equipment, systems or instruments.

(3) The following instruments and equipment may not be included in the Minimum Equipment List:

*(a)* instruments and equipment that are either specifically or otherwise required by the certification airworthiness requirements and which are essential for safe operations under all operating conditions;

*(b)* instruments and equipment required for operable condition by an airworthiness directive, unless the airworthiness directive provides otherwise; and

*(c)* instruments and equipment required for specific operations as required by the Act or Regulations made thereunder.

(4) A national air operator may, for an aircraft of more than fifty-seven hundred kilogrammes maximum certified mass, provide a Configuration Deviation List specific to the aircraft type, where applicable, for the use of—

*(a)* flight crew;

*(b)* maintenance personnel; and

*(c)* persons assigned operational control functions,

during the performance of their duties.

(5) The Operations Manual of a national air operator shall contain the procedures acceptable to the Authority for operations in accordance with the requirements of the Configuration Deviation List.

(6) Notwithstanding subregulation (3)*(a)* and *(c)*, an aircraft with inoperative instruments or equipment may be operated under a special flight permit in accordance with the Civil Aviation [(No. 5) Airworthiness] Regulations.

Sub. Leg.

**AIRCRAFT LOADING AND HANDLING MANUAL**

National air operator to provide Aircraft Loading and Handling Manual.

**47.** (1) A national air operator shall provide an Aircraft Handling and Loading Manual acceptable to the Authority, for the use of—

*(a)* members of the flight crew;

*(b)* ground handling personnel; and

*(c)* persons assigned operational control functions,

during the performance of their duties.

(2) A manual under subregulation (1), shall be specific to the aircraft type and variant which contains the procedures and limitations for servicing and loading of the aircraft.

**MASS AND BALANCE DATA CONTROL SYSTEM**

National air operator to have Mass and Balance Data Control System.

**48.** A national air operator shall have a system approved by the Authority for obtaining, maintaining and distributing to appropriate personnel current information regarding the mass and balance of each aircraft operated.

**CABIN CREW MANUAL**

National air operator to issue Cabin Attendant Manuals.

**49.** (1) A national air operator shall issue to each cabin crew and provide to passenger agents during the performance of their duties, a current Cabin Crew Manual, which is acceptable to the Authority.

(2) A cabin crew shall have the current Cabin Crew Manual under subregulation (1), in his possession on assigned flights.

(3) The Cabin Crew Manual under subregulation (1), shall contain those operational policies and procedures applicable to cabin crew duties and the carriage of passengers.

(4) A national air operator shall issue to a cabin crew, a Cabin Crew Manual specific to the aircraft type and variant which shall contain the details of his normal, abnormal and emergency procedures and the location and operation of emergency equipment.

(5) A Cabin Crew Manual under subregulations (1) to (3), and the manuals specific to aircraft type and variant under subregulation (4), may be combined into one manual for use by a cabin crew.

**PASSENGER BRIEFING CARDS**

National air operator to carry passenger briefing cards on aircraft.

**50.** (1) A national air operator shall carry on each passenger carrying aircraft, in convenient locations for the use of each

passenger, printed cards supplementing the oral briefing required by the Authority and containing—

*(a)* diagrams and methods of operating the emergency exits;

*(b)* other instructions necessary for use of the emergency equipment; and

*(c)* information regarding the restrictions and requirements associated with sitting in an exit seat row.

(2) A national air operator shall ensure that each card contains information that is pertinent only to the type and variant of aircraft used for that flight.

**WEATHER REPORTING SOURCES**

Approved weather reporting sources. Schedule 5.

**51.** (1) The sources approved for weather reports and forecasts used for decisions regarding flight preparation, routing and terminal operations are listed in Schedule 5.

(2) The Director-General may by Order amend Schedule 5 to remove or add sources for the weather reports and forecasts used for decisions regarding flight preparation, routing and terminal operations.

(3) For passenger carrying operations on a published schedule, the national air operator shall have an approved system for obtaining forecasts on each route to be flown and airport to be used and reports of adverse weather phenomena that may affect safety of flight.

**DE-ICING AND ANTI-ICING**

National air operator to adhere to certain requirements in frost, ice or snow.

**52.** A national air operator planning to operate an aircraft in conditions where frost, ice, or snow may reasonably be expected to adhere to the aircraft shall—

*(a)* use only aircraft adequately equipped for such conditions;

*(b)* ensure flight crew is adequately trained for such conditions; and

*(c)* have an approved ground de-icing and anti-icing programme as prescribed by the Authority.

**KNOWLEDGE OF THE LAW**

Employees shall comply with State legislation.

**53.** (1) A national air operator shall ensure that all his employees are aware, that when performing duties out of the jurisdiction, they shall comply with the laws, regulations and procedures of the State in which operations are conducted.

(2) A national air operator shall ensure that all pilots are familiar with the laws, regulations and procedures, pertinent to the performance of their duties, prescribed for the areas to be traversed, the aerodromes to be used and the air navigation facilities relating thereto.

(3) A national air operator shall ensure that other members of the flight crew are familiar with such of these laws, regulations and procedures as are pertinent to the performance of their respective duties in the operation of the aircraft.

**AIRCRAFT OPERATING MANUAL**

National air operator to submit Aircraft Operating Manual. [35/2009].

**54.** (1) A national air operator shall submit proposed Aircraft Operating Manuals for each type of aircraft operated, containing the normal, abnormal and emergency procedures relating to the operation of the aircraft for approval by the Authority.

(2) An Aircraft Operating Manual shall be based upon the aircraft manufacturer's data for the specific aircraft type and variant operated by the national air operator and shall include specific operating parameters, details of the aircraft systems, and of the numerically standardised, abbreviated and expanded checklists to be used applicable to the operations of the Trinidad and Tobago Air Operator Certificate, that are approved by the Authority.

(3) The design of the manual under this regulation shall take account of human factors principles.

(4) An Aircraft Operating Manual shall be issued to the flight crew members and persons assigned operational control functions to each aircraft operated by the national air operator.

(5) Notwithstanding the foregoing an Aircraft Operating Manual under this regulation shall contain the items listed in Schedule 6. Schedule 6.

(6) An air operator shall ensure that the aircraft operating manual referred to in this regulation is easily accessible to the flight crew during flight operations.

**AIRCRAFT PERFORMANCE PLANNING MANUAL**

National air operator to provide Performance Planning Manual.

**55.** (1) A national air operator shall provide for the use of members of the flight crew and persons assigned operational control functions during the performance of their duties, a Performance Planning Manual acceptable to the Authority.

(2) The Performance Planning Manual under subregulation (1), shall be specific to the aircraft type and variant which contains adequate performance information to accurately calculate the performance in all normal phases of flight operation.

**AIRCRAFT PERFORMANCE DATA CONTROL SYSTEM**

National air operator to have aircraft Performance Data System.

**56.** (1) A national air operator shall have a system approved by the Authority for obtaining, maintaining and distributing to appropriate personnel current performance data for each aircraft, route and airport that it uses.

(2) The system under subregulation (1), shall provide current obstacle data to assist in the preparation of take-off and landing performance calculations.

(3) A national air operator shall take account of charting accuracy when charting obstacle data.

**AERONAUTICAL DATA CONTROL SYSTEM**

National air operator to have Aeronautical Data Control System.

**57.** (1) A national air operator shall have a system approved by the Authority, for obtaining, maintaining and distributing to appropriate personnel, current aeronautical data for each route and the airport that he uses.

(2) A national air operator shall provide aeronautical data for each airport used by him in respect of the areas listed in Schedule 7.

Schedule 7.

**ROUTE GUIDE**

National air operator to provide certain information guide.

**58.** (1) A national air operator shall provide for the use of members of the flight crew and persons assigned operational

control functions during the performance of their duties:

*(a)* a route guide acceptable to the Authority; and

*(b)* aeronautical charts approved by the Authority.

(2) The route guide and aeronautical charts under subregulation (1), shall be current and appropriate for the proposed types and areas of operations to be conducted by the national air operator.

**ROUTES AND AREAS OF OPERATION**

Restriction on the conduct of routes.

**59.** (1) A national air operator may conduct operations only along such routes and within such areas for which—

*(a)* ground facilities and services, including meteorological services, are provided which are adequate for the planned operation;

*(b)* the performance of the aircraft intended to be used is adequate to comply with minimum flight altitude requirements;

*(c)* the equipment of the aircraft intended to be used meets the minimum requirements for the planned operation;

*(d)* appropriate and current maps and charts are available;

*(e)* where two-engine aircraft are used, adequate airports are available with the time and distance limitations; and

*(f)* where a single-engine aircraft is used, surfaces are available which permit a safe forced landing to be executed.

(2) A person shall not conduct commercial air transport operations on any route or area of operation unless those operations are in accordance with any restrictions imposed by the Authority.

**NAVIGATIONAL ACCURACY**

Requirements in respect of navigational systems and facilities.

**60.** (1) A national air operator shall have, for each proposed route or area that he uses, the navigational systems and facilities capable of navigating the aircraft—

*(a)* within the degree of accuracy required for Air Traffic Control; and

*(b)* to the airports in the operational flight plan as defined by the Authority within the degree of accuracy necessary for the operation involved.

(2) Where adequate navigation systems reference does not exist, the Authority may authorise day Visual Flight Rules operations that can be conducted safely by pilotage because of the characteristics of the terrain.

(3) The Director-General shall recommend the Authority list in the national air operator operations specifications for non-visual ground aids required for the approval of routes outside of controlled airspace.

(4) The list under subregulation (3) shall not be required to contain the navigational aids required for routes to alternate airports within the controlled airspace.

(5) Non-visual ground aids shall not be required for night visual flight rules operations on routes that the national air operator can show have reliably lighted landmarks adequate for safe operation.

(6) Operations on route segments where the celestial or other specialised means of navigation are used, shall be approved by the Authority.

**COMMUNICATIONS**

National air operator to have two-way radio communications.

**61.** (1) The flights of a national air operator shall be capable of two-way radio communications with all Air Traffic Control facilities along the routes and alternate routes to be used.

(2) A national air operator shall in respect of passenger carrying operations on a published schedule, be capable of timely, direct and reliable radio communications with all flights over the entire route structure of the national air operator, under normal operating conditions.

Definition of certain clauses.

**62.** In this Part —

"timely communication" means the ability to establish communications domestically within thirty minutes of first trying and internationally within one hour when the flight is in cruise; and

"direct communication" means the ability of the flight operations officer and flight dispatcher and the pilot in command to

communicate using the facilities of the national air operator, an electronic data link facility, or a facility operated by a third party according to an agreement.

### PART V

## AIR OPERATOR SECURITY MANAGEMENT

Applicability of Part V.

**63.** This Part provides the certification requirements that apply to air operator protection of aircraft, facilities and personnel from unlawful interference.

Security requirements.

**64.** An air operator shall ensure that all appropriate personnel are familiar, and comply with—

*(a)* such security requirements as required by the Authority; and

*(b)* such relevant national security requirements as established from time to time by the Minister with responsibility for national security.

### TRAINING

Security training programmes.

**65.** (1) An air operator shall establish and maintain an approved security training programme, which enables crew members to act appropriately to minimise the consequences of acts of unlawful interference.

Schedule 8.

(2) As a minimum, an approved security training programme shall include the subject matters set out in Schedule 8.

(3) In addition to the training under subregulation (1), an air operator shall also establish and maintain a training programme to familiarise appropriate employees with the preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aircraft in order to prevent acts of sabotage, or other forms of unlawful interference.

### ACTS OF UNLAWFUL INTERFERENCE

Reporting acts of unlawful interference.

**66.** Where an act of unlawful interference occurs on board an aircraft the pilot in command or, in his absence, the national

air operator shall submit, without delay, a report of such an act to the civil aviation authority of the relevant Contracting State and the Authority.

**SEARCH PROCEDURE CHECKLIST**

Aircraft search procedure checklist [303/2004].

**67.** (1) An air operator shall ensure that there is on board an aircraft checklist of the procedures to be followed where—

*(a)* searching for a bomb in case of suspected sabotage; and

*(b)* for inspecting an aircraft for concealed weapons, explosives or other dangerous devices when a well founded suspicion exists that the aircraft or its occupants may be the object of an act of unlawful interference.

(2) The checklist shall be supported by guidance on the appropriate course of action to be taken should a bomb or suspicious object be found and information on the least-risk bomb location specific to the aircraft.

(3) Where a least-risk bomb location is identified on an aircraft, the operator shall provide instructions at that location for disposal of bombs and explosive devices and for attenuating and directing an explosion.

**PREVENTIVE MEASURES AGAINST UNAUTHORISED PERSONS, CARGO AND PROHIBITED ITEMS**

Air operator to establish procedures to secure flight crew compartment. [303/2004].

**68.** (1) An air operator shall establish procedures to ensure that during flight unauthorised persons are prevented from entering the flight crew compartment.

(2) Where an aeroplane is equipped with a flight crew compartment door, the air operator shall ensure that such flight crew compartment door is capable of being locked and that there is a means by which cabin crew can discreetly notify the flight crew in the event of suspicious activity or security breaches in the cabin.

(3) The flight crew compartment door on an aeroplane operated for the purpose of carrying passengers shall be capable of being locked only from within the compartment in order to prevent unauthorised access.

(4) From 1st November 2003, all passenger carrying aeroplanes of a maximum certified take-off mass in excess of forty-five thousand and five hundred kilogrammes or with a passenger seating capacity greater than sixty, shall be equipped with an approved flight crew compartment door that is designed to resist penetration by small arms fire and grenade shrapnel and to resist forcible intrusions by unauthorised persons.

(5) A flight crew compartment door under subregulation (4), shall be capable of being locked and unlocked from either pilot station.

(6) In all aeroplanes which are equipped with a flight crew compartment door under subregulation (5)—

*(a)* such door shall be closed and locked from the time all external doors are closed following embarkation until any such door is opened for disembarkation, except when necessary to permit access and egress by authorised persons; and

*(b)* means shall be provided for monitoring from either pilot's station the entire door area outside the flight crew compartment to identify persons requesting entry and to detect suspicious behaviour or potential threat.

(7) An air operator shall establish operational procedures to ensure the flight crew compartment access is co-ordinated in advance of the cabin inter-phone system. Where a request has been made by the cabin crew to enter the flight crew compartment, the flight crew shall visibly positively verify who is at the flight crew compartment door and the exact circumstances existing prior to unlocking the door.

(8) Where a person wishes to exit the flight crew compartment, such person, prior to unlocking the door shall—

*(a)* verify with the cabin crew that the adjacent lavatory is not occupied by a passenger;

*(b)* visually determine the exact circumstances existing outside the door particularly on high risk

flights or where unknown passengers are within easy access of the flight crew compartment door;

*(c)* confirm that cabin crew are positioned to block passenger access to the door area when it is unlocked.

(9) An air operator shall take measures to ensure that persons do not conceal themselves, cargo or prohibited items on board an aircraft.

**WEAPONS OF WAR OR MUNITIONS OF WAR**

Carriage of weapons of war or munitions of war.

**69.** (1) A national air operator shall not transport weapons of war or munitions of war by air unless—

*(a)* an approval to do so has been granted by all States concerned; and

*(b)* limitations are applied in accordance with the Technical Instructions for Safe Transport of Dangerous Goods by Air.

(2) A national air operator shall ensure that during air transportation, weapons of war and munitions of war approved for transportation under subregulation (1), are stowed in the aircraft in a place which is inaccessible to passengers during flight.

(3) A national air operator shall ensure that firearms approved for carriage are unloaded, unless before the commencement of the flight, approval has been granted by all States concerned that such firearms may be carried in circumstances that differ in part or in total from those indicated in these Regulations.

(4) Subregulation (3), shall not apply to a national air operator directed to transport an air marshal on board his flight, under the Civil Aviation [(No. 8) Aviation Security] Regulations.

Sub. Leg.

(5) A national air operator shall ensure that the pilot in command of an aircraft, is notified, before a flight begins, of the details and location on board the aircraft of any weapons of war and munitions of war intended to be carried.

**SPORTING WEAPONS**

Carriage of sporting weapons and ammunition.

**70.** (1) A national air operator shall take all appropriate measures to ensure that a sporting weapon and its ammunition intended to be carried by air are reported to him.

(2) A national air operator accepting the carriage of sporting weapons shall ensure that such sporting weapons are—

*(a)* stowed in the aeroplane in a place which is inaccessible to passengers during flight unless the Authority has determined that compliance is impracticable and has accepted that other procedures may apply; and

*(b)* unloaded, in the case of firearms or other weapons that can contain ammunition.

(3) Ammunition for sporting weapons may be carried in checked baggage of passengers, subject to certain limitations in accordance with the Technical Instructions.

Definition of certain clauses.

**71.** For the purpose of this Part—

*(a)* a firearm is any gun, rifle or pistol which fires a projectile;

*(b)* the following firearms are generally regarded as being sporting weapons:

(i) those designed for shooting game, birds and other animals;

(ii) those used for target shooting, clay-pigeon shooting and competition shooting, providing the weapons are not those on standard issue to military forces; and

(iii) airguns, dart guns, starting pistols; and

*(c)* weapon of war or munition of war means any device containing an explosive or any noxious gas, liquid or other thing designed or made for use in warfare against persons, including parts—whether components or accessories for such weapon, ammunition or article and does not include a firearm.

## PART VI

## MAINTENANCE REQUIREMENTS

Applicability of Part VI.

**72.** This Part provides certification and maintenance requirements that apply to an air operator utilising an Approved Maintenance Organisation or an equivalent system of maintenance.

### MAINTENANCE RESPONSIBILITY

Maintenance Responsibility [187/2006 198/2009].

**73.** (1) A national air operator shall ensure the airworthiness of an aircraft and the serviceability of both operational and emergency equipment by—

*(a)* assuring the accomplishment of pre-flight inspections;

*(b)* assuring the correction of any defect and damage affecting safe operation of an aircraft to an approved standard, taking into account the Minimum Equipment List and where available, Configuration Deviation List for the aircraft type;

*(c)* determining what maintenance, if any, is required, when it is to be performed, by whom and to what standard;

*(d)* assuring the accomplishment of all maintenance in accordance with the approved aircraft maintenance programme of the national air operator;

*(e)* the analysis of the effectiveness of the approved aircraft maintenance programme of national air operator;

*(f)* assuring the accomplishment of any operational directive, airworthiness directive and any other continued airworthiness requirement made mandatory by the Authority; and

*(g)* assuring the accomplishment of modifications in accordance with an approved standard and, for non-mandatory modifications, the establishment of an embodiment policy.

(2) A national air operator shall ensure that the certificate

of airworthiness issued by the Authority for each aircraft operated remains valid in respect of—

*(a)* the requirements under subregulation (1);

*(b)* the expiration date of the Certificate of Airworthiness; and

*(c)* any other maintenance condition specified in the Certificate of Airworthiness.

(3) A national air operator shall ensure that the requirements specified in subregulation (1), are performed in accordance with procedures approved by or acceptable to the Authority.

(4) A failure to perform any of the requirements under subregulation (1), in accordance with subregulation (3), shall render the aircraft ineligible for operation until the aircraft is restored to an airworthy condition.

(4A) An air operator shall ensure that there is in effect a valid Certificate of Maintenance Review, issued in accordance with regulation 31A of the Civil Aviation [(No. 5) Airworthiness] Regulations, on board each aircraft he operates, in accordance with the requirements of regulation 11 of the Civil Aviation [(No. 2) Operations] Regulations. Sub. Leg. Sub. Leg.

(5) A national air operator shall ensure that the maintenance, preventive maintenance, and modification of its aircraft and aeronautical products are performed in accordance with its Maintenance Control Manual of the national air operator and current instructions for continued airworthiness, and applicable aviation regulations.

(6) Notwithstanding any arrangements made by the national air operator with another person or entity for the performance of any maintenance, preventive maintenance, or modifications, the responsibility for all work performed under such arrangement shall remain that of the national air operator.

(7) A national air operator of an aeroplane over fifty-seven hundred kilogrammes, and a helicopter above three thousand one hundred and seventy-five kilogrammes maximum certified

take-off mass, shall monitor and assess maintenance and operational activities with respect to continuing airworthiness and provide the information as prescribed by the Director-General.

(8) The national air operator of an aeroplane over fifty-seven hundred kilogrammes, and a helicopter above three thousand one hundred and seventy-five kilogrammes maximum certified take-off mass shall obtain and assess continuing airworthiness information and recommendations available from the Organisation responsible for the type design and shall implement resulting actions considered necessary in accordance with a procedure acceptable to the Authority.

**EQUIVALENT SYSTEM OF MAINTENANCE**

National air operator maintenance activities.

**74.** (1) A national air operator may conduct—

*(a)* maintenance activities of aircraft and aircraft components through an arrangement with an Approved Maintenance Organisation; or

*(b)* its own maintenance, preventive maintenance, or modifications, on aircraft and aircraft components, so long as the maintenance system of the national air operator is approved by the Authority and is equivalent to that of an Approved Maintenance Organisation.

(2) Notwithstanding subregulation (1)*(b)*, an approval for release to service of an aircraft and an aeronautical product may be made by an appropriately licensed Aircraft Maintenance Engineer or aviation repair specialist.

(3) Where a national air operator complies with subregulation (1)*(b)* and (2), such system shall be referred to as "an equivalent system of maintenance".

**APPROVAL AND ACCEPTANCE OF MAINTENANCE ORGANISATION SYSTEMS**

Approval and acceptance of maintenance organisation systems. [303/2004].

**75.** (1) A national air operator shall not operate an aircraft, except for pre-flight inspections, unless it is maintained and released to service by an Approved Maintenance Organisation or equivalent system of maintenance that is approved by the Authority.

(1A) The pre-flight inspection referred to in subregulation (1) may be performed by an operating flight crew member.

(1B) Where a repetitive airworthiness directive inspection is part of the pre-flight inspection specified in subregulation (1), the flight crew member performing such pre-flight inspection shall have a limited certification authorisation for the repetitive airworthiness directive inspection issued under the Civil Aviation [(No. 6) Approved Maintenance Organisation] Regulations, and a Certificate of Release to Service shall be issued by him in respect of that pre-flight inspection. Sub. Leg.

(2) The Director-General may recommend that the Authority approve a Maintenance Organisation or an equivalent system of maintenance in respect of aircraft registered in Trinidad and Tobago.

(3) The State of Registry of an aircraft shall, in respect of such an aircraft which is not registered in Trinidad and Tobago approve an Aircraft Maintenance Organisation or an equivalent system of maintenance, and the Director-General may recommend that the Authority accept such approval.

(4) When the Authority or the State of Registry accepts an equivalent system of maintenance, the persons designated to sign the certificate of release to service shall meet the requirements set out by the Authority, as appropriate to his licence.

**MAINTENANCE CONTROL MANUAL**

**76.** (1) A national air operator shall submit to the Authority for review and acceptance, a Maintenance Control Manual and all its subsequent amendments, which is to be used for the guidance of his maintenance and operational personnel. National air operator to provide Maintenance Control Manual. [224/2005 187/2006 47/2007].

(1A) The design of the Maintenance Control Manual required by subregulation (1) shall observe human factors principles.

(2) The manual under subregulation (1), shall contain details of the structure of the Organisation including—

*(a)* the accountable manager and designated person responsible for the maintenance system as required by regulation 14;

*(b)* procedures to be followed to satisfy the maintenance requirements under regulation 73, except where the air operator is an approved Maintenance Organisation, the quality functions of regulation 78 may be included in the Approved Maintenance Organisation Procedures Manual;

*(c)* procedures for the reporting of failures, malfunctions and defects in accordance with regulation 22 of the Civil Aviation [(No. 5) Airworthiness] Regulations to the Authority, the aircraft manufacturer and the State of Design within seventy-two hours of discovery.

Sub. Leg.

(3)
(4) } ***(Deleted by LN 224/2005)***.

(5) In addition to the matters set out in subregulation (2), the Maintenance Control Manual under this regulation shall include items set out in Schedule 9 as well as the following information which may be issued in separate parts:

Schedule 9.

*(a)* a description of the administrative arrangements between the national air operator and the approved Maintenance Organisation, or a description of the maintenance procedures and the procedures for completing and signing a certificate of release to service when maintenance is based on a system other than that of an Approved Maintenance Organisation;

*(b)* a description of the procedures to ensure that each aircraft he operates is in an airworthy condition;

*(c)* a description of the procedures to ensure that the operational emergency equipment for each flight is serviceable;

*(d)* the names and duties of the person or persons required to ensure that all maintenance is carried out in accordance with the Maintenance Control Manual;

*(e)* a reference to the maintenance programme required in regulation 85;

*(f)* a description of the methods for completion and retention of the maintenance records of the national air operator required by regulation 80;

*(g)* a description of the procedures for monitoring, assessing and reporting maintenance and operational experience for all aeroplane over fifty-seven hundred kilogrammes maximum certified take-off mass and helicopter over three thousand, one hundred and seventy-five kilogrammes certified take-off mass;

*(h)* a description of the procedures for obtaining and assessing continued airworthiness information from the Organisation responsible for the type design and implementing any resulting actions for all aeroplane over fifty-seven hundred kilogrammes maximum certified take-off mass and helicopter over three thousand, one hundred and seventy-five kilogrammes certified take-off mass;

*(i)* a description of the procedures for implementing mandatory continuing airworthiness information as required in regulation 73(1)*(f)*;

*(j)* a description of how a system of analysis shall be established and maintained for the continued monitoring of the performance and efficiency of the maintenance programme in order to correct any deficiency in that programme;

*(k)* a description of aircraft types and models to which the manual applies;

*(l)* a description of procedures for ensuring that unserviceabilities affecting airworthiness are recorded and rectified; and

*(m)* a description of the procedures for advising the Authority of significant in-service occurrences.

(6) A national air operator shall not provide for the use of his personnel in commercial air transport any Maintenance Control Manual or portion thereof which has not met the requirements of subregulation (1).

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(7) A national air operator shall ensure that the Maintenance Control Manual under this regulation is amended as necessary to keep the information therein up to date and shall incorporate in it such mandatory material as the Authority may require.

(8) Copies of all amendments under this regulation shall be furnished promptly to all Organisations or persons to whom the manual has been issued.

(9) A national air operator shall provide the Authority and the State of Registry with a copy of his Maintenance Control Manual together with all amendments and revisions to it.

**MAINTENANCE MANAGEMENT**

Maintenance management. [224/2005].

**77.** (1) An air operator that is approved as an Approved Maintenance Organisation, may carry out the requirements specified in section 73(1)*(b)*, *(c)*, *(e)* and *(f)*.

(2) Where a national air operator is not an Approved Maintenance Organisation, he shall meet his responsibilities under regulation 73(1)*(b)*, *(c)*, *(e)* and *(f)* by using—

*(a)* an equivalent system of maintenance approved or accepted by the Authority; or

*(b)* through an arrangement with an Aircraft Maintenance Organisation with a written maintenance contract agreed between the national air operator and the contracting approved Maintenance Organisation detailing the required maintenance functions and defining the support of the quality functions approved or accepted by the Authority.

(3) A national air operator shall employ such person or persons, acceptable to the Authority, to ensure that all maintenance is carried out to an approved standard such that the maintenance requirements of this Part and requirements of the Maintenance Control Manual of the national air operator are satisfied, and to ensure the functioning of the quality system.

(4) In employing persons under subregulation (3), the national air operator shall designate one person to be accountable for any corrective action resulting from the quality monitoring.

(5) The person designated under subregulation (4), for maintenance shall not be employed by an Approved Maintenance Organisation under contract, unless specifically agreed by the Authority.

(6) Where a national air operator is not appropriately approved by the Authority written arrangements shall be made with such an Organisation to carry out the requirements specified in regulation 73.

(7) The arrangement under subregulation (6), shall be in the form of a written Maintenance Contract between the national air operator and the approved maintenance Organisation detailing the functions specified in regulation 73 and defining the support of the quality functions.

(8) The written Maintenance Contracts under subregulation (7), shall include either an—

*(a)* aeroplane base and scheduled line maintenance; or

*(b)* engine maintenance contracts, together with all amendments, which shall be acceptable to the Authority.

(9) Notwithstanding subregulations (6), (7) and (8), in the case of an aircraft needing occasional line maintenance, the contract may be in the form of individual work orders to the Approved Maintenance Organisation.

(10) Notwithstanding subregulations (6), (7) and (8), in the case of aircraft component maintenance, including engine maintenance the contract may be in the form of individual work orders to the Approved Maintenance Organisation.

(11) A national air operator shall provide suitable office accommodation at appropriate locations for the personnel specified in subregulation (3).

**QUALITY MANAGEMENT SYSTEM**

Quality management system and quality manager.

**78.** (1) A quality system of a national air operator required by regulation 16 shall, for maintenance purposes, additionally include at least the following functions:

*(a)* monitoring that the activities of regulation 73

are being performed in accordance with the accepted procedures;

*(b)* ensure that all contracted maintenance is carried out in accordance with the contract;

*(c)* monitoring the continued compliance with the requirements of this Part;

*(d)* monitoring compliance with, and adequacy of, procedures required; and

*(e)* ensuring safe maintenance practices, airworthy aircraft and aeronautical products.

(2) Compliance monitoring under subregulation (1)*(d)*, shall include a feedback system to the Accountable Manager to ensure corrective action is taken.

(3) A quality system of a national air operator required by regulation 16 shall, for maintenance purposes, include a quality assurance that contains procedures designed to verify that all maintenance operations are being conducted in accordance with all applicable requirements, standards and procedures.

(4) Where the air operator is also an approved Maintenance Organisation, the quality management system of the air operator may be combined with the quality management system requirements of an approved Maintenance Organisation and submitted for approval and acceptance to the Authority, and State of Registry for an aircraft not registered in Trinidad and Tobago.

**AIRCRAFT TECHNICAL LOG ENTRIES**

Aircraft technical log entries.

**79.** (1) A person who takes action in the case of a reported or observed failure or malfunction of an aircraft and an aeronautical product, that is critical to the safety of flight shall make, or have made, a record of that action in the maintenance section of the aircraft technical log.

(2) A national air operator shall have a procedure for keeping adequate copies of required records to be carried on board an aircraft, in a place readily accessible to each member of the flight crew and shall ensure that such procedures are recorded in the Operations Manual of a national air operator.

**PRESERVATION OF TECHNICAL RECORDS**

Requirement for maintenance of records.

**80.** (1) A national air operator shall ensure that the Aircraft Technical Log is retained for twenty-four months after the date of the last entry.

(2) A national air operator shall establish a system and keep in a form acceptable to the Authority—

*(a)* all detailed maintenance records in respect of the aircraft and any aircraft component fitted thereto to show that all the requirements for the signing of a maintenance release has been met, for twelve months after the aircraft or aircraft component was released to service;

*(b)* the total time and flight cycles as appropriate, of the aircraft and all life limited aircraft components for ninety days after the aircraft has been permanently withdrawn from service;

*(c)* the time and flight cycles as appropriate, since the last overhaul of the aircraft or aircraft component subject to mandatory overhaul life for ninety days after the aircraft or aircraft component has been permanently withdrawn from service;

*(d)* the current aircraft inspection status such that compliance with the approved operator's aircraft maintenance can be established for ninety days after the aircraft or aircraft component has been permanently withdrawn from service;

*(e)* the current status of airworthiness directives and all mandatory continuing airworthiness information applicable to the aircraft and aircraft component for ninety days after the aircraft had been permanently withdrawn from service; and

*(f)* details of current modifications and repairs to the aircraft, engines, propellers and any other aircraft component vital to the flight safety for ninety days after the aircraft has been permanently withdrawn from service.

(3) Where an aircraft is temporarily transferred from one air operator to another, the records specified in subregulations (1) and (2), shall be made available to the new air operator.

(4) An air operator shall ensure that when an aircraft is permanently transferred from one air operator to another air operator the records specified in subregulations (1) and (2), are also transferred.

**AIR OPERATOR'S AIRCRAFT TECHNICAL LOG**

Maintenance record section of aircraft technical log.

**81.** (1) A national air operator shall use an aircraft technical log which shall include an aircraft maintenance record section containing the following for each aircraft:

*(a)* information about each previous flight necessary to ensure continued flight safety;

*(b)* the current certificate of release to service;

*(c)* the current inspection status of the aircraft, to include inspections due to be performed on an established schedule and inspections that are due to be performed that are not on an established schedule;

*(d)* the current maintenance status of the aircraft, to include maintenance due to be performed on an established schedule and maintenance that is due to be performed that is not on an established schedule except that the Authority may agree to the maintenance statement being kept elsewhere; and

*(e)* all deferred defects that affect the operation of the aircraft.

(2) An Aircraft Technical Log and any subsequent amendment shall be approved by the Authority.

**RELEASE TO SERVICE**

Release to service after maintenance.

**82.** (1) A national air operator shall not operate an aircraft unless it is maintained and released to service by an approved Maintenance Organisation or under an equivalent system, either of which shall be acceptable to the Authority.

(2) A national air operator using an equivalent system shall not operate an aircraft after release under subregulation (1), unless a certificate of release to service is prepared or caused to be prepared by an appropriately licensed and rated individual.

(3) The certificate of release to service shall be made in accordance with the national air operator maintenance control manual procedures.

(4) A national air operator using an Aircraft Maintenance Organisation shall not operate an aircraft after it is released to service, under subregulation (1) unless an appropriate entry is made in accordance with the national air operator Maintenance Control Manual procedures acceptable to the Authority.

(5) A national air operator shall give a copy of the certificate of release to service for an aircraft to the pilot in command or ensure that an entry, noting the release is made in the maintenance section of the aircraft technical log.

**MODIFICATIONS AND REPAIRS**

Modifications and repairs. [224/2005].

**83.** (1) All modifications and repairs to an aircraft shall comply with airworthiness requirements acceptable to the Authority.

(2) Procedures shall be established to ensure that the substantiating data supporting compliance with the airworthiness requirements are retained.

(3) In the case of a major repair or major modification, such repairs and modifications shall be done in accordance with approved technical data approved or accepted by the Authority.

(4) An air operator who is authorised to perform maintenance, preventive maintenance, and modifications of any aircraft, airframe, aircraft engine, propeller, appliance, component, or part thereof, in accordance with the approved operations specifications of the air operator, and wishes to issue Certificates of Release to Service for major repairs or major modifications to an aircraft registered in Trinidad and Tobago, shall use personnel who hold current and valid aircraft maintenance licence.

(5) An air operator shall, promptly upon its completion of repairs and modifications, prepare a report of each major modification or major repair of an airframe, aircraft engine, propeller, or appliance of an aircraft it operated.

(6) An air operator shall submit a copy of each report of a major modification to the Authority, and shall keep a copy of each report of a major repair available for inspection.

(7) Repetitive maintenance tasks that are specified in mandatory intervals as a condition of approval of the type design shall be identified as such.

**CONTINUED AIRWORTHINESS**

Continuing airworthiness information. [187/2006].

**84.** (1) A national air operator of an aeroplane over fifty-seven hundred kilogrammes maximum certified take-off mass or helicopter over three thousand, one hundred and seventy-five kilogrammes maximum certified take-off mass shall monitor and assess maintenance and operational experience with respect to continued airworthiness and provide the information as prescribed by the State of Registry.

(2) A national air operator of an aeroplane over fifty-seven hundred kilogrammes maximum certified take-off mass or helicopter over three thousand, one hundred and seventy-five kilogrammes maximum certified take-off mass shall obtain and assess continuing airworthiness information and recommendations available from the Organisation responsible for the type design and shall implement resulting actions considered necessary in accordance with the procedures acceptable to the Authority.

**AIRCRAFT MAINTENANCE PROGRAMME**

Aircraft maintenance programme.

**85.** (1) A national air operator shall provide for the use and guidance of maintenance and operational personnel an aircraft maintenance programme, the design and application of which shall observe human factors principles.

(2) An aircraft maintenance programme of a national air operator and any subsequent amendments shall be submitted to the Authority for approval.

(3) An aircraft maintenance programme under subregulation (2), shall only be accepted by the Authority where it has first been approved by the State of Registry or where appropriate, upon the air operator complying with recommendations provided by the State of Registry.

(4) The Authority shall require a national air operator to include a reliability programme when the Authority determines that such a reliability programme is necessary.

(5) Where a determination that a reliability programme is necessary, is made by the Authority under subregulation (4), the national air operator shall provide such procedures and information in the maintenance control manual of the national air operator.

(6) A national air operator shall ensure that each aircraft is maintained in accordance with an approved aircraft maintenance programme of a national air operator which shall include—

*(a)* maintenance tasks and the intervals in which these are to be performed, taking into account the anticipated utilisation of the aircraft;

*(b)* where applicable, a continuing structural integrity programme;

*(c)* procedures for changing or deviating from paragraphs *(a)* or *(b)*; and

*(d)* where applicable, condition monitoring and reliability programme, descriptions for aircraft systems, components, and power plants.

(7) A national air operator shall not provide for the use of its personnel in commercial air transport maintenance programme or portion thereof which has not been reviewed and approved for the national air operator by the Authority.

(8) Copies of all amendments to the maintenance programme shall be furnished promptly to all Organisations or persons to whom the maintenance programme has been issued.

(9) Approval by the Authority of a maintenance programme of a national air operator and any subsequent amendments shall be noted in the Trinidad and Tobago Air Operator Certificate pursuant to regulation 7(4)*(d)*.

(10) A national air operator shall have an inspection programme and a programme covering other maintenance, preventive maintenance and modifications to ensure that—

*(a)* maintenance, preventive maintenance and modifications performed by it, or by other persons, are performed in accordance with the maintenance control manual of a national air operator; and

*(b)* each aircraft released to service is airworthy and has been properly maintained for operation.

(11) The Authority may amend any specifications issued to a national air operator to permit deviation from those provisions of these Regulations that would prevent the return to service and use of airframe components, power-plants, appliances, and spare parts thereof because those items have been maintained, modified or inspected by persons employed outside Trinidad and Tobago who do not hold a Trinidad and Tobago Aircraft Maintenance Licence.

(12) A national air operator who is granted authority to deviate under subregulation (11), shall provide for surveillance of facilities and practices to assure that all work performed under these Regulations is accomplished in accordance with the maintenance control manual of a national air operator.

**MAINTENANCE, PREVENTIVE MAINTENANCE AND MODIFICATION**

Authority to perform and approve maintenance, preventive maintenance and modification.

**86.** (1) A national air operator who is not an Approved Maintenance Organisation may perform and approve maintenance, preventive maintenance, or modifications of any aircraft, airframe, aircraft engine, propeller, appliance, or component, or a part thereof for return to service, where approved in the specific operating provisions, as provided in its maintenance programme and maintenance control manual.

(2) A national air operator may make arrangements with an appropriately rated Aircraft Maintenance Organisation for the performance of maintenance, preventive maintenance, or

modifications of any aircraft, airframe, aircraft engine, propeller, appliance, or component, or part thereof as provided in its maintenance programme and maintenance control manual.

(3) A national air operator which is not approved as an Aircraft Maintenance Organisation may use an appropriately licensed and authorised individual to approve maintenance, preventive maintenance, or modifications of any aircraft, airframe, aircraft engine, propeller, or appliance for return to service after performing or supervising in accordance with technical data approved by the Authority.

**AIRCRAFT MAINTENANCE LICENCE**

Aircraft maintenance licence requirements for a national air operator using equivalent system.

**87.** (1) A person who is directly in charge of maintenance, preventive maintenance, or modification, of any aircraft, airframe, aircraft engine, propeller, appliance, or component, or part thereof and each person performing required inspections and approving release to service shall be appropriately licensed and acceptable to the Authority.

(2) A person who is directly in charge shall be on site but need not physically observe and direct each worker constantly, but shall be available for consultation and decision on matters requiring instruction or decision from higher authority than that of the persons performing the work.

(3) In this regulation "a person directly in charge" means a person who is assigned to a position in which he is responsible for the work of a shop or station that performs maintenance modification or other functions affecting the airworthiness of an aircraft.

**REST AND DUTY LIMITATIONS AND MAINTENANCE PERSONNEL**

Rest and duty limitations for persons performing maintenance functions on aircraft of national air operator.

**88.** (1) A national air operator shall not assign, nor shall any person perform maintenance functions for aircraft certified for commercial air transport, unless that person has had a minimum rest period of eight hours prior to the beginning of duty.

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(2) A national air operator shall not schedule a person performing maintenance functions for aircraft certified for commercial air transport for more than twelve consecutive hours of duty.

(3) In situations involving unscheduled aircraft unserviceabilities, persons performing maintenance functions for aircraft certified for commercial air transport may continue on duty for—

*(a)* up to sixteen consecutive hours; or

*(b)* twenty cumulative hours in twenty-four consecutive hours.

(4) Following unscheduled duty periods, the person performing maintenance functions for aircraft shall have a mandatory rest period of ten hours.

(5) A national air operator shall relieve the person performing maintenance functions from all duties for twenty-four consecutive hours during any seven consecutive day periods.

## PART VII

## RECORDS

### RETENTION AND MAINTENANCE OF RECORDS

National air operator to maintain records.

**89.** (1) A national air operator shall maintain current records which detail the qualifications and training of all its employees and contract employees, involved in the operational control, flight operations, ground operations and maintenance of the national air operator.

(2) A national air operator shall maintain records for those employees performing crew member or Flight Operations Officer duties in sufficient detail to determine whether the employee meets the experience and qualification for duties in commercial air transport operations.

(3) Where a crew member in respect of whom a national air operator has kept a record becomes a crew member for another operator, that record shall be made available to the new operator.

(4) A national air operator shall retain records of the flight time, flight duty periods and rest periods of all its crew members and fuel and oil records for each flight.

(5) A national air operator shall maintain records for each flight of an aeroplane above forty-nine thousand feet so that the total cosmic radiation dosage received by each crew member over a period of twelve consecutive months can be determined.

### FLIGHT DECK VOICE AND FLIGHT DATA RECORDER RECORDS

National air operator to retain flight data recorder records.

**90.** A national air operator shall retain—

*(a)* the most recent flight data recorder calibration, including the recording medium from which this calibration is derived; and

*(b)* the flight data recorder correlation for one aircraft of any group of aircraft operated by the national air operator—

(i) that is of the same type;

(ii) on which the model flight recorder and its installation are the same; and

(iii) on which there is no difference in type design with respect to the original installation of instruments associated with the recorder.

### PRESERVATION, PRODUCTION AND USE OF FLIGHT RECORDER RECORDING

Operator of aeroplane to preserve original recorded data after accident.

**91.** (1) Where an accident involving an aircraft occurs, the national air operator of an aeroplane on which a flight recorder is carried shall, as far as possible, preserve the original recorded data pertaining to that accident, for a period of sixty days unless otherwise directed by the Authority.

(2) A national air operator of an aeroplane on which a flight recorder is carried shall as far as possible, following an incident that is subject to mandatory reporting, preserve the original recorded data pertaining to that incident, for a period of sixty days unless otherwise directed by the Authority.

(3) Where the Authority so directs, a national air operator of an aircraft on which a flight recorder is carried shall preserve the original recorded data for a period of sixty days unless otherwise directed by the investigating authority.

(4) When a flight data recorder is required to be carried aboard an aeroplane, the national air operator of that aeroplane shall—

*(a)* save the recordings for the period of operating time as required except that, for the purpose of testing and maintaining flight data recorders, up to one hour of the oldest recorded material at the time of testing may be erased; and

*(b)* keep a document which presents the information necessary to retrieve and convert the stored data into engineering units.

(5) The national air operator of an aeroplane on which a flight recorder is carried shall, within a reasonable time after being requested to do so by the Authority, produce any recording made by a flight recorder which is available or has been preserved.

(6) The cockpit voice recorder recordings may not be used for purposes other than for the investigation of an accident or incident which is subject to mandatory reporting.

(7) The flight data recorder recordings may not be used for purposes other than for the investigation of an accident or incident which is subject to mandatory reporting except when such recordings are—

*(a)* used by the national air operator for airworthiness or maintenance purposes only;

*(b)* de-identified; or

*(c)* disclosed under secure procedures.

**AIRCRAFT LISTING**

National air operator to maintain current list of aircraft being operated.

**92.** (1) A national air operator conducting international or domestic operations shall maintain a current list of each aircraft that it operates in scheduled air transportation and shall send a copy of such record and each change to the Director-General.

(2) An aircraft of another national air operator operated under an interchange agreement shall also be included in the list referred to in subregulation (1).

**NATIONAL AIR OPERATOR AIRCRAFT TECHNICAL LOG**

National air operator to have aircraft technical log.

**93.** (1) A national air operator shall have an aircraft technical log as prescribed under regulation 79 which shall be carried on the aircraft.

(2) An aircraft technical log under subregulation (1) may contain a journey log referred to in regulation 35(4) and an aircraft maintenance record section.

(3) Completed journey log shall be retained to provide a continuous record of at least the last six months of operations.

**GENERAL CERTIFICATE AND LICENCES REQUIREMENTS**

National air operator to comply with general certificate and licences requirements.

**94.** (1) A national air operator shall comply with the general requirements for the—

*(a)* display of licences;

*(b)* change of name of licence certificate holder;

*(c)* change of address;

*(d)* replacement of aviation documents;

*(e)* non-falsification reproducer or alteration of licences;

*(f)* surrender of licences;

*(g)* re-application of licences;

*(h)* drug and alcohol testing and reporting,

required by Part II of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations. Sub. Leg.

(2) A request for a deviation from any requirements of these Regulations shall be made in the same manner as required by the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations.

**IMPLEMENTING STANDARDS**

National air operator to comply with minimum implementing standards. Schedule 10.

**95.** A national air operator in meeting the requirements of Regulations 14, 15, 22, 27, 28, 29, 30, 34, 35, 36, 37, 48, 50, 51, 52, 57, 61, 78, 80, 81 and 89, shall ensure that he complies with the minimum implementing standards set out in Schedule 10.

**DIRECTOR-GENERAL MAY AMEND SCHEDULES**

Director-General may amend the Schedules.

**96.** The Director-General may by Order amend any of the Schedules.

**TRANSITIONAL PROVISIONS**

Transitional provisions. [275/2004 32/2005 224/2005 286/2006 31/2008].

**97.** (1) Notwithstanding the air operator certification requirements of these Regulations, a person exercising the privileges of an Air Operator Certificate on the commencement of these Regulations may continue to do so under the conditions of his existing Air Operator Certificate until 30th September 2009 and thereafter shall meet the requirements of these Regulations.

(2) Notwithstanding subregulation (1), on the commencement of these Regulations a person who wishes to apply for an Air Operator Certificate shall meet the requirements of these Regulations.

(3) An Air Operator Certificate holder who, upon the commencement of these Regulations, continues to operate under his existing Air Operator Certificate, shall apply to the Authority for re-certification and successfully complete his re-certification on or before 1st October 2009.

## SCHEDULE 1

Regulation 7(1).

TRINIDAD AND TOBAGO

## THE CIVIL AVIATION ACT

## AIR OPERATOR CERTIFICATE

This certifies that

.....

whose business address is

.....

has met the requirements of the Civil Aviation Act and related regulations and rules prescribed thereunder for the issue of this certificate and is hereby authorised to conduct commercial air transport operations in accordance with said operating regulations and rules prescribed thereunder and the terms, conditions and limitations in the attached operations specifications. Ch. 49:03.

This certificate is not transferable and, unless sooner surrendered, suspended or revoked, shall continue in effect until the expiry date.

Certificate number: ..... Initial issue date: .....

Effective date: ..... Expiry date: .....

Name: ..... Signature: .....
(/f/ Authority)

*L.R.O.*

## GOVERNMENT OF TRINIDAD AND TOBAGO
## OPERATIONS SPECIFICATIONS

Issued to: .....

Air Operator Certificate No. ..... Initial issue date: .....

### PART A—GENERAL PROVISIONS

1. Applicability.
2. Definitions and abbreviations.
3. Operations by air operators outside the territory of Trinidad and Tobago.
4. Aircraft authorisation.

### PART B—EN ROUTE AUTHORISATIONS AND LIMITATIONS

1. Aircraft operations within the territory of Trinidad and Tobago.
2. Aircraft operations outside the territory of Trinidad and Tobago.
3. Instructions Flight Rules.
4. Operations at aerodromes without aerodrome ATC tower service.
5. Operations within North Atlantic minimum navigation performance specification airspace.

### PART C—AERODROME AUTHORISATIONS AND LIMITATIONS

1. General.
2. Instrument approach procedures and aerodrome operating minima—
   *(a)* Instrument approach minima;
   *(b)* Take-off minima;

*(c)* Circling minima; and

*(d)* Authorised instrument approach minima.

3. Authorised aerodromes.

## PART D—MAINTENANCE

1. General.

2. Check, inspection and overhaul time limits.

3. Reliability programme authorisation.

4. Short-term escalation authorisation.

5. Maintenance contractual authorisation.

6. Leased aircraft maintenance authorisation.

7. Parts pool authorisation.

8. Prorated time authorisation.

9. Parts borrowing authorisation.

10. Ferry flights authorisation.

## PART E—MASS AND BALANCE

1. Aircraft mass and balance control.

## PART F—INTERCHANGE OR EQUIPMENT OPERATIONS

## PART G—AIRCRAFT LEASING OPERATIONS

(wet lease)

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*L.R.O.*

Regulation 16(10).

## SCHEDULE 2

The following standards are required by a national air operator in respect of his quality system:

1. A national air operator shall establish a plan acceptable to the Authority to show when and how often the activities required in regulation 78 of the Regulations will be monitored. In addition, reports should be produced at the completion of each monitoring investigation and include details of discrepancies of non-compliance with procedures or requirements.

2. The feedback part of the system shall address who is required to rectify discrepancies and non-compliance in each particular case and the procedure to be followed if rectification is not completed within appropriate time scales. The procedure should lead to the Accountable Manager.

3. To ensure effective compliance, the national air operator and the applicant should use the following elements:
   *(a)* Product sampling—the part inspection of a representative sample of the aircraft fleet;
   *(b)* Defect sampling—the monitoring of defect rectification performance;
   *(c)* Concession sampling—the monitoring of any concession to not carry out maintenance on time;
   *(d)* On time maintenance sampling—the monitoring of when (flying hours/calendar time/flight cycles, etc.) aircraft and their components are brought in for maintenance;
   *(e)* Sample report of un-airworthy conditions and maintenance errors on aircraft and components.

**Note**: *The primary purpose of the Quality System for maintenance is to monitor compliance with the approved procedures specified in an operators maintenance control manual to ensure compliance and thereby ensure the maintenance aspects of the operational safety of the aircraft. In particular, this part of the Quality System provides a monitor of the effectiveness of maintenance, and should include a feedback system to ensure that corrective actions are identified and carried out in a timely manner.*

## SCHEDULE 3

Regulation 34(6)]. [303/2004 187/2006 47/2007 35/2009.

### PART A

## ORGANISATION AND CONTENTS OF AN OPERATIONS MANUAL FOR OPERATOR OF AN AEROPLANE

An operator of an aeroplane shall ensure that his Operations Manual which may be issued in separate parts corresponding to specific aspects of the operations is organised in accordance with the structure and contents provided as follows:

**1. Structure:**

*(a)* General;

*(b)* Aircraft operating information;

*(c)* Areas, routes and aerodromes; and

*(d)* Training.

**2. The Minimum Contents of Structure:**

*(a)* General—

(i) instructions outlining the responsibilities of operations personnel pertaining to the conduct of flight operations;

(ii) rules limiting the flight time and flight duty periods and providing for adequate rest periods for flight crew members and cabin crew members;

(iii) a list of the navigational equipment to be carried, including any requirements relating to operations in RNP airspace;

(iv) where relevant to the operations, the long range navigation procedures, the engine failure procedure for ETOPS and the nomination and utilisation of diversion aerodromes;

(v) the circumstances in which a radio listening watch is to be maintained;

(vi) the methods of determining minimum flight altitudes;

(vii) the methods of determining aerodrome operating minimum;

(viii) safety precautions during refuelling of an aircraft with passengers on board;

(ix) ground handling arrangements and procedures;

(x) procedures, as prescribed in Annex 12 to the Convention on International Civil Aviation, for pilots in command observing an accident;

(xi) the flight crew for each type of operations including the designation of the succession of command;

(xii) specific instructions for the computation of the quantities of fuel and oil to be carried, having regards to all circumstances of the operation including the possibility of the failure of one or more power plants while en route;

(xiii) the condition under which oxygen shall be used and the procedure for determining the amount of oxygen to be carried;

(xiv) instructions for mass and balance control;

(xv) instructions for the conduct and control of ground de-icing/anti-icing operations;

(xvi) the specifications for the operational flight plan;

(xvii) standard operating procedures (SOP) for each phase of flight;

(xviii) instructions on the use of normal checklists and the timing of their use;

(xix) departure contingency procedures;

(xx) instructions on the maintenance of altitude awareness and the use of automated or flight crew altitude callout;

(xxi) instructions on the use of autopilots and auto-throttles in IMC;

(xxii) instructions on the clarification and acceptance of ATC clearances, particularly where terrain clearance is involved;

(xxiii) departure and approach briefings;

(xxiv) procedures for familiarisation with areas, routes and aerodromes;

(xxv) stabilised approach procedure;

(xxvi) limitation on high rates of descent near the surface;

(xxvii) conditions required to commence or to continue an instrument approach;

(xxviii) instructions for the conduct of precision and non-precision instrument approach procedures;

(xxix) allocation of flight crew duties and procedures for the management of crew workload during night and IMC instrument approach and landing operations;

(xxx) instructions and training requirements for the avoidance of controlled flight into terrain and policy for the use of the ground proximity warning system (GPWS);

(xxxi) policy, instructions, procedures and training requirements for the avoidance of collisions and the use of the airborne collision avoidance system (ACAS);

(xxxii) information and instructions relating to the interception of civil aircraft including—

(A) procedures, as prescribed in Annex 2 to the Convention on International Civil Aviation, for pilots in command of intercepted aircraft; and

(B) visual signals for use by intercepting and intercepted aircraft;

(xxxiii) for aeroplanes intended to be operated above 15 000 m (49,000 ft.)—

(A) information which will enable the pilot to determine the best course of action to take in the event of exposure to solar cosmic radiation; and

(B) procedures in the event that a decision to descend is taken, covering—

(I) the necessity of giving the appropriate ATS unit prior warning of the situation and of obtaining a provisional descent clearance; and

(II) the action to be taken in the event that communication with the ATS unit cannot be established or is interrupted;

(xxxiv) details of the accident prevention and flight safety programme provided in accordance with regulation 37, including a statement of safety policy and the responsibility of personnel;

(xxxv) information and instructions on the carriage of dangerous goods, including action to be taken in the event of an emergency;

(xxxvi) security instructions and guidance; and

(xxxvii) the search procedure checklist;

*(b)* Aircraft operating information—

(i) certification limitations and operating limitations;

(ii) the normal, abnormal and emergency procedures to be used by the flight crew and the checklists relating thereto;

(iii) operating instructions and information on climb performance with all engines operating if provided;

(iv) flight planning data for pre-flight and in-flight planning with different thrust/power and speed settings;

(ivA) the maximum crosswind and tailwind components for each aeroplane type operated and the reductions to be applied to these values having regard to gusts, low visibility, runway surface conditions, crew experience, use of autopilot, abnormal or emergency circumstances, or any other relevant operational factors;

(v) instructions and data for mass and balance calculations;

(vi) instructions for aircraft loading and securing of load;

(vii) aircraft systems, associated controls and instructions for their use;

(viii) the minimum equipment list and configuration deviation list for the aeroplane types operated and specific operations authorised, including any requirements relating to operations in RNP airspace;

(ix) checklist of emergency and safety equipment and instructions for its use;

(x) emergency evacuation procedures, including type specific procedures, crew co-ordination, assignment of crew's emergency positions and the emergency duties assigned to each crew member;

(xi) the normal, abnormal and emergency procedures to be used by the cabin crew, the checklists relating thereto and aircraft systems information as required, including a statement related to the necessary procedures for the co-ordination between flight and cabin crew;

(xii) survival and emergency equipment for different routes and the necessary procedures to verify its normal functioning before take-off, including procedures to determine the required amount of oxygen and the quantity available; and

(xiii) the ground-air visual signal code for use by survivors, as contained in Annex 12 to the Convention on International Civil Aviation;

*(c)* Areas, routes and aerodromes—

(i) a route guide to ensure that the flight crew will have, for each flight, information relating to communication facilities, navigation aids, aerodromes, instrument approaches, instrument arrivals and instrument

departures as applicable for the operation, and such other information as the operator may deem necessary for the proper conduct of flight operations;

(ii) the minimum flight altitudes for each route to be flown;

(iii) aerodrome operating minima for each of the aerodromes that are likely to be used as aerodromes of intended landing or as alternate aerodromes;

(iv) the increase of aerodrome operating minima in case of degradation or approach or aerodrome facilities;

(v) the necessary information for compliance with all flight profiles required by regulations, including but not limited to, the determination of—

(A) take-off runway length requirements for dry, wet and contaminated conditions, including those dictated by system failures which affect the take-off distance;

(B) take-off climb limitations;

(C) en route climb limitations;

(D) approach climb limitations and landing climb limitations;

(E) landing runway length requirements for dry, wet and contaminated conditions, including systems failures which affect the landing distance; and

(F) supplementary information, such as tyre speed limitations; and

*(d)* Training—

(i) details of the flight crew training programme;

(ii) details of the cabin crew duties training programme; and

(iii) details of the flight operations officer or flight dispatcher training programme when employed in conjunction with a method of flight supervision.

Note: *An Operational Manual may be issued in separate parts corresponding to the specific aspects of operations, provided in accordance with regulation 34.*

**PART B**

## ORGANISATION AND CONTENTS OF AN OPERATIONS MANUAL FOR OPERATOR OF A HELICOPTER

An operator of a helicopter shall ensure that his Operations Manual which may be issued in separate parts corresponding to specific aspects of the operations is organised in accordance with the structure and contents provided as follows:

**1. Structure:**

*(a)* General;

*(b)* Aircraft operating information;

*(c)* Areas, routes and aerodromes; and

*(d)* Training.

**2. The Minimum Contents of Structure**:

*(a)* General—

(i) instructions outlining the responsibilities of operations personnel pertaining to the conduct of flight operations;

(ii) rules limiting the flight time and flight duty periods and providing for adequate rest periods for flight crew members and cabin crew;

(iii) a list of the navigational equipment to be carried on board the helicopter;

(iv) the circumstances in which a radio listening watch is to be maintained;

(v) the method for determining minimum flight altitudes;

(vi) the methods for determining heliport operating minima;

(vii) safety precautions during refuelling with passengers on board;

(viii) ground handling arrangements and procedures;

(ix) procedures as prescribed in Annex 12 to the Convention on International Civil Aviation for pilots in command observing an accident;

(x) the flight crew for each type of operation including the designation of the succession of command;

(xi) specific instructions for the computation of the quantities of fuel and oil to be carried, having regard to all circumstances of the operation including the possibility of loss of pressurisation and the failure of one or more power units while en route;

(xii) the conditions under which oxygen shall be used and the procedure for determining the amount of oxygen to be carried;

(xiii) instructions for mass and balance control;

(xiv) instructions for the conduct and control of ground de-icing and anti-icing operations;

(xv) the specifications for the operational flight plan;

(xvi) standard operating procedures for each phase of flight;

(xvii) instructions on the use of normal checklists and the timing of their use;

(xviii) departure contingency procedures;

(xix) instructions on the maintenance of altitude awareness;

(xx) instructions on the clarification and acceptance of Air Traffic Control clearances, particularly where terrain clearance is involved;

(xxi) departure and approach briefings;

(xxii) route and destination familiarisation;

(xxiii) conditions required to commence or to continue an instrument approach;

(xxiv) instructions for the conduct of precision and non-precision instrument approach procedures;

(xxv) allocation of flight crew duties and procedures for the management of crew workload during night and Instrument Meteorological Conditions instrument approach and landing operations;

(xxvi) information and instructions relating to the interception of civil aircraft including—

(A) procedures, for pilots in command of intercepted aircraft; and

(B) visual signals for use by intercepting and intercepted aircraft,

as required by the Civil Aviation [(No. 2) Operations] Regulations; Sub. Leg.

(xxvii) details of the accident prevention and flight safety programme provided in accordance with regulation 37, including a statement of safety policy and the responsibility of personnel;

(xxviii) information and instructions on the carriage of dangerous goods, including action to be taken in the event of an emergency;

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(xxix) security instructions and guidance; and
(xxx) the search procedure checklist;

Note: *Guidance material on the development of policies and procedures for dealing with dangerous goods incidents on board aircraft is contained in Emergency Response Guidance for Aircraft Incidents involving Dangerous Goods (Doc 9481).*

*(b)* Aircraft operating information—
(i) certification limitations and operating limitations;
(ii) the normal, abnormal and emergency procedures to be used by the flight crew and the checklists relating thereto;
(iii) flight planning data for pre-flight and in-flight planning with different thrust or power and speed settings;
(iv) instructions and data for mass and balance calculations;
(v) instructions for aircraft loading and securing of load;
(vi) aircraft systems, associated controls and instructions for their use;
(vii) the minimum equipment list for the helicopter types operated and specific operations authorised;
(viii) checklist of emergency and safety equipment and instructions for its use;
(ix) emergency evacuation procedures, including type-specific procedures, crew co-ordination, assignment of crew's emergency positions and the emergency duties assigned to each crew member;
(x) the normal, abnormal and emergency procedures to be used by the cabin crew, the checklists relating thereto and aircraft systems information as required, including a statement related to the necessary procedures for the co-ordination between flight and cabin crew;
(xi) survival and emergency equipment for different routes and the necessary procedures to verify its normal functioning before take-off, including procedures to determine the required amount of oxygen and the quantity available; and
(xii) the ground-air visual signal code for use by survivors, as contained in Annex 12 to the Convention on International Civil Aviation;

*(c)* Routes and aerodromes—
(i) a route guide to ensure that the flight crew will have, for each flight, information relating to communication facilities, navigation aids, aerodromes, instrument

approaches, instrument arrivals and instrument departures as applicable for the operation, and such other information as the operator may deem necessary for the proper conduct of flight operations;

(ii) the minimum flight altitudes for each route to be flown;

(iii) heliport operating minima for each of the heliports that are likely to be used as heliports of intended landing or as alternate heliports; and

(iv) the increase of heliport operating minima in case of degradation of approach or heliport facilities; and

*(d)* Training—

(i) details of the flight crew training programme and requirements;

(ii) details of the cabin crew duties training programme; and

(iii) details of the flight operations officer or flight dispatcher training programme when employed in conjunction with a method of flight supervision.

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## SCHEDULE 4

Regulation 38(1). [224/2005 47/2007].

The following items shall be included in the Training Programme Manual of a national air operator:

## TRAINING SYLLABI

### 1.1 General Requirements

Training Syllabi for all operations personnel assigned to operational duties in connection with the preparation and conduct of a flight shall be developed to meet the respective requirements of the Authority. A national air operator shall not use, nor may any person serve in a required crew member capacity or operational capacity unless that person meets the training and currency requirements established by the Authority for that respective position.

### 1.2 Flight Crew

The training syllabi for flight crew members shall include—

*(a)* a written training acceptable to the authority that provides for initial, transition, difference, and recurrent training, as appropriate, for flight deck crew members for each type of aircraft flown by that crew member. This written training shall include both normal and emergency procedures training applicable for each type of aircraft flown by the crew member;

*(b)* adequate ground and flight training facilities and properly qualified instructors required to meet training objectives and needs;

*(c)* a current list of approved training materials, equipment, training devices, simulators, and other required training items needed to meet the training needs for each type and variation of aircraft flown by the national air operator;

*(d)* adequate numbers of ground, flight, and check pilots to ensure adequate training and flight testing of flight crew members;

*(e)* a record system acceptable to the authority to show compliance with appropriate training and currency requirements;

*(f)* include proper flight crew co-ordination and training in all types of emergency and abnormal situations or procedures caused by power plant, airframe or systems malfunctions, fire or other abnormalities;

*(g)* include training in knowledge and skills related to visual and instrument flight procedures for the intended area of operation, human performance including threat and error management and in the transport of dangerous goods;

*(h)* ensure that all flight crew members know the functions for which they are responsible and the relation of these functions to the functions of other crew members, particularly in regard to abnormal or emergency procedures;

*(i)* be given on a recurrent basis, as determined by the Authority and shall include an assessment of competence; and

*(j)* the requirement for recurrent flight training in a particular type of aircraft shall be considered fulfilled by—

(i) the use, to the extent deemed feasible by the Authority, of flight simulation training devices approved for that purpose; or

(ii) the completion within the appropriate period of the proficiency check in that type of aircraft.

**1.3 Cabin Crew**

The training syllabi for cabin crew members shall include—

*(a)* basic initial ground training covering duties and responsibilities;

*(b)* appropriate authority rules and regulations;

*(c)* appropriate portions of the operating manual of a national air operator;

*(d)* appropriate emergency training as required by the authority and the operating manual of a national air operator;

*(e)* appropriate flight training;

*(f)* appropriate recurrent, upgrade, or difference training, as required, to maintain currency in both type and any variance

the crew member may be required to work in; and

*(g)* maintain a training record system acceptable to the authority to show compliance with all required training.

**1.4 All Aircraft Crew**

The written training shall be developed for all aircraft crew members in the emergency procedures appropriate to each make and model of aircraft flown in by the crew member. Areas shall include—

*(a)* instruction in emergency procedures, assignments and crew co-ordination;

*(b)* individual instruction in the use of onboard emergency equipment such as fire extinguishers, emergency breathing equipment, first aid equipment and its proper use, emergency exits and evacuation slides, and the aircraft's oxygen system including the use of portable emergency oxygen bottles. Flight deck crew members shall also practise using their emergency equipment designed to protect them in case of a cockpit fire or smoke;

*(c)* training shall also include instruction in potential emergencies such as rapid decompression, ditching, firefighting, aircraft evacuation, medical emergencies, hijacking, and disruptive passengers; and

*(d)* scheduled recurrent training to meet authority requirements.

**1.5 All operations personnel**

The training syllabi for all operations personnel shall include—

*(a)* Training in the safe transportation and recognition of all dangerous goods permitted by the Authority to be shipped by air. Training shall include the proper packaging, marking, labelling, and documentation of dangerous articles and magnetised materials;

*(b)* All appropriate security training required by the Authority; and

*(c)* A method of providing any required notification of an accident or incident involving dangerous goods.

**1.6 Operations personnel other than aircraft crew**

Operations personnel other than aircraft crew (e.g., flight operations officer, handling personnel etc.), a written training shall be developed that pertains to their respective duties. The training shall provide for initial recurrent, and any required upgrade training.

**2.0 Procedures for training and checking**

**2.1 Proficiency checking procedures**

Procedures to be applied in the event that personnel do not achieve or maintain the required standards.

**2.2 Procedures involving the simulation of abnormal or emergency situations**

Procedures to ensure that abnormal or emergency situations requiring the application of part or all abnormal or emergency procedures, and simulation of Instrument Meteorological Conditions by artificial means, are not simulated during commercial air transportation flights.

**3.0 Document retention**

**3.1 Documentation to be stored and storage periods**

A national air operator shall retain all documentation required by appropriate Authority or the Authority of a foreign country in which the national air operator is operating for the time specified by the respective Authority or for the time period needed to show compliance with appropriate regulations or this operations manual, which is longer.

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Regulation 51(1)).

## SCHEDULE 5

The following are the approved sources for weather reports under regulation 51:

*(a)* Trinidad and Tobago Meteorological Services at Piarco International Airport;

*(b)* observations taken by Piarco and Crown Point Airport traffic control tower;

*(c)* Trinidad and Tobago-contracted weather observatories;

*(d)* any active meteorological office listed in the Meteorological tables located in Civil Aviation Regional Navigational Plans;

*(e)* any military weather reporting sources approved by the Authority, but limited to control of those flight operations which use military airports as departure, destination, alternate, or diversionary airports;

*(f)* near real time reports such as pilot reports, radar reports, radar summary charges, and satellite imagery reports made by commercial weather source or other sources specifically approved by the Authority; and

*(g)* a national air operator operated and maintained weather-reporting system approved by the Authority.

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## SCHEDULE 6

Regulation 54(5).

An Aircraft Operating Manual under regulation 54 shall include the following items:

**1.0 General information and units of measurement**

**1.1 General Information** (e.g., aircraft dimensions), including a description of the units of measurement used for the operation of the aircraft type concerned and conversion tables.

**2.0 Limitations**

**2.1 Certification and operational limitations**

A description of the certified limitations and the applicable operational limitations including—

*(a)* certification status;
*(b)* passenger seating configuration for each aircraft type including a pictoral presentation;
*(c)* types of operation that are approved (for example, instrument flight rules/visual flight rules, cat ii, cat iii, flights in known icing conditions);
*(d)* crew composition;
*(e)* operating within mass and centre of gravity limitations;
*(f)* speed limitations;
*(g)* flight envelopes;
*(h)* wind limits including operations on contaminated runways;
*(i)* performance limitations for applicable configurations;
*(j)* runway slope;
*(k)* limitations on wet or contaminated runways;
*(l)* airframe contamination; and
*(m)* post landing.

**3.1 Normal Procedures**

The normal procedures and duties assigned to the crew, the appropriate checklists, the system for use of the checklists and a statement covering the necessary co-ordination procedures between flight and cabin crew. The following normal procedures and duties shall be included:

*(a)* pre-flight;
*(b)* pre-departure and loading;
*(c)* altimeter setting and checking;

*(d)* taxi, take-off and climb;
*(e)* noise abatement;
*(f)* cruise and descent;
*(g)* approach, landing preparation and briefing;
*(h)* visual flight rules approach;
*(i)* instrument approach;
*(j)* visual approach and circling;
*(k)* missed approach;
*(l)* normal landing;
*(m)* post landing; and
*(n)* operation on wet and contaminated runways.

**3.2 Specific flight deck procedures**

*(a)* determining airworthiness of aircraft;
*(b)* obtaining flight release;
*(c)* initial cockpit preparation;
*(d)* standard operating procedures;
*(e)* cockpit discipline;
*(f)* standard call-outs;
*(g)* communications;
*(h)* flight safety;
*(i)* push-back and towing procedures;
*(j)* taxi guidelines and ramp signals;
*(k)* take-off and climb out procedures;
*(l)* choice of runway;
*(m)* take-off in adverse weather;
*(n)* use and limitations of weather radar;
*(o)* use of landing lights;
*(p)* monitoring of flight instruments;
*(q)* power settings for take-off;
*(r)* malfunctions during take-off;
*(s)* rejected take-off decision;
*(t)* climb, best angle, best rate;
*(u)* sterile cockpit procedures;
*(v)* en route and holding procedures;
*(w)* cruise control;
*(x)* navigation log book;
*(y)* descent, approach and landing procedures;

*(z)* standard call-outs;

*(aa)* reporting maintenance problems; and

*(bb)* how to obtain maintenance and service en route.

**4.0 Abnormal and emergency procedures**

**Abnormal and emergency procedures and duties**

The manual shall contain a listing of abnormal and emergency procedures assigned to crew members with appropriate checklists that include a system for use of the checklists and a statement covering the necessary co-ordination procedures between flight and cabin crew. The following abnormal and emergency procedures and duties shall be included:

*(a)* crew incapacitation;

*(b)* fire and smoke drills;

*(c)* unpressurised and partially pressurised flight;

*(d)* exceeding structural limits such as overweight landing;

*(e)* exceeding cosmic radiation limits;

*(f)* lightning strikes;

*(g)* distress communications and alerting air traffic control to emergencies;

*(h)* engine failure;

*(i)* system failures;

*(j)* guidance for diversion in case of serious technical failure;

*(k)* ground proximity warning;

*(l)* TCAS warning;

*(m)* windshear; and

*(n)* emergency landing and ditching;

*(o)* aircraft evacuation;

*(p)* fuel jettisoning and overweight landing:

(i) general considerations and policy;

(ii) fuel jettisoning procedures and precautions;

*(q)* emergency procedures:

(i) emergency descent;

(ii) low fuel;

(iii) dangerous goods incident or accident;

*(r)* interception procedures;

*(s)* emergency signal for cabin crews;

*(t)* communication procedures; and

*(u)* radio listening watch.

**5.0 Performance Data**

Performance data shall be provided in a form in which it can be used without difficulty.

**5.1 Performance data**

Performance material which provides the necessary data to allow the flight crew to comply with the approved aircraft flight manual performance requirements shall be included to allow the determination of—

*(a)* take-off climb limits—mass, altitude, temperature;

*(b)* take-off field length (dry, wet, contaminated);

*(c)* net flight path data for obstacle clearance calculation or, where applicable, take-off flight path;

*(d)* the gradient losses for banked climb outs;

*(e)* en route climb limits;

*(f)* approach climb limits;

*(g)* landing climb limits;

*(h)* landing field length (dry, wet, contaminated) including the effects of an inflight failure of system or device, if it affects the landing distance;

*(i)* brake energy limits; and

*(j)* speeds applicable for the various flights stages (also considering wet or contaminated runways).

**5.1.1 Supplementary performance data**

Supplementary data covering flights in icing conditions. Any certified performance related to an allowable configuration, or configuration deviation, such as anti-skid inoperative, shall be included.

**5.1.2 Other acceptable performance data**

If performance data, as required for the appropriate performance class, is not available in the approved Aircraft Flight Manual, then other data acceptable to the Authority shall be included. Alternatively, the operations manual may contain cross-reference to the approved data contained in the Aircraft Flight Manual where such data is not likely to be used often or in an emergency.

**5.2 Additional performance data**

Additional performance data where applicable including—

*(a)* all engine climb gradients;

*(b)* drift-down data;

*(c)* effect of de-icing or anti-icing fluids;

*(d)* flight with landing gear down;

*(e)* for aircraft with three or more engines, one engine inoperative ferry flights; and

*(f)* flights conducted under the provisions of a configuration deviation list.

**6.0 Flight plannings**

**6.1 Flight planning data**

Data and instructions necessary for pre-flight and in-flight planning including factors such as speed schedules and power settings. Where applicable, procedures for engine(s) out operations, Extended Twin-engine Operations flights to isolated airports shall be included.

**6.2 Fuel calculation**

The method for calculating fuel needed for the various stages of flight.

**7.0 Mass and balance**

**7.1 Calculating mass and balance**

Instructions and data for the calculation of mass and balance including—

*(a)* calculation system (e.g., index system);

*(b)* information and instructions for completion of mass and balance documentation, including manual and computer generated types;

*(c)* limiting mass and centre of gravity of the various versions;

*(d)* dry operating mass and corresponding centre of gravity or index.

**8.0 Loading**

**8.1 Loading Procedures**

Procedures and provisions for loading and securing the load in the aircraft.

**8.2 Loading dangerous goods**

The operations manual shall contain a method to notify the pilot in command when dangerous goods is loaded in the aircraft.

**9.0 Survival and emergency equipment including oxygen**

**9.1 List of survival equipment to be carried**

A list of the survival equipment to be carried for the routes to be flown and the procedures for checking the serviceability of this equipment prior to take-off. Instructions regarding the location, accessibility and use of survival and emergency equipment and its associated checklist(s) shall also be included.

**9.2 Oxygen usage**

The procedure for determining the amount of oxygen required and the quantity that is available. The flight profile, number of occupants and possible cabin decompression shall be considered. The information provided shall be in a form in which it can be used without difficulty.

**9.3 Emergency equipment usage**

A description of the proper use of the following emergency equipment:

*(a)* life jackets;
*(b)* life rafts;
*(c)* medical kits and first aid kits;
*(d)* survival kits;
*(e)* emergency locator transmitter;
*(f)* visual signalling devices;
*(g)* evacuation slides; and
*(h)* emergency lighting.

**10.0 Emergency evacuation procedures**

**10.1 Instructions for emergency evacuation**

Instructions for preparation for emergency evacuation including, crew co-ordination and emergency station assignment.

**10.2 Emergency evacuation procedures**

A description of the duties of all members of the crew for the rapid evacuation of an aircraft and the handling of the passengers in the event of a forced landing, ditching or other emergency.

**11.0 Aircraft systems**

**11.1 Aircraft systems**

A description of the aircraft systems, related controls and indications and operating instructions.

**12.0 Route and airport instructions and information (optional for this manual)**

**12.1 Instructions and information**

Instructions and information relating to communications, navigation and airports including minimum flight levels and altitudes for each route to be flown and operating minima for each airport planned to be used, including—

*(a)* minimum flight level/altitude;

*(b)* operating minima for departure, destination and alternate airports;

*(c)* communication facilities and navigation aids;

*(d)* runway data and airport facilities;

*(e)* approach, missed approach and departure procedures including noise; abatement procedures;

*(f)* communications-failure procedures;

*(g)* search and rescue facilities in the area over which the aircraft is to be flown;

*(h)* a description of the aeronautical charts that shall be carried on board in relation to the type of flight and the route to be flown, including the method to check their validity;

*(i)* availability of aeronautical information and meteorological services;

*(j)* en route communication and navigation procedures, including holding; and

*(k)* airport categorisation for flight crew competence qualification.

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## SCHEDULE 7

Regulation 57(2).

## AERONAUTICAL DATA CONTROL SYSTEM

The aeronautical data required to be provided under regulation 57(2) shall include in relation to—

*(a)* airports the following:

(i) facilities;

(ii) navigational and communications aids;

(iii) construction affecting take-off, landing, or ground operations; and

(iv) air traffic facilities;

*(b)* runways, clearways and stopways the following:

(i) dimensions;

(ii) surface;
(iii) markings and lighting systems; and
(iv) elevations and gradient;

*(c)* displaced thresholds the following:
(i) locations;
(ii) dimensions; and
(iii) take-off or landing or both;

*(d)* obstacles the following:
(i) those affecting take-off and landing performance computations;
(ii) controlling obstacles;
(iii) departure procedure;
(iv) instruments flight procedures
(v) approach procedure; and
(vi) missed approach procedure; and

*(e)* special information the following:
(i) runway visual range measurement equipment; and
(ii) prevailing winds under low visibility conditions.

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Regulation 65.

## SCHEDULE 8

The following syllabus with appropriate updating, shall be used as a basis a security training programme:

*(a)* security of the flight crew compartment;
*(b)* aeroplane search procedure checklist;
*(c)* determination of the seriousness of any occurrence;
*(d)* crew communication and co-ordination;
*(e)* appropriate self-defence responses;
*(f)* use authorised by the state of the operator of non-lethal protective devices assigned to crew members;
*(g)* understanding of behaviour of terrorists so as to facilitate the ability of crew members to cope with hijacking behaviour and passenger responses;
*(h)* live situational training exercises regarding various threat conditions;
*(i)* flight crew compartment procedure to protect the aeroplane; and
*(j)* post flight concerns for the crew.

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## SCHEDULE 9

Regulation 76(5).

The following items shall be included in the Maintenance Control Manual of a national air operator:

## PART I: GENERAL ORGANISATION

1.1 Corporate commitment by the air operator.

1.2 General information:

*(a)* brief description of organisation;
*(b)* relationship with other organisations;
*(c)* fleet composition—type of operation; and
*(d)* line station locations.

1.3 Maintenance management personnel:

*(a)* accountable manager;
*(b)* nominated postholder;
*(c)* maintenance co-ordination;
*(d)* duties and responsibilities;
*(e)* organisation chart(s); and
*(f)* manpower resources and training policy.

1.4 Notification procedure to the Authority regarding changes to the maintenance arrangements.

1.5 Manual amendment procedures.

## PART 2: MAINTENANCE PROCEDURES

2.1 Aircraft logbook utilisation and Minimum Equipment List application.

2.2 Aircraft maintenance—development and amendment.

2.3 Time and maintenance records, responsibilities, retention.

2.4 Accomplishment and control of mandatory continued airworthiness information (Airworthiness Directives).

2.5 Analysis of the effectiveness of the maintenance.

2.6 Non-mandatory modification embodiment policy.

2.7 Major modification standards.

2.8 Defect reports:

*(a)* Analysis;

*(b)* liaison with manufacturers and regulatory authorities; and

*(c)* deferred defect policy.

2.9 Engineering activity:

*(a)* Reliability;

*(b)* airframe;

*(c)* propulsion;

*(d)* components.

2.10 Pre-flight inspection:

*(a)* preparation of aircraft for flight;

*(b)* sub-contracted ground handling functions;

*(c)* security of cargo and baggage loading;

*(d)* control of refuelling, quantity/quality; and

*(e)* control of snow, ice, dust and sand contamination.

2.11 Aircraft weighing.

2.12 Flight test procedures.

2.13 Sample of documents, tags and forms used.

2.14 Flight test procedures.

2.15 Appropriate portions of the operating manual of the air operator.

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Regulation 95(1). [224/2005 187/2006].

## SCHEDULE 10

## IMPLEMENTING STANDARDS

The following standards are numbered to correspond numerically with the relevant provisions in the Regulations:

**Regulation 14**

A national air operator shall ensure that his recruitment of Management Personnel meets the following minimum standards.

A national air operator shall make the following arrangements to ensure continuity of supervision where operations are conducted in the absence of any required management personnel:

*(a)* required management personnel shall be contracted to work sufficient hours such that the management functions are fulfilled;

*(b)* a person serving in a required management position for a national air operator shall not serve in a similar position for any other air operator, unless a deviation is issued by the Authority;

*(c)* unless a deviation is issued by the Authority, the minimum initial qualifications for a Director of Operations are as follows:

(i) holds or has held the appropriate licence and ratings for which a pilot in command is required to hold for one of the aeorplanes operated;

(ii) has acquired not less than three years related managerial experience with a commercial air operator whose flight operations are similar in size and scope; and

(iii) demonstrates knowledge to the Authority with respect to the content of the Operations Manual, the Air Operator Certificate, operations specifications, regulations and standards necessary to carry out the duties and responsibilities to ensure safety and the maintenance of the Air Operator Certificates.

*(d)* unless a deviation is issued by the Authority, the minimum qualifications for a Chief Pilot are—

(i) an Airline Transport Licence with the appropriate ratings for at least one of the aircraft used in the air operator's operations; and

(ii) three years experience as pilot in command in commercial air transport operations.

Note: *The Authority may accept a commercial pilot licence with instrument rating in lieu of the Airline Transport Pilot licence where the pilot in command requirements for the operations conducted require only a commercial certificate.*

*(e)* unless a deviation is issued by the Authority, the minimum qualifications for a Director of Safety is extensive operational experience normally achieved as a flight deck crew member or equivalent experience in aviation technical management;

*(f)* unless a deviation is issued by the Authority, the minimum entry qualifications for a Director of Maintenance and Quality Manager are—

(i) an Aircraft Maintenance Engineer (transport) Licence; and

(ii) three years experience in maintaining the same aircraft category and aircraft class used by the air operator including one year in the capacity of returning aircraft to service;

*(g)* a national air operator may employ a person who does not meet the appropriate airman qualification or experience where the Authority issues a deviation finding that that person has comparable experience and can effectively perform the required management functions.

**Regulation 15**

A national air operator shall ensure that his Company Procedures Indoctrination training meets the following minimum standards:

*(a)* national air operators organisation, scope of operation and maintenance, and administrative practices as applicable to their assignments and duties;

*(b)* appropriate provisions of these regulations and other applicable regulations and guidance materials;

*(c)* national air operator policies and procedures; and

*(d)* appropriate portions of the air operator's operations manual and maintenance control manual.

**Regulation 22**

1. A national air operator shall in dry leasing an aircraft for the purpose of commercial air transportation to any air operator of a State which is signatory to the Chicago Convention ensure that he meets the following minimum standards:

*(a)* the aircraft carries an appropriate airworthiness certificate issued, in accordance with International Civil Aviation Organisation Annex 8, by the country of registration and meets the registration and identification requirements of that country;

*(b)* the aircraft is of a type design which complies with all of the requirements that would be applicable to that aircraft were it registered in Trinidad and Tobago, including the requirements which shall be met for issuance of a Trinidad and Tobago standard airworthiness certificate (including type design conformity, condition for safe operation, and the noise, fuel venting, and engine emission requirements);

*(c)* the aircraft is maintained according to an approved maintenance programme; and

*(d)* the aircraft is operated by Trinidad and Tobago-certified airmen employed by the air operator.

2. A national air operator shall provide the Authority with a copy of the dry lease to be executed.

3. Operational control of any dry leased aircraft rests with the air operator operating that aircraft.

4. The Authority will remove a dry leased aircraft from the lessor air operator's operations specifications and list it on the foreign air operator lessee's operations specifications.

5. A national air operator engaged in dry leasing aircraft shall make the dry lease agreement explicit concerning the maintenance and Minimum Equipment List to be followed during the term of the dry lease.

6. An application from a national air operator for an authorisation permitting the operation of a leased aircraft shall meet the following requirements:

*(a)* a national air operator who leases a Trinidad and Tobago aircraft from another national air operator shall provide evidence establishing that—

(i) throughout the term of the lease, the aircraft—

(A) will be in the legal custody and control of the lessee; and

(B) will not be made the subject of another lease during the term of the lease authorised for that aircraft;

(ii) the lessor and the lessee of the aircraft each hold a Trinidad and Tobago Air Operator Certificate or a flight training unit operator certificate;

(iii) the lessee or lessor is responsible for the maintenance of the aircraft in accordance with the applicable standards of airworthiness and the maintenance control system and the maintenance schedules approved by the Authority and any requirements set out in the authorisation issued;

(iv) the aircraft crew members are in the employ of the lessee; and

(v) the application form prescribed by the Authority duly completed and signed in ink;

*(b)* a foreign air operator who leases a Trinidad and Tobago registered commercial aircraft from a national air operator, shall provide evidence establishing that—

(i) throughout the term of the lease, the aircraft—

(A) will be registered to the lessor as a commercial aircraft,

(B) will be in legal custody and control of the lessee, and

(C) will not be made the subject of another lease during the term of the lease authorised for that aircraft;

(ii) the Trinidad and Tobago lessor holds a Trinidad and Tobago Air Operator Certificate or a person holding a Trinidad and Tobago Aviation Training Organisation Certificate issued in respect of the aircraft type that is being leased;

(iii) the lessee—

(A) is a citizen or subject of a foreign state or an entity incorporated or formed by or under the laws of a foreign Contracting State;

(B) holds a national air operator certificate or equivalent document, issued by the foreign Contracting State in respect of the aircraft type being leased;

(C) will operate the aircraft on a charter service, or other commercial air service approved by Trinidad and Tobago; and

(D) has demonstrated the ability and qualification to maintain the aircraft in accordance with the maintenance control system and approved maintenance schedules;

(iv) an indication in the application as to—

(A) the location at which the aircraft will have its operations base during the term of the lease;

(B) each location at which the aircraft will have a maintenance base during the term of the lease; and

(C) which, the lessor or the lessee, will be responsible for the maintenance of the aircraft during the term of the lease in accordance with the applicable standards of airworthiness and the maintenance control system and the maintenance schedules approved by the Authority;

(v) the lessee's main operations base, during the term of the lease, will be located in the State of the lessee;

(vi) the aircraft—

(A) has a valid certificate of airworthiness;

(B) will not undergo modification unless it is authorised by the Authority;

(C) will continue to meet the maintenance control system and the maintenance schedules approved by the Authority;

(D) will be maintained during the term of the lease, in a configuration that complies with its type approval or such other equivalent document; and

(E) will be maintained in accordance with an inspection programme approved by the Authority and any additional requirements set out in the authorisation issued;

(vii) every crew member assigned to the aircraft by the lessee—

(A) where the aircraft will be operated solely within the state of the lessee, holds the licence appropriate to the crew member's duties, issued by Trinidad and Tobago or the state of the lessee;

(B) where the aircraft will be operated outside the state of the lessee, holds the licence appropriate to the crew member's duties issued by Trinidad and Tobago or issued by the state of the lessee and validated by Trinidad and Tobago;

(C) where the aircraft will be operated outside the state of the lessee and that foreign state is not a Contracting State, holds the licence appropriate to the crew member's duties issued by Trinidad and Tobago; and

(D) in the case of a large aircraft, every crew member other than a flight crew member has received training equivalent to that described in Chapter 12, Part 1 of Annex 6 to the Convention On International Civil Aviation;

(viii) the application form prescribed by the Authority duly is completed and signed in ink by the applicant or his lawful agent;

*(c)* a national air operator who leases an aircraft that is registered in a Foreign State, provides evidence establishing that—

(i) the aircraft—

(A) is of a type and model designation to be eligible for a Trinidad and Tobago certificate of airworthiness and complies with all environmental and operational requirements;

(B) is registered in a foreign Contracting State;

(C) has a valid certificate of airworthiness issued in respect of the aircraft by the State of Registry; and

(D) will not be made the subject of another lease during the term of the lease authorised by the Authority for that aircraft;

(ii) the lessee holds a Trinidad and Tobago Air Operator Certificate or an Aviation Training Organisation Certificate;

(iii) the lessee provides the Authority with evidence that—

(A) the aircraft complies with the type approval issued in respect of the aircraft or other equivalent document and meets the applicable standards of airworthiness and maintenance control system and the maintenance schedules approved by the Authority; and

(B) the lease will not affect the registration of the aircraft or the certificate of airworthiness issued in respect of the aircraft by the State of Registry;

(iv) the aircraft crew members are in the employ of the lessee;

(v) during the term of the lease authorised by the Authority, the aircraft—

(A) will be in the legal custody and control of the lessee;

(B) will be maintained in accordance with the applicable standards of airworthiness and maintenance control system and the maintenance schedules approved by the Authority; and

(C) will be maintained in accordance with an inspection programme approved by the

Authority and any requirements set out in the authorisation issued;

(vi) the application form prescribed by the Authority is duly completed and signed by the applicant or his lawful agent in ink.

**Regulation 27**

A national air operator shall in operating under an interchange agreement ensure that he meets the following minimum standards:

*(a)* before operating under an interchange agreement, a national air operator shall show that—

(i) the procedures for the interchange operation conform to safe operating practices;

(ii) required crew members and flight operations officers meet approved training requirements for the aircraft and equipment to be used and are familiar with the communications and dispatch procedures to be used;

(iii) maintenance personnel meet training requirements for the aircraft and equipment, and are familiar with the maintenance procedures to be used;

(iv) flight crew members and flight operations officers meet appropriate route and airport qualifications;

(v) the aircraft to be operated are essentially similar to the aircraft of the national air operator with whom the interchange is effected; and

(vi) the arrangement of flight instruments and controls that are critical to safety are essentially similar, unless the authority determines that the air operator has adequate training as to insure that any potentially hazardous dis-similarities are safely overcome by flight crew familiarisation;

*(b)* a national air operator conducting an interchange agreement shall include the pertinent provisions and procedures of the agreement in his manuals;

*(c)* the national air operator shall amend his operations specifications to reflect an interchange agreement; and

*(d)* the national air operator shall comply with the applicable regulations of the State of Registry of an aircraft involved in an interchange agreement while he has operational control of that aircraft.

**Regulation 28**

A national air operator shall in wet leasing an aircraft for the purpose of commercial air transportation to any air operator of a State which is signatory to the Chicago Convention ensure that he meets the following minimum standards:

*(a)* a national air operator shall provide the Authority with a copy of the wet lease to be executed;

*(b)* the Authority will determine which party to a wet lease agreement has operational control considering the extent and control of certain operational functions such as—

(i) initiating and terminating flights;

(ii) maintenance and servicing of aircraft;

(iii) scheduling crew members;

(iv) paying crew members; and

(v) training crew members;

*(c)* a national air operator engaged in a wet leasing arrangement shall amend its operations specifications to contain the following information:

(i) the names of the parties to the agreement and the duration of the agreement;

(ii) the make, model, and series of each aircraft involved in the agreement;

(iii) the kind of operation;

(iv) the expiration date of the lease agreement;

(v) a statement specifying the party deemed to have operational control;

(vi) any other item, condition, or limitation the authority determines necessary.

**Regulation 29**

A national air operator shall in conducting partial emergency evacuation and ditching demonstration ensure that he meets the following minimum standards:

*(a)* a national air operator shall conduct a partial emergency evacuation and ditching evacuation, observed by the Authority, that demonstrates the effectiveness of its crew member emergency training and evacuation procedures;

*(b)* prior to conducting an emergency evacuation demonstration, the national air operator shall apply for and obtain approval from the Authority;

*(c)* cabin crews used in the emergency evacuation demonstrations shall—

(i) be selected at random by the Authority;

(ii) have completed the national air operator training approved by the Authority for the type and model of aircraft; and

(iii) have passed the drills and competence check on the emergency equipment and procedures;

*(d)* to conduct the partial emergency evacuation demonstration, the assigned cabin crews of the national air operator shall, using the line operating procedures of the national air operator—

(i) demonstrate the opening of fifty per cent of the required floor-level emergency exits and fifty per cent of the required non-floor-level emergency exits (whose opening by a cabin crew is defined as an emergency evacuation duty) and deployment of fifty per cent of the exit slides, selected by the Authority; and

(ii) prepare for use those exits and slides within fifteen seconds;

*(e)* to conduct the ditching evacuation demonstration, the assigned cabin crew of the air operator shall—

(i) demonstrate their knowledge and use of each item of required emergency equipment;

(ii) prepare the cabin for ditching within six minutes after the intention to ditch is announced;

(iii) remove each life raft from storage (one life raft, selected by the Authority, shall be launched and properly inflated or one slide life raft properly inflated); and

(iv) enter the raft (the raft shall include all required emergency equipment) and completely set it up for extended occupancy.

**Regulation 30**

A national air operator shall in conducting demonstration flights ensure that he meets the following minimum standards:

*(a)* a national air operator shall conduct demonstration flights for each type of aircraft, including those aircraft materially modified in design, and for each kind of operation the national air operator intends to conduct.

*Definition: "Materially modified aircraft" refers to aircraft having power plants installed other than those for*

*which it is certified; or modifications to the aircraft or its components that materially affect flight characteristics.*

*(b)* a national air operator shall conduct demonstration flights which contain at least:

(i) one hundred total hours of flight time, unless the Authority determines that a satisfactory level of proficiency has been demonstrated in fewer hours;

(ii) five hours of night-time, if night flights are to be authorised;

(iii) five instrument approach procedures under simulated or actual instrument weather conditions, if Instrument Flight Rules flights are to be authorised; and

(iv) entry into a representative number of en route airports, as determined by the Authority;

*(c)* no person shall carry passengers in an aircraft during demonstration flights, except for those needed to make the demonstration flight and those designated by the Authority; and

*(d)* for a national air operator of an aeroplane of less than fifty-seven hundred kilogrammes, the necessity and extent of demonstration shall be at the option of the Authority.

**Regulation 34**

A national air operator shall ensure that the contents and structure of the Operations Manual meets the following minimum standards:

*(a)* a national air operator shall ensure that the contents and structure of the operations manual are in accordance with rules and Regulations of the Authority, and is relevant to the area(s) and type(s) of operation;

*(b)* a national air operator may design a manual to be more restrictive than the Authority's requirements;

*(c)* a national air operator shall ensure that the operations manual presents the items of information listed below. The manual may consist of two or more parts containing together all such information in a format and manner based upon the outline presented in paragraph *(d)*(iv) below;

*(d)* each part of the operations manual shall contain the following information required by each group of personnel addressed in that part:

(i) general policies;

(ii) duties and responsibilities of each crew member, appropriate members of the ground Organisation, and management personnel;

(iii) reference to appropriate Civil Aviation Regulations;

(iv) flight dispatching and operational control, including procedures for co-ordinated dispatch or flight control or flight following procedures and maintenance control procedures, as applicable;

(v) en route flight, navigation, and communication procedures, including procedures for the dispatch or release or continuance of flight if any item of equipment required for the particular type of operation becomes inoperative or unserviceable en route;

(vi) appropriate information from the en route specific operating provisions, including for each approved route the types of aircraft authorised, the type of operation such as Visual Flight Rules, Instrument Flight Rules, day, night, etc., and any other pertinent information;

(vii) appropriate information from the airport specific operating provisions, including for each airport—

(A) its location (domestic and international operations only);

(B) its designation (regular, alternate, provisional, etc.) (domestic and international operations only);

(C) the types of aircraft authorised (domestic and international operations only);

(D) instrument approach procedures;

(E) landing and take-off minimums; and

(F) any other pertinent information;

(viii) procedures for familiarising passengers with the use of emergency equipment, during flight;

(ix) emergency equipment and procedures;

(x) the method of designating succession of command of flight crew members;

(xi) procedures for determining the usability of landing and take-off areas, and for disseminating pertinent information thereon to operations personnel;

(xii) procedures for operating in periods of ice, hail, thunderstorms, turbulence, or any potentially hazardous meteorological condition;

(xiii) airman training programmes, including appropriate ground, flight, and emergency phases;

(xiv) procedures for refuelling aircraft, eliminating fuel contamination, protection from fire (including electrostatic protection), and supervising and protecting passengers during refuelling;

(xv) methods and procedures for maintaining the aircraft mass and centre of gravity within approved limits;

(xvi) where applicable, pilot and dispatcher route and airport qualification procedures;

(xvii) accident notification procedures;

(xviii) procedures and information to assist personnel to identify packages marked or labelled as containing hazardous materials and, if these materials are to be carried, stored, or handled, procedures and instructions relating to the carriage, storage, or handling of hazardous materials, including the following:

(A) procedures for determining the proper shipper certification and proper packaging, marking, labelling, shipping documents, compatibility of materials, and instructions on the loading, storage, and handling;

(B) notification procedures for reporting hazardous material incidents;

(C) instructions and procedures for the notification of the pilot in command when there are hazardous materials aboard; and

(D) other information or instructions relating to safety.

**Regulation 35**

A national air operator shall ensure that the journey log contains the items listed in regulation 35 (5) in the order presented.

**Regulation 36**

A national air operator shall in conducting charter flights ensure that he meets the following minimum standards:

*(a)* a national air operator shall have an approved flight following system established and adequate for the proper monitoring of each flight, considering the operations to be conducted;

*(b)* for national air operators having flight following centres, these centres shall be located at those points necessary to ensure—

(i) the proper monitoring of the progress of each flight with respect to its departure at the point of origin and arrival at its destination, including intermediate stops and diversions; and

(ii) that the pilot in command is provided with all information necessary for the safety of the flight;

*(c)* a national air operator conducting charter operations may arrange to have flight following facilities provided by persons other than its employees, but in such a case the national air operator continues to be primarily responsible for operational control of each flight;

*(d)* a national air operator conducting charter operations using a flight following system shall show that the system has adequate facilities and personnel to provide the information necessary for the initiation and safe conduct of each flight to—

(i) the flight crew of each aircraft; and

(ii) the persons designated by the certificate holder to perform the function of operational control of the aircraft;

*(e)* a national air operator conducting charter operations shall show that the personnel required to perform the function of operational control are able to perform their duties.

**Regulation 37**

A national air operator shall ensure that the contents and structure of his Accident Prevention and Flight Safety Programme meets the following minimum standards:

***National air operator Flight Safety Programme***

*(a)* a national air operator shall on a continuing basis maintain a Flight Safety Programme. This standard specifies the programme elements;

*(b)* a person accountable for managing the programme shall be appointed full-time or part-time. As an alternative, the programme may be managed by a consulting company approved by the Authority to provide flight safety services.

The individual in the consulting company who is responsible for managing the flight safety programme shall meet the qualification and training requirements of a Flight Safety Person as set out below in paragraph *(e)*, Qualifications of the Flight Safety Person, and paragraph *(g)*, Training of the Flight Safety Person, below;

***Programme elements***

*(c)* The following elements shall be included in a national air operator's Flight Safety Programme and described in the appropriate manuals:

(i) national air operator's management plan;
(ii) qualifications of the flight safety person;
(iii) responsibilities of the flight safety person;
(iv) training for the flight safety person;
(v) incident management;
(vi) flight safety committee;
(vii) emergency response planning; and
(viii) communication and safety education;

***Description of programme elements***

*(d)* National air operator's management plan:

The plan shall identify the management position responsible for ensuring that—

(i) all the necessary elements of the programme have been developed, properly integrated, and co-ordinated;
(ii) the programme has been disseminated to all appropriate personnel;
(iii) a detailed description of the programme is incorporated in the appropriate air operator's manuals; and
(iv) adequate Programme Management is maintained;

*(e)* Qualifications of the Flight Safety Person:

(i) extensive operational experience, normally achieved as a flight deck crew member or equivalent experience in aviation technical management; and
(ii) training in accordance with paragraph *(g)* of this standard;

*(f)* Responsibilities of the Flight Safety Person:

This person shall have direct access to the operations manager in flight safety matters and shall be responsible for managing the flight safety programme by—

(i) monitoring and advising on all national air operator flight safety activities which may have an impact on flight safety;

(ii) establishing a reporting system which provides for a timely and free flow of flight safety related information;

(iii) conducting safety surveys;

(iv) soliciting and processing flight safety improvement suggestions;

(v) developing and maintaining a safety awareness programme;

(vi) monitoring industry flight safety concerns which may have an impact on air operator operations;

(vii) maintaining close liaison with aeroplane manufacturers;

(viii) maintaining close liaison with the Authority on Safety issues;

(ix) maintaining close liaison with industry safety associations;

(x) developing and maintaining the air operator accident response plan;

(xi) identifying flight safety deficiencies and making suggestions for corrective action;

(xii) investigating and reporting on incidents/accidents and making recommendations to preclude a recurrence;

(xiii) developing and maintaining a flight safety database to monitor and analyse trends;

(xiv) making recommendations to the air operator senior management on matters pertaining to flight safety; and

(xv) monitoring the response and measuring the results of flight safety initiatives;

*(g)* Training of the Flight Safety Person:

This person shall successfully complete a training course that shall include the following subjects:

(i) flight safety philosophy;

(ii) human factors and the decision making process;

(iii) accident prevention;

(iv) the role of the flight safety officer as advisor to senior management;

(v) risk management;

(vi) accident or incident management;

(vii) the aviation safety survey;

(viii) emergency response plan; and

(ix) incident investigation;

*(h)* Incident Management:

The national air operator shall be responsible for providing employees with a timely means of reporting any unsafe conditions. The person responsible for the flight safety programme shall institute and maintain an incident reporting system. This system will provide for—

(A) a process of reporting incidents;

(B) investigation of incidents;

(C) the means of advising management; and

(D) information feedback to employees;

Flight Safety Committee:

*(i)* a national air operator shall establish a Flight Safety Committee;

***Responsibilities***

*(j)* the responsibilities of the Committee shall be to monitor all areas of the operation, identify safety concerns and deficiencies, and make recommendations for corrective measures to senior management where applicable;

***Members***

*(k)* the Committee shall be chaired by the operations manager or designate. Members shall include representatives of all operating departments in the Organisation;

***Meetings***

*(l)* the Committee shall meet on a regular basis (at least twice a year) as established by the committee chairperson. Special meetings on urgent matters may be called by any Committee member;

***Minutes***

*(m)* minutes of the Committee meetings shall provide a record of agenda items, decisions and corrective actions taken where applicable;

***Emergency Response Planning***

*(n)* the national air operator shall develop and maintain a national air operator Emergency Response Plan that shall include the following elements:

(i) national air operator policy;

(ii) national air operator mobilisation and agencies notification;

(iii) passenger and crew welfare;

(iv) casualty and next of kin co-ordination;

(v) accident investigation on behalf of the national air operator;

(vi) national air operator team's response to the accident site;

(vii) preservation of evidence;

(viii) media relations;

(ix) claims and insurance procedures;

(x) aeroplane wreckage removal; and

(xi) emergency response training;

***Communication and Safety Education***

*(o)* the national air operator shall be responsible for an efficient system of distributing appropriate safety material.

**Regulation 48**

A national air operator shall ensure that the mass and balance data control system meets the following minimum standards:

*(a)* the mass and balance system required by regulation 48 of these Regulations shall specify for each flight how the air operator will establish and be responsible for the accuracy of—

(i) aircraft basic empty mass and centre of gravity determined in accordance with the Aeroplane Flight Manual;

(ii) aircraft operational empty mass and centre of gravity. The aircraft operational empty mass is the actual mass of the aircraft before loading for dispatch consisting of the aircraft basic empty mass and may include removable equipment, flight crew members (including baggage), crew members (including baggage and supplies) water, toilet fluids and chemicals, oil, unusable fuel and emergency equipment and shall be defined by the air operator;

(iii) mass of passengers, carry-on baggage and checked baggage, determined either by actual mass, by using approved standard weights or by using approved survey weights, and the actual mass of cargo; and

(iv) mass of the fuel load determined by using either the actual specific gravity or a standard specific gravity.

**Regulation 50**

A national air operator shall ensure that his passenger briefing cards meets the following minimum standards:

A national air operator shall, at each emergency exit passenger seat, provide passenger information cards that include the following information in English language, in which emergency commands are given by the crew:

(i) functions required of a passenger in the event of an emergency in which a crew member is not available to assist—

(A) locate the emergency exit;

(B) recognise the emergency exit opening mechanism;

(C) comprehend the instructions for operating the emergency exit;

(D) operate the emergency exit;

(E) assess whether opening the emergency exit will increase the hazards to which passengers may be exposed;

(F) follow oral directions and hand signals given by a crew member;

(G) stow or secure the emergency exit door so that it will not impede use of the exit;

(H) assess the condition of an escape slide, activate the slide, and stabilise the slide after deployment to assist others in getting off the slide;

(I) pass expeditiously through the emergency exit; and

(J) assess, select, and follow a safe path away from the emergency exit;

(ii) a request that a passenger identify himself or herself to allow reseating if he or she—

(A) cannot perform the emergency functions stated in the information card;

(B) has a non-discernible condition that will prevent him or her from performing the functions;

(C) may suffer bodily harm as the result of performing one or more of those functions; or

(D) does not wish to perform those functions;

(E) lacks the ability to read, speak, or understand the language or the graphic forms in which instructions are provided by the air operator.

**Regulation 52**

A national air operator shall ensure that his ground de-icing and anti-icing programme meets the following minimum standards:

*(a)* contents of the national air operator's ground de-icing and anti-icing programme shall include a detailed description of—

(i) how the national air operator determines that conditions are such that frost, ice, or snow may reasonably be expected to adhere to the aircraft and that ground de-icing and anti-icing operational procedures shall be in effect;

(ii) who is responsible for deciding that ground de-icing and anti-icing operational procedures shall be in effect;

(iii) the procedures for implementing ground de-icing and anti-icing operational procedures; and

(iv) the specific duties and responsibilities of each operational position or group responsible for getting the aircraft safely airborne while ground de-icing and anti-icing operational procedures are in effect;

*(b)* the national air operator's ground de-icing and anti-icing programme shall include procedures for flight crew members to increase or decrease the determined holdover time in changing conditions. The holdover time shall be supported by data acceptable to the Authority. If the maximum holdover time is exceeded, take-off is prohibited unless at least one of the following conditions exists:

(i) a pre-take-off contamination check is conducted outside the aircraft (within five minutes prior to beginning take-off) to determine that the wings, control surfaces, and other critical surfaces, as defined in the certificate holder's, are free of frost, ice, or snow;

(ii) it is otherwise determined by an alternate procedure, approved by the Authority and in accordance with the approval of the national air operator, that the wings, control surfaces, and other critical surfaces are free of frost, ice, or snow; or

(iii) the wings, control surfaces, and other critical surfaces are de-iced again and a new holdover time is determined.

**Regulation 61**

A national air operator shall ensure that his communications facilities meet the following minimum standards:

*(a)* In-flight communications—

Timely and direct communication between the responsible flight operations officer/flight dispatcher, if applicable, and the pilot in command of a flight shall be maintained during flight time over all or almost all the route structure. Where direct communication is not practical for mid-route communications a private agency under contract to the air operator may be approved to provide the required communications services. The use of Air Traffic Service communications is permitted if the services of a private agency are not available;

*(b)* On-ground Communications—

(i) a direct communications capability between the pilot in command and the flight dispatcher shall be provided at any station regularly served by the air operator. The equipment used shall be accessible to the pilot in command and may include the following:

(A) Very High Frequency and High Frequency Radio voice;

(B) telephone;

(C) data link;

(D) teletype; and

(E) any other approved communications medium;

(ii) this requirement may be waived by the Authority at those stations where a lack of facilities prevents communication between the pilot in command and operations control;

(iii) timely communication means the ability to establish communications domestically within thirty minutes of first trying and internationally within one hour when the flight is in cruise;

(iv) direct communication means the ability of the flight operations officer/flight dispatcher and the pilot in command to communicate using the air operator's facilities, an electronic data link facility, or a facility operated by a third party according to an agreement.

**Regulations 80, 81 and 89**

A national air operator shall ensure that his procedures for the retention and maintenance of records meet the following minimum standards:

*(a)* unless otherwise prescribed by the Authority, the national air operator shall require the use of crew duty and flight time records with the following information:

(i) the national air operator's company company's name;

(ii) the crew members full name and employee identification number, if applicable;

(iii) a running summary of number of hours flown in the past:

(A) 12 months;

(B) 28 days;

(C) 24 hours; and

(iv) a running summary of the landings in the past 24 hours;

(v) if the flight time is scheduled more than 24 hours in advance, a daily record by date, of the assigned duty times, flight times and projected rest periods;

(vi) a daily record by date, with an hourly display of the actual time spent showing the beginning and the end of each period of—

(A) duty, including duty aloft;

(B) flight time in commercial air transport, aerial work activities; and any other activity that required the application of the crew member's commercial or airline transport pilot privileges; and

(C) required rest;

(vii) a provision for the certification of each 28 days of records by the crew member and the person making the assignments and entries;

*(b)* document storage periods.

A national air operator shall ensure that the following information/documentation is stored in a form, accessible to the Authority, for the periods specified in the Tables below:

**TABLE 1—INFORMATION USED FOR THE PREPARATION AND EXECUTION OF A FLIGHT**

| Information used for the preparation and execution of the flight | |
|---|---|
| Operational flight plan… … … … | 3 months |
| Aeroplane Technical log … … … | 24 months after the date of the last entry |
| Route specific NOTAM/AIS briefing documentation if edited by the operator … … … | 3 months |
| Mass and balance documentation … … | 3 months |
| Notification of special loads including written information to the commander about dangerous goods … … … … … | 3 months |

**TABLE 2—REPORTS**

| Reports | |
|---|---|
| Journey log … … … … | 6 months |
| Flight report(s) for recording details of any occurrence, as prescribed by the DGCA, or any event which the commander deems necessary to report/record … … | 3 months |
| Reports on exceedances of duty and/or reducing rest periods … … … … | 3 months |

**TABLE 3— FLIGHT CREW RECORDS**

| Flight Crew Records | |
|---|---|
| Flight, Duty and Rest time … … … | 15 months |
| Licence … … … … | As long as the flight crew member is exercising the privileges of the licence for the operator |
| Conversion training and checking … … | three years |
| Command course (including checking) … | three years |
| Recurrent training and checking … … | three years |
| Training and checking to operate in either pilot's seat … … … … … | three years |
| Recent experience … … … | 15 months |
| Route and aerodrome competence … … | three years |
| Training and qualification for specific operations when required by the Authority (e.g., ETOPS CATII/III operations) … … … | three years |
| Dangerous Goods training as appropriate … | three years |

**TABLE 4—CABIN CREW RECORDS**

| Cabin Crew Records | |
|---|---|
| Flight, Duty and Rest time … … … | 15 months |
| Initial training, conversion and differences training (including checking) … … | As long as the cabin crew member is employed by the operator |
| Recurrent training and refresher (including checking) … … … … | Until 12 months after the cabin crew member has left the employ of the operator |
| Dangerous Goods training as appropriate … | three years |

*L.R.O.*

**TABLE 5—RECORDS FOR OTHER OPERATIONS PERSONNEL**

| Records for other operations personnel | |
|---|---|
| Training/qualification records of other personnel for whom an approved training is required by the Authority … … … … | Last 2 training records |

**TABLE 6—OTHER RECORDS**

| Other Records | |
|---|---|
| Records on cosmic solar radiation dosage … | Until 12 months after the crew member has left the employ of the operator |
| Quality System records … … … | 5 years |
| Dangerous Goods Transport Document … | 3 months after completion of the flight |
| Dangerous Goods Acceptance Checklist … | 3 months after completion of the flight |

# CIVIL AVIATION [(NO. 4) REGISTRATION AND MARKINGS] REGULATIONS

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*L.R.O.*

**[Subsidiary]**

103/2004.
[225/2005].

# CIVIL AVIATION [(NO. 4) REGISTRATION AND MARKINGS] REGULATIONS

*made under section 33*

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No.4) Registration and Markings] Regulations.

Interpretation.

**2.** In these Regulations—

"Act" means the Civil Aviation Act;

"aircraft" means any machine that can derive support in the atmosphere from the reaction of the air other than the reaction of the air against the earth's surface and used in a civilian capacity;

"Authority" means the Civil Aviation Authority of Trinidad and Tobago;

"CARICOM national" means the holder of a passport issued by a member State of the Caribbean Community who was born in the State issuing the passport;

"fireproof material" means a material capable of withstanding heat as well as or better than steel when the dimensions in both cases are appropriate for the specific purpose;

"glider" means a non-power driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces, which remain fixed under given conditions of flight;

"heavier-than-air aircraft" means any aircraft deriving its lift by flight chiefly from aerodynamic forces;

"lighter-than-air aircraft" means any aircraft supported chiefly by its buoyancy in the air;

"Register" means the authorised list of aircraft registered in a state by the authority responsible for civil aviation in such State;

"State of Registry" means the State on whose register the aircraft is entered; and

"Trinidad and Tobago aircraft" means an aircraft registered in Trinidad and Tobago.

## APPLICABILITY OF THESE REGULATIONS

Applicability of these Regulations.

**3.** (1) Subject to subregulation (2), these Regulations shall apply to all Trinidad and Tobago civil aircraft in respect of registration and nationality and registration marks operated in or outside Trinidad and Tobago.

(2) These Regulations shall not apply to—

*(a)* a hang glider;

*(b)* a model aircraft;

*(c)* a kite;

*(d)* a non-powered parachute; or

*(e)* an unmanned free balloon that is designed for a single launch in support of either scientific or weather research.

### PART I

### REGISTRATION

#### APPLICABILITY OF PART I

Applicability of Part I.

**4.** This Part shall apply to the registration of aircraft in Trinidad and Tobago except as specified as regulation 3(2).

#### RESTRICTION ON AIRCRAFT IN TRINIDAD AND TOBAGO

Restriction on operation of aircraft in Trinidad and Tobago.

**5.** A person shall not operate a civil aircraft in Trinidad and Tobago unless such aircraft has been registered in Trinidad and Tobago or under the laws of another Contracting State and meets the requirements of these Regulations.

#### APPLICATION FOR REGISTRATION OF AIRCRAFT

Requirements for application.

**6.** A person who wishes to register a civil aircraft in Trinidad and Tobago, shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* be at least eighteen years of age;

*(c)* pay the prescribed fee; and

*(d)* meet the requirements of these Regulations.

**REQUIREMENTS FOR REGISTRATION OF AIRCRAFT**

Requirement for Registration of aircraft.

**7.** (1) An application under regulation 6, may be made in respect of any aircraft which is owned by—

*(a)* a CARICOM national;

*(b)* a resident of Trinidad and Tobago as defined in section 5 of the Immigration Act;

Ch. 18.01.

*(c)* a body incorporated within a member State of CARICOM; or

*(d)* an individual or corporation of a foreign State who transfers custody and control of an aircraft, in accordance with a lease agreement to the holder of an Air Operator Certificate authorised to operate that type of aircraft.

(2) Notwithstanding subregulation (1), a civil aircraft shall not be registered in Trinidad and Tobago where such aircraft appears on the civil aircraft Register of another State.

**DE-REGISTRATION OF AIRCRAFT**

De-registration for purpose of registration.

**8.** Where a person wishes to register a civil aircraft in Trinidad and Tobago which is registered in another State he shall first have the aircraft de-registered before being registered in Trinidad and Tobago.

**ISSUE OF CERTIFICATE OF AIRCRAFT REGISTRATION**

Issue of Certificate of Aircraft Registration.

**9.** (1) When the Director-General is satisfied that an applicant under regulation 6 has met all the requirements of these Regulations, he may recommend the Authority issue a Certificate of Aircraft Registration in respect of such aircraft.

(2) The operator of a Trinidad and Tobago aircraft issued with a Certificate of Aircraft Registration under subregulation (1) shall ensure that such Certificate of Aircraft Registration is carried in the cockpit at all times.

**REQUIREMENTS AFTER CERTIFICATION OF AIRCRAFT IN TRINIDAD AND TOBAGO**

Requirements after Certificate of Aircraft Registration.

**10.** Upon a Certificate of Aircraft Registration being issued under regulation 9, the Director-General shall—

*(a)* notify the State of design, of the registration of the civil aircraft in Trinidad and Tobago; and

*(b)* request all airworthiness directives addressing the aircraft, airframe, engine, propeller, appliance or component part and all applicable information which the State of Design deems necessary for the continuing airworthiness and safe operation of the civil aircraft.

**REQUIREMENTS FOR DE-REGISTRATION**

Requirements for de-registration of an aircraft.

**11.** (1) Where the operator of a Trinidad and Tobago aircraft wishes to de-register such aircraft, he shall—

*(a)* apply to the Authority in the prescribed form; and

*(b)* pay the prescribed fee.

(2) Where the purpose of an application is for the de-registration of a Trinidad and Tobago aircraft under subregulation (1), as to facilitate re-registration of such aircraft in another State, the Director-General may, where he is satisfied that such State has agreed to re-register such aircraft, he may recommend the Authority de-register the aircraft.

(3) Where the Authority has approved the de-registration of a Trinidad and Tobago aircraft in accordance with this regulation, the owner of such aircraft shall—

*(a)* return to the Authority, the Certificate of Aircraft Registration, issued by it in respect of that aircraft; and

*(b)* remove all nationality and registration markings on the Trinidad and Tobago aircraft relevant to such Certificate of Aircraft Registration under paragraph *(a)*.

*L.R.O.*

**CIVIL AIRCRAFT REGISTER**

Register of civil aircraft.

**12.** (1) The Director-General shall maintain a current Register of Trinidad and Tobago civil aircraft which shall contain records of each civil aircraft registered in Trinidad and Tobago as follows:

*(a)* the number of the Certificate of Aircraft Registration;

*(b)* the nationality and registration marks of the Trinidad and Tobago aircraft and the registration mark assigned to it by the Authority;

*(c)* the name of the manufacturer of the Trinidad and Tobago aircraft and its type design;

*(d)* the serial number of the Trinidad and Tobago aircraft; and

*(e)* the name and address of every person who is entitled as owner to a legal interest in the aircraft or a share therein.

(2) Except for unmanned free balloon specified under regulation 3(2)*(e)*, the Director-General shall maintain a register of unmanned free balloon that contain—

*(a)* the date, time and location of release;

*(b)* the type of balloon; and

*(c)* the name of the operator.

**CONDITIONS FOR REGISTRATION**

Conditions of registration.

**13.** The operator of a Trinidad and Tobago aircraft registered under these Regulations shall—

*(a)* be subject to the laws governing civil aviation in Trinidad and Tobago; and

*(b)* take all such directions from the Authority in respect of operating such Trinidad and Tobago aircraft in Trinidad and Tobago and in any other State.

**PART II**

## NATIONALITY AND REGISTRATION MARKS

Applicability of Part II.

**14.** This Part prescribes the requirements for the display of nationality and registration marks on Trinidad and Tobago aircraft.

### DISPLAY OF NATIONALITY AND REGISTRATION MARKS

Requirements for display of nationality and registration marks.

**15.** (1) A person shall not operate an aircraft in Trinidad and Tobago unless such aircraft displays the nationality and registration marks in accordance with this Part.

(2) A person shall not operate an aircraft registered in a foreign State, in Trinidad and Tobago unless such aircraft displays the nationality and registration marks in accordance with the laws of such foreign State.

(3) A person shall not place on any Trinidad and Tobago aircraft, a design, mark or symbol that modifies or confuses the nationality and registration marks required by these Regulations unless otherwise authorised by the Authority.

(4) Nationality and registration marks under subregulation (1), shall—

*(a)* be painted on the outer surface of the aircraft or affixed by other means ensuring a similar degree of permanence;

*(b)* be in capital letters in Roman characters without ornamentation, and numbers shall be in Arabic numerals without ornamentation;

*(c)* be in clear and distinct contrast with the colour of the background;

*(d)* be legible;

*(e)* be kept clean and visible at all times; and

*(f)* not be used where they may be interpreted as any of the symbols of the International Five Letter Code of Signal or Distress Codes.

**DISPLAY OF MARKS**

Display of marks. [225/2005].

**16.** (1) The owner or operator of a Trinidad and Tobago aircraft shall ensure that the aircraft is marked with a group of characters representing—

*(a)* the nationality mark of Trinidad and Tobago as 9Y; and

*(b)* the registration mark of the aircraft as a group of letters or numbers assigned by the Authority.

(2) The nationality mark of Trinidad and Tobago under subregulation (1)*(a)* shall be "9Y".

(3) Where, as a result of a configuration of the Trinidad and Tobago aircraft, it is not possible to mark such Trinidad and Tobago aircraft in accordance with subregulation (1), the owner or operator where applicable shall apply to the Authority to use a different display.

(4) The nationality mark under subregulation (1) shall precede the registration mark.

(5) When the first character of the registration mark under subregulation (1) is a letter, it shall be preceded by a hyphen.

**SIZE OF MARKS**

Size of marks. [225/2005].

**17.** (1) The height of the nationality and registration marks under regulation 15 on the—

*(a)* wings of aircraft shall be at least fifty centimetres;

*(b)* fuselage or equivalent structure and on the vertical tail surfaces shall be at least thirty centimetres;

*(c)* rotorcraft fuselage or equivalent structure and on the vertical tail surfaces shall be at least thirty centimetres;

*(d)* lighter-than-air and powered-lift aircraft shall be at least fifty centimetres.

(2) The width of the characters of the nationality and registration marks under regulation 15 shall be two-thirds as wide as they are high.

(3) Notwithstanding subregulation (2)—

*(a)* the number "1", when used in a nationality or registration mark, shall be one-sixth as wide as it is high; and

*(b)* the letters "M" and "W", shall be as wide as they are high.

(4) The characters in the nationality and registration marks shall be formed by solid lines, one-sixth as thick as the character is high.

(5) The space between each character in the nationality and registration marks shall not be less than one-fourth of the character width, a hyphen shall be regarded as a character for this purpose.

(6) All nationality and registration marks required by this Part for fixed-wing aircraft shall have the same height, width, thickness and spacing on both sides of the aircraft.

**LOCATION OF MARKS ON FIXED-WING AIRCRAFT**

Location of marks on fixed-wing aircraft.

**18.** (1) Where a Trinidad and Tobago aircraft is a fixed-wing aircraft the operator shall ensure such aircraft has the required nationality and registration marks displayed on both sides of the vertical tail surfaces or both sides of the fuselage.

(2) Where the nationality and registration marks required under subregulation (1), occur on—

*(a)* the vertical tail surfaces, they shall be displayed horizontally on both surfaces of the single vertical tail or on the outer surfaces of the multi-vertical tail;

*(b)* the fuselage surfaces, be displayed horizontally on both sides of the fuselage between the trailing edge of the wing and the leading edge of the horizontal stabiliser.

(3) When the engine pods or other appurtenances are located in the area described in subregulation (2)*(b)*, and are an integral part of the aircraft, the operator of the Trinidad and Tobago aircraft, may place the marks on those pods or appurtenances.

(4) An operator of a Trinidad and Tobago aircraft under this regulation shall ensure that the nationality and registration marks appear once on the lower surface of the wing structure, and shall be located on the left half of the lower surface of the wing structure unless they extend across the whole of the lower surface of the wing structure.

(5) As far as possible nationality and registration marks shall be located at equidistant points from the leading and trailing edges of the wing.

(6) An operator shall ensure that the tops of the letters and numbers contained in the nationality and registration marks shall be towards the leading edge of the wing.

**LOCATION OF MARKS ON ROTORCRAFT**

Location of marks on rotorcraft.

**19.** Where a Trinidad and Tobago aircraft is a rotorcraft, the operator shall ensure that such rotorcraft has nationality and registration marks displayed horizontally on both surfaces of the fuselage, boom or tail, such that the rotorcraft can be readily identified by its markings.

**LOCATION OF MARKS ON LIGHTER-THAN-AIR AIRCRAFT**

Location of marks on lighter-than-air aircraft. [225/2005].

**20.** (1) Where a Trinidad and Tobago aircraft is—

*(a)* an airship, the operator shall ensure that such airship has nationality and registration marks that appear on the—

(i) hull, location lengthwise on each side of the hull and on its upper surface on the line or symmetry; or

(ii) surface of the horizontal stabiliser, located on the right half of the upper surface and on the left half of the lower surface, with the tops of the letters and numbers toward the leading edge; and

(iii) surface of the vertical stabiliser, located on each side of the bottom half stabiliser, with the letters and numbers placed horizontally;

*(b)* a spherical balloon, other than an unmanned free balloon, the operator shall ensure that such spherical balloon has nationality and registration marks that appear in two places diametrically opposite each other and located near the maximum horizontal circumference of the balloon; or

*(c)* a non-spherical balloon, other than unmanned free balloon, the operator shall ensure that such non-spherical balloon has nationality and registration marks that appear on each side, located near the maximum cross-section of the balloon immediately above either the rigging band or the points of attachment of the basket suspension cables.

(2) Side markings shall be visible from the side of the aircraft and from the ground.

**DEVIATION OF SIZE AND LOCATION OF MARKS**

Deviation of size and location of marks.

**21.** (1) Where only one of the two surfaces authorised for displaying the required nationality and registration marks meets the requirements for such marks under these regulations, the operator shall place the nationality and registration marks on that surface.

(2) Where neither surface authorised for displaying the required nationality and registration marks is large enough for displaying full-size nationality and registration marks, the Director-General may recommend that the Authority approve marks as large as practicable for display on the larger of the two surfaces.

*L.R.O.*

**REMOVAL OF NATIONALITY AND REGISTRATION MARKS**

Removal of marks after sale of aircraft.

**22.** (1) When a Trinidad and Tobago aircraft is sold by the owner to a buyer who is not a citizen or other legal entity as prescribed in regulation 7, the owner shall de-register such aircraft in accordance with regulation 11, remove all Trinidad and Tobago nationality and registration marks before its delivery to the buyer and return the Certificate of Aircraft Registration of such aircraft to the Director-General.

(2) Where a Trinidad and Tobago aircraft is sold by the owner to a buyer who is a citizen or other legal entity as prescribed in regulation 7, the operator of such Trinidad and Tobago aircraft shall inform the Director-General of such sale and change of ownership and return the Certificate of Aircraft Registration of such aircraft to the Director-General.

**AIRCRAFT IDENTIFICATION PLATES**

Identification plates required.

**23.** (1) A person shall not operate a Trinidad and Tobago aircraft unless there are two aircraft identification plates attached to such Trinidad and Tobago aircraft.

(2) Except as authorised by the Authority, one aircraft identification plate shall be attached onto the aircraft in the manner set out in the standards of the State of Manufacture of the aircraft and provide the following information:

*(a)* name of the manufacturer;

*(b)* model designation of the manufacturer as described in the type certificate or equivalent document;

*(c)* type certificate number or equivalent designation; and

*(d)* aircraft serial number.

(3) One aircraft identification plate shall be secured to the aircraft in a prominent position near the main entrance, or in

the case of an unmanned free balloon other than that specified under regulation 3(2)*(e)*, affixed conspicuously to the exterior of the payload and provides the following information:

*(a)* nationality and registration marks; and

*(b)* name and address of the registered owner.

(4) The information specified under subregulations (2) and (3) shall be permanently etched, engraved or stamped on the aircraft identification plates.

(5) The aircraft identification plates specified in this regulation shall be made of fireproof metal or other fireproof material of suitable physical properties.

**REMOVAL, REPLACEMENT AND ATTACHMENT OF IDENTIFICATION PLATES AND ALTERATION OF INFORMATION**

Removal, replacement and attachment of and alteration of information on aircraft identification plates.

**24.** (1) Except as specified in this regulation, a person shall not—

*(a)* remove or replace an aircraft identification plate;

*(b)* alter the information on an aircraft identification plate; or

*(c)* attach to a Trinidad and Tobago aircraft, an unauthorised aircraft identification plate.

(2) Notwithstanding subregulation 1*(a)* a person may, without authorisation from the Authority, remove an aircraft identification plate from a Trinidad and Tobago aircraft for the purpose of performing work on such aircraft.

(3) Where an aircraft identification plate is removed under subregulation (2), it shall be re-attached immediately after the work is completed in accordance with regulation 23.

(4) Where the operator of a Trinidad and Tobago aircraft modifies such Trinidad and Tobago aircraft that results in a change in the model designation as specified by the approved aircraft data, he shall submit an application to change the aircraft identification plate in writing to the Authority supported by justification for the request and evidence that establishes the identity of the aircraft.

(5) Where the Director-General is satisfied that an application under subregulation (4) meets the requirements of these Regulations, he shall recommend the Authority issue a written authorisation to the operator to install a new aircraft identification plate with the information specified in subregulation (7).

(6) Upon receipt of an authorisation to install a new aircraft identification plate on a Trinidad and Tobago aircraft under subregulation (5), the operator shall attach such aircraft identification plate with the information specified in subregulation (7), to the aircraft as near as possible to the location of the original aircraft identification plate before the next flight.

(7) The following information shall be permanently etched, engraved or stamped on the new aircraft identification plate specified in subregulation (4):

*(a)* name of the manufacturer;

*(b)* the new model designation described in the supplemental type certificate or equivalent document;

*(c)* the supplemental Type Certificate number or equivalent designation; and

*(d)* the Trinidad and Tobago aircraft serial number.

(8) Where the operator of a Trinidad and Tobago aircraft wishes to alter the information on the aircraft identification plate of such aircraft specified under subregulation 23(3), he shall submit an application to change the aircraft identification plate in writing to the Authority supported by justification for the request and evidence that establishes the identity of the aircraft.

(9) Where the Director-General is satisfied that an application under subregulation (8), meets all the requirements of this regulation, he shall recommend the Authority issue a written authorisation to the operator to install a new aircraft identification plate with the new information.

(10) Upon receipt of an authorisation to install a new aircraft identification plate on a Trinidad and Tobago aircraft under subregulation (9), the operator shall attach such aircraft identification plate with the new information to the aircraft as near as possible to the location of the original aircraft identification plate before the next flight.

**DIRECTOR-GENERAL MAY AMEND SCHEDULES**

Director-General to amend Schedules.

**25.** The Director-General may, by Order amend any of the Schedules.

# CIVIL AVIATION [(NO. 5) AIRWORTHINESS] REGULATIONS

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*L.R.O.*

# CIVIL AVIATION [(NO. 5) AIRWORTHINESS] REGULATIONS

*made under section 33*

104/2004.
[276/2004.
304/2004
33/2005
226/2005
188/2006
287/2006
48/2007
32/2008
199/2009].

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No. 5) Airworthiness] Regulations.

Interpretation.
[304/2004
188/2006
48/2007
199/2009].

**2.** In these Regulations—

"Act" means the Civil Aviation Act;

"aeronautical product" means any aircraft engine, propeller or sub assembly, appliance, material, part or component to be installed on an aircraft and any aircraft;

"aircraft" means any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the surface of the earth;

"aircraft category" means the classification of aircraft according to specified basic characteristics such as aeroplane, rotocraft, glider or lighter-than-air;

"aircraft component" means an assembly, item, or part of an aircraft up to and including a complete power plant and any operational and emergency equipment but does not include an aircraft;

"aircraft type" means all aircraft of the same basic design;

"airworthy" means an aircraft or aeronautical product is in a fit and safe state for flight and is in conformity with its type design;

"Annex 16" means Annex 16 to the Chicago Convention;

"approved data" means technical aeronautical information approved by the Authority;

"Approved Maintenance Organisation," means a maintenance organisation approved by the Authority in accordance with the Civil Aviation [(No. 6) Approved Maintenance Organisation] Regulations, to conduct maintenance on Trinidad and Tobago aircraft and their associated aeronautical product;

Sub. Leg.

"Authority" means the Civil Aviation Authority of Trinidad and Tobago;

"Certificate of Maintenance Review" means a document issued by an operator, an approved maintenance organisation or an aircraft maintenance engineer, in respect of an aircraft, certifying that a maintenance review of such aircraft and its equipment as is necessary for its airworthiness has been carried out;

"Director-General" means the Director-General of Civil Aviation appointed under section 13 of the Act;

"engine" means a unit consisting of at least those components and equipment necessary for functioning and control but excludes the propeller where applicable and used or intended to be used for aircraft propulsion;

"familiarisation training" means training of a general nature whereby participant gains a general appreciation and familiarity with the subject;

"inspection" means the examination of an aircraft or aeronautical product to establish conformity with an approved standard;

"large aircraft" means an aeroplane of over five thousand, seven hundred kilogrammes maximum certified take-off mass and a helicopter of over three thousand, one hundred and seventy-five kilogrammes maximum certified take-off mass;

"maintenance" means the performance of tasks required to ensure the continuing airworthiness of an aircraft or aeronautical product including any one or combination of overhaul, inspection, replacement, defect rectification and the embodiment of a modification or repair;

"major modification" means an alteration specified under Schedule 3;

"major repair" means a repair specified under Schedule 3;

"modification" means the alteration of an aircraft or aeronautical product in conformity with an approved standard;

"noise certificate" means a document issued or validated by a State or by a competent authority of a State attesting noise certification in respect of an aeroplane either by way of a separate certificate or a statement contained in another document approved by the State of Registry of the aircraft and required by that State to be carried in the aircraft;

"operator" means—

*(a)* a person, organisation or enterprise, engaged in or offering to engage in, aircraft operations, and any person who causes or authorises the operation of aircraft, in the capacity of owner, lessee or otherwise, whether with or without the control of the aircraft; and

*(b)* who or which is deemed to be engaged in the operation of aircraft within the Civil Aviation Act;

"overhaul" means the restoration of an aircraft or aeronautical product using methods, techniques and practices acceptable to the Authority, including disassembly, cleaning and inspection as permitted, repair as necessary and re-assembly and testing in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Authority, which have been developed and documented by the State of Design, holder of the Type Certificate, Supplemental Type Certificate and manufacturing approved standard in respect of material, part, process or appliance;

"preventive maintenance" means the simple or minor preservation operations and replacement of small standard parts not involving complex assembly operations;

"rebuild" means the restoration of an aircraft or aeronautical product by the manufacturer using methods, techniques and practices acceptable to the Authority, when it has been disassembled, cleaned, inspected as permitted, repaired as necessary, reassembled and tested to the same tolerances and limits as a new item, using either new parts or used parts that conform to new part tolerances and limits or an organisation approved by the manufacturer, and authorised by the State of Registry;

"repair" means the restoration of an aircraft or aeronautical product to an airworthy condition as defined by the appropriate airworthiness requirements;

"required inspection items" means maintenance items and modifications of an aeronautical product that must be inspected by a person other than the person performing the

work and includes those that could result in a failure, malfunction or defect endangering the safe operation of the aircraft, if not properly performed or if improper parts or materials are used;

"small aircraft" means an aeroplane of maximum certified take-off mass of five thousand, seven hundred kilogrammes or less and a helicopter of maximum certified take-off mass of three thousand, one hundred and seventy-five kilogrammes or less;

"State of Design" means the Contracting State which approved the original Type Certificate and any subsequent Supplemental Type Certificates for an aircraft or which approved the design of an aeronautical product;

"State of Manufacture" means the Contracting State under whose authority an aircraft was assembled, approved for compliance with the Type Certificate and all existing Supplemental Type Certificates, test flown and approved for operation;

"State of Registry" means the Contracting State on whose register the aircraft is entered;

"Trinidad and Tobago aircraft" means a civil aircraft registered in Trinidad and Tobago.

**GENERAL APPLICABILITY OF THESE REGULATIONS**

General Applicability of these Regulations.

**3.** (1) These Regulations shall apply to all Trinidad and Tobago aircraft and all aeronautical products to be installed or used on such aircraft and prescribe the following airworthiness requirements:

*(a)* certification of Trinidad and Tobago aircraft and its aeronautical products;

*(b)* issuance of Airworthiness Certificate and other certification for Trinidad and Tobago aircraft and aeronautical products;

*(c)* continued airworthiness of aircraft and its aeronautical products;

*(d)* modification and rebuilding of Trinidad and Tobago aircraft and aeronautical products;

*(e)* maintenance and preventive maintenance of Trinidad and Tobago aircraft and its aeronautical products;

*(f)* inspection requirements of Trinidad and Tobago aircraft; and

*(g)* aircraft maintenance and inspection requirements of a national air operator.

Sub Leg.

(2) The provisions of Part I of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations with respect to the surrender, suspension or revocation of aviation documents apply to certificates, authorisations and ratings issued under these Regulations.

## PART I

## AERONAUTICAL PRODUCT CERTIFICATION

### GENERAL APPLICABILITY OF PART I

General applicability of Part I.

**4.** This Part prescribes the requirements for the issue of a Type Certificate, Production Certificate and Supplemental Type Certificate.

### APPLICATION FOR TYPE CERTIFICATE

Application for Type Certificate.

**5.** (1) Where a person wishes an aeronautical product design to be approved for safety and airworthiness standards in Trinidad and Tobago, he shall apply to the Authority for a Type Certificate in respect of such aeronautical product.

(2) An application under subregulation (1), shall—

*(a)* be accompanied by the prescribed fee; and

*(b)* meet the requirements of the Act or Regulations made thereunder.

### APPLICATION FOR PRODUCTION CERTIFICATE

Application for Production Certificate.

**6.** (1) A person shall not manufacture an aeronautical product without the approval of the Authority.

(2) A person wishing to manufacture an aeronautical product in Trinidad and Tobago shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee; and

*(c)* meet the requirements of these Regulations.

(3) Where the Director-General is satisfied that an applicant meets the requirements of these Regulations to manufacture

an aeronautical product in Trinidad and Tobago in a controlled manner including the use of a quality system so that construction and assembly are satisfactory, he may recommend the Authority issue a Production Certificate.

(4) An applicant under subregulation (2), for a Production Certificate shall comply with the type certificate as required by the State of Design for approval.

**APPLICATION FOR NEW TYPE CERTIFICATE**

Application for a new Type Certificate.

**7.** A person who wishes to alter an aeronautical product by introducing a major change in type design and such alteration requires an application for a new Type Certificate shall—

*(a)* apply to the Authority for approval to implement such alteration;

*(b)* pay the prescribed fee; and

*(c)* meet the requirements of these Regulations.

**SUPPLEMENTAL TYPE CERTIFICATE**

Supplemental Type Certificate.

**8.** A person who wishes to alter an aeronautical product by introducing a major change in type design, and such alteration is not enough to require an application for a new Type Certificate under regulation 7, shall—

*(a)* apply to the Authority for approval to implement such alteration;

*(b)* pay the prescribed fee;

*(c)* provide the Authority with the Supplemental Type Certificate obtained from the civil aviation authority of the State of Design that approved the original Type Certificate for that aeronautical product; and

*(d)* provide the Authority with the procedure to be used for the implementation of such alteration.

**PART II**

## AIRWORTHINESS CERTIFICATION

Application of Part II. [199/2009].

**9.** This Part prescribes the requirements for the issue of Airworthiness Certificate, Certificate of Maintenance Review and Special Flight Permit for Trinidad and Tobago aircraft.

**RESTRICTION ON OPERATIONS WITHOUT AIRWORTHINESS CERTIFICATE**

Restriction on operation of aircraft without Airworthiness Certificate.

**10.** (1) The operator of a Trinidad and Tobago aircraft shall not operate such aircraft in civil aircraft operations unless the Authority has issued an Airworthiness Certificate in respect of such aircraft certifying it to be airworthy.

(2) The operator of a Trinidad and Tobago aircraft, who wishes such aircraft to be certified as airworthy shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee; and

*(c)* satisfy the airworthiness requirements of these Regulations.

**REQUIREMENTS FOR THE ISSUE OF AIRWORTHINESS CERTIFICATE**

Requirements for the issue of Airworthiness Certificate. [226/2005].

**11.** (1) The Director-General may recommend that the Authority issue an Airworthiness Certificate in respect of a Trinidad and Tobago aircraft where—

*(a)* the applicant presents evidence to the Director-General that the aircraft conforms to a type design approved under a Type Certificate and applicable Supplemental Type Certificate of a State of Design identified under paragraph (1)*(e)*;

*(b)* all applicable Airworthiness Directives and maintenance requirements have been completed and the aircraft and its records have been inspected within the last thirty days in accordance with these Regulations and found to be airworthy by persons authorised by the Authority to make such determinations;

*(c)* he is satisfied, after an inspection of the Trinidad and Tobago aircraft, that such aircraft conforms to the type design and is in a condition for safe operation;

*(d)* such aircraft has been flight tested, as required; and

*(e)* such aircraft meets the acceptable and equivalent type design standards of the established international airworthiness codes set out in the Schedule 1.

Schedule 1.

(2) Where a Trinidad and Tobago aircraft is known to or is suspected to have dangerous features, such aircraft shall not be issued an Airworthiness Certificate.

(3) Prior to the issue of an Airworthiness Certificate the owner of an aircraft shall—

*(a)* register such aircraft in Trinidad and Tobago in accordance with the requirements of the Civil Aviation [(No. 4) Registration and Markings] Regulations; and Sub. Leg.

*(b)* meet the applicable requirements of the Civil Aviation [(No. 7) Instruments and Equipment] Regulations. Sub. Leg.

**ISSUE OF SPECIAL FLIGHT PERMIT**

**12.** (1) The Director-General may recommend that the Authority issue a Special Flight Permit to the operator of a Trinidad and Tobago aircraft, where such aircraft is capable of safe flight, but unable to meet applicable airworthiness requirements, for the purpose of— Issue of Special Flight Permit.

*(a)* flying to a base where repairs, modifications, maintenance, or inspections are to be performed, or to a point of storage;

*(b)* flight testing where required after performing maintenance;

*(c)* delivering or exporting such aircraft from Trinidad and Tobago; or

*(d)* evacuating aircraft from areas of impending danger.

(2) The Director-General shall in the interest of safety recommend the Authority issue specific operating limitations for each Special Flight Permit issued under subregulation (1).

(3) The Director-General shall require the operator of a Trinidad and Tobago aircraft which has been issued a Special Flight Permit under subregulation (1), to conduct maintenance in accordance with the aircraft maintenance manual.

(4) An operator under subregulation (3) shall ensure that the maintenance required to be conducted is performed by a

person or organisation authorised to so conduct such maintenance under the Act or Regulations made thereunder.

(5) A person or organisation conducting maintenance under subregulations (3) and (4) shall upon completing such maintenance, record a statement in the aircraft permanent record that such aircraft has been inspected and found to be safe for the intended flight and affix his signature against such statement.

(6) An operator shall obtain all required overflight authorisations from States to be overflown on flights outside Trinidad and Tobago by an aircraft operating under a Special Flight Permit.

(7) Where a Special Flight Permit is issued in accordance with these Regulations, the operator shall ensure that it is displayed in the aircraft at all times during operations and a copy shall be kept on the ground.

(8) An aircraft in respect of which a Special Flight Permit has been issued under these Regulations shall not carry passengers or property for compensation or hire.

**AMENDMENT OF AIRWORTHINESS CERTIFICATE**

Amendment of Airworthiness Certificate.

**13.** The Director-General may on his own initiative or upon application from the operator of a Trinidad and Tobago aircraft recommend the Authority amend or modify an Airworthiness Certificate of such aircraft.

**TRANSFER OR SURRENDER OF AIRWORTHINESS CERTIFICATE**

Transfer or surrender of Airworthiness Certificate.

**14.** (1) The Director-General may recommend that the Authority transfer an Airworthiness Certificate to the lessee of a Trinidad and Tobago aircraft, where such aircraft is leased within Trinidad and Tobago.

(2) An operator shall surrender the Airworthiness Certificate for a Trinidad and Tobago aircraft to the Authority upon sale of such aircraft to an operator outside of Trinidad and Tobago.

(3) The Director-General may recommend that the Authority issue an Export Airworthiness Certificate for a Trinidad and Tobago aircraft which is to be exported from Trinidad and Tobago.

(4) Nothing in subregulation (3), shall be interpreted as not requiring a Trinidad and Tobago aircraft being exported from Trinidad and Tobago from having a valid Airworthiness Certificate.

**CONTINUED VALIDITY OF AIRWORTHINESS CERTIFICATE**

**15.** (1) An Airworthiness Certificate shall remain valid for one year unless otherwise surrendered, suspended or revoked. Continued validity of Airworthiness Certificate. [226/2005].

(2) Notwithstanding subregulation (1), an Airworthiness Certificate may be issued to an operator for a period of less than one year where it is issued under regulation 11.

(3) The application for the renewal of an Airworthiness Certificate shall be—

*(a)* made in a form and manner prescribed by the Authority; and

*(b)* accompanied by—

(i) an engineer's report in the form prescribed by the Authority, giving details of work done on the aircraft since the last renewal of the Airworthiness Certificate;

(ii) a copy of the mass and balance report for the aircraft;

(iii) the prescribed fee; and

(iv) such other documents as prescribed by the Director-General.

(4) The continued validity of an Airworthiness Certificate shall be dependent upon—

*(a)* the Trinidad and Tobago aircraft being maintained in an airworthy condition in accordance with the requirements of these Regulations;

*(b)* the Authority being granted access to the Trinidad and Tobago aircraft to determine continued compliance with these Regulations; and

*(c)* the Trinidad and Tobago aircraft being operated within the performance and operating limitations of its approved Aircraft Flight Manual.

**CONTENTS OF AN AIRWORTHINESS CERTIFICATE**

Contents of an Airworthiness Certificate. [188/2006].

**16.** An Airworthiness Certificate shall be a single document signed by the Authority and shall contain the following:

*(a)* the date of expiry;

*(b)* the nationality and registration marks;

*(c)* the manufacturer and designation of the Trinidad and Tobago aircraft;

*(d)* the serial number of the Trinidad and Tobago aircraft;

*(e)* the certification basis or permitted operational category of the aircraft;

*(f)* date of issue;

*(g)* authorising signature; and

*(h)* the following statement with reference to the appropriate Airworthiness code inserted in the area marked with an asterisk:

"This Certificate of Airworthiness is issued pursuant to the Convention on International Civil Aviation dated 7th December, 1944 and (*)..... in respect of the above aircraft which is considered to be airworthy when maintained and operated in accordance with the foregoing and the pertinent operating limitations".

*(i)* periodic endorsement, showing expiry date or a statement that the aircraft is being maintained under a system of continuous inspection; and

*(j)* such other matters as the Authority may deem necessary.

**MAINTENANCE OF RECORDS FOR AIRCRAFT ISSUED AN AIRWORTHINESS CERTIFICATE**

Requirement of air operator to maintain records for identification of type design.

**17.** Where an Airworthiness Certificate has been issued in respect of a Trinidad and Tobago aircraft under these Regulations, the operator of such Trinidad and Tobago aircraft shall be responsible for maintaining records of such aircraft including records to establish the identification of such aircraft with its approved type design.

**CONTINUED AIRWORTHINESS OF AIRCRAFT AND AERONAUTICAL PRODUCTS**

Requirements for continued airworthiness of aircraft and aeronautical products. [226/2005 199/2009].

**18.** (1) A person shall not perform maintenance or preventive maintenance on a Trinidad and Tobago aircraft other than as prescribed in these Regulations.

(2) The operator of a Trinidad and Tobago aircraft shall be responsible for maintaining such Trinidad and Tobago aircraft in an airworthy condition by ensuring that—

*(a)* all maintenance, overhaul, modifications and repairs which affect airworthiness are performed by an approved person or Approved Maintenance Organisation in a manner prescribed by the Authority;

*(b)* any removal or replacement of any aeronautical product of such aircraft is conducted in a manner and with materials required by the Manufacturer;

*(c)* all inspections classified in the Approved Maintenance programme or any Airworthiness Directives of the State of Design of such aircraft or associated aeronautical products are completed as prescribed;

*(d)* all approved maintenance personnel make appropriate entries in the aircraft maintenance records certifying that such aircraft is airworthy;

*(e)* a Certificate of Release to Service is issued in accordance with regulation 31, to certify that maintenance work performed has been completed satisfactorily and in accordance with the prescribed methods;

*(f)* in the event that there are discrepancies which have not been corrected, the Certificate of Release to Service includes a list of the uncorrected maintenance items and these items are made a part of the aircraft permanent record; and

*(g)* a Certificate of Maintenance Review is issued in accordance with regulation 31A, to certify that all inspections classified in the Approved Maintenance Programme and Airworthiness Directives of the State of Design and State of Manufacture, in respect of such aircraft and its associated aeronautical product have been accomplished as prescribed.

(3) Any failure to maintain an aircraft in an airworthy condition as prescribed by these Regulations shall render the Trinidad and Tobago aircraft ineligible for flight until such time it is restored to an airworthy condition by re-compliance with these Regulations.

**AIRCRAFT MAINTENANCE PROGRAMME**

Requirements for Aircraft Maintenance Programme. [226/2005].

**19.** (1) Maintenance activities shall include processes and practices established by the manufacturer of the aeronautical product and approved by the civil aviation authority of the State of Design of such a product.

(2) An operator shall prepare and submit to the Authority for approval a maintenance programme, which shall include the applicable specifications, methods, procedures, tasks and intervals approved by the State of Design for the aircraft type.

(3) A maintenance programme under subregulation (2), shall include a maintenance manual, airworthiness limitations, mandatory replacement times, fatigue life limits, inspection intervals, corrosion prevention and control, supplemental structural inspection programmes or structural integrity programmes, ageing aircraft programmes, reliability programmes and maintenance review board report as applicable.

(4) The maintenance programme under subregulation (2), shall, where the Authority deems appropriate, be reviewed and updated in accordance with the reliability programme of the operator which shall take into consideration continuing airworthiness

information promulgated by the manufacturer, the utilisation of the aircraft and the operator's particular maintenance and operating environment and experience of the operator.

(5) An operator shall not operate a Trinidad and Tobago aircraft for which a maintenance manual of the manufacturer, or instructions for continued airworthiness that contains an airworthiness limitation section has been issued unless the operator has complied with the following:

*(a)* the mandatory replacement times, inspection intervals and related procedures specified in the airworthiness limitation section of the maintenance manual or instructions for airworthiness;

*(b)* alternative inspection intervals and related procedures—

(i) set forth in the operations specifications approved under the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations; or Sub. Leg.

(ii) in accordance with the inspection programme approved under the Civil Aviation [(No. 2) Operations] Regulations; or Sub. Leg

*(c)* maintenance programme approved under these Regulations.

**AIRWORTHINESS DIRECTIVES**

**20.** (1) Where an aircraft is registered in Trinidad and Tobago, the Director-General shall— Airworthiness directives procedures. [304/2004 226/2005].

*(a)* notify the State of Design of the registration of such aircraft in Trinidad and Tobago; and

*(b)* request all airworthiness directives in respect of such aircraft or its associated aeronautical product and any information which the State of Design deems necessary for the continuing airworthiness and safe operation of the Trinidad and Tobago aircraft.

(2) Whenever a State of Design considers an aircraft or its associated aeronautical product is unsafe based on an

airworthiness directive by that State, such directives shall be mandatory to Trinidad and Tobago registered aircraft of the type identified in that airworthiness directive.

(3) An operator of a Trinidad and Tobago aircraft shall, whenever an airworthiness directive has been issued in respect of the applicable aircraft or aeronautical product comply with such airworthiness directives.

(4) Where the Director-General determines that an aeronautical product has exhibited an unsafe condition and such condition is likely to exist or to develop in other aeronautical products of the same type design, he shall, where an airworthiness directive has not been issued by the State of Design, recommend the Authority issue a Special airworthiness directive prescribing inspections and the conditions and limitations, where any, under which such aeronautical products may continue to be operated.

(5) The findings of any inspection under subregulation (4), shall be forwarded immediately by the operator to the Authority and the State of Design.

(6) A person shall not operate an aeronautical product to which an airworthiness directive applies, issued by—

*(a)* the State of Design;

*(b)* ***(Deleted by LN 304/2004);***

*(c)* the Authority; or

*(d)* the State of Registry for other aircraft operated within Trinidad and Tobago,

except in accordance with the requirements of that airworthiness directive.

**DAMAGE TO AIRCRAFT**

Procedures to be followed where damage occurs to aircraft. [188/2006].

**21.** (1) An operator shall not operate an aircraft that has sustained damage unless all details of the damage are provided to allow the State of Registry to determine the airworthiness of the aircraft as defined by the appropriate airworthiness requirements.

(2) Where a Trinidad and Tobago aircraft has sustained damage, the operator shall have the aircraft inspected by an appropriately qualified maintenance person in accordance with

the appropriate airworthiness requirements to assess the damage to determine the airworthy state of the aircraft.

(3) Where it is determined upon inspection of a Trinidad and Tobago aircraft under subregulation (2), that the damage sustained is of a nature such that the Trinidad and Tobago aircraft is no longer airworthy, the Trinidad and Tobago aircraft shall not be allowed to resume flight until it is certified as airworthy.

(4) Where the damage sustained is of a nature that a Trinidad and Tobago aircraft is no longer airworthy when the aircraft is in the territory of another Contracting State, the civil aviation authority of that Contracting State is entitled to prevent the aircraft from resuming its flight.

(5) Notwithstanding subregulations (3) and (4), in exceptional circumstances the Director-General may, where the necessary application is made by the operator, recommend that the Authority issue a Special Flight Permit prescribing particular limiting conditions under which the aircraft may operate a non-commercial air transport operation to an aerodrome at which it can be restored to an airworthy condition.

(6) In prescribing particular limiting conditions under subregulation (5), the Director-General shall consider all limitations proposed by the Contracting State that had originally prevented the aircraft from resuming its flight operations.

(7) Where a foreign registered aircraft operating in Trinidad and Tobago has sustained damage, the operator of such foreign aircraft shall report such occurrence and the details of the damage to the Authority and to the State of Registry to allow the State of Registry to make an assessment of the airworthiness status of the aircraft.

(8) The Director-General may prevent the foreign registered aircraft referred to in subregulation (7) from resuming flight until he has received notification from the State of Registry that the aircraft is—

*(a)* airworthy; or

*(b)* safe for flight and issued with a Special Flight Permit or equivalent approval.

(9) Subject to satisfying the requirements of the Contracting State referred to in subregulation (6), and upon the restoration of the Trinidad and Tobago aircraft to an airworthy condition or the issue of a Special Flight Permit by the Authority, the civil aviation authority of that Contracting State may permit the Trinidad and Tobago aircraft to resume flight.

**REPORTING OF FAILURES, MALFUNCTIONS AND DEFECTS**

Requirements for reporting of failures, malfunctions and defects. [226/2005].

**22.** (1) Operators, Approved Maintenance Organisations, Air Traffic Controllers, Pilots, and holders of Aircraft Maintenance Licence shall report to the Director-General any faults, failures, malfunctions, or defects, and other occurrences on any Trinidad and Tobago aircraft under his control which cause or might cause adverse effects on the continued airworthiness of the aircraft such as—

*(a)* fires during flight and whether the related fire-warning system operated properly;

*(b)* fires during flight not protected by a related fire-warning system;

*(c)* false fire-warning during flight;

*(d)* an engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment or components;

*(e)* an aircraft component that causes accumulation or circulation of smoke, vapour, or toxic or noxious fumes in the crew compartment or passenger cabin during flight;

*(f)* engine shutdown during flight because of flameout;

*(g)* engine shutdown during flight when external damage to the engine or aircraft structure occurs;

*(h)* engine shutdown during flight due to foreign object ingestion or icing;

*(i)* engine shutdown during flight;

*(j)* a propeller feathering system or ability of the system to control overspeed during flight;

*(k)* a fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight;

*(l)* an unintended landing gear extension or retraction, or opening or closing of landing gear doors during flight;

*(m)* brake system components that result in loss of brake actuating force when the aircraft is in motion on the ground;

*(n)* aircraft structure that requires major repair;

*(o)* cracks, permanent deformation, or corrosion of aircraft structure, if more than the maximum acceptable to the manufacturer or the Authority;

*(p)* aircraft components or systems malfunctions that result in taking emergency actions during flight;

*(q)* each interruption to a flight, unscheduled change of aircraft route, or unscheduled stop or diversion from a route caused by known or suspected technical difficulties or malfunctions;

*(r)* any abnormal vibration or buffeting caused by a structural or system malfunction, defect, or failure;

*(s)* a failure or malfunction of more than one attitude, airspeed, or altitude instrument during a given operation of the aircraft;

*(t)* the number of engines removed prematurely because of malfunction, failure or defect, listed by make and model and the aircraft type in which it was installed; or

*(u)* the number of propeller featherings in flight, listed by type of propeller and engine and aircraft on which it was installed.

(2) A report required by this regulation shall—

*(a)* be submitted to the Authority within seventy-two hours after determining that the failure, malfunction, or defect required to be reported has occurred; and

*(b)* include as much of the following information as is available and applicable:

(i) aircraft serial number;

(ii) when the failure, malfunction, or defect is associated with an article approved under a Technical Standard Order authorisation, the article serial number and model designation, as appropriate;

(iii) when the failure, malfunction or defect is associated with an engine or propeller, the engine or propeller serial number, as appropriate;

(iv) product model;

(v) identification of the part, component, or system involved, including the part number; and

(vi) nature of the failure, malfunctions or defects.

(3) The operator shall ensure that a report under subregulation (1), is also submitted in a timely basis to—

*(a)* the State of Registry, for an aircraft registered in a foreign State;

*(b)* the State of Design; and

*(c)* the holder of the Type Certificate.

(4) A report under this regulation shall be made in a form and manner acceptable to the Authority.

(5) Notwithstanding subregulation (1), a report shall be immediately forwarded to the Authority in the following circumstances:

*(a)* primary structural failure;

*(b)* control system failure;

*(c)* fire in the aircraft;

*(d)* engine structure failure; and

*(e)* any other condition considered an imminent hazard to safety.

(6) A report under subregulation (5), may be made by telephone, telex or facsimile or other appropriate means of communication, with a written follow-on report as soon as possible, but no later than seventy-two hours after discovery.

**MODIFICATION AND REPAIRS**

Procedures for major modification and major repairs. [226/2005].

**23.** (1) All modifications and repairs to an aeronautical product shall comply with airworthiness requirements acceptable to the Authority.

(2) A national operator shall establish procedures to ensure that the substantiating data which supports compliance with the airworthiness requirements are retained.

(3) In the case of a major repair or major modification to an aeronautical product, the major repair or major modification to such aeronautical product, shall be completed in accordance with technical data approved or accepted by the Authority.

(4) A major repair or major modification to an aeronautical product shall be performed by—

*(a)* an Approved Maintenance Organisation in accordance with the limitations of his Operations Specifications issued by the Authority;

*(b)* an air operator in accordance with his Operations Specifications issued by the Authority; or

*(c)* the holder of a valid Inspection Authorisation in accordance with the limitation of such Inspection Authorisation.

(5) An operator shall, promptly upon its completion, prepare a report of each major modification or major repair of an aeronautical product operated by him.

(6) An operator shall submit a copy of each report of a major modification to the Authority, and shall keep a copy of each report of a major repair available for inspection.

(7) Where a major repair or major modification results in a change in the aircraft operating limitations or flight data contained in the Aircraft Flight Manual, those operating limitations or flight data in the Aircraft Flight Manual shall be appropriately revised and set forth as prescribed.

## PART IIA

## NOISE CERTIFICATION

### APPLICABILITY

Applicability. [48/2007].

**23A.** This Part specifies the requirements for the issue of a validation certificate for a noise certificate (hereinafter referred to as a "noise validation certificate") for the following aircraft where such aircraft are engaged in international air navigation:

*(a)* all subsonic jet aeroplanes;

*(b)* supersonic aeroplanes;

*(c)* propeller driven aeroplanes with a maximum certified take-off mass exceeding 5 700 kg;

*(d)* propeller driven aeroplanes with a maximum certified take-off mass of 5 700 kg or less; and

*(e)* helicopters.

### STANDARDS FOR NOISE

Standards for noise. [48/2007].

**23B.** The noise certification standards applicable to an aircraft shall be those set out in ICAO Annex 16.

### RESTRICTION ON OPERATIONS WITHOUT NOISE VALIDATION CERTIFICATE

Restriction on operations without noise validation certificate. [48/2007].

**23C.** An operator shall not operate an aircraft to which these Regulations apply in Trinidad and Tobago unless there is in force in respect of the aircraft, a noise validation certificate—

*(a)* validated by the Authority under regulation 23D; or

*(b)* issued or validated by the competent authority of the State of Registry of the aircraft on the basis of satisfactory evidence that the aircraft complies with requirements that are at least equal to the applicable Standards specified in ICAO Annex 16.

### REQUIREMENTS FOR THE ISSUE OF A NOISE VALIDATION CERTIFICATE

Requirements for the issue of a noise validation certificate. [48/2007].

**23D.** (1) An operator of a Trinidad and Tobago aircraft to which these Regulations apply, who wishes to have a noise validation certificate issued for that aircraft, shall—

*(a)* apply to the Authority;

*(b)* pay the prescribed fee;

*(c)* present evidence to the Director-General that the aircraft complies with the applicable requirements of ICAO Annex 16;

*(d)* submit the aircraft to such flying tests as the Director may require.

(2) Where the Director-General is satisfied that the evidence presented by the applicant in support of an application for a noise validation certificate and the results of any flying tests required by the Director-General, show that the aircraft complies with the requirements that are at least equal to the applicable standards specified in ICAO Annex 16 in relation to the noise made by that aircraft, he may recommend that the Authority issue a noise validation certificate.

**CONTINUED VALIDITY OF A NOISE VALIDATION CERTIFICATE**

Continued validity of a noise validation certificate. [48/2007].

**23E.** (1) A noise validation certificate in respect of a Trinidad and Tobago aircraft shall be suspended or revoked—

*(a)* where the aircraft ceases to comply with the applicable noise standards;

*(b)* at such time as the aircraft or any part of it is modified, in any way which affects the ability of the aircraft to comply with the noise standards required by these Regulations, other than in a manner and with material of a type approved by the State of Design and accepted by the Authority, either generally or in relation to a class of aircraft or to a particular aircraft; or

*(c)* until the completion of any inspection or test of the aircraft required by the Director-General to be performed which shows that the aircraft complies with the noise standards required by these Regulations.

(2) The holder of a noise validation certificate which is suspended, shall forthwith produce the noise validation certificate to the Authority for endorsement.

(3) The holder of a noise validation certificate which has

been revoked by the Authority, shall within thirty days from the date on which it was revoked, surrender such certificate to the Authority.

(4) Where a noise validation certificate is suspended or revoked, such suspension or revocation shall remain in force, and a new noise validation certificate shall not be granted unless the aircraft is found, on reassessment, to comply with the applicable noise standards of ICAO Annex 16.

(5) In determining the continued validity of a noise validation certificate, the Director-General may accept reports furnished to him by a person whom he approves as qualified and competent to make such reports either absolutely or subject to such conditions as he thinks fit.

**CONTENTS OF A NOISE VALIDATION CERTIFICATE**

Contents of a noise validation certificate. [48/2007].

**23F.** (1) A noise validation certificate for an aircraft shall be in the form prescribed by the Director-General and contain at least the following item numbers and headings:

*(a)* Item 1. Trinidad and Tobago;

*(b)* Item 2. Noise Validation Certificate;

*(c)* Item 3. Number of the document;

*(d)* Item 4. Nationality or common mark and registration marks;

*(e)* Item 5. Manufacturer and manufacturer's designation of aircraft;

*(f)* Item 6. Aircraft serial number;

*(g)* Item 7. Engine manufacturer, type and model;

*(h)* Item 8. Propeller type and model for propeller driven aeroplanes;

*(i)* Item 9. Maximum take-off mass in kilogrammes;

*(j)* Item 10. Maximum landing mass, in kilogrammes, for certificates issued under Chapters 2, 3, 4, 5, and 12 of ICAO Annex 16;

*(k)* Item 11. The chapter and section of ICAO Annex 16 according to which the aircraft was certified;

*(l)* Item 12. Additional modifications incorporated for the purpose of compliance with the applicable noise certification standards;

*(m)* Item 13. The lateral or full-power noise level in the corresponding unit for documents issued under Chapters 2, 3, 4, 5 and 12 of ICAO Annex 16;

*(n)* Item 14. The approach noise level in the corresponding unit for documents issued under Chapters 2, 3, 4, 5, 8 and 12 of ICAO Annex 16;

*(o)* Item 15. The flyover noise level in the corresponding unit for documents issued under Chapters 2, 3, 4, 5 and 12 of ICAO Annex 16;

*(p)* Item 16. The overflight noise level in the corresponding unit for documents issued under Chapters 6, 8 and 11 of ICAO Annex 16;

*(q)* Item 17. The take-off noise level in the corresponding unit for documents issued under Chapters 8 and 10 of ICAO Annex 16;

*(r)* Item 18. Statement of compliance, including a reference to Annex 16, Volume I;

*(s)* Item 19. Date of issuance of the noise certification document; and

*(t)* Item 20. Signature of the officer issuing it.

(2) Item headings on the noise validation certificate shall be uniformly numbered in Arabic numerals so that on any noise validation certificate the item number will, under any arrangement, refer to the same item heading.

## PART III

## AIRCRAFT MAINTENANCE AND INSPECTION

### APPLICABILITY OF PART III

Applicability of Part III.

**24.** This Part prescribes the requirements for maintenance and inspection of a Trinidad and Tobago aircraft and its associated aeronautical products.

**PERSONS AUTHORISED TO PERFORM MAINTENANCE OR PREVENTIVE MAINTENANCE**

Persons authorised to perform maintenance or preventive maintenance. [304/2004].

**25.** (1) A person shall not perform any task defined as maintenance, preventive maintenance or modification of a Trinidad and Tobago aircraft or its aeronautical products, unless such person is—

*(a)* a pilot authorised by the Authority, limited to perform preventive maintenance on specified non-commercial Trinidad and Tobago small aircraft owned or operated by such pilot;

*(b)* an Aircraft Maintenance Engineer, limited to perform maintenance, preventive maintenance, or modification of an aircraft or aeronautical product for which he holds a licence and;

*(c)* performing maintenance, preventive maintenance or modification under the supervision of an Aircraft Maintenance Engineer, authorised to perform such maintenance who—

(i) personally observes the work being done to the extent necessary to ensure that it is being done properly; and

(ii) is readily available in person for consultation;

*(d)* an Approved Maintenance Organisation subject to the limitations of his Operations;

*(e)* an air operator subject to the limitations of his Operations; or

*(f)* a manufacturer holding an Approved Maintenance Organisation Certificate issued or accepted by the Authority may—

(i) rebuild or modify any aeronautical product manufactured by that manufacturer under a Type Certificate or Production Certificate;

(ii) rebuild or modify any aeronautical product manufactured by that manufacturer under a Technical Standard Order Authorisation, a Parts Manufacturing Approved Standard in respect of material, parts, process or appliance issued by the State of Design; and

(iii) where applicable, perform any inspection required by the Act or Regulations made thereunder on aircraft it manufactures, while currently operating under a Production Certificate or under a currently approved production inspection system for such aircraft.

(2) A person shall not perform maintenance, preventive maintenance or modification under subregulation (1), unless he has received, where applicable—

*(a)* basic aeronautical knowledge and skill training in the area of maintenance to be undertaken;

*(b)* familiarisation training on the aeronautical product on which maintenance is to be undertaken;

*(c)* training on company maintenance procedures and documentation;

*(d)* training on aircraft maintenance practices and procedures;

*(e)* training on procedures for introduction into service of new equipment with which the maintenance personnel are not familiar;

*(f)* continuing training on topics relevant to the operations; and

*(g)* human factors training in the relevant aviation areas.

**PERSONS AUTHORISED TO PERFORM INSPECTIONS**

Persons authorised to perform inspections.

**26.** A person, shall not perform the inspections required by the Act or Regulations made thereunder, for a Trinidad and Tobago aircraft and its aeronautical products prior to or after it has undergone maintenance, preventive maintenance, rebuilding, or modification, unless such person is—

*(a)* an Aircraft Maintenance Engineer, who may conduct the required inspection subject to the limitations of his licence;

*(b)* an Approved Maintenance Organisation, who may conduct the required inspection subject to its Operations Specification;

*(c)* a national air operator, who may conduct the required inspection subject to his Operations Specifications; or

*(d)* a qualified person approved by the Authority to perform such inspection.

**PERSONS AUTHORISED TO ISSUE CERTIFICATE OF RELEASE TO SERVICE**

Restrictions on persons who can issue Certificate of Release to Service.

**27.** A person issuing a Certificate of Release to Service specified in regulation 26 shall be—

*(a)* a pilot authorised by the Authority to perform limited preventive maintenance in accordance with regulation 25(1)*(a)* on specified non-commercial Trinidad and Tobago small aircraft owned or operated by such pilot;

*(b)* an Aircraft Maintenance Engineer performing, supervising, or inspecting the maintenance of an aeronautical product subject to the limitations of his licence and rating;

*(c)* an Aircraft Maintenance Organisation subject to the limitations of its Operations Specifications; or

*(d)* a national air operator subject to the limitations of his Operations Specifications.

**MAINTENANCE PERFORMANCE RULES**

Maintenance Performance Rules.

**28.** (1) A person authorised by these Regulations to perform maintenance or preventive maintenance under regulation 25, on an aeronautical product shall use the methods, techniques and practices prescribed in the current maintenance manual or instructions for continued airworthiness of the manufacturer.

(2) Notwithstanding the methods, techniques and practices specified in the current maintenance manual or instructions for continued airworthiness under subregulation (1), a person conducting maintenance or preventive maintenance shall—

*(a)* where an air operator has an approved maintenance control manual which contains the methods, techniques and practices; and

*(b)* where the Director-General prescribes additional methods, techniques and practices in accordance with approved equivalent engineering and safety standards,

comply with such methods, techniques and practices.

(3) A person authorised by these Regulations to perform maintenance or preventive maintenance shall use the tools, equipment, and test apparatus necessary to assure completion of the work in accordance with accepted industry practices.

(4) Where the manufacturer recommends special equipment or test apparatus, the person approved to perform maintenance on such aeronautical product shall use such equipment or apparatus or equivalent equipment or apparatus that is acceptable to the Authority on such aeronautical product.

(5) A person authorised by these Regulations to perform maintenance or preventive maintenance on an aeronautical product which may or may not have been modified shall perform such work in such a manner and use materials of such a quality, that the condition of such aeronautical product upon which such work was performed shall be at least equal to its original or where modified to its modified standard, with regard to aerodynamic function, structural strength, resistance to vibration and deterioration and other qualities affecting airworthiness.

(6) The methods, techniques and practices contained in the Maintenance Control Manual of an air operator and maintenance programme as approved by the Authority will constitute an acceptable means of compliance with this Part.

(7) A person authorised to perform inspection or other maintenance specified in the limitations section of the current maintenance manual of the manufacturer or current instructions for continued airworthiness shall perform such inspection or other maintenance in accordance with that limitations section or in accordance with specifications acceptable to the Authority.

**INSPECTIONS PERFORMANCE RULES**

Requirements for inspections performance rules.

**29.** (1) Where a person authorised to perform inspections under these Regulations is required by the Act or Regulations

made thereunder to perform an inspection on an aeronautical product he shall perform the inspection so as to determine whether the aeronautical product or portion thereof under inspection, meets all applicable airworthiness requirements.

(2) Where an inspection programme is required by the maintenance manual of a manufacturer for a specific aeronautical product being inspected under subregulation (1), the person conducting such inspection shall do so in accordance with the instructions and procedures set forth in the inspection programme.

(3) A person authorised to perform inspections under these Regulations, shall in performing such inspection on a rotorcraft shall conduct such inspections in accordance with the Maintenance Manual or Instructions for Continued Airworthiness of the manufacturer.

**ANNUAL AND ONE HUNDRED-HOUR INSPECTIONS AND USE OF CHECKLIST**

Requirements for annual and one hundred-hour inspections and use of a checklist.

**30.** (1) A person authorised to perform an annual or one hundred-hour inspection under these Regulations shall use a checklist while performing such inspection.

(2) The checklist under subregulation (1), shall include the scope and detail of the required items acceptable to the Authority.

(3) A person authorised to perform inspections under these Regulations, shall before issuing a Certificate of Release to Service in respect of—

*(a)* a reciprocating-engine-powered aircraft; or

*(b)* a turbine-engine-powered aircraft,

operate the aircraft engine or engines to determine satisfactory performance in accordance with the current recommendations of the aircraft manufacturer after an annual or one hundred-hour inspection.

**ISSUE OF CERTIFICATE OF RELEASE TO SERVICE**

Issue of Certificate of Release to Service.

**31.** (1) Where a person authorised to perform inspections under these Regulations is satisfied that an aeronautical product which has undergone maintenance or preventive maintenance or

rebuilding is airworthy or serviceable as required under these Regulations, he shall issue a Certificate of Release to Service in respect of such aeronautical product.

(2) The person authorised to perform inspections under the Act, or Regulations made thereunder, who finds that the aircraft is not airworthy, shall not issue a Certificate of Release to Service and shall provide the operator of the aeronautical product with a signed and dated list of such discrepancies.

(3) An aeronautical product under subregulation (2), shall not be issued a Certificate of Release to Service until all discrepancies identified in the listing have been addressed satisfactorily.

**CERTIFICATE OF MAINTENANCE REVIEW**

Certificate of Maintenance Review. [199/2009].

**31A.** (1) A person shall not operate a Trinidad and Tobago aircraft in civil aircraft operations unless there is in force a Certificate of Maintenance Review in the form set out in Schedule 3 in respect of such aircraft.

(2) A Certificate of Maintenance Review shall be issued in respect of an aircraft where the—

*(a)* inspections classified in the Approved Maintenance Programme;

*(b)* Airworthiness Directives of the State of Design and State of Manufacture;

*(c)* Special Airworthiness Directives issued by the Authority; and

*(d)* mandatory and alert service bulletins issued by the manufacturer,

have been accomplished as prescribed for such aircraft.

(3) Where the requirements for the issue of a Certificate of Maintenance Review in subregulation (2) have been satisfied for—

*(a)* an aeroplane or helicopter engaged in commercial air transport operations;

*(b)* an aeroplane 5 700 kilogrammes and more maximum certified take-off mass; or

*(c)* a helicopter 2 730 kilogrammes and more maximum certified take-off mass,

a Certificate of Maintenance Review shall be issued by—

(i) an operator under an equivalent system of maintenance, approved by the Authority; or

(ii) an approved maintenance organisation designated by the operator.

(4) Where the requirements for the issue of a Certificate of Maintenance Review in subregulation (2) have been satisfied for—

*(a)* an aeroplane of less than 5 700 kilogrammes maximum certified take-off mass not engaged in commercial air transport operations; or

*(b)* a helicopter of less than 2 730 kilogrammes maximum certified take-off mass, not engaged in commercial air transport operations,

a Certificate of Maintenance Review shall be issued by—

(i) an operator under an equivalent system of maintenance, approved by the Authority;

(ii) an approved maintenance organisation designated by the operator; or

(iii) the holder of an Aircraft Maintenance Engineer Licence with an appropriate type rating, designated by the operator of such aeroplane or helicopter.

(5) A Certificate of Maintenance Review shall be valid for a period of six months from the date of issue.

(6) An operator of a Trinidad and Tobago aircraft shall ensure that a valid Certificate of Maintenance Review is carried on board such aircraft during all civil aviation operations.

(7) The requirements of this regulation shall come into effect on—

*(a)* 1st July 2009 for aircraft having more than nineteen passenger seats; and

*(b)* 1st January 2010 for aircraft having nineteen passenger seats or less.

(8) An operator may meet the requirements of this regulation at any time before the date specified in subregulation (7).

**PERFORMANCE RULES, CERTIFICATE OF RELEASE TO SERVICE**

Required Performance Rules, Certificate of Release to Service.

**32.** A person authorised to perform inspections under these Regulations shall not issue a Certificate of Release to Service for any aeronautical product under regulation 31 unless—

*(a)* the appropriate maintenance record entry has been made;

*(b)* the repair or modification form has been completed in the manner prescribed by the Authority;

*(c)* the maintenance requirements, aircraft operating limitations or flight data contained in the approved Aircraft Flight Manual required to be revised as a result of a repair or modification are appropriately revised;

*(d)* he used up to date approved data company procedures as applicable, recommended an calibrated tools and test equipment and an appropriate environment to perform the inspections; and

*(e)* the appropriate Release to Service check has been satisfactorily performed.

**PART IV**

## MAINTENANCE RECORDS AND ENTRIES

**APPLICABILITY OF PART IV**

Applicability for Part IV.

**33.** This Part prescribes the requirements for maintenance records and entries following maintenance, preventive maintenance, overhaul and modifications for aircraft and aeronautical products.

**CONTENT, FORM, AND DISPOSITION OF MAINTENANCE, PREVENTIVE MAINTENANCE, REBUILDING, AND MODIFICATION OF RECORDS**

Content, form, and disposition of maintenance, preventive maintenance, rebuilding, and modification of records.

**34.** (1) A person who is authorised under these Regulations to perform maintenance, preventive maintenance, rebuild an aircraft or aeronautical product shall, when the work is performed satisfactorily, make the following entry in the maintenance record of such aircraft or aeronautical product:

*(a)* a description and reference to data acceptable to the Authority of the work performed;

*(b)* the completion date of the work performed; and

*(c)* the name, signature and licence or authorisation number and kind of licence or authorisation as applicable, held by such person.

(2) A person performing a major repair or major modification shall record the details of such major repair or major modifications in the form and manner prescribed by the Authority.

(3) A person working under the supervision of an Aircraft Maintenance Engineer shall not perform any inspection required by the Civil Aviation [(No. 2) Operations] Regulations or any inspection performed after a major repair or modification.

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**RECORDS OF OVERHAUL AND REBUILDING**

Requirement for records of overhaul and rebuilding.

**35.** (1) A person shall not describe an aeronautical product as being overhauled in any Maintenance Record, unless such aeronautical product has been—

*(a)* disassembled, cleaned, inspected as permitted, repaired as necessary and reassembled using methods, techniques and practices acceptable to the Authority; and

*(b)* tested in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Authority, which have been developed and documented by the holder of the Type Certificate, Supplemental Type Certificate, or a material, part, process or appliance manufacturing approval.

(2) A person shall not describe an aeronautical product as being rebuilt in any maintenance record, unless it has been disassembled, cleaned, inspected as permitted, repaired as necessary, reassembled, and tested to the same tolerances and limits as a new item, using either new parts or used parts that conform to new part tolerances and limits.

**CONTENT, FORM, AND DISPOSITION OF RECORDS FOR INSPECTIONS**

Required content, form, and disposition of records for inspections.

**36.** (1) A person authorised to issue a Certificate of Release to Service under the Act or Regulations made thereunder, for an aeronautical product after performing an inspection in accordance with the Act or Regulations made thereunder, shall enter in the maintenance record of such aeronautical product—

*(a)* the type of inspection and a brief description of the extent of the inspection;

*(b)* the date of the inspection and aircraft total time in service;

*(c)* his name, signature, licence number and kind of licence where the Certificate of Release to Service is issued under the privileges of his licence;

*(d)* his name, signature or stamp, authorisation number and approved Maintenance Organisation approval number where the Certificate of Release to Service is issued under the privileges of the approved Maintenance Organisation certificate; and

*(e)* the inspection programme accomplished and a statement that the inspection was performed in accordance with the inspections and procedures for that particular programme where an inspection is conducted under an inspection programme provided for in the Act or Regulations made thereunder.

(2) Where the aeronautical product is found to be airworthy the person authorised to issue a Certificate of Release to Service under subregulation (1) shall append his signature in a statement set out in Part A of Schedule 2.

Schedule 2. Part A.

(3) Where the aircraft is not approved for return to service because of needed maintenance, non-compliance with applicable specifications, airworthiness directives or other approved data, the person performing the inspection shall append his signature on a statement set out in Part B of Schedule 2.

Schedule 2. Part B.

(4) A person authorised to perform an inspection required by the Civil Aviation [(No. 2) Operations] Regulations

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who finds that the aircraft is not airworthy or does not meet the applicable type certificate data sheet, airworthiness directives or approved data requirements, upon which its airworthiness depends, shall give the aircraft operator a signed and dated list of those discrepancies and unairworthy items.

**IMPLEMENTING STANDARDS**

Air operator to comply with implementing standards. [199/2009]. Schedule 3.

**37.** A national air operator in meeting the requirements of regulations 16, 18, 19, 23, 25, 30, 31A, 34, 35 and 36, shall ensure that he complies with the minimum standards set out in Schedule 3.

**DIRECTOR-GENERAL MAY AMEND SCHEDULES**

Director-General to amend Schedules.

**38.** The Director-General may by Order amend any of the Schedules.

**TRANSITIONAL PROVISIONS**

Transitional provisions. [276/2004 33/2005 226/2005 287/2006 32/2008].

**39.** (1) The airworthiness requirements of all Trinidad and Tobago aircraft and aeronautical products under these Regulations shall come into effect ten months from the date of publication of these Regulations.

(2) Notwithstanding the requirements of subregulation (1), a person who on the commencement of these Regulations holds a valid Airworthiness Certificate for an aircraft may continue to operate such aircraft under the conditions of his existing Airworthiness Certificate until 24th September 2005, and thereafter shall meet the requirements of these Regulations.

(3) Notwithstanding subregulation (2), an operator of an aircraft of maximum certified take-off mass of less than 20 000 kilogrammes shall meet the requirements of these Regulations on or before 1st October 2009.

## SCHEDULE 1

Regulation 11.

The following established international airworthiness codes meet the minimum international civil aviation requirements for giving effect to Annex 8 of the Chicago Convention in respect of the minimum standards relating to the airworthiness requirements of these Regulations as applicable:

*(a)* Federal Aviation Regulations of the United States of America;

*(b)* Joint Aviation Requirements;

*(c)* Canadian Aviation Regulations; and

*(d)* British Civil Airworthiness Requirements.

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## SCHEDULE 2

Regulation 36.

### PART A

*"I …… (insert name) certify that this aeronautical product has been inspected in accordance with …… (insert type) inspection and such aeronautical product was determined to be in an airworthy condition.*

..... .....”

*Signature* *Date*

### PART B

*"I …… (insert name) certify that this aeronautical product was inspected in accordance with …… (insert type) inspection and a list of ……. (insert quantity) discrepancies and unairworthy items have been provided to the aircraft operator. Such aircraft shall not be released to service unless all discrepancies and unairworthy items identified on that list have been addressed in accordance with the approved airworthiness requirements.*

..... .....”

*Signature* *Date*

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*L.R.O.*

Regulation 37. [304/2004 226/2005 199/2009].

## SCHEDULE 3

### IMPLEMENTING STANDARDS

The following standards are numbered to correspond numerically with the relevant provisions in the Regulations:

***Regulation 16***

The categories of operation under Regulation 16 and the related purposes for which the aircraft may fly are as outlined in the following Table:

**TABLE**

| Category of Operation | Purpose |
|---|---|
| Transport Category (Passengers) | Any Purpose |
| Transport Category (Cargo) | Any purpose other than public transport of passengers |
| Aerial Work Category | Any purpose other than public transport |
| Private Category | Any purpose other than public transport or aerial work |
| Special Category | Any purpose other than public transport, specified in the certificate of Airworthiness but not including the carriage of passengers unless expressly permitted |

***Regulation 18***

The following provisions set out the minimum standards for the continued airworthiness of aircraft and components:

*(a)* inspections classified as mandatory include but are not limited to duplicate inspections. A duplicate inspection is an inspection first made and certified by one person authorised under the Regulations and subsequently made and certified by a second person authorised under the Regulations. It shall be conducted following initial assembly or any disturbance of a Control System. A control system is a system by which the flight path, attitude, or propulsive force of an aircraft is changed, including the flight controls, engine and propeller controls, the related system controls and the associated operating mechanisms;

*(b)* duplicate inspections are also applicable to any defined point of the aircraft at any point where a single mal-assembly could lead to an accident or serious incident;

*(c)* a duplicate inspection of all Vital Points and Control Systems in an aircraft shall be made after initial assembly and before a Certificate of Release to Service has been issued after overhaul, repair, replacement, modification or adjustment and, in any case, before the first flight;

*(d)* the first and second inspections of a duplicate inspection must take account of the full extent of the work undertaken and not simply the immediate area of disturbance. This is to ensure that distant or remote parts of the system that may have been affected by the disturbance are also subject to duplicate inspections. Where work has been carried out on other systems for safety precautions, or to enhance accessibility, the need to carry out a duplicate inspection on these systems shall be considered. Persons who carry out and certify duplicate inspections are therefore required to undertake an independent review of the complete task, as detailed in the maintenance manual and by reference to worksheets used, including shift hand-over records, to assess the scope of the duplicate inspection(s) required;

*(e)* it may not be possible to inspect the complete Vital Point or Control System when assembled in the aircraft, due to routing the controls through conduits or boxed-in sections and the pre-sealing of various units. In these cases the persons certifying the duplicate inspection shall be satisfied that a duplicate inspection has been made previously on the units and covered sections and that the sealed units are acceptable for the particular use. Such tests as are necessary shall be completed to determine that these particular units and sections have full, free and correct directional movement;

*(f)* vital Point or Control Systems subject to duplicate inspection must not be disturbed or re-adjusted after the first certified inspection and the second part of the duplicate inspection must, as nearly as possible, follow immediately after the first part;

*(g)* if a Vital Point or Control System is disturbed after completion of the duplicate inspection, that part which has been disturbed shall again be inspected in duplicate and a Certificate of Release to Service issued before the aircraft flies;

*(h)* the duplicate inspection shall be the final operation to establish the integrity of the Vital Point or Control System when all the work has been completed and shall take into account all the relevant instructions and information contained in the associated technical data;

*(i)* the inspections prescribed here shall include an inspection to ensure that full, free and correct movement of the controls is obtained throughout the systems relative to the movements of the crew controls. An additional inspection shall be made, when all covers and fairings are finally secured, to ensure that full, free and correct movement of the controls is obtained;

*(j)* persons qualified to make the first and second part of a duplicate inspection are as follows:

(i) appropriately licensed aircraft engineers;

(ii) persons employed by approved Organisations, who are appropriately authorised to make such inspections and to certify the task itself in accordance with company procedures;

*(k)* should a minor adjustment of the Vital Point or Control System be necessary when the aircraft is away from base, the second part of the duplicate inspection may be completed by a pilot or flight engineer licensed for the type of aircraft concerned, providing that Authorisation is granted by the responsible Approved Maintenance Organisation, if the aircraft is being used for the purpose of Commercial Air Transport;

*(l)* where appropriate to the type of unit or component forming part of a Control System, a schedule of inspections and functioning tests shall be compiled at manufacture, overhaul and repair, and the following shall be certified:

(i) duplicate inspection of the section/parts of the units or components which will be concealed during bench assembly and which cannot be proved during inspections and functioning tests when installed in the aircraft Control System;

(ii) duplicate inspection of the completed assembly of the unit or component, functioning and checking for correct relative movement; and

*(m)* persons qualified to make the first and second part of the duplicate inspection required units or components are as follows:

(i) for Approved Manufacturing Organisations, persons employed who are appropriately authorised and qualified to make such inspections in accordance with company procedures. Persons employed by a sub-contracting firm, not directly approved by Authority, who are appropriately authorised by the primary Approved Organisation with a Quality Control Surveillance System controlling the sub-contractor, qualified to make such inspections; and

(ii) for Approved Maintenance Organisations who release Control System units and components, both inspections

and the subsequent Certificates of Release to Service must be issued by persons authorised by the Maintenance Organisation approved under the Act or Regulations made thereunder.

***Regulation 19***

An Aircraft Maintenance Progamme under regulation 19 shall meet the following minimum standards:

*(a)* a reliability programme shall be part of an Aircraft Maintenance Programme and shall be required when specified by the Manufacturer's Maintenance Planning Document or a Maintenance Review Board Report or as specified below. Operators may, however, develop their own reliability monitoring programme which shall be approved by the Authority when it may be deemed beneficial from a maintenance planning point of view;

*(b)* reliability programmes general—

(i) an operator shall ensure the airworthiness of the aeroplane and the serviceability of both operational and emergency equipment by performing all maintenance to an approved maintenance programme;

(ii) an operator should have a system to analyse the effectiveness of the maintenance programme with regard to spares, established defects, malfunctions and damage, and to amend the maintenance programme (this amendment will involve the approval of the authority);

(iii) the maintenance programme will be required to include reliability programme when the authority determines that such a reliability programme is necessary;

(iv) where an operator wishes to use an aeroplane with the initial operator's aeroplane maintenance programme based upon the maintenance review board report process, any associated programme for the continuous surveillance of the reliability, or health monitoring of the aeroplane should be considered as part of the aeroplane maintenance programme; and

(v) some approved operator's aeroplane maintenance programmes, not developed from the maintenance review board process, utilise reliability programmes. Such reliability programmes should be considered as a part of the approved maintenance programme;

*(c)* reliability programmes—

(i) should be developed for aeroplane maintenance programmes based upon Maintenance Steering Group logic or those that include condition monitored components or that do not contain overhaul time periods for all significant system components;

(ii) need not be developed for aeroplane maintenance programmes of aeroplanes of five thousand seven hundred kilogrammes and below or that do contain overhaul time periods for all significant system components; and

(iii) form one important method of updating approved maintenance programmes;

*(d)* a reliability programme is required in the following cases:

(i) the aeroplane maintenance programme is based upon Maintenance Steering Group—3 logic;

(ii) the aeroplane maintenance programme includes condition monitored components; and

(iii) the aeroplane maintenance programme does not contain overhaul time periods for all significant system components when specified by the Manufacturer's maintenance planning document or Maintenance Review Board;

*(e)* a reliability programme is not required in the following cases:

(i) the maintenance programme is based upon the Maintenance Steering Group—1 or 2 logic but only contains hard time or on condition items;

(ii) the aeroplane maximum take-off mass is five thousand seven hundred kilogrammes or below; and

(iii) the aircraft maintenance programme provides overhaul time periods for all significant system components;

*(f)* application to operators of small fleets of less than six aircraft of the same type—

(i) the requirement for a reliability programme is irrespective of the operator's fleet size;

(ii) complex reliability programmes could be inappropriate for a small fleet and is recommended that such operators tailor their Reliability Programmes to suit the size and complexity of operation;

(iii) one difficulty with a small fleet of aircraft is the amount of available data which can be processed,

when this amount is too low, the calculation of alert level is very coarse. Therefore "alert levels" should be used carefully;

(iv) an operator of a small fleet of aircraft, when establishing a reliability programme, should consider the following:

(A) the programme should focus on areas where a sufficient amount of data is likely to be processed;

(B) when the amount of available data is very limited, the engineering judgment of the operator is then a vital element;

(C) careful engineering analysis should be exercised before taking decisions in the following circumstances:

(I) A "0" rate in the statistical calculation may possibly simply reveal that enough statistical data is missing, rather that there is no potential problem;

(II) when alert levels are used, a single event may have the figures reach the alert level. Engineering judgment is necessary so as to discriminate an artifact from an actual need for a corrective action;

(III) in making his engineering judgment, an operator is encouraged to establish contact and make comparisons with other operators of the same aircraft, where possible and relevant. Making comparison with data provided by the Manufacturer may also be possible;

(IV) in order to obtain accurate reliability data, it should be recommended to pool data and analysis with one or more other operators;

(D) notwithstanding the above there are cases where the operator will be unable to pool data with other operators, e.g., at the introduction to service of a new type. In that case the Authority should impose additional restrictions on the Maintenance Review

Board or Maintenance Planning Document tasks intervals (e.g., no variations or only minor evolution are possible, and with the Authority approval);

(v) pooling arrangements—

(A) in some cases, in order that sufficient data may be analysed it may be desirable to "pool" data: i.e., collate data from a number of operators of the same type of aircraft. For the analysis to be valid, the aircraft concerned, mode of operation, and maintenance procedures applied must be substantially the same; variations in utilisation between two operators may more than anything, fundamentally corrupt the analysis. Although not exhaustive, the following list gives guidance on the primary factors which need to be taken into account:

(I) certification factors, such as—aircraft Type Certificate Data Sheet, compliance modification status, including Service Bulletin compliance;

(II) operational factors, such as—operational environment, utilisation, for example, low, high, and seasonal, respective fleet size operating rules applicable, for example, extended range operations, reduced vertical separation minimum and weather operations, operating procedures, Minimum Equipment List and Minimum Equipment List utilisation;

(III) maintenance factors, such as—aircraft age maintenance procedures; maintenance standards applicable; lubrication procedures and programme; Maintenance Planning Document revision or escalation applied or maintenance programme applicable;

(B) although it may not be necessary for all of the foregoing to be completely common, it is necessary for a substantial amount of

commonality to prevail. Decision should be taken by the Authority on a case by case basis;

(C) in case of a short-term lease agreement (less than six months) more flexibility against the above criteria may be granted by the Authority, so as to allow the operator to operate the aircraft under the same programme during the lease agreement effectively;

(D) changes by any one of the operators to the above requires assessment in order that the pooling benefits can be maintained. Where an operator wishes to pool data in this way, the approval of the Authority should be sought prior to any formal agreement being signed between operators;

(E) whereas it is intended to address the pooling of data directly between operators, it is acceptable that the operator participates in a reliability programme managed by the aircraft manufacturer, when the Authority is satisfied that the manufacturer manages a reliability programme which complies with the intend of this leaflet;

(vi) engineering judgment—

(A) engineering judgment is itself inherent to Reliability Programmes as no interpretation of data is possible without judgment. In approving the Operator's Maintenance and reliability programmes, the Authority is expected to ensure that the organisation which runs the programme (it may be the operator, or an Approved Maintenance Organisation under contract) hires sufficiently qualified personnel with appropriate engineering experience and understanding of reliability concept;

(B) it follows that failure to provide appropriately qualified personnel for the reliability programme may lead the Authority to reject the approval of the reliability programme and therefore the aircraft maintenance programme;

*(g)* reliability programme elements—

(i) objectives—

a statement should be included summarising as precisely as possible the prime objectives of the Programme. The extent of the objectives should be directly related to the scope of the Programme, which could vary from a component defect monitoring system to an integrated maintenance management programme. The manufacturer's maintenance planning documents may give guidance on the objectives and should be consulted in every case;

(ii) identification of items—

the Items controlled by the Programme should be stated. Where some items (e.g., aircraft structure, engines, Auxiliary Power Unit) are controlled by separate inspection and development procedures, the associated procedures will be subject to individual approval by the Authority, e.g., individual Sampling or Life Development Programmes, Constructor's Structure Sampling Programmes. In the case of the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations approved programme, these supplemental documents shall form part of the approved maintenance control manual or maintenance organisation procedures manual as appropriate and should be cross-referenced in the programme;

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(iii) terms and definitions—

the significant terms and definitions applicable to the Programme should be clearly identified. Terms already defined in the World Airlines Technical Glossary of Terms and other industry standards should be used. The number of other defined terms should be kept to a minimum;

(iv) information sources and collection—

(A) sources of information should be listed, and the procedures for the transmission of information from the sources, together with the procedure for collecting and receiving it, should be set out in detail. In the case of the Civil Aviation [(No. 3) Air Operator Certification and Administration]

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Regulations approval, these procedures should be listed in the maintenance control manual or maintenance organisation procedures manual as appropriate;

(B) the type of information to be collected should be related to the objectives of the Programme and should be such that it enables both an overall broad-based assessment of the information to be made and also allows for assessments to be made as to whether any reaction, both to trends and to individual events, is necessary. The following are examples of the normal prime sources:

(I) pilots reports;

(II) technical logs;

(III) aircraft maintenance access terminal/on-board;

(IV) maintenance system readouts;

(V) maintenance worksheets;

(VI) workshop reports;

(VII) reports on functional checks;

(VIII) reports on special inspections;

(IX) stores issues/reports;

(X) air safety reports; and

(XI) reports on technical delays;

(C) in addition to the normal prime sources of information, due account should be taken of continuing airworthiness and safety information promulgated by Airworthiness Authorities, Constructors and Manufacturers;

(vi) displays—

(A) collected information may be displayed in either graphical or tabular presentations or a combination of both. The rules governing any separation or discarding of information prior to incorporation into these displays should be stated. The format of any display should be such that the identification of trends, specific highlights and related arising would be readily apparent;

(B) displays should include provisions for "nil returns" to aid the examination of the total information;

(C) where "standards" or "alert levels" are included in the Programme, the display information should be oriented accordingly;

(vii) examination, analysis and interpretation of information—

(A) examination—

(I) methods of examination of information may be varied according to the content and quantity of information of individual Programmes. These can range from examination of the initial indication of performance variations to formalised detailed procedures at specified periods and the methods should be fully described in the Programme documentation;

(II) the procedures for analysis and interpretation of information should be such as to enable the performance of the items controlled by the Programme to be measured. They should also facilitate recognition, diagnosis and recording of significant problems. The whole process should be such as to enable a critical assessment to be made of the effectiveness of the Programme as a total activity. Such a process may involve—

*(aa)* comparisons of operational reliability with established or allocated standards (in the initial period these could be obtained from in-service experience of similar equipment or aircraft types);

*(bb)* analysis and interpretation of trends;

*(cc)* the evaluation of repetitive defects;

*(dd)* confidence testing of expected and achieved results;

*(ee)* studies of life-bands and survival characteristics;

*(ff)* reliability predictions;

*(gg)* other methods of assessment;

(III) the range and depth of engineering analysis and interpretation should be related to the particular Programme and to the facilities available. The following, at least, should be taken into account:

*(aa)* flight defects and reductions in operational reliability;

*(bb)* defects occurring on-line and at main base;

*(cc)* deterioration observed during routine maintenance;

*(dd)* workshop and overhaul facility findings;

*(ee)* modification evaluations;

*(ff)* sampling programmes;

*(gg)* the adequacy of maintenance equipment and publications;

*(hh)* the effectiveness of maintenance procedures;

*(ii)* staff training;

*(jj)* service bulletins, technical instructions, etc;

(B) where the Operator relies upon contracted maintenance and overhaul facilities as input to the Programme, the arrangements for availability and continuity of such information should be established and details should be included;

(viii) corrective actions—

(A) the procedures and time scales both for implementing corrective actions and for monitoring the effects of corrective actions

should be fully described. Corrective actions should correct any reduction in reliability revealed by the programme and could take the form of—

(I) changes to operational procedures or techniques;

(II) maintenance changes involving inspection frequency and content, function checks, overhaul requirements and time limits, which will require amendment of the scheduled maintenance periods or tasks in the approved Programme;

(III) amendments to Approved manuals (e.g., Maintenance Manual, Crew Manual);

(IV) initiation of modifications;

(V) special inspections or fleet campaigns;

(VI) spares provisioning;

(VII) staff training; and

(VIII) manpower and equipment planning;

(B) the procedures for effecting changes to the Programme should be described, and the associated documentation should include a planned completion date for each corrective action, where applicable;

(ix) organisational responsibilities—

the organisational structure and the departments responsible for the administration of the Programme should be stated. The chains of responsibility for individuals and departments (Engineering Production, Quality Control, Operations, etc.) in respect of the Programme, together with the formation and functions of any Programme control committees, should be defined. This information should be contained in the Maintenance Control Manual as appropriate;

(x) presentation of information to the Authority—

(A) the production of reports and the notification of Programme events to the Authority will have to be agreed with the Authority. As the information to be supplied to the Authority will vary for individual Programmes, the

Programme and its associated documentation should define at least the following:

(B) the format and content of routine and event reports;

(C) the time scales for the production of reports together with their distribution;

(D) details of any special reports (Annual Reports, special investigations, etc.);

(E) reports supporting requests for increases in periods between maintenance (escalation) and for amendments to the Programme. These reports should contain sufficient detailed information to enable the Authority to make its own evaluation where necessary;

(F) the production and distribution of agenda and minutes of various meetings related to the Programme and its functions;

(G) the identification of the availability of any non-reportable information which may be used to support the Programme (e.g., "in-house" information);

(H) any relationship between the reporting procedures of the Programme and the requirements for Mandatory Occurrence Reporting;

(xi) evaluation and review:

(A) each programme should describe the procedures and individual responsibilities in respect of continuous monitoring of the effectiveness of the Programme as a whole. The time periods and the procedures for both routine and non-routine reviews of maintenance control should be detailed (progressive, monthly, quarterly, or annual reviews, procedures following reliability "standards" or "alert levels" being exceeded, etc.);

(B) each programme should contain procedures for monitoring and, as necessary, revising the reliability "standards" or "alert levels". The organisational responsibilities for

monitoring and revising the "standards" should be specified together with associated time scales;

(C) although not exhaustive, the following list gives guidance on the criteria to be taken into account during the review:

(I) utilisation;

(II) fleet commonality;

(III) alert level adjustment criteria;

(IV) adequacy of data;

(V) reliability procedure audit;

(VI) staff training; and

(VII) operating and maintenance procedures;

(xii) condition monitored maintenance is not acceptable as the primary maintenance process for any items, the failure of which can produce—

(A) a hazardous increase in crew workload;

(B) degradation of flight qualities, performance or strength of the aircraft;

(C) fire; or

(D) the necessity for an unscheduled landing, marginal conditions for occupants or injury to occupants;

(xiii) operator derived reliability programmes—

(A) operators who select to submit for approval a reliability centred maintenance programme, even though the Type Certificate holder may not require it, must include in the programme a classification listing which will indicate the importance of each item to continued airworthiness of the aircraft in the event of failure of the item so classified. Normally, this classification is applied after consultation between the Operator, Constructor and the Authority, but, alternatively, due account may be taken of MRB findings and Maintenance Steering Group logic analysis in arriving at the appropriate classification;

(B) classifications should be as follows:

(I) items, the failure of which, would reduce the airworthiness of the aircraft to an unacceptable level. The reliability of such items will be controlled by the allocation of an overhaul period and/or Failure Rate Monitoring;

(II) items, the failure of which, would reduce the airworthiness of the aircraft but not to an unacceptable level. Such items will be controlled by Failure Rate Monitoring. Where it is known that an item is subject to wear or deterioration, the allocation of an overhaul period may be necessary;

(III) items, the single failure of which does not affect the airworthiness of the aircraft;

*(h)* an operator shall, where the Authority requests, make available the Maintenance Programmes and all associated airworthiness data, including that data used for the substantiation of escalation programmes shall be made available to the Authority upon request;

*(i)* a maintenance programme submitted for approval shall contain the following information:

(i) reference number, issue number and date;

(ii) registered name and address of the owner or operator;

(iii) type and model of aircraft, engines, auxiliary power-units, and, where applicable, propellers;

(iv) areas of operation of the aircraft;

(v) class of work in relation to the areas of operation;

(vi) registration marks of aircraft maintained in accordance with the programme;

(vii) details of any arrangements involving the co-operation of more than one operator, or which involve the combination of information from other aircraft fleets for the purpose of providing additional statistical and sampling material;

*(j)* primary maintenance processes:

In respect of each part of the aircraft, its engines and auxiliary power-units, propellers, components, accessories,

equipment, instruments, electrical and radio apparatus, and all associates systems and installations (hereinafter referred to as "an Item"), a list of the primary maintenance processes in terms of—

(i) cross-reference, where applicable, to the source of the task, e.g., Maintenance Review Board Report and Maintenance Planning Document;

(ii) periods at which the item shall be inspected, together with the type and degree of inspection;

(iii) periods at which the item shall, as appropriate, be checked, cleaned, lubricated, adjusted and tested;

(iv) periods at which the item shall be overhauled or replaced by a new or overhauled item, expressed in terms of—

(A) a criterion related to usage, e.g., a period of time, number of cycles, number of landings;

(B) criterion related to conditions, e.g., limits of wear, limiting dimensions;

(v) the mandatory life limitations to which certain parts of aircraft, engines, propellers, auxiliary power units and systems, the failure of which could have a hazardous effect on the aircraft, are subject. The limitations may be itemised in the programme, or included by reference to the appropriate airworthiness data;

(vi) processes other than the primary Maintenance Programme as are agreed by the Authority which may include—

(A) condition monitoring;

(B) optional maintenance processes;

(C) operator required supplemental inspections;

(D) recommended from service bulletins or other service information;

(E) passenger entertainment or aircraft appearance tasks;

(vii) a record of the amendments incorporated in the programme;

(viii) reference to the source of the content of the programme, e.g., Maintenance Review Board, Maintenance Planning Document and Maintenance Manual;

(ix) criteria for "packaging" checks (e.g., A Check—400FH, B Check—800 FH, etc.);

*(k)* maintenance programmes—engines and auxiliary power units—

A reliability centred maintenance and condition monitored maintenance programme for an engine or auxiliary power unit is required when the restoration task for the engine or auxiliary power unit is not defined as either a hot section inspection (hsi) and/or overhaul in accordance with the constructor's approved engine overhaul manual;

(i) approval—

Engine or Auxiliary Power Unit Programmes should form part of the associated aircraft Programme. These procedures provide guidance on elements to be followed to obtain Authority approval of Programmes, and amendments to them;

(ii) programme elements—

(A) *Introduction*

An Engine or Auxiliary Power Unit Reliability Centred Maintenance and Condition Monitored Maintenance Programme provides for the integration of Reliability Analysis, Hard Time Control, On Condition and Condition Monitoring into one Programme. It may vary in size and scope depending on the complexity and number of different engine and Auxiliary Power Unit types being controlled by the Programme. The Programme sets out the means to identify both on-wing and off-wing maintenance tasks. On-wing engine or Auxiliary Power Unit maintenance tasks and their intervals are initially established by means of threshold and opportunity samples, Constructor's Engine Maintenance Planning Guides and the inspection requirements of the Engine Manuals. The on-wing and off-wing maintenance tasks and intervals may be changed as a result of reviewing the experience gained by operating the Programme and information provided in Service Bulletins, Manual Revisions, Service Letters, Airworthiness Directives and other relevant sources.

(B) *Objectives*

A statement should be included summarising the objectives of the Programme, together with a definition of the engines or Auxiliary Power Unit types controlled by the Programme and the associated aircraft in which those engine or Auxiliary Power Unit types are installed.

(C) *Identification*

The engine or Auxiliary Power Unit Programme document can be unique and separate from the associated aircraft Programme or it can form part of the aircraft Programme. If it is a separate document, it should be identified by a reference number, issue number and date and be cross-referred from the appropriate part of the aircraft Programme.

(D) *Data Pooling Arrangements*

The primary factors which, where appropriate, should be taken into account for engines and Auxiliary Power Units are dealt with under Reliability Programmes General.

(E) *Sub-Contracting*

It is permissible for the operator to enter into a sub-contract arrangement with an organisation which has the necessary resources and experience on the engine or Auxiliary Power Unit type, to manage the Programme, and is acceptable to the Authority. However, this sub-contract arrangement does not absolve the Operator from the overall responsibility for ensuring the safe operation and continuing airworthiness of the aircraft to which the engine or Auxiliary Power Unit is installed.

(F) *Data Collection, Analysis and Interpretation*

The data required for analysis and control of the engine or Auxiliary Power Unit Programme together with associated procedures for the collection analysis and interpretation of the data should be defined in the Programme.

In the case of an approval under Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, these procedures should be listed in the Maintenance Control Manual or Maintenance Organisation Procedures Manuals appropriate. The following is typical of the data which should be collected for an engine or Auxiliary Power Unit Programme: Sub. Leg.

(I) oil consumption trend monitoring;

(II) pilots reports;

(III) aircraft maintenance access terminal/ on-board maintenance system readouts;

(IV) boroscope inspection findings;

(V) magnetic chip detector findings;

(VI) in flight shut down, abandoned take-off, unscheduled removal rates and causes;

(VII) delay and cancellation rates and causes;

(VIII) performance trend analysis;

(IX) engine and auxiliary power unit removal reports;

(X) airworthiness directives, manufacturer's information and publications, e.g., service bulletins, service letters, all operator wires, etc;.

(XI) engine or auxiliary power unit and component workshop strip and condition reports;

(XII) vibration monitoring;

(XIII) sampling programme findings;

(XIV) reliability programme (statistical displays);

(G) the final list of data to be collected, analysed and interpreted should be related to the objectives of the Programme and experience of operating the particular engine or Auxiliary Power unit type.

(H) *Sampling programme*

The Programme should define a threshold life at which a sample engine/module or Auxiliary Power Unit should be scheduled

for removal if sufficient data regarding engine or module or Auxiliary Power Unit internal conditions has not been generated by previous scheduled or unscheduled removals. Subsequent requirements should be based upon a review of all applicable evidence, e.g., defect investigations, workshop investigations, health monitoring data and evidence from other operators.

(I) *Technical recording of life limited components*

The programme should give details of the method used and organisational responsibilities for recording flying hours, engine or auxiliary power unit cycles, training "touch and go" landings, etc., which are needed to show compliance with the mandatory life limitations of the engine or Auxiliary Power Unit and for controlling "hard" and "soft" time intervals;

(J) *Refurbish and rework specifications*

Every engine, module and Auxiliary Power Unit whose restoration task is not defined as either a HSI or Overhaul in accordance with an appropriate Overhaul Manual (Engine Manual) should have a rework or refurbish specification established in accordance with the procedures defined in the Programme. The Specification should define the minimum modification standard and the degree of strip inspection and rework necessary to release an engine, module or Auxiliary Power Unit for specified periods of service usage. The content of the Specification should be based upon the appropriate Constructor's Maintenance Planning Guides, threshold and opportunity samples, the inspection requirements of the engine manuals and the review and analysis of the data collected by the programme.

(K) *Repair and overhaul organisations*

The Programme should define the nominated Approved Maintenance Organisation or

engine and Auxiliary Power Unit repair and overhaul Organisations which are to be used, together with any contractual instructions to which the Organisations will be required to work. In the case of a Programme under Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, this information should be contained in the Maintenance Control manual or Maintenance Organisation Procedures Manual as appropriate. Sub. Leg.

(L) *Corrective actions*

The Programme should define the means by which the collected data is routinely analysed and interpreted in order to monitor the effectiveness of the current on-wing and off-wing maintenance tasks and airworthiness of the fleet and so identify the need for any remedial action and appropriate timescales. The procedure for changing or escalating any of the on and off-wing tasks, inspections and time intervals should also be defined in the programme.

(iii) *Organisational responsibilities*

The organisational structure of the Operator and where appropriate the sub-contracted maintenance, repair and overhaul Organisations responsible for the administration and control of the Programme should be defined. The responsibilities for decision making with respect to both the on-wing and off-wing elements of the Programme shall be clearly defined in the Programme. In the case of the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations Programme, this information should be contained in the Maintenance Control Manual or Maintenance Organisation Procedures Manual as appropriate. Sub. Leg.

(iv) *Management evaluation and review*

The Programme should be managed effectively and ensure that good communications prevail between

the various technical and quality departments of the Operator and if appropriate, the sub-contracted maintenance, engine and Auxiliary Power Unit repair and overhaul Organisations. The Programme should define how the review, agreement, co-ordination and communication are ensured in the following areas:

(A) *Contractual arrangements*

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Where the Operator sub-contracts any of the on-wing or off-wing engine or Auxiliary Power Unit maintenance, repair and overhaul, both the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations and non Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations Programmes require the details of the arrangements for maintenance, repair and overhaul to be clearly defined in a written maintenance contract. This is necessary to ensure that the technical and quality personnel of all the sub-contract Organisations which are involved in the application of the contract have a common understanding of the technical requirements of the Programme and of their respective duties and responsibilities.

(B) *Engine auxiliary power unit workscopes*

Each engine, module and Auxiliary Power Unit upon removal from an aircraft, should have an individual workscope prepared. The workscope should detail the reason for removal, engine or Auxiliary Power Unit hours and cycles accrued in service, list any outstanding defects and define the required work to be carried out during the shop visit, cross-referring, where appropriate, to the refurbish specification. The content of the workscope should also reflect any corrective actions which the Programme has previously identified as needing to be carried out at this visit. Where sub-contract arrangements exist,

the content of the workscope should be agreed by the Operator and the sub-contract maintenance, engine repair and overhaul Organisation as appropriate.

(C) *Rework and refurbish specification*

Regular liaison between the technical and quality personnel of the Operator and where appropriate, the sub-contract maintenance, engine or Auxiliary Power Unit repair and overhaul Organisation should take place to review, and update the content of the engine, module and Auxiliary Power Unit rework and refurbish specifications. The review should be based upon the results of the analysis conducted upon the data collected in accordance with these procedures.

(v) *Technical and quality review*

It is necessary for the Operator and where appropriate the sub-contracted maintenance, engine repair and overhaul Organisations to periodically review all of the data inputs and reliability analysis defined in the Programme together with any adverse quality audit findings and action taken. The review should seek to adjust "alert levels", identify trends, address any reduction in reliability or increase of in-flight shut down rate, delays, and cancellations and so implement any necessary remedial action.

(vi) *Management overview*

Every Programme should have a controlling body which is responsible for the implementation, decision making and overall running of the Programme. Management at a senior level (Quality Manager, Engineering Manager, etc.) should periodically review the effectiveness of the Programme, and where necessary, implement changes.

(vii) *Changes to the programme*

Any significant changes to the Programme will require approval of the Authority.

*L.R.O.*

***Regulation 23***

1. Modifications and repairs under regulation 23 may be classified as major modification or major repair where a "yes" response is given to any of the questions in the Table. Other modification or repair would be considered minor modification or minor repair.

## TABLE

## CRITERIA FOR ASSESSING A MODIFICATION OR REPAIR AS MAJOR OR MINOR

| Item | Question |
|---|---|
| | *General* |
| 1 | Is the change being accomplished as an alternative means of compliance with an airworthiness directive or equivalent? |
| | *Mass and Balance* |
| 2 | Does the change involve a revision in the approved mass limitations or centre or gravity range limits? |
| 3 | Does the change require the installation of ballast or use of other methods to maintain the centre of gravity within the approved limits? |
| | *Performance and Flight Characteristics* |
| 4 | Does the change involve alterations to the configuration of the aircraft which may—<br>*(a)* increase drag;<br>*(b)* after the thrust or power;<br>*(c)* affect stability or controllability;<br>*(d)* induce flutter or vibration; or<br>*(e)* alter the stalling characteristics to an extent which necessitates analysis or test? |
| | *Structural Strength* |
| 5 | Does the change involve a principal component of the aircraft structure such as a frame, stringer, rib, spar or stressed skin? |

**TABLE—***Continued*

## CRITERIA FOR ASSESSING A MODIFICATION OR REPAIR AS MAJOR OR MINOR

| Item | Question |
|---|---|
| 6 | Does the change involve a structural element which is addressed as part of a damage tolerance or fatigue/fail-safe evaluation? |
| 7 | Is a pressure vessel penetration or change involved? |
| 8 | Does the change involve the installation of an item of mass necessitating structural re-evaluation? |
| 9 | Does the change involve the installation or alteration of a containment or restraint system intended for the stowage of items of significant mass? |
| 10 | Does the change involve repairs or modifications to the load-bearing structure of seats, harnesses of their means of attachment or any other occupant restraint equipment? |
| 11 | Does the change involve the substitution of materials? |
| | *Power plant Operation* |
| 12 | Does the change significantly affect the power plant or propeller or their accessories? |
| 13 | Does the change involve equipment for which there is no performance standard which has been approved or accepted by the airworthiness authority? |
| 14 | Does the change affect the probability of failure conditions that could impair or preclude continued safe flight or landing? |
| 15 | Does the change affect the pilot's visibility or impair the pilot's capability to control the aircraft? |
| 16 | Does the change involve alterations to the interior arrangement or cabin materials? |

*L.R.O.*

**TABLE—***Continued*

**CRITERIA FOR ASSESSING A MODIFICATION OR REPAIR AS MAJOR OR MINOR**

| Item | Question |
|---|---|
| | *Structural Strength* |
| 17 | Does the change involve systems for cabin pressurisation or the provision of breathing oxygen? |
| 18 | Does the change involve flight controls or an autopilot? |
| 19 | Does the change involve critical or essential components of the electrical system such as generators, alternators, inverters, batteries, distribution buses, or bus protection and control devices? |
| 20 | Does the change affect instrument or indicators or their subsystems that provide navigation information? |
| 21 | Does the change affect instruments, indicators or their subsystems that provide essential or critical information concerning the aircraft status? |
| 22 | Does the change affect a regulated placard? |
| 23 | Does the change affect any approved information contained in the flight manual or equivalent document? |
| | *Other Qualities Affecting Environmental Characteristics* |
| 24 | Does the change alter the aircraft noise or emission characteristics? |
| | *Non-Standard Practices* |
| 25 | Does the change involve practices or techniques which are novel or unproven in the proposed application? |

2. The following are typically classified as major modifications or major repairs where they meet the criteria in clause 1:

*(a) Major modifications*:

(i) major modifications include modifications to the listed aircraft parts, or the listed types of modifications (when not included in the applicable aircraft specifications)—

(A) wings;

(B) tail surfaces;

(C) fuselage;

(D) engine mounts;

(E) control system;

(F) landing gear;

(G) hull or floats;

(H) elements of an airframe including spars, ribs, fittings, shock absorbers, bracing, cowlings, fairings, and balance weights;

(I) hydraulic and electrical actuating system of components;

(J) rotor blades;

(K) changes to the empty weight or empty balance which result in an increase in the maximum certified weight or centre of gravity limits of the aircraft;

(L) changes to the basic design of the fuel, oil, cooling, heating, cabin pressurisation, electrical, hydraulic, de-icing, or exhaust systems;

(M) changes to the wing or to fixed or movable control surfaces which affect flutter and vibration characteristics;

(ii) major power plant modifications, even when not listed in the applicable engine specifications, include—

(A) conversion of an aircraft engine from one approved model to another, involving any changes in compression ratio, propeller reduction gear, impeller gear ratios or the substitution of major engine parts which requires extensive re-work and testing of the engine;

(B) changes to the engine by replacing aircraft engine structural parts with parts not supplied by the original manufacturer or parts not specifically approved by the Authority;

(C) installation of an accessory which is not approved for the engine;

(D) removal of accessories that are listed as required equipment on the aircraft or engine specification;

(E) installation of structural parts other than the type of parts approved for the installation;

(F) conversions of any sort for the purpose of using fuel of a rating or grade other than that listed in the engine specifications;

(iii) major propeller modifications, when not authorised in the applicable propeller specifications, include—

(A) changes in blade design;

(B) changes in hub design;

(C) changes in the governor or control design;

(D) installation of a propeller governor or feathering system;

(E) installation of propeller de-icing system;

(F) installation of parts not approved for the propeller;

(iv) modifications of the basic design not made in accordance with recommendations of the appliance manufacturer or in accordance with applicable Airworthiness Directive are appliance major modifications. In addition, changes in the basic design of radio communication and navigation equipment approved under type certification or other Authorisation that have an effect on frequency stability, noise level, sensitivity, selectivity, distortion, spurious radiation, Automatic Voltage Control characteristics, or ability to meet environmental test conditions and other changes that have an effect on the performance of the equipment are also major modifications;

*(b) Major repairs*:

(i) Airframe major repairs. Repairs to the following parts of an airframe and repairs of the following types, involving the strengthening, reinforcing, splicing, and manufacturing of primary structural members of their replacement, when replacement is by fabrication such as riveting or welding, are airframe major repairs:

(A) box beams;

(B) monocoque or semi-monocoque wings or control surfaces;

(C) wing stringers or chord members;

(D) spars;
(E) spar flanges;
(F) members of truss-type beams;
(G) thin sheet webs of beams;
(H) keel and chine members of boat hulls or floats;
(I) corrugated sheet compression members which act as flange material of wings or tail surfaces;
(J) wing main ribs and compression members;
(K) wing or tail surface brace struts;
(L) engine mounts;
(M) fuselage longerons;
(N) members of the side truss, horizontal truss, or bulkheads;
(O) main seat support braces and brackets;
(P) landing gear brace struts;
(Q) axles;
(R) wheels;
(S) parts of the control system such as control columns, pedals, shafts, brackets, or horns;
(T) repairs involving the substitution of material;
(U) the repair of damaged areas in metal or plywood stressed covering exceeding six inches in any direction;
(V) the repair of portions of skin sheets by making additional seams;
(W) the splicing of skin sheets;
(X) the repair of three or more adjacent wing or control surface ribs or the leading edge of wings and control surfaces, between such adjacent ribs;
(Y) repair of fabric covering involving an area greater than that required to repair two adjacent ribs;
(Z) replacement of fabric on fabric covered parts such as wings, fuselages, stabilisers, and control surfaces;
(AA) repairing, including re-bottoming, of removable or integral fuel tanks oil tanks;

(ii) Power plant major repairs. Repairs of the following parts of an engine and repairs of the following types, are power plant major repairs:

(A) separation or disassembly of a crankcase or crankshaft of a reciprocating engine equipped with an integral supercharger;

(B) separation or disassembly of a crankcase or crankshaft of a reciprocating engine equipped with other than spur-type propeller reduction gearing;

(C) special repairs to structural engine parts by welding, plating, metalising, or other methods;

(iii) Propeller Major Repairs. Repairs of the following types to a propeller are propeller major repairs:

(A) any repairs to or straightening of steel blades;

(B) repairing or machining of steel hubs;

(C) shortening of blades;

(D) re-tipping of wood propellers;

(E) replacement of outer laminations on fixed pitch wood propellers;

(F) repairing elongated bolt holes in the hub of fixed pitch wood propellers;

(G) inlay work on wood blades;

(H) repairs to composition blades;

(I) replacement of tip fabric;

(J) replacement of plastic covering;

(K) repair of propeller governors;

(L) overhaul of controllable pitch propellers;

(M) repairs to deep dents, cuts, scars, nicks, etc., and straightening of aluminum blades; and

(N) the repair or replacement of internal elements of blades;

(iv) Appliance major repairs. Repairs of the following types to appliances are appliance major repairs:

(A) calibration and repair of instruments;

(B) calibration of avionics or computer equipment;

(C) rewinding the field coil of an electrical accessory;

(D) complete disassembly of complex hydraulic power valves;

(E) overhaul of pressure type carburetors, and pressure type fuel, oil, and hydraulic pumps.

***Regulation 25***

Preventive maintenance under regulation 25 is limited to the following work, provided it does not involve complex assembly operations:

*(a)* removal, installation and repair of landing gear tyres;

*(b)* replacing elastic shock absorber cords on landing gear;

*(c)* servicing landing gear shock struts by adding oil, air, or both; servicing landing gear wheel bearings, such as cleaning and greasing;

*(d)* replacing defective safety wiring or cotter keys;

*(e)* lubrication not requiring disassembly other than removal of non-structural items such as cover plates, cowlings, and fairings;

*(f)* making simple fabric patches not requiring rib stitching or the removal of structural parts or control surfaces;

*(g)* replenishing hydraulic fluid in the hydraulic reservoir;

*(h)* refinishing decorative coating of fuselage, wings, tail group surfaces (excluding balanced control surfaces), fairings, cowling, landing gear, cabin, or cockpit interior when removal or disassembly of any primary structure or operating system is not required;

*(i)* applying preservative or protective material to components where no disassembly of any primary structure or operating system is involved and where such coating is not prohibited or is not contrary to good practices;

*(j)* repairing upholstery and decorative furnishings of the cabin or cockpit when the repairing does not require disassembly of any primary structure or operating system or interfere with an operating system or affect primary structure of the aircraft;

*(k)* making small simple repairs to fairings, non-structural cover plates, cowlings, and small patches and reinforcements not changing the contour so as to interfere with proper airflow;

*(l)* replacing side windows where that work does not interfere with the structure of any operating system such as controls, electrical equipment, etc;

*(m)* replacing seats or seat parts with replacement parts approved for the aircraft, not involving disassembly of any primary structure or operating system;

*(n)* troubleshooting and repairing broken circuits in landing light wiring circuits;

*(o)* replacing bulbs, reflectors, and lenses of position and landing lights;

*(p)* replacing wheels and skis where no weight and balance computation is involved;

*(q)* replacing any cowling not requiring removal of the propeller or disconnection of flight controls;

*(r)* replacing or cleaning spark plugs and setting of spark plug gap clearance;

*(s)* replacing any hose connection except hydraulic connections;

*(t)* replacing prefabricated fuel lines;

*(u)* cleaning fuel and oil strainers;

*(v)* replacing and servicing batteries;

*(w)* replacement or adjustment of non-structural fasteners incidental to operations; and

*(x)* the installation of anti-misfueling devices to reduce the diameter of fuel tank filler openings provided the specific device has been made a part of the aircraft type certificate data by the aircraft manufacturer, the manufacturer has provided appropriately approved instructions acceptable to the Authority for the installation of the specific device, and installation does not involve the disassembly of the existing filler opening.

***Regulation 30***

One hundred-hour inspections under regulation 30 shall meet the following minimum standards for its performance:

*(a)* a person authorised under these Regulations to perform an annual or one hundred-hour inspection shall, before that inspection, thoroughly clean the aircraft and aircraft engine and remove or open all necessary inspection plates, access doors, fairings and cowlings;

*(b)* a person authorised under these Regulations performing an annual or one hundred-hour inspection shall inspect, where applicable, the following components:

(i) fuselage and hull group—

(A) fabric and skin—for deterioration, distortion, other evidence of failure, and defective or insecure attachment of fittings;

(B) systems and components—for improper installation, apparent defects, and unsatisfactory operation;

(C) the cabin and cockpit group;

(D) generally—for uncleanness and loose equipment that might foul the controls;

(E) seats and safety belts—for poor condition and apparent defects;

(F) windows and windshields—for deterioration and breakage;

(G) instruments—for poor condition, mounting, marking, and (where practicable) for improper operation;

(H) flight and engine controls for improper installation and improper operation;

(I) batteries—for improper installation and improper charge; and

(J) all systems—for improper installation, poor general condition, apparent and obvious defects, and insecurity of attachment;

(ii) engine and nacelle group—

(A) engine section—for visual evidence of excessive oil, fuel, or hydraulic leaks, and sources of such leaks;

(B) studs and nuts—for improper torquing and obvious defects;

(C) internal engine—for cylinder compression and for metal particles or foreign matter on screens and sump drain plugs; if there is weak cylinder compression, for improper internal condition and improper internal tolerances;

(D) engine mount—for cracks, looseness of mounting, and looseness of engine to mount;

(E) flexible vibration dampeners—for poor condition and deterioration;

(F) engine controls—for defects, improper travel, and improper safetying;

(G) lines, hoses, and clamps—for leaks, improper condition, and looseness;

(H) exhaust stacks—for cracks, defects, and improper attachment;

(I) accessories—for apparent defects in security of mounting;

(J) all systems—for improper installation, poor general condition, defects, and insecure attachment; and

(K) cowling—for cracks and defects;

(iii) landing gear group—

(A) all units—for poor condition and insecurity of attachment;

(B) shock absorbing devices—for improper oleo fluid level;

(C) linkage, trusses, and members—for undue or excessive wear, fatigue, and distortion;

(D) retracting and locking mechanism—for improper operation;

(E) hydraulic lines—for leakage;

(F) electrical system—for chafing and improper operation of switches;

(G) wheels—for cracks, defects, and condition of bearings;

(H) tires—for wear and cuts;

(I) brakes—for improper adjustment; and

(J) floats and skis—for insecure attachment and obvious or apparent defects;

(iv) wing and centre section assembly for—

(A) poor general condition;

(B) fabric or skin deterioration;

(C) distortion;

(D) evidence of failure;

(E) insecurity of attachment;

(v) complete empennage assembly for—

(A) poor general condition;

(B) fabric or skin deterioration;

(C) distortion;

(D) evidence of failure;

(E) insecure attachment;

(F) improper component installation; and

(G) improper component operation;

(vi) propeller group—

(A) propeller assembly—for cracks, nicks, binds, and oil leakage;

(B) bolts—for improper torquing and lack of safety;

(C) anti-icing devices—for improper operations and obvious defects; and

(D) control mechanisms—for improper operation, insecure mounting, and restricted travel;

(vii) avionics or instrument group—

(A) avionics or instruments equipment—for improper installation and insecure mounting;

(B) wiring and conduits—for improper routing, insecure mounting, and obvious defects;

(C) bonding and shielding—for improper installation and poor condition; and

(D) antenna including trailing antenna—for poor condition, insecure mounting, and improper operation;

(viii) electronic/electrical group—

(A) wiring and conduits—for improper routing, insecure mounting, and obvious defects; and

(B) bonding and shielding—for improper installation and poor condition;

(ix) each installed miscellaneous item that is not otherwise covered by this listing and/or has instructions for continued airworthiness—for improper installation and improper operation.

***Regulation 31A***

Certificate of Maintenance Review required to operate a Trinidad and Tobago aircraft in civil aviation operations:

**CERTIFICATE OF MAINTENANCE REVIEW**

Aircraft Type: .....

Nationality and Registration Mark: .....

Certified that a maintenance review of this aircraft and such of its equipment as is necessary for its airworthiness has been carried out in accordance with the requirements of the Act and Regulations made thereunder for the time being in force.

The next maintenance review is due: .....

Name: ..... Signature: .....

CAA Licence No.: ..... Date: .....

Organisation: .....

***Regulation 34***

The content and form of the Maintenance, Preventive Maintenance and Rebuilding Record under regulation 34 shall meet the following minimum standards:

*(a)* appropriately authorised persons may maintain or perform preventive maintenance, an aeronautical product. When the

work is satisfactorily performed, the person who has performed the work is required to make the following entries on the applicable forms and document for recording purposes, such as Logbooks, Technical Log, Routine and non-Routine Work/Record cards, Major Modification and Major Repair Record card. Certain documents may be provided by the Authority, however, where the operator develops official company documents for recording purposes, such documents shall be approved by the Authority prior to official use;

*(b)* the maintenance record entry is required to include "a description of the work performed", which must be in sufficient detail to permit a person unfamiliar with the work to understand what was done, including the methods and procedures used in doing it. Manufacturer's manuals, service letters, bulletins, work orders, and others, which accurately describe what was done, or how it was done, may be referenced. Except for the documents mentioned, which are in common usage, referenced documents are to be made a part of the maintenance records;

*(c)* the date of completion of work performed is normally the date upon which the work is approved for return to service. However, when work is accomplished by one person and approved for return to service by another, the date may differ. The date the work performed was completed must be appended on the record document;

*(d)* the name in block letters, signature and certificate number of the person approving the aircraft for return to service is the only signature required. The signature constitutes the Certificate of Release to Service only for the work performed. The signature of the person who accomplished the work may be appended in an "accomplished by" column but is not a requirement;

*(e)* recording of Major Repairs and Major Modifications—

(i) each person performing a major repair or major modification shall—

(A) complete the major repair and major modification form prescribed by the Authority at least in duplicate;

(B) give a signed copy of that form to the aircraft operator; and

(C) forward a copy of that form to the Authority, in accordance with Authority instructions, within 48 hours after the aeronautical product is approved for return to service;

(ii) in place of the requirements of paragraph *(a)*, major repairs made in accordance with a manual or specifications acceptable to the Authority, an Approved Maintenance Organisation may—

(A) use the customer's work order upon which the repair is recorded;

(B) give the aircraft owner a signed copy of the work order and retain a duplicate copy for at least one year from the date of approval for return to service of the aeronautical product;

(C) give the aircraft owner a maintenance release signed by an authorised representative of the Approved Maintenance Organisation and incorporating the following information:

(I) identity of the aeronautical product;

(II) if an aircraft, the make, model, serial number, nationality and registration marks, and location of the repaired area;

(III) if an aeronautical product, give the manufacturer's name, name of the part, model, and serial numbers (if any); and

(IV) ***(Deleted by LN 226/2005).***

*The aeronautical product identified above was repaired, overhauled and inspected in accordance with currently effective, applicable instructions of the State of Design and regulatory requirements of the Authority, and is approved for return to service.*

*Pertinent details of the repair are on file at this maintenance organisation.*

*Order No. ..... Date .....*

*Signed .....*
*(Signature of authorised representative)*

.....
*(Facility Name) (Approved Maintenance Organisation Certificate Number)*

.....
*(Address)*

*L.R.O.*

***Regulation 35***

Records of the overhaul and rebuilding of an aeronautical product under regulation 35 shall meet the following minimum standards:

*(a)* the overhaul of an aeronautical product shall entail the restoration of an aircraft or aeronautical product using methods, techniques, and practices acceptable to the Authority, including disassembly, cleaning, and inspection as permitted, repair as necessary, and reassembly and tested in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Authority, which have been developed and documented by the State of Design, holder of the type certificate, supplemental type certificate, or a material, part, process, or appliance approval under Parts Manufacturing Authorisation (PMA) or Technical Standard Order (TSO);

(*b)* having satisfied paragraphs (1), the authorised maintenance personnel may describe the maintenance activity to be an "overhaul" and make records to so indicate;

*(c)* the rebuilding of an aeronautical product shall include—

(i) the restoration of an aircraft/aeronautical product by using methods, techniques, and practices acceptable to the Authority, when it has been disassembled, cleaned, inspected as permitted, repaired as necessary, reassembled and tested to the same tolerances and limits as a new item, using either new parts or used parts that conform to new part tolerances and limits. The manufacturer or an organisation approved by the manufacturer and authorised by the State of Registry will be the only organisations to perform rebuilding of aeronautical products;

(ii) the manufacturer of the component or the organisation approved by the manufacturer and authorised by the State of Registry, having satisfied the requirements of paragraphs *(a)* may describe the maintenance activity performed on the aeronautical product as a "rebuild" and make records to so indicate;

(iii) regulation 25*(f)* provides that a manufacturer holding an Approved Maintenance Organisation Certificate

may rebuild any aeronautical product manufactured by the manufacturer under a type of production certificate, a Technical Standards Order Authorisation, a Parts Manufacturer Approval by the State of Design or product and Processes Specification issued by the State of Design. When this is done, the operator of a Trinidad and Tobago aircraft may use a new maintenance record without regard to previous operating history;

(iv) the manufacturer or an agency approved by the State of Design or manufacture that rebuilds and grants zero time to an aeronautical product is required to provide a signed statement containing—

(A) the date the product was rebuilt;

(B) each change made, as required by an Airworthiness Directive; and

(C) each change made in compliance with service bulletins, when the service bulletin specifically requests an entry to be made.

***Regulation 36***

The content and form of records for the inspection of aeronautical products shall meet the following minimum standards:

*(a)* persons issuing Certificate of Release to Service for Inspections performed in accordance with these Regulations and the Civil Aviation [(No. 2) Operations)] Regulations, the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, are required to make an entry in the maintenance record of that equipment. The following information may be made in the airframe, engine, engine module or propeller logbook, the Technical log, Routine and non-Routine Job Cards or Defect or Work card as appropriate to the recording scheme adopted by the operator approved by the Authority: Sub. Leg. Sub. Leg.

(i) the type of inspection, including references to the maintenance manual and procedures used; and a brief description of the extent of the inspection performed;

(ii) the date the inspection was completed and the total time-in-service at that time. The total time-in-service is the cumulative times that the aircraft was in flight;

*(b)* in recording of time-in-service under paragraph (1)*(b)* the operator may use recording devices that sense aircraft lift-off and touchdown. Any other recording devices that sense such things as electrical power on, oil pressure, wheels on the ground, etc., and from these conditions provide an approximate indication of time-in-service.

# CIVIL AVIATION [(NO. 6) APPROVED MAINTENANCE ORGANISATION] REGULATIONS

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*L.R.O.*

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# CIVIL AVIATION [(NO. 6) APPROVED MAINTENANCE ORGANISATION] REGULATIONS

105/2004.
[277/2004
305/2004
34/2005
227/2005
288/2006
49/2007
200/2009].

*made under section 33*

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No. 6) Approved Maintenance Organisation] Regulations.

Interpretation.
[305/2004
49/2007
200/2009].

**2.** In these Regulations—

"Accountable Manager" means the manager of an Aircraft Maintenance Organisation who is responsible for establishing and promoting the safety and quality policy and shall have corporate authority for ensuring that maintenance, preventive maintenance and modification for which the Aircraft Maintenance Organisation is authorised to perform can be financed and carried out to the standard required by the Authority;

"Act" means the Civil Aviation Act;

"aeronautical product" means an aircraft engine, propeller or sub-assembly appliance, material part or component to be installed on an aircraft or any aircraft;

"aircraft" means any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the surface of the earth;

"aircraft component" means an assembly, item, or part of an aircraft up to and including a complete power plant and any operational and emergency equipment but does not include an aircraft;

"air operator" means any person, organisation or enterprise which undertakes to engage in domestic commercial air transport or international commercial air transport, whether directly or indirectly or by a lease or any other arrangement;

"airframe" means the fuselage, booms, nacelles, cowlings, fairings, airfoil surfaces, including rotors but excluding propellers and rotating airfoils of a power plant, landing gear of an aircraft and their accessories and controls;

"airworthy" means an aircraft or aeronautical product is in a fit and safe state for flight and is in conformity with its type design;

"Authority" means the Civil Aviation Authority of Trinidad and Tobago;

"approved data" means technical aeronautical information approved by the Authority;

"Approved Maintenance Organisation," means a maintenance organisation approved by the Authority under regulation 6 to conduct maintenance on Trinidad and Tobago aircraft and their associated aeronautical product;

"article" means any item, including but not limited to an aircraft, airframe, aircraft engine, propeller, appliance, accessory, assembly, subassembly, system, subsystem, component, unit, product or part;

"authorised aircraft maintenance engineer" means a person authorised by an Approved Maintenance Organisation in accordance with the procedures approved by the Authority, to issue a Certificate of Release to Service for a Trinidad and Tobago aircraft;

"authorised engineer" means the holder of an Aircraft Maintenance Engineer Licence issued by the Authority in accordance with the Civil Aviation [(No. 1) General Administration and Personnel Licencing] Regulations authorised by an Approved Maintenance Organisation in accordance with the procedure approved by the Authority, to issue Certificate of Release to Service for Trinidad and Tobago aircraft and its aeronautical products; Sub. Leg.

"authorised aviation repair specialist" means the holder of an Aviation Repair Specialist Licence issued by the Authority in accordance with the Civil Aviation [(No. 1) General Administration and Personnel Licencing] Regulations authorised by the Approved Maintenance Organisation in accordance with the procedure approved by the Authority, to issue Certificate of Release to Service for Trinidad and Tobago aircraft and its aeronautical products;

"authorised workshop engineer" means a person authorised by an Approved Maintenance Organisation in accordance with the procedures approved by the Authority, to issue a Certificate

of Release to Service in respect of an aeronautical product other than an aircraft;

"calibration" means a set of operations, performed in accordance with a definite documented procedure, that compares the measurement performed by a measurement device or working standard for the purpose of detecting and reporting or eliminating by adjustment errors in the measurement device, working standard, or aeronautical product tested;

"capability list" means a current list of aeronautical products for which an Approved Maintenance Organisation is capable to effectively perform maintenance functions approved by the Authority;

"Certificate of Release to Service" means a certification issued by an appropriately qualified Aircraft Maintenance Engineer or certifying staff of an Approved Maintenance Organisation, certifying that the maintenance, preventive maintenance or modification performed on an aircraft, airframe, aircraft engine, propeller, appliance or component part thereof was accomplished using the methods, techniques and practices, prescribed in the current Maintenance Manual of the manufacturer or instructions for continued airworthiness prepared by its manufacturer or by using other methods, techniques and practices acceptable to the Authority;

"certification authorisation" means a document issued to a certifying staff by an Approved Maintenance Organisation authorising such certifying staff to issue Certificate of Release to Service in respect or maintenance performed on Trinidad and Tobago aircraft and their associated aeronautical product;

"certifying staff" means an authorised aircraft maintenance engineer and authorised workshop engineer of an Approved Maintenance Organisation;

"composite" means structural materials made of substances, including, but not limited to, wood, metal, ceramic, plastic, fibre-reinforced materials, graphite, boron or epoxy, with built-in strengthening agents that may be in a form of filaments, foils, powders or flakes of a different material;

"computer system" means any electronic or automated system capable of receiving, storing and processing external data, and transmitting and presenting such data in a usable form for the accomplishment of a specific function;

"Director-General" means the Director-General of Civil Aviation appointed under section 13 of the Act;

"facility" means the fixtures, implements, machinery, apparatus, land, buildings and equipment, which provide the means for the performance of maintenance, preventive maintenance or modifications of any article;

"housing" means a building, hangar and other structure used to accommodate the necessary equipment and materials of an Approved Maintenance Organisation that—

*(a)* provides working space for the performance of maintenance, preventive maintenance or modifications for which the Approved Maintenance Organisation is certified and rated;

*(b)* provides the structure for the proper protection of aircraft, airframes, aircraft engines, propellers, appliances, components, parts and sub-assemblies thereof during disassembly, cleaning, inspection, repair, modification, re-assembly and testing; and

*(c)* provide for the proper storage, segregation and protection of materials, parts and supplies;

"human factors" means principles which apply to aeronautical design, certification, training, operations and maintenance which seek safe interface between the human and other system components by proper consideration of human performance;

"human performance" means human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations;

"inspection" means the examination of an aircraft or aeronautical product to establish conformity with an approved standard;

"maintenance" means the performance of tasks required to ensure the continuing airworthiness of an aircraft or

aeronautical product including any one or combination of overhaul, inspection, replacement, defect rectification and the embodiment of a modification or repair;

"maintenance data" means any information necessary to ensure that the aeronautical product can be maintained in a condition such that airworthiness of the aeronautical product, or serviceability of operational and emergency equipment as appropriate, is assured;

"measurement device" means a calibrated calibrator, standard, equipment and test equipment that is intended to be used to test, measure or calibrate other measurement devices and is not permitted to be used to test, measure or calibrate an aeronautical product;

"modification" means the alteration of an aeronautical product in conformity with an approved standard;

"national air operator" means a person, organisation or enterprise who has been issued a Trinidad and Tobago air operators certificate in accordance with the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations; Sub. Leg.

"Operations Specifications" means the specific operating provisions describing in detail the class ratings and limitations where applicable and containing reference material and process specifications used in performing repair work, along with any limitations that apply to the Approved Maintenance Organisation;

"overhaul" means the restoration of an aeronautical product using methods, techniques and practices acceptable to the Authority, including dis-assembly, cleaning and inspection as permitted, repair as necessary and re-assembly and testing in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Authority, which have been developed and documented by the State of Design, holder of the Type Certificate, Supplemental Type Certificate, and manufacturing approved standard in respect of material, part, process or appliance;

"pre-flight inspection" means the inspection carried out before flight to ensure that the aircraft is fit for the intended flight and shall not include defect rectification;

"preventive maintenance" means the simple or minor preservation operations and replacement of small standard parts not involving complex assembly operations;

"primary standard" means a standard defined and maintained by a State Authority and is used to calibrate secondary standards;

"propeller" means a device for propelling an aircraft that has blades on a power plant driven shaft and that, when rotated, produces by its action on the air, a thrust approximately perpendicular to its plane of rotation and includes control components normally supplied by its manufacturer, but does not include main and auxiliary rotors or rotating airfoils of power plants;

"reference standard" means a standard that is used to maintain working standards;

"release to service" means an aircraft or aeronautical product is certified as either airworthy or serviceable and is permitted to return to normal operations;

"repair" means the restoration of an aircraft or aeronautical product to a serviceable condition in conformity with an approved standard;

"safety and quality policy" means the overall intention and direction of an organisation as regards to safety and quality, approved by the Accountable Manager;

"safety management system" means a systematic approach to managing safety including the necessary organisational structures, accountabilities, policies and procedures;

"secondary standard" means a standard maintained by comparison with a primary standard;

"signature" means the unique identification of an individual used as a means of authenticating a maintenance record entry or maintenance record, which may be hand-written, in electronic or any other form acceptable to the Authority;

"specialised maintenance" means any maintenance not normally performed by an Approved Maintenance Organisation, such as, tire re-treading and plating of metals;

"standard" means an object, artifact, tool, test equipment, system or experiment that stores, embodies or otherwise provides a physical quantity, which serves as the basis for measurements of the quantity and includes a document describing the operations and process that must be performed in order for a particular end to be achieved;

"tools, equipment and test equipment" means items used by an Approved Maintenance Organisation for the performance of maintenance or calibration on an aircraft or aeronautical product;

"traceability" means a traceable calibration that is achieved when each measurement device and working standard in a hierarchy stretching back to the National Standard that is properly calibrated and results documented and such document provides information needed to demonstrate that all calibrations in the chain of calibrations were properly performed;

"transfer standard" means any standard that is used to compare a measurement process, system or device at one location or level with another measurement process, system or device at another location or level;

"Trinidad and Tobago aircraft" means an civil aircraft registered in Trinidad and Tobago;

"working standard" means a calibrated standard that is used in the performance of maintenance and calibrations in any work area for the purpose of forming the basis for product acceptance or for making a finding of airworthiness to an aircraft or aeronautical product.

## APPLICABILITY OF THESE REGULATIONS

General applicability of these Regulations.

**3.** (1) These Regulations prescribe—

*(a)* the requirements for the issue of Approved Maintenance Organisation Certificates for the maintenance, preventive maintenance and modifications of Trinidad and Tobago aircraft and its aeronautical products; and

*(b)* general operating rules for an Approved Maintenance Organisation.

Sub. Leg.

(2) The provisions of Part I of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, with respect to the surrender, suspension or revocation of aviation documents apply to certificates, authorisations and ratings issued under these Regulations.

## PART I

## GENERAL REQUIREMENTS FOR ISSUE OF AIRCRAFT MAINTENANCE ORGANISATION CERTIFICATE

### GENERAL APPLICABILITY OF PART I

Applicability of Part I.

**4.** This Part prescribes the general requirements for the issue of an Approved Maintenance Organisation Certificate.

### PERSONS PROHIBITED FROM PERFORMING MAINTENANCE OF AERONAUTICAL PRODUCTS

Prohibition of performance maintenance.

**5.** (1) A person shall not perform maintenance, preventive maintenance or modifications of a Trinidad and Tobago aircraft or its associated aeronautical product except in accordance with these Regulations.

(2) A person shall not perform maintenance, preventive maintenance or modifications on a Trinidad and Tobago aircraft or its associated aeronautical product as an Approved Maintenance Organisation unless he holds a valid Approved Maintenance Organisation Certificate with appropriate rating issued by the Authority under these Regulations.

### GENERAL APPLICATION REQUIREMENTS

General requirements for issue of Aircraft Maintenance Organisation Certificate.

**6.** (1) A person wishing to apply for an Approved Maintenance Organisation Certificate with an appropriate rating to perform maintenance, preventive maintenance and modification on Trinidad and Tobago aircraft and their associated aeronautical products shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be at least eighteen years of age;

*(d)* be able to or have persons in his employ in the organisation who are able to read, speak, write and understand the English Language; and

*(e)* meet the requirements of these Regulations.

(2) An application under subregulation (1), shall be accompanied by—

*(a)* two copies of the Maintenance Procedures Manual of the applicant which meet the requirements of these Regulations and which shall be approved by the Authority;

*(b)* a list of contracted Approved Maintenance Organisations and a list of the maintenance functions that such contracted Approved Maintenance Organisations are contracted to perform;

*(c)* a list of maintenance functions to be performed for the Approved Maintenance Organisation under contract by a non-approved maintenance organisation;

*(d)* a list of all Approved Maintenance Organisation certificates and ratings pertinent to those certificates issued by any Contracting State other than Trinidad and Tobago; and

*(e)* any additional information the Director-General requires the applicant to submit.

(3) Where the applicant under subregulation (1)*(d)*, does not read, speak, write and understand the English Language, but employs a person who can read, speak, write and understand the English Language, such person shall have a management and technical function in his Approved Maintenance Organisation.

(4) An applicant under this regulation shall ensure that the procedures and specifications set out in his Maintenance Procedures Manual are implemented prior to the issue of the Aircraft Maintenance Organisation Certificate by the Authority.

*L.R.O.*

(5) Nothing in subregulation (4) shall be construed as authorising the applicant to exercise the privileges of an Aircraft Maintenance Organisation Certificate before such Certificate is issued by the Authority in accordance with regulation 8.

**SAFETY MANAGEMENT SYSTEM**

Safety management system. [49/2007]

**6A.** (1) From 1st January 2009, an Approved Maintenance Organisation shall implement a safety management system acceptable to the Authority that—

*(a)* identifies safety hazards;

*(b)* ensures that remedial action necessary to maintain the acceptable level of safety established by the Director-General under subregulation (1) is implemented;

*(c)* provides for continuous monitoring and regular assessment of the safety level achieved; and

*(d)* aims to make continuous improvement to the overall level of safety.

(2) The Director-General shall establish an acceptable level of safety to be achieved in the maintenance of aircraft.

(3) As part of the safety management system required by subregulation (1), an Approved Maintenance Organisation shall clearly define lines of safety accountability throughout its organisation, including a direct accountability for safety on the part of senior management.

**EQUIVALENT SAFETY CASE AND DEVIATION AUTHORITY**

Equivalent Safety Case and Deviation Authority.

**7.** (1) An Approved Maintenance Organisation shall not introduce a procedure which is contrary to those prescribed in these Regulations.

(2) Notwithstanding subregulation (1), where circumstances warrant deviation from prescribed procedures, an Approved Maintenance Organisation may apply to the Authority for a Deviation Certificate.

(3) Where the Authority determines that the deviation applied for under subregulation (2), is equivalent to what is required, it may approve the use of such procedure by granting a Deviation Certificate.

(4) An alternative procedure under subregulation (3), (hereinafter referred to as "an equivalent safety case"), shall only be considered on an individual case-by-case basis and would be conditional upon compliance with any supplementary conditions the Authority considers to be necessary to ensure equivalent safety.

(5) A request for a Deviation Certificate shall be made in a form and manner prescribed and submitted to the Authority at least sixty days before the date the deviation is necessary for the intended maintenance, preventive maintenance or modification.

(6) A request for a Deviation Certificate under subregulation (5), shall contain a statement of the circumstances, justifications and alternate method proposed for the deviation requested, and show that a level of safety shall be maintained equal to that provided by the rule from which the deviation is sought.

(7) An Approved Maintenance Organisation that receives a Deviation Certificate under this regulation shall have a means of notifying personnel authorised by an Approved Maintenance Organisation to certify aircraft or aircraft components for release to service, of the deviation, including the extent of the deviation and when the deviation is terminated or amended.

(8) Notwithstanding the sixty day requirement for submission under subregulation (5), where the deviation required is one which necessitates immediate implementation, an Approved Maintenance Organisation may submit a request for such deviation within a shorter period, and where it shows that such deviation is necessary in the interest of safety, the Director-General may recommend that the Authority approve the use of such deviation for a prescribed period.

**ISSUANCE OF AN APPROVED MAINTENANCE ORGANISATION CERTIFICATE**

Issue of Aircraft Maintenance Organisation Certificate. [227/2005].

**8.** (1) The Director-General may, after an evaluation of the application and subsequent inspection of the proposed facilities of the applicant, recommend the Authority issue an Approved Maintenance Organisation Certificate to such applicant where he is satisfied that such applicant—

*(a)* meets the requirements of these Regulations;

*(b)* has implemented all the procedures and specifications set out in his Maintenance Procedures Manual;

*(c)* is properly and adequately equipped to perform maintenance of Trinidad and Tobago aircraft or aeronautical products for which he seeks approval; and

*(d)* has paid all fees as prescribed by the Authority.

(2) The Director-General shall not recommend the issue of an Approved Maintenance Organisation Certificate—

*(a)* where the applicant—

(i) does not meet the requirements of these Regulations;

(ii) has provided incomplete, inaccurate, fraudulent or false information in applying for the Approved Maintenance Organisation Certificate;

(iii) held a certificate or aviation document issued by the Authority that was revoked or suspended within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such person; or

(iv) employs or proposes to employ a person in a management or supervisor capacity who—

(A) held a certificate or aviation document issued by the Authority that was

revoked or terminated within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such person; or

(B) contributed materially to the revocation or suspension of an aviation document issued by the Authority; or

*(b)* where a person having substantial ownership of the organisation—

(i) held a certificate or aviation document issued by the Authority that was revoked or suspended within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such a person; or

(ii) contributed materially to the revocation or suspension of an aviation document issued by the Authority.

(3) The Director-General may recommend the Authority issue an Acceptance Certificate to a foreign maintenance organisation that has been approved by the authority of another contracting State, to maintain a Trinidad and Tobago aircraft and its aeronautical products subject to that organisation being in compliance with Trinidad and Tobago's maintenance special conditions prescribed by the Authority.

(4) For the purpose of this regulation, "maintenance special conditions" means a list of conditions which a foreign approved maintenance organisation is required to satisfy in order to ensure equivalence with these Regulations.

**CERTIFICATE AND OPERATIONS SPECIFICATIONS**

Contents of Approved Maintenance Organisation Certificate. Schedule 1.

**9.** (1) An Approved Maintenance Organisation Certificate issued under regulation 8 shall consist of—

*(a)* a one page certificate signed by the Authority set out in Schedule 1; and

*(b)* a multi-page Operations Specifications signed by the Authority and the Accountable Manager containing the terms, conditions, and authorisations set out in Schedule 2.

Schedule 2.

(2) The Approved Maintenance Organisation Certificate shall contain the—

*(a)* certificate number specifically assigned to the Approved Maintenance Organisation by the Authority;

*(b)* name and location of the main place of business of the Approved Maintenance Organisation;

*(c)* date of issue and period of validity; and

*(d)* terms of the approval.

(3) The Operations Specifications of the Approved Maintenance Organisation shall contain the—

*(a)* Certificate Number specifically assigned to the Approved Maintenance Organisation;

*(b)* class and rating issued in detail, including special approvals and limitations of such class and rating and special approvals issued as applicable and set out as detailed in Schedule 3;

Schedule 3.

*(c)* date issued or revised;

*(d)* signature of the Accountable Manager; and

*(e)* signature of the Authority.

(4) Where an applicant indicates in his application that he intends to sub-contract work to a non-approved maintenance organisation, his Operations Specifications shall, in addition to the matters set out in subregulation (3), contain the following conditions:

*(a)* the Approved Maintenance Organisation shall be approved for the work to be sub-contracted and has the ability to assess the competency of the sub-contractor;

*(b)* the Approved Maintenance Organisation shall retain responsibility for the quality control and release of sub-contracted activities;

*(c)* the Approved Maintenance Organisation shall have procedures in place to control sub-contracted activities; and

*(d)* the Approved Maintenance Organisation shall have on record the terms of reference and responsibilities of the management personnel of the sub-contractor.

(5) An Approved Maintenance Organisation may perform maintenance, preventive maintenance and modifications on Trinidad and Tobago aircraft or their associated aeronautical products or parts thereof only for which it is rated and within the limitations placed in its Operations Specifications.

(6) The holder of an Approved Maintenance Organisation Certificate shall keep such Approved Maintenance Organisation Certificate on the premises of the Approved Maintenance Organisation prominently displayed in a place normally accessible to the public and the Authority.

**DURATION AND RENEWAL OF A CERTIFICATE**

Validity of Approved Maintenance Organisation Certficate.

**10.** (1) A certificate issued to an Approved Maintenance Organisation by the Authority shall be valid for the remainder of the month of which it was issued plus twelve months thereafter, unless—

*(a)* it is surrendered to the Authority by the Approved Maintenance Organisation;

*(b)* it is suspended or revoked by the Authority;

*(c)* the holder of the Approved Maintenance Organisation Certificate no longer has a fixed base of operation; or

*(d)* the holder of the Approved Maintenance Organisation Certificate no longer has the equipment or facilities to perform maintenance of Trinidad and Tobago aircraft or their associated aeronautical products.

(2) The holder of an Approved Maintenance Organisation Certificate shall return such certificate and

Operations Specifications to the Authority where it—

*(a)* is expired;

*(b)* is surrendered by the Approved Maintenance Organisation; or

*(c)* is suspended or revoked by the Authority.

(3) A valid Approved Maintenance Organisation Certificate shall continue to remain in force on condition that—

*(a)* the holder of the Approved Maintenance Organisation Certificate maintains compliance with these Regulations;

*(b)* the Director-General is permitted access at any time, to the facilities of the Approved Maintenance Organisation to conduct inspections to determine continued compliance with these Regulations;

*(c)* the holder of the Approved Maintenance Organisation Certificate has not surrendered such certificate to the Authority; and

*(d)* the Approved Maintenance Organisation Certificate has not been suspended or revoked by the Authority.

(4) Where an Approved Maintenance Organisation is no longer in compliance with these Regulations, the Director-General may recommend that that the Authority suspend or revoke his Approved Maintenance Organisation Certificate.

(5) Where the holder of an Approved Maintenance Organisation Certificate wishes to renew his Approved Maintenance Organisation Certificate, he shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* submit his application no later than sixty days before the current Approved Maintenance Organisation Certificate expires; and

*(c)* pay the prescribed fee.

(6) The Director-General may, after an evaluation of the application for renewal of an Approved Maintenance Organisation

Certificate referred to in subregulation (5) and inspection of the facilities of the Approved Maintenance Organisation, recommend the Authority renew the Approved Maintenance Organisation Certificate where he is satisfied that such applicant—

*(a)* meets the requirements of these Regulations;

*(b)* has maintained all the procedures and specifications set out in his Maintenance Procedures Manual;

*(c)* continues to be properly and adequately equipped to perform maintenance of Trinidad and Tobago aircraft or aeronautical products for which he seeks approval; and

*(d)* has paid all fees as prescribed by the Authority.

**CHANGES TO THE APPROVED MAINTENANCE ORGANISATION AND CERTIFICATE AMENDMENTS**

Amendments to Approved Maintenance Organisation Certificate.

**11.** (1) Where the holder of an Approved Maintenance Organisation Certificate wishes to make changes to his Approved Maintenance Organisation Certificate in relation to—

*(a)* the name of the organisation;

*(b)* the location of the organisation;

*(c)* the housing, facilities, equipment, tools, material, procedures, work scope and certifying staff that could affect the Approved Maintenance Organisation rating;

*(d)* the ratings held by the Approved Maintenance Organisation, whether granted by the Authority or held through an Approved Maintenance Organisation Certificate issued by another Contracting State;

*(e)* additional locations of the organisation;

*(f)* the Accountable Manager; and

*(g)* the list of management personnel identified in the Maintenance Procedures Manual,

he shall provide written notification to the Authority of his intention to make such change at least seven days before the submission of the application for the amendment.

(2) Upon receipt of a notification under subregulation (1), the Director-General shall notify the applicant of any special procedures to be followed for amending his Approved Maintenance Organisation Certificate including minimum time frame for submission of the application under subregulation (1).

(3) An application under subregulation (1), shall—

*(a)* be in the prescribed form;

*(b)* be accompanied by the prescribed fee; and

*(c)* be accompanied by the required amendment to the Maintenance Procedures Manual for approval by the Authority.

(4) The Director-General may recommend that the Authority approve the amendment of an Approved Maintenance Organisation Certificate and issue a new Approved Maintenance Organisation Certificate with the old Approved Maintenance Organisation Certificate number where he is satisfied that the applicant—

*(a)* continues to meet the required standards and other requirements under these Regulations;

*(b)* is properly and adequately equipped to perform maintenance on Trinidad and Tobago aircraft or their associated aeronautical products for which the amendment is sought; and

*(c)* paid all fees as prescribed by the Authority.

(5) Where the amendment to an Approved Maintenance Organisation Certificate involves a change of ownership, the applicant shall provide the Director-General with such evidence of the change of ownership.

(6) Notwithstanding subregulation (4), the Director-General may recommend that the Authority assign a new Approved Maintenance Organisation Certificate number to the amended Approved Maintenance Organisation Certificate where the amendment involves a change of ownership specified under subregulation (5).

(7) Notwithstanding subregulation (4), the Director-General may where an approval has been granted for the amendment, recommend the Authority prescribe in writing, the conditions under which the Approved Maintenance Organisation may continue to operate during any period of implementation of the changes under subregulation (1).

(8) Any changes made to an Approved Maintenance Organisation Certificate under subregulation (1) without the required notification or approval shall be ineffective unless approved by the Authority.

(9) The Director-General may recommend that the Authority suspend an Approved Maintenance Organisation Certificate where the holder of such Certificate makes any change listed under subregulation (1), to the Approved Maintenance Organisation without—

*(a)* notifying the Authority; and

*(b)* having such amendment approved by the Authority.

(10) Where changes are made to an Approved Maintenance Organisation in breach of this regulation, the Director-General may recommend that the Authority suspend the Approved Maintenance Organisation Certificate.

**ADVERTISING REQUIREMENTS**

Advertising requirements.

**12.** (1) A person shall not advertise as an Approved Maintenance Organisation unless an Approved Maintenance Organisation Certificate has been issued to him by the Authority.

(2) An Approved Maintenance Organisation shall not advertise in any manner whatsoever, any statement that is false or misleading.

(3) An advertisement by an Approved Maintenance Organisation shall clearly state the Certificate number of the Approved Maintenance Organisation.

**MAINTENANCE PROCEDURES MANUAL REQUIREMENTS**

Contents of a Maintenance Procedures Manual.

**13.** An applicant for an Approved Maintenance Organisation Certificate shall ensure that his Maintenance Procedures Manual submitted under regulation 6(2), contains the following subjects:

*(a)* organisation and management;

*(b)* maintenance procedures for base maintenance;

*(c)* additional procedures for line maintenance;

*(d)* quality system procedures;

*(e)* maintenance documentations and records; and

*(f)* appendices related to items in *(a)* to *(e)*.

**APPLICATION FOR AN ADDITIONAL RATING**

Issue of additional ratings.

**14.** (1) An Approved Maintenance Organisation wishing to apply for an additional rating to perform maintenance, preventive maintenance and modification on Trinidad and Tobago aircraft and their associated aeronautical products shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

*(c)* submit the required amendments to his Maintenance Procedures Manual in support of the requested additional rating for approval by the Authority; and

*(d)* provide any other information the Director-General may require the Approved Maintenance Organisation to submit.

(2) Where the Director-General is satisfied that an Approved Maintenance Organisation under subregulation (1) meets the requirements of these Regulations he may recommend the Authority issue such a rating to the Approved Maintenance Organisation.

(3) A rating issued under subregulation (2) to an Approved Maintenance Organisation, permits the holder to perform maintenance, preventive maintenance and modifications functions

on Trinidad and Tobago aircraft and their associated aeronautical products as specified in his Operations Specifications.

**ISSUE OF LIMITED RATING TO AN APPROVED MAINTENANCE ORGANISATION**

Issue of ratings with limitations.

**15.** (1) The Director-General, may recommend the Authority issue a rating with limitation where an Approved Maintenance Organisation Certificate demonstrates the capability—

*(a)* to maintain or alter only a particular type of airframe, power plant, propeller, radio, instrument, accessory or parts thereof; or

*(b)* to perform only specialised maintenance requiring equipment and skills not ordinarily performed at an Approved Maintenance Organisation.

(2) A rating issued with limitations under subregulation (1), may be limited to specialised services, a specific model aircraft, engine, constituent part or to any number of parts made by a particular manufacturer.

(3) A specialised service rating may be issued to an Approved Maintenance Organisation to perform specific maintenance or processes on Trinidad and Tobago aircraft or their associated aeronautical products.

(4) The Operations Specifications of the Approved Maintenance Organisation under subregulation 9(3), shall identify the specification used in performing that specialised service under subregulation (3), which may be—

*(a)* a civil or military specification that is currently used by the aviation industry and approved by the Authority; or

*(b)* a specification researched and developed by the Approved Maintenance Organisation, approved by the State of Design that initially issued the Type Certificate which the Director-General recommends the Authority approve.

## PART II

## HOUSING, FACILITIES, EQUIPMENT AND MATERIALS

### APPLICABILITY OF PART II

Applicability of Part II.

**16.** This Part prescribes the requirements for housing, facilities, equipment and materials for issue of an Approved Maintenance Organisation Certificate.

### HOUSING AND FACILITIES REQUIREMENTS

Minimun requirements of housing and facilities.

**17.** (1) An Approved Maintenance Organisation shall provide the necessary housing and facilities in the required quantity and quality that meet the standards required for the issuance of the certificate and ratings that the Approved Maintenance Organisation holds.

(2) An Approved Maintenance Organisation shall provide the necessary housing and other facilities that would allow proper performance of all planned work and protection of personnel, plants and equipment, tools and materials from weather elements.

(3) An Aircraft Maintenance Organisation shall ensure that—

*(a)* the work environment is safe and appropriate to the tasks to be carried out observing at all times special requirements applicable to particular task without impairing the effectiveness of personnel;

*(b)* the office accommodation is appropriate for the management of planned work including, in particular, the management of quality, planning, and technical records;

*(c)* specialised workshops and bays are segregated, as appropriate, to ensure that the environment and work area contamination is minimised;

*(d)* secure storage facilities are provided for parts, equipment, tools and material;

*(e)* storage conditions ensure segregation of serviceable aircraft components and material

from unserviceable aircraft components, materials, equipment and tools;

*(f)* the storage conditions are in accordance with the instructions of the manufacturers, to prevent deterioration of and damage to stored items; and

*(g)* access to storage facilities is restricted to authorised personnel.

**EQUIPMENT, TOOLS AND MATERIAL REQUIREMENTS**

Minimum requirements for equipment, tools and materials.

**18.** (1) An Approved Maintenance Organisation shall provide permanently, except for any tool or equipment rarely needed, the necessary equipment, tools and material, including technical data to perform the approved scope of work under the full control of the Approved Maintenance Organisation.

(2) Notwithstanding subregulation (1), the Authority may exempt an Approved Maintenance Organisation from possessing specific tools and equipment for maintenance or repair of an aircraft or aeronautical product specified in its Operations Specifications, where these items can be acquired temporarily, by prior arrangement, and be under full control of the Approved Maintenance Organisation when needed to perform required maintenance or repairs.

(3) An Approved Maintenance Organisation shall ensure that all tools, equipment and test equipment used for product acceptance or for making a finding of airworthiness are under its full control, calibrated to ensure correct calibration standard at a frequency to ensure serviceability and accuracy acceptable to the Authority.

(4) An Approved Maintenance Organisation shall establish and keep all records of calibrations and standards used for calibration for two years from the date the equipment was withdrawn from service or destroyed.

## PART III

## ADMINISTRATION

### APPLICABILITY OF PART III

Applicability of Part III.

**19.** This Part prescribes the requirements for administration of an Approved Maintenance Organisation for the issue of an Approved Maintenance Organisation Certificate.

### PERSONNEL AND TRAINING REQUIREMENTS

Minimum training requirements for personnel. [305/2004 200/2009].

**20.** (1) An Approved Maintenance Organisation shall employ the necessary trained and experienced maintenance personnel, authorised aircraft maintenance engineer and authorised workshop engineers where required, who meet the requirements of these Regulations.

(2) An applicant for an Approved Maintenance Organisation Certificate shall nominate a person as the Accountable Manager, acceptable to the Authority, responsible for establishing and promoting the safety and quality policy with corporate authority for ensuring that maintenance, preventive maintenance and modification for which the Aircraft Maintenance Organisation is authorised to perform can be financed and carried out to the standard required by the Authority.

(3) The Accountable Manager shall nominate a management person or group of management persons (hereinafter referred to as "the nominated managers") whose responsibilities include ensuring that the Approved Maintenance Organisation is in compliance with these Regulations.

(4) The Accountable Manager shall nominate a senior person with responsibility for monitoring the quality system of the Approved Maintenance Organisation, including the associated feedback system having direct access to the Accountable Manager to keep him properly informed on quality and compliance matters.

(5) The nominated managers shall represent the maintenance management structure of the Approved Maintenance Organisation reporting to the Accountable Manager

and responsible for all functions of the Approved Maintenance Organisation specified in these Regulations.

(6) The Approved Maintenance Organisation shall have a maintenance man-hour plan showing that the organisation has sufficient staff to plan, perform, supervise, inspect, issue Certificate of Release to Service and monitor the quality of the activities performed by the organisation in accordance with the approval.

(7) An Approved Maintenance Organisation shall have a procedure to re-assess work intended to be carried out when actual staff availability is less than the planned staffing level for a particular work period or shift.

(8) The competency of personnel involved in the performance of maintenance, supervision, management and quality audits for an Approved Maintenance Organisation shall be established and controlled in accordance with procedure and to standards approved by the Authority.

(9) The competence of personnel under subregulation (8), shall include an understanding of the application of human factors and human performance issues appropriate to the functions of such persons in the organisation.

(10) An Approved Maintenance Organisation shall ensure that persons who carry out or control a continued airworthiness non-destructive test of aircraft structures or aircraft component shall be qualified for the particular non-destructive test to a standard prescribed by the Director-General.

(11) An Approved Maintenance Organisation shall issue a certification authorisation in writing to appropriately qualified engineers within his organisation, to issue Certificate of Release to Service for aircraft and their associated aeronautical products following satisfactory completion of maintenance.

(12) A certification authorisation to issue a Certificate of Release to Service under subregulation (11), shall clearly specify the scope and limits of such certification authorisation and contain a unique certification authorisation number in respect of each certifying staff.

(13) An Approved Maintenance Organisation shall establish a training programme for its maintenance personnel which shall be included in its Maintenance Procedures Manual and approved by the Authority.

(14) An Approved Maintenance Organisation shall ensure that certifying staff meets the qualification requirements of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations and receive initial and continuation training in their assigned tasks and responsibilities in accordance with the programme specified in his Maintenance Procedures Manual.

Sub. Leg.

(15) An Approved Maintenance Organisation shall ensure that the training programme under subregulation (13), includes training in knowledge and skills related to human performance, including co-ordination with other maintenance personnel and flight crew.

(16) An Approved Maintenance Organisation maintaining large aircraft shall have—

*(a)* in the case of aircraft line maintenance—

(i) appropriate aircraft type rated authorised aircraft maintenance engineer qualified in accordance with regulation 21; and

(ii) appropriate task rated authorised aircraft maintenance engineer qualified to perform and certify minor scheduled line maintenance and simple defect rectification.

*(b)* in the case of aircraft base maintenance, appropriate aircraft type rated authorised aircraft maintenance engineer qualified in accordance with regulation 21 for certifying work performed.

(17) Where an Approved Maintenance Organisation performs maintenance on small aircraft, the requirements of subregulation (16), shall be applied unless alternative procedures for issuing Certificate of Release to Service by the organisation for such aircraft have been approved by the Authority.

(18) An Approved Maintenance Organisation shall include procedures in the Maintenance Procedures Manual for the performance of maintenance and issue of Certificate of Release to Service in respect of maintenance of Trinidad and Tobago aircraft and their associated aeronautical products approved by the Authority.

(19) Notwithstanding subregulation (11), an Approved Maintenance Organisation may submit procedures in the Maintenance Procedures Manual for approval by the Authority, for the issue of certification authorisation to qualified persons specified under the following circumstances, subject to compliance with the conditions stated for each circumstance:

*(a)* for a repetitive airworthiness directive inspection to be conducted during a pre-flight inspection, which specifically states that the flight crew may carry out such airworthiness directive, the Approved Maintenance Organisation may issue a limited certification authorisation to the pilot in command, co-pilot or flight engineer subject to being satisfied that sufficient practical training has been carried out to ensure that such pilot in command, co-pilot or flight engineer can accomplish the airworthiness directive inspection to the required standard; and

*(b)* for the unforeseen circumstances where an aircraft is grounded at a location not having an Approved Maintenance Organisation, the Approved Maintenance Organisation contracted to provide maintenance support may issue a one-off authorisation to a person at that location who has at least five years experience and holds a valid Aircraft Maintenance Engineer Licence rated for the aircraft type requiring certification, or an equivalent certificate issued by a Contracting State subject to the Approved Maintenance Organisation obtaining and holding on file, evidence of the experience and licence of such person.

(20) Where a Certificate of Release to Service was issued under subregulation (19)*(b)*, the Approved Maintenance Organisation shall report to the Authority such event within seven days of the issuance of such authorisation.

(21) Where the maintenance performed and certified under paragraph (19)*(b)* could affect flight safety, such maintenance and associated systems shall be re-checked and re-certified at the first opportunity by an authorised aircraft maintenance engineer of the Approved Maintenance Organisation.

**REQUIREMENTS FOR CERTIFYING STAFF**

Requirements for certifying staff. [200/2009].

**21.** (1) The applicant for an Approved Maintenance Organisation Certificate shall submit procedures in his Maintenance Procedures Manual for the issue of certification authorisation privileges only to qualified persons in his employ, for approval by the Authority.

(2) An Approved Maintenance Organisation may for certification of an aircraft issue or re-issue a certification authorisation to a qualified person where that person—

Sub. Leg.

*(a)* holds a valid Aircraft Maintenance Engineer Licence issued under the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations or an equivalent qualification approved by the Authority, which attests to his knowledge and experience;

*(b)* has an adequate understanding of the relevant aeronautical products to be maintained and for which authorisation privileges are sought and is thoroughly familiar with the relevant Approved Maintenance Organisation systems and procedures;

*(c)* has successfully completed initial aircraft type training and continuation training in his assigned tasks and responsibilities in accordance with a programme approved by the Authority;

*(d)* has successfully completed training in knowledge and skills related to human performance, including co-ordination with other maintenance personnel and flight crew;

*(e)* has satisfied the experience and skills requirements in accordance with the training programme approved by the Authority; and

*(f)* has satisfied all other requirements of the Maintenance Procedures Manual for the issue of the authorisation.

(3) A person issued certification authorisation by an Approved Maintenance Organisation under subregulation (2), shall be referred to as an "authorised aircraft maintenance engineer" under these Regulations.

(4) An Approved Maintenance Organisation may for certification of an aeronautical product other than an aircraft, issue or re-issue a certification authorisation to a qualified person where that person—

*(a)* ***(Deleted by LN 200/2009)***;

*(b)* has an adequate understanding of the relevant aeronautical products to be maintained and for which authorisation privileges are sought and is thoroughly familiar with the relevant Approved Maintenance Organisation systems and procedures;

*(c)* has successfully completed initial original equipment manufacturer training and continuation training in his assigned tasks and responsibilities in accordance with a programme approved by the Authority;

*(d)* has successfully completed training in knowledge and skills related to human performance, including co-ordination with other maintenance personnel;

*(e)* has satisfied the experience and skills requirements in accordance with the training programme approved by the Authority; and

*(f)* has satisfied all other requirements of the Maintenance Procedures Manual for the issue of the authorisation.

(5) A person issued certification authorisation by an Approved Maintenance Organisation under subregulation (4) shall be referred to as an "authorised workshop engineer" under these Regulations.

(6) An Approved Maintenance Organisation shall ensure that all certifying staff have actually carried out maintenance on some of the aircraft systems or associated aeronautical products as appropriate, specified in his authorisation and have exercised the privileges of his certification authorisation for at least six cumulative months in any consecutive twenty-four months period.

(7) An Approved Maintenance Organisation shall ensure that all certifying staff receive sufficient continuation training in each twenty-four months period to ensure that they have current knowledge of relevant technology, organisation procedures and human factor issues.

(8) An Approved Maintenance Organisation shall establish a programme for the continuation training and procedures to ensure compliance with subregulation (7) as one of the requirements for the issue and re-issue of a certification authorisation to a certifying staff.

(9) An Approved Maintenance Organisation shall assess current and prospective certifying staff for their competence, qualification and capability to carry out intended certifying duties in accordance with the Maintenance Procedures Manual before the issue or re-issue of a certification authorisation as appropriate.

(10) The senior manager responsible for the quality system shall establish a certification authorisation system, procedures

for the issue of certification authorisation documented in the Maintenance Procedures Manual and be responsible for the issue of certification authorisations to certifying staff on behalf of the Approved Maintenance Organisation.

(11) The senior manager responsible for the quality system under subregulation (10) may delegate to other persons under his direct control his power to issue certification authorisation in accordance with procedures specified in the Maintenance Procedures Manual approved by the Authority.

**RECORDS OF CERTIFYING STAFF**

Requirements for records for certifying staff. [200/2009].

**22.** (1) An Approved Maintenance Organisation shall maintain records of all certifying staff within his organisation, which shall include details of any Aircraft Maintenance Engineer Licence held, all training completed and the scope and limitation of their authorisation.

(2) The Approved Maintenance Organisation, under subregulation (1), shall provide each certifying staff with a copy of his certification authorisation, which may be on hard copy or electronic format.

(3) All certifying staff shall produce their certification authorisation to the Director-General or his authorised representative within a reasonable time of a request.

**REST AND DUTY LIMITATIONS FOR MAINTENANCE STAFF**

Rest and duty times restrictions.

**23.** (1) A person shall not assign, nor shall any person perform maintenance functions on an aircraft, unless that person has had a minimum rest of eight hours prior to commencing duty.

(2) A person shall not be scheduled to perform maintenance functions for aircraft for more than twelve consecutive hours of duty.

(3) Where a situation involving a person performing maintenance functions on an unscheduled aircraft unserviceability exists, such person may continue on duty for up to twenty hours within a twenty-four hour period with a maximum of sixteen consecutive hours of duty within such twenty-four hour period.

(4) Notwithstanding subregulation (1), where a person performing maintenance under subregulation (3), who is required to perform his duties for sixteen consecutive hours, he shall have a minimum of four consecutive hours break from duty before the resumption of duty on that aircraft within the twenty-four hour period.

(5) Following unscheduled duty periods referred to in subregulation (3), a person performing maintenance functions on such aircraft shall have a mandatory rest period of ten consecutive hours exclusive of commuting time following the performance of such unscheduled duty period.

(6) The Approved Maintenance Organisation shall relieve persons performing maintenance functions from all duties and a person performing maintenance functions shall not perform any maintenance functions for twenty-four consecutive hours during any consecutive seven-day period.

## PART IV

## APPROVED MAINTENANCE ORGANISATION OPERATING RULES

### APPLICABILITY OF PART IV

Applicability of Part IV.

**24.** This Part prescribes the operating rules for an Approved Maintenance Organisation for the issue of an Approved Maintenance Organisation Certificate.

### MAINTENANCE PROCEDURES MANUAL

Requirements for Maintenance Procedures Manual. [200/2009].

**25.** (1) The Maintenance Procedures Manual of the Approved Maintenance Organisation and any subsequent amendments thereto shall be approved by the Authority prior to use.

(2) An Approved Maintenance Organisation shall set out the procedures, means, and methods in its Maintenance Procedures Manual by which it intends to operate.

(3) The Approved Maintenance Organisation shall ensure that the Maintenance Procedures Manual referred to in subregulation (2), is provided for the use and guidance of the organisation and all maintenance personnel and such maintenance personnel are familiar with those parts of the Maintenance Procedures Manual that are relevant to the maintenance work they perform.

(4) A Maintenance Procedures Manual under this regulation shall contain details of the following subjects as set out in Schedule 4: Schedule 4.

*(a)* the specific scope of work required of the Approved Maintenance Organisation in order to satisfy the relevant requirements needed for obtaining an approval to issue Certificate of Release to Service in respect of maintenance of Trinidad and Tobago aircraft and their associated aeronautical products;

*(b)* a statement signed by the Accountable Manager of the Approved Maintenance Organisation and where the Chief Executive Officer is not the Accountable Manager, also by such Chief Executive Officer, confirming that the Maintenance Procedures Manual and any associated manuals of the Approved Maintenance Organisation are in compliance with these Regulations and shall be complied with at all times;

*(c)* the titles and names of the management personnel approved by the Authority which may be kept separate from the Maintenance Procedures Manual but shall be kept current and available for review by the Authority when requested;

*(d)* the duties and responsibility of the management personnel and the matters on which they may deal directly with the Authority on behalf of the Approved Maintenance Organisation;

*(e)* an organisation chart showing associated chain of responsibility of the management personnel specified in paragraph *(d)*;

*(f)* a current list of authorised aircraft maintenance engineer and authorised workshop engineer which may be kept separate from the Maintenance Procedures Manual but the list and the procedures to establish and maintain such list shall be available for review by the Authority;

*(g)* a description of the procedures used to establish the competence of maintenance personnel;

*(h)* instructions and information necessary to allow all personnel to perform their duties with a high degree of safety;

*(i)* general description of manpower resources;

*(j)* a description of the method used for the completion and retention of maintenance records;

*(k)* a description of the procedures for preparing the Certificate of Release to Service and the circumstances under which it is to be signed;

*(l)* a description, where applicable, of additional procedures for complying with maintenance procedures and requirements of the national air operator;

*(m)* a description of the procedures for complying with the reporting requirements of regulation 34;

*(n)* a procedure for receiving, amending and distributing within the Approved Maintenance Organisation all necessary airworthiness data from the type certificate holder or the type design organisation;

*(o)* a general description of the facilities located at each address specified in the Approved Maintenance Organisation Certificate;

*(p)* a general description of the Approved Maintenance Organisation scope of work relevant to the extent of the Approved Maintenance Organisation Certificate;

*(q)* the notification procedure to be used by the Approved Maintenance Organisation when requesting approval by the Authority for changes to the organisation of the Approved Maintenance Organisation;

*(r)* procedures to be adopted by the Approved Maintenance Organisation when making amendments to the Maintenance Procedures Manual, including submissions to the Authority;

*(s)* the procedures adopted by the Approved Maintenance Organisation and approved by the Authority, to ensure good maintenance practices and compliance with all relevant requirements of these Regulations;

*(t)* the procedures of the Approved Maintenance Organisation for establishing and maintaining an independent quality system to monitor compliance with, and the adequacy of the procedures to ensure good quality maintenance practices and airworthy aircraft and aeronautical products;

*(u)* the safety and quality policy of the Approved Maintenance Organisation;

*(v)* the procedures of the Approved Maintenance Organisation for self-evaluations, including methods and frequency of such evaluations, and procedures for reporting results to the Accountable Manager for review and action;

*(w)* a list of operators, where appropriate, to which the Approved Maintenance Organisation provides aircraft maintenance services;

*(x)* a list of organisations performing maintenance on behalf of the Approved Maintenance Organisation; and

*(y)* a list of the line maintenance locations and procedures of the Approved Maintenance Organisation, where applicable.

(5) The system to monitor compliance referred to in subregulation (4)(*t*) shall include a feedback system to the nominated managers specified in regulation 20, and ultimately to the Accountable Manager to ensure, as necessary, corrective action is taken in response to reports resulting from independent audits established to meet the requirements under regulation 26.

(6) A Maintenance Procedures Manual and any other manual referred therein shall—

*(a)* be in a form that is easy to revise and contain a system which allows personnel to determine current revision status;

*(b)* have the date of the last revision printed on each page concerned;

*(c)* not be inconsistent with the Act or Regulations made thereunder;

*(d)* not be inconsistent with his Operations Specifications; and

*(e)* include a reference to the appropriate Regulations under the Act or Regulations made thereunder.

(7) In addition to the matters set out in subregulation (4), the Maintenance Procedures Manual and any other manual referred therein may be produced either—

*(a)* in a series of parts;

*(b)* as a series of volumes; or

*(c)* as a single document.

(8) The Approved Maintenance Organisation shall ensure that all amendments to its Maintenance Procedures

Manual, which are necessary to keep the information contained therein current, are submitted to the Authority for approval.

(9) An Approved Maintenance Organisation shall ensure that all amendments to its approved Maintenance Procedures Manual are provided promptly to all persons of the Approved Maintenance Organisation to whom the manual has been issued.

**QUALITY ASSURANCE PROGRAMME AND MAINTENANCE PROCEDURES**

Requirements for quality assurance system and maintenance procedure.

**26.** (1) An Approved Maintenance Organisation shall—

*(a)* establish a safety and quality policy for the organisation to be included in its Maintenance Procedures Manual under regulation 25(4)*(u)*;

*(b)* establish procedures acceptable to the Authority, taking into consideration human factors and human performance, to ensure good maintenance practices and compliance with all relevant requirements under these Regulations, such that aeronautical products may be properly released to service;

*(c)* establish an independent quality assurance programme, approved by the Authority, that shall—

(i) monitor compliance with, and the adequacy of procedures and provide a system of inspection to ensure that all maintenance functions are properly performed;

(ii) perform independent audits of maintenance work performed on aircraft and aeronautical products to ensure compliance with the maintenance data, maintenance procedures, materials, appropriate facilities and trained staff required in performing such maintenance work; and

(iii) employ a quality feedback reporting system to the quality manager and ultimately to the Accountable Manager that ensures proper and timely corrective action is taken in response to reports resulting from the independent audit established under paragraph (i).

(2) The quality assurance programme under this regulation shall—

*(a)* include a procedure to initially qualify and periodically perform audits on persons performing and certifying work on behalf of the Approved Maintenance Organisation;

*(b)* be adequate to review all maintenance procedures as described in the Maintenance Procedures Manual once a year for each aircraft type maintained; and

*(c)* indicate when audits are due, when completed, and shall establish a system of audit reports, which can be seen by the visiting Authority staff on request.

(3) The system of audit report under subregulation (2)*(c)*, shall establish a means by which audit reports containing observations about non-compliance or poor standards are communicated to the Accountable Manager.

(4) Maintenance procedures shall—

*(a)* cover all aspects of maintenance activity and describe the standard to which the Approved Maintenance Organisation intends to maintain a Trinidad and Tobago aircraft and its associated aeronautical products;

*(b)* comply with these Regulations.

(5) The aeronautical product design standards and where applicable, the maintenance standards of the operator shall

be taken into account when developing maintenance procedures under subregulation (4).

**CAPABILITY LIST**

Requirements for retention of capability list.

**27.** (1) An Approved Maintenance Organisation shall prepare and submit to the Authority for approval, a current list of articles for which it has the capability to effectively perform maintenance (hereinafter referred to as a "capability list").

(2) An Approved Maintenance Organisation shall not perform maintenance, preventive maintenance, or modifications on an article until such article has been listed on the capability list in accordance with these Regulations.

(3) The capability list under this regulation shall identify each article by—

*(a)* make and model;

*(b)* part number, as applicable; or

*(c)* any other nomenclature designated by the manufacturer of the article required by the Authority.

(4) An article shall not be listed on the capability list unless—

*(a)* such article is within the scope of the class and ratings on the Approved Maintenance Organisation Certificate; and

*(b)* the Approved Maintenance Organisation has performed a self-evaluation in accordance with regulation 25(4)*(v)*.

(5) An Approved Maintenance Organisation shall perform self-evaluations to determine whether it has all of the required facilities, equipment, material, technical data, processes, housing and trained personnel in place to perform the maintenance work on the article as required by these Regulations.

(6) Where an Approved Maintenance Organisation performs a self-evaluation and meets the requirements specified in subregulation (5) it may list the article on the capability list.

(7) An Approved Maintenance Organisation shall document all self-evaluations performed for an article to be placed on the capability list and keep all such documentations available on its premises for inspection by the Authority.

(8) A self-evaluation under subregulation (6), shall be accepted and signed by the Accountable Manager and retained on file by the Approved Maintenance Organisation on his premises.

(9) Where an additional aeronautical product has been included on the capability list of the Approved Maintenance Organisation, he shall send a copy of such capability list to the Authority.

(10) A capability list under this regulation shall be available on the premises of the Approved Maintenance Organisation for inspection by the public and the Authority.

(11) An Approved Maintenance Organisation shall retain a capability list and self-evaluation document for two years from the date on which it was accepted by the Accountable Manager.

**PRIVILEGES OF THE APPROVED MAINTENANCE ORGANISATION**

Approved Maintenance Organisation privileges.

**28.** (1) An Approved Maintenance Organisation may perform the following tasks as permitted by and in accordance with the Maintenance Procedures Manual of the Approved Maintenance Organisation:

*(a)* maintain a Trinidad and Tobago aircraft and its associated aeronautical products for which it is approved at the location identified in the Approved Maintenance Organisation Certificate;

*(b)* arrange for maintenance of a Trinidad and Tobago aircraft and its aeronautical products for which it is approved at another organisation that is working under the quality system of the Approved Maintenance Organisation, within the limitation of his Approved Maintenance Organisation Certificate;

*(c)* maintain a Trinidad and Tobago aircraft and its aeronautical products for which it is approved at any location subject to the need for such maintenance arising either from the unserviceability of the aeronautical product or from the necessity of supporting occasional line maintenance subject to the conditions specified on the Approved Maintenance Organisation Certificate and the procedures in the Maintenance Procedures Manual;

*(d)* maintain a Trinidad and Tobago aircraft and its aeronautical products for which it is approved, at a location identified as a line maintenance location, capable of supporting minor maintenance where the Maintenance Procedures Manual permits such activities and lists such locations;

*(e)* maintain a Trinidad and Tobago aircraft and its aeronautical products in support of a specific national air operator where such national air operator has requested the services of the Approved Maintenance Organisation at locations other than his main base where he has a rating in his Operations Specifications, approved by the Authority to maintain the aircraft of that specific national air operator at the requested location; and

*(f)* issue a Certificate of Release to Service in respect of paragraphs *(a)* through *(e)* upon completion of maintenance in accordance with the ratings and limitations of its Operations Specifications.

(2) An Approved Maintenance Organisation—

*(a)* shall not contract out the maintenance, preventive maintenance, modification or alteration of a complete type-certified aeronautical product for which it is rated unless approved to do so by the Authority; and

*(b)* shall not certify a Trinidad and Tobago aircraft or its associated aeronautical products where the entire maintenance of such Trinidad and Tobago aircraft or its aeronautical product has been subcontracted.

(3) Where an Approved Maintenance Organisation contracts out maintenance, preventive maintenance, modification or alteration of an aeronautical product for which it is rated that is not a complete type-certified aeronautical product, such Approved Maintenance Organisation shall not issue a Certificate of Release to Service in respect of such maintenance, preventive maintenance, modification or alteration of the aeronautical product.

(4) The Approved Maintenance Organisation shall not maintain or modify any Trinidad and Tobago aircraft and its aeronautical products for which it is rated at a place other than its premises unless—

*(a)* the function would be performed in the same manner as when performed at its premises and in accordance with these Regulations;

*(b)* all necessary personnel, equipment, material, technical and approved standards are available at the place where the work is to be done;

*(c)* the Maintenance Procedures Manual provides approved procedures governing work to be performed at a place other than his premises; and

*(d)* it informs the Authority and receives approval in writing for each task prior to undertaking such task.

**LIMITATIONS OF AN APPROVED MAINTENANCE ORGANISATION**

Approved Maintenance Organisation limitations.

**29.** The Approved Maintenance Organisation shall not perform maintenance on a Trinidad and Tobago aircraft and its associated aeronautical product for which it is rated unless it has available the required—

*(a)* housing;

*(b)* facilities;
*(c)* equipment;
*(d)* tools;
*(e)* material;
*(f)* maintenance data;
*(g)* approved technical data; and
*(h)* appropriately trained maintenance and certifying staff.

**CERTIFICATE OF RELEASE TO SERVICE**

Requirements for Certificate of Release to Service.

**30.** (1) A Certificate of Release to Service shall be issued by an appropriate certifying staff on behalf of the Approved Maintenance Organisation when such certifying staff is satisfied that all maintenance required by the operator of the Trinidad and Tobago aircraft or its aeronautical products, has been properly carried out by the Approved Maintenance Organisation in accordance with procedures specified in the Maintenance Procedures Manual of the Approved Maintenance Organisation.

(2) Where maintenance has been performed on an aeronautical product which is not installed on an aircraft, a Certificate of Release to Service shall be issued for such maintenance and another Certificate of Release to Service shall be issued after the proper installation of such aeronautical product on an aircraft, when such action occurs.

(3) A Certificate of Release to Service shall contain—
*(a)* basic details of the maintenance carried out;
*(b)* the date such maintenance was completed;
*(c)* the name, unique authorisation number of the certifying staff and his signature or stamp;
*(d)* name and Certificate number of the Approved Maintenance Organisation; and
*(e)* an airworthiness compliance statement.

(4) Certifying staff shall not issue a Certificate of Release to Service on behalf of an Approved Maintenance

Organisation where non-compliance which could affect flight safety, is known to such certifying staff or the Approved Maintenance Organisation.

**MAINTENANCE RECORDS**

Maintenance records requirements. [305/2004].

**31.** (1) An Approved Maintenance Organisation shall record all details of maintenance work carried out on Trinidad and Tobago aircraft and its aeronautical products, in a form acceptable to the Authority.

(2) An Approved Maintenance Organisation shall provide a copy of each Certificate of Release to Service to the aircraft operator, together with a copy of any specific approved repair or modification airworthiness data used for repairs or modifications carried out.

(3) An Approved Maintenance Organisation shall retain a copy of all detailed maintenance records and any associated airworthiness data for two years from the date the aircraft or aeronautical product was issued a Certificate of Release to Service.

(4) Where an air operator contracts an Approved Maintenance Organisation to keep his maintenance records, Certificates of Release to Service and any associated airworthiness data, such Approved Maintenance Organisation shall retain the records for a period of up to two years after the aeronautical product has been permanently withdrawn from service or destroyed.

(5) A person who maintains, performs preventive maintenance, rebuilds, or modifies an aeronautical product as part of his duties at an Approved Maintenance Organisation, shall make an entry in the maintenance record of that aeronautical product of the following information:

*(a)* description of work performed and reference to data approved by the Authority of such work;

*(b)* date of completion of the work performed;

*(c)* name of the person who performed the work where the person is not the certifying staff;

*(d)* the name, unique authorisation number and the signature or stamp of the certifying staff approving or disapproving for return to service the aircraft, airframe, aircraft engine, propeller, appliance, component part or part thereof;

*(e)* where the person under paragraphs *(d)* and *(e)* appends his signature to the maintenance records, such signature constitutes a Certificate of Release to Service only in respect of the work performed and specified on such maintenance record;

*(f)* in addition to the entry required by this subregulation, major repairs and major modifications shall be entered on a form which shall be processed by the person performing the work, in the manner prescribed by the Authority.

(6) A person shall not describe an aeronautical product as being overhauled in any maintenance record, unless such aeronautical product has been—

*(a)* disassembled, cleaned, inspected as permitted, repaired as necessary and reassembled using methods, techniques and practices acceptable to the Authority; and

*(b)* tested in accordance with approved standards and technical data or in accordance with current standards and technical data acceptable to the Authority, which have been developed and documented by the holder of the Type Certificate, Supplemental Type Certificate, or a material, part, process or appliance manufacturing approval.

(7) A person shall not describe in any required maintenance record, an aeronautical product as being rebuilt unless such aeronautical product has been—

*(a)* disassembled, cleaned and inspected as permitted;

*(b)* repaired as necessary; and

*(c)* re-assembled and tested to the same tolerances and limits as a new item, using either a new part or used part that conforms either to new part tolerance and limits or to approved oversized or undersized dimensions.

(8) Certifying staff of an Approved Maintenance Organisation shall not issue a Certificate of Release to Service for an aeronautical product that has undergone maintenance, preventive maintenance, rebuilding, or modification unless—

*(a)* he has made the appropriate maintenance record entry; and

*(b)* where applicable, the repair or modification form authorised or furnished by the Authority has been completed in a manner prescribed by the Authority.

(9) Where a repair or modification to a Trinidad and Tobago aircraft and its aeronautical products results in any change in the aircraft operating limitations or flight data contained in the approved Aircraft Flight Manual, those operating limitations or flight data shall be appropriately revised and set forth as prescribed by the Authority.

(10) An Approved Maintenance Organisation issuing a Certificate of Release to Service under the Act or Regulations made thereunder, for an aeronautical product after performing an inspection in accordance with the Act or Regulations made thereunder, shall ensure that the following information is entered in the maintenance record of such aeronautical product—

*(a)* the type of inspection and a brief description of the extent of the inspection;

*(b)* the date of the inspection and aircraft total time in service; and

*(c)* the name, signature, Approved Maintenance Organisation certificate number, certification authorisation number and kind of licence of the

certifying staff approving or disapproving for return to service the aircraft or aeronautical product or portion thereof.

(11) Where the aircraft or aeronautical product is found to be airworthy, the certifying staff shall append his signature on the following or a similarly worded release to service statement:

"I, ……. (insert name) certify that this aircraft or aeronautical product has been inspected in accordance with …… (insert type) inspection and such aeronautical product was determined to be in an airworthy condition.

.....(signature), .....(date).".

(12) Where the aircraft or aeronautical product is not approved for return to service, non-compliance with the applicable specifications, airworthiness directives, or other approved data the following or similarly worded statement:

"I, …….. (insert name) certify that this aeronautical product was inspected in accordance with …….. (insert type) inspection and a list of ……. (insert quantity) discrepancies and unairworthy items has been provided to the aircraft operator."

.....(signature), .....(date).".

(13) Where a certifying staff of an Approved Maintenance Organisation under subregulation (12), finds that the aircraft or aeronautical product is not airworthy or does not meet the applicable type certificate data sheet, airworthiness directives or other approved data upon which its airworthiness depends and is not ready for release to service, such certifying staff shall give the operator a signed and dated list of those discrepancies and unairworthy items.

(14) Certifying staff of an Approved Maintenance Organisation shall not issue a Certificate of Release to Service in

respect of an aircraft or aeronautical product which has been found to be unairworthy in subregulation (12), unless—

*(a)* the discrepancies and unairworthy items specified in the list provided to the operator have been addressed in accordance with approved procedures; and

*(b)* the aircraft or aeronautical product or portion thereof has been re-inspected and found to be airworthy and ready for release for service.

(15) Where an inspection is conducted under an inspection programme provided for in the Act or Regulations made thereunder, the certifying staff performing the inspection shall make—

*(a)* an entry identifying the inspection programme accomplished; and

*(b)* a statement that the inspection was performed in accordance with the inspections and procedures for that particular programme.

**MAINTENANCE DATA**

Requirements to retain maintenance data.

**32.** (1) An Approved Maintenance Organisation shall ensure that all airworthiness and maintenance data appropriate to support the work performed is received, held and used in the performance of maintenance including modifications and repairs of an aeronautical product or process specified in the Maintenance Procedures Manual.

(2) Applicable airworthiness and maintenance data specified in subregulation (1) refers to—

*(a)* any applicable requirements, procedures, airworthiness directive, operational directive or information issued by the Authority;

*(b)* any applicable airworthiness directive issued by the civil aviation authority of a Contracting State which issued the original type certificate;

*(c)* any applicable data, such as but not limited to, maintenance and repair manuals, issued by an

organisation approved by the civil aviation authority of the Contracting State, for type certificate holder, supplemental type certificate holders and any other organisation approved to publish such data by the appropriate civil aviation authority of Contracting States; and

*(d)* any applicable standard, such as but not limited to, maintenance standard practices issued by a civil aviation authority of any Contracting State, institute or organisation and recognised by the Authority as an acceptable standard for maintenance.

(3) An Approved Maintenance Organisation shall establish procedures that ensure that where found, any inaccurate, incomplete or ambiguous procedures, practices, information or maintenance instructions contained in the maintenance data used by maintenance personnel is recorded and notified to the author of the maintenance data.

(4) An Approved Maintenance Organisation shall not modify airworthiness and maintenance data to another format or presentation more useful to its maintenance activities, unless such Approved Maintenance Organisation submits to the Authority for approval, an amendment to the Maintenance Procedures Manual for any such proposed modifications.

(5) The maintenance instruction under subregulation (4) refers to an instruction on how to carry out a particular maintenance task and shall not authorise the design of repairs and modifications.

(6) An Approved Maintenance Organisation shall establish procedures in the Maintenance Procedures Manual to ensure that appropriate action is taken in the case of damage assessment and the need to use only approved repair data.

(7) An Approved Maintenance Organisation shall provide a common work card or worksheet system for use throughout relevant parts of the organisation.

(8) Work cards and worksheets under subregulation (7) may be computer generated and held on an electronic data base

subject to having adequate safeguards against unauthorised alteration and a backup electronic data base which is updated within twenty-four hours of any entry being made to the main electronic data base.

(9) Where the Approved Maintenance Organisation provides maintenance service for an operator who requires the use of his work cards and worksheet system to be used, the Approved Maintenance Organisation shall establish procedures to ensure correct completion of the aircraft operator work cards and worksheets.

(10) An Approved Maintenance Organisation shall ensure that all applicable maintenance data is readily available for use when required by maintenance personnel.

(11) An Approved Maintenance Organisation shall ensure that all maintenance data controlled by him is kept current.

(12) Where an Approved Maintenance Organisation provides maintenance service for an operator who controls and provides maintenance data, the Approved Maintenance Organisation shall require that such operator provide written confirmation that all such maintenance data is current, work orders specifying the amendment status of the maintenance data to be used or a copy of the maintenance data amendment list.

**PRODUCTION PLANNING**

Requirements for production planning.

**33.** (1) An Approved Maintenance Organisation shall have a system appropriate to the amount and complexity of work to be performed to plan the availability of all necessary personnel, tools, equipment, materials, maintenance data and facilities in order to ensure the safe completion of the maintenance work.

(2) Where an Approved Maintenance Organisation plans maintenance tasks and organises shifts, human performance limitations shall be taken into account.

(3) When it is required to hand over the continuation or completion of a maintenance action for reasons of a shift or

personnel changeover, the Approved Maintenance Organisation shall ensure that relevant information are adequately communicated between outgoing and incoming personnel in accordance with a procedure acceptable to the Authority.

**REPORTING OF UNAIRWORTHY CONDITIONS**

Requirement to report unairworthy conditions of aeronautical products.

**34.** (1) An Approved Maintenance Organisation shall report to the Authority and the Aircraft Design Organisation of the State of Design any identified condition that could present a serious hazard to the aeronautical product.

(2) All reports under subregulation (1), shall be made in a form and manner prescribed by the Authority and contain all pertinent information about the condition known to the Approved Maintenance Organisation.

(3) Where the Approved Maintenance Organisation is contracted by an air operator to carry out maintenance, the Approved Maintenance Organisation shall report to the air operator any condition affecting the aeronautical product.

(4) Reports required by this regulation shall be made as soon as reasonably practicable, but no later than seventy-two hours after the condition to which the report relates has been identified.

**INSPECTIONS BY THE AUTHORITY**

Inspection requirements.

**35.** An Approved Maintenance Organisation shall—

*(a)* permit the Director-General to inspect its facilities and any of its contracted maintenance facilities at any time to determine compliance with these Regulations; and

*(b)* ensure that arrangement for maintenance, preventive maintenance or modifications by a subcontractor includes provisions for inspections of the facilities of the contractor by the Director-General.

**PERFORMANCE STANDARDS**

Approved Maintenance Organisation to perform maintenance to required standards. Sub. Leg.

**36.** (1) An Approved Maintenance Organisation that performs any maintenance, preventive maintenance or modifications for a national air operator under the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, having an Approved Maintenance Programme, shall perform that work in accordance with the Maintenance Control Manual of such national air operator.

(2) Except as provided in subregulation (1), an Approved Maintenance Organisation shall—

*(a)* perform maintenance and modification of Trinidad and Tobago aircraft and its aeronautical products in accordance with the applicable regulations in the Act or Regulations made thereunder; and

*(b)* maintain, in current condition, all service manuals, instructions, and service bulletins of the manufacturer that relate to the aeronautical products that he maintains or modifies.

(3) An Approved Maintenance Organisation approved to perform work on avionics equipment shall—

*(a)* comply with the Act or Regulations made thereunder that apply to electronic systems;

*(b)* use materials that conform to approved specifications for equipment appropriate to its rating;

*(c)* use test apparatus, workshop equipment, performance standards, test methods, modifications and calibrations that conform to the specifications or instructions of the manufacturer; and

*(d)* adopt acceptable maintenance practices of the aircraft avionics industry where the specifications or instructions of the manufacturer or approved specifications are not otherwise specified.

**IMPLEMENTING STANDARDS**

Implementing standards.

**37.** An Approved Maintenance Organisation in meeting the requirements of regulations 17, 18, 20, 22, 26, 30 and 32 shall ensure compliance with the minimum standards set out in Schedule 5.

Schedule 5.

**DIRECTOR-GENERAL MAY AMEND SCHEDULES**

Director-General to amend Schedules.

**38.** The Director-General may by Order amend any of the Schedules.

**TRANSITIONAL PROVISION**

Transitional Provision. [277/2004 34/2005 227/2005 288/2006].

**39.** (1) The Approved Maintenance Organisation requirements under these Regulations shall come into effect ten months from the date of publication of these Regulations.

(2) Notwithstanding subregulation (1) on the commencement of these Regulations a person who wishes to apply for an approved Maintenance organisation Certificate shall meet the requirements of these Regulations.

(3) Notwithstanding the requirements of subregulation (1), a person who on the commencement of these Regulations, holds an Approved Maintenance Organisation Certificate may continue to operate as an Approved Maintenance Organisation under the conditions of his existing Approved Maintenance Organisation Certificate, until 24th September 2005, and thereafter shall meet the requirements of these Regulations.

(4) Notwithstanding subregulation (3), the holder of an Approved Maintenance Organisation Certificate that carries out maintenance and certifies the release to service of—

*(a)* aircraft of maximum certified take-off mass of less than 20 000 kilogrammes;

*(b)* aircraft components other than complete engines and auxiliary power units; or

*(c)* specialised services works,

shall meet the requirements of these Regulations on or before 1st October 2007.

---

*L.R.O.*

Regulation 9.

## SCHEDULE 1

## APPROVED MAINTENANCE ORGANISATION CERTIFICATE

**Number**

_____

**This certificate is issued to**

_____

**Whose business address is**

_____

Upon finding that its organisation complies in all respects with the requirements of the Civil Aviation [(No. 6) Approved Maintenance Organisation] Regulations relating to the establishment of an Approved Maintenance Organisation is empowered to operate an Approved Maintenance Organisation with the following classes and ratings:

Date of issue: ..... Name: .....

Date of expiry: ..... Signature: .....
*(f /Authority)*

This certificate is not transferable

_____

## SCHEDULE 2

Regulation 9.

## OPERATIONS SPECIFICATIONS

Approved Maintenance Organisation Name: .....

Approved Maintenance Organisation Certificate Number: .....

| CLASS | RATING | LIMITATION |
|---|---|---|
| | | |

*The classes, ratings and limitations to be inserted in this block are specified in Schedule 3*

These Operations Specifications are limited to those products and activities specified in the Scope of Work section contained in the Maintenance Procedures Manual of the Approved Maintenance Organisation.

Date of issue: ..... Name: .....

Date of expiry: ..... Signature: .....
*(f /Authority)*

*L.R.O.*

Regulation 9.

## SCHEDULE 3

## LISTING OF ALL CLASSES, RATINGS AND LIMITATIONS FOR OPERATIONS SPECIFICATIONS

Table 1 lists the classes, ratings and limitations that an Approved Maintenance Organisation may be issued on the Operations Specifications.

TABLE 1

| CLASS | RATING | LIMITATION |
|---|---|---|
| AIRCRAFT ... | A1 Aeroplane and airships 5 700 kg maximum certified take-off mass | Limited to line maintenance or base maintenance of aeroplane and airship series or type and the maintenance tasks |
| AIRCRAFT ... | A2 Aeroplane and airships 5 700 kg and less maximum certified take-off mass | Limited to line maintenance or base maintenance of aeroplane and airship manufacture, or group or series or type and the maintenance task |
| AIRCRAFT ... | A3 Rotocraft | Limited to line maintenance or base maintenance of rotocraft manufacturer or group or series or type and the maintenance tasks |
| ENGINES ... | B1 Turbine | Limited to engine series or type and the maintenance task |
| ENGINES ... | B2 Piston | Limited to engine manufacturer or group or series or type and the maintenance tasks |
| ENGINES ... | | Limited to engine manufacture or series or type and the maintenance task |

| CLASS | RATING | LIMITATION |
|---|---|---|
| COMPONENTS OTHER THAN COMPLETE ENGINE OR APU'S | C1 Air-Condition and Pressurisation<br>C2 Auto Flight<br>C3 Communications and Navigation<br>C4 Doors—Hatches<br>C5 Electrical Power<br>C6 Equipment<br>C7 Engine—APU<br>C8 Flight Controls<br>C9 Fuel—Airframe<br>C10 Helicopter—Rotors<br>C11 Helicopter—Transmission<br>C12 Hydraulic<br>C13 Instruments<br>C14 Landing Gear<br>C15 Oxygen<br>C16 Propellers<br>C17 Pneumatic<br>C18 Protection ice, rain and fire<br>C19 Windows<br>C20 Structural | Limited to line maintenance or base maintenance of aircraft type or aircraft manufacturer or component manufacturer of the particular component or cross refer to a capability list in the Maintenance Procedures Manual the maintenance tasks<br><br>Table 2 lists the ATA chapters associated with component ratings |
| SPECIALISED SERVICES | D1—Non-destructive Testing<br>D2—Reserved<br>D3—Reserved<br>D4—Reserved | Limited to the particular processes, methods and tasks appropriate to the specialised service specified |

Table 2 identifies the ATA Chapters associated with the component ratings specified in Table 1.

TABLE 2

| COMPONENT RATINGS | ATA CHAPTERS |
|---|---|
| C1 Air-Condition and Pressurization | 21 |
| C2 Auto Flight | 22 |
| C3 Communications and Navigation | 23 and 34 |
| C4 Doors—Hatches | 52 |
| C5 Electrical Power | 24 and 33 |
| C6 Equipment | 25, 38 and 45 |
| C7 Engine—APU | 49, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82 and 83 |
| C8 Flight Controls | 27, 55, 57, 40, 57, 50, 57, 60, 57 and 70 |
| C9 Fuel—Airframe | 28 |
| C10 Helicopters—Rotors | 62, 64, 66 and 67 |
| C11 Helicopter—Transmission | 63 and 65 |
| C12 Hydraulic | 29 |
| C13 Instruments | 31 |
| C14 Landing Gear | 32 |
| C15 Oxygen | 35 |
| C16 Propellers | 61 |
| C17 Pneumatic | 36 and 37 |
| C18 Protection ice, rain and fire | 26 and 30 |
| C19 Windows | 56 |
| C20 Structural | 53, 54, 57.10, 57.20 and 57.30 |

**Explanatory Notes**

1. An Approved Maintenance Organisation may be granted an approval by the Authority for class(es) and rating(s) with limitations in accordance with Table 1.

2. The Maintenance Procedures Manual of the Approved Maintenance Organisation shall have the scope of work and a capability list consistent with the provisions of the Operations Specifications and define the exact limits of approval.

3. An "A" class rating means that the Approved Maintenance Organisation may carry out maintenance on an aircraft and its associated aeronautical products, only whilst such associated aeronautical products are fitted to the aircraft during Line or Base maintenance as appropriate.

4. An "A" class rating is subdivided into "Base" or "Line" maintenance. An Approved Maintenance Organisation may be approved for either "Base" or "Line" maintenance or both. It should be noted that a "Line" facility located at a main base facility requires a "Line" maintenance approval.

5. Notwithstanding paragraph (3), an Approved Maintenance Organisation may temporarily remove an aeronautical product from an aircraft for maintenance where such removal is expressly permitted by the aircraft maintenance manual to facilitate improved ease of access for the performance of maintenance, subject to a control procedure in its Maintenance Procedures Manual approved by the Authority. The limitation section of the Operations Specifications in "Table 1" shall specify the scope of such maintenance thereby indicating the extent of approval.

6. A "B" class rating means that the Approved Maintenance Organisation may carry out maintenance on engines, auxiliary power units and their associated components, where such engines and auxiliary power units are not installed on an aircraft, and only whilst such components are fitted to the engines and auxiliary power units.

7. Notwithstanding paragraph (6), an Approved Maintenance Organisation may temporarily remove a component from an engine or auxiliary power unit for maintenance where such removal is expressly permitted by the engine and auxiliary power unit manuals to facilitate improved ease of access for the performance of maintenance, subject to a control procedure in its Maintenance Procedures Manual approved by the Authority. The limitation section of the Operations Specifications in "Table 1" shall specify the scope of such maintenance thereby indicating the extent of approval.

8. In addition to paragraph (6), an Approved Maintenance Organisation with a "B" class rating may also perform maintenance on an engine or an auxiliary power unit installed on an aircraft during "Base" or "Line" maintenance in accordance with such engine or auxiliary power unit manual, subject to a control procedure in his Maintenance Procedures Manual approved by the Authority. The Maintenance Procedures Manual is required to reflect such activity where approved by the Authority.

9. A "C" class rating means that the Approved Maintenance Organisation may carry out maintenance on the components of an aircraft, engine or auxiliary power unit that are not installed on such aircraft, engine or auxiliary power unit and intended for fitment to such aircraft, engine or auxiliary power unit. The limitations section of the Operations Specifications in "Table 1" shall specify the scope of such maintenance thereby indicating the extent of approval.

*L.R.O.*

10. Notwithstanding paragraph (9) an Approved Maintenance Organisation with a "C" class rating may also carry out maintenance on the components of an aircraft during "Base" and "Line" maintenance or on components of an engine or auxiliary power unit at a maintenance facility subject to a control procedure in its Maintenance Procedures Manual approved by the Authority. The Maintenance Procedures Manual is required to reflect such activity where approved by the Authority.

11. A "D" class rating means a self-contained class rating in which an Approved Maintainence Organisation may perform specialised services not necessarily related to a specific aircraft, engine, auxiliary power unit or component. An Approved Maintenance Organisation holding "A", "B" or "C" class rating may carry out specialised services on products it is maintaining without the need for a "D" class rating where his Maintenance Procedures Manual contains procedures for such specialised services approved by the Authority.

12. An Approved Maintenance Organisation requires a "D" class rating only where such rating is performed as a specialised service for another Maintenance Organisation.

13. The limitation section of the Operations Specifications in "Table 1" specifies the types of limitation possible and, whilst maintenance is listed last in each class rating, it is acceptable to stress the maintenance task rather than the aircraft or engine type or manufacturer if this is more appropriate to the organisation. An example could be avionic systems installations and maintenance.

14. ***(Omitted)***

15. The limitation section of the Operations Specifications in "Table 1" makes reference to series, type and group in the limitation section of class A and B. "Series" means a specific type series such as Airbus 300 or 310 or 319 or Boeing 737-300 series or RB 211-524 series. "Type" means a specific type or model such as Airbus 310-240 type or RB 211-524 B4 type. Any number of series or types may be quoted. "Group" means a specific grouping such as Cessna single piston engine aircraft or Lycoming non-supercharged piston engines.

16. An Approved Maintenance Organisation shall have procedures in its Maintenance Procedures Manual approved by the Authority for amending its capability list, identifying the office responsible for controlling the amendments, ensuring the capability list is amended and is in compliance with the Civil Aviation [(No. 6) Approved Maintenance Organisation] Regulations.

17. Table 2 identifies the "ATA Spec 100" chapter for the "C" class ratings of the aeronautical products.

## SCHEDULE 4

Regulation 25. [200/2009].

An Approved Maintenance Organisation shall ensure that its Maintenance Procedures Manual under regulation 25, meets the following minimum standards:

*(a)* the Quality Manager shall be responsible for—

(i) monitoring the amendment of the Maintenance Procedures Manual, including associated procedures manuals; and

(ii) submitting proposed amendments to the Authority, unless the Authority has agreed, via a procedure stated in the amendment section of the Maintenance Procedures Manual, that some defined class of amendments may be incorporated without approval by the Authority;

*(b)* the Maintenance Procedures Manual shall include the following areas:

(i) the managements procedures covering the management and administration of the Maintenance Procedures Manual;

(ii) the maintenance procedures covering all aspects of how aircraft components may be accepted from outside sources and how aircraft shall be maintained to the required standard;

(iii) the quality system procedures, including the methods of qualifying mechanics, inspection, certifying staff and quality audit personnel; and

(iv) contracted air operator procedures and paperwork;

*(c)* A Maintenance Procedures Manual shall contain the following subjects, which may be formatted in the manner shown hereunder in any subject order:

### PART 1

### MANAGEMENT

1.1 Corporate commitment by the Accountable manager;

1.2 Management personnel;

1.3 Duties and responsibilities of the management personnel;

1.4 Management Organisation Chart;

1.5 List of certifying staff;

1.6 Manpower resources;

1.7 General description of the facilities at each address intended to be approved;

1.8 Organisations intended scope of work;

1.9 Notification procedure to the Authority regarding changes to the activities, approval, location and personnel of the organisation;

1.10 Manual amendment procedures.

## PART 2

## MAINTENANCE PROCEDURES

2.1 Supplier evaluation procedure;

2.2 Acceptance and inspection of aeronautical products and material from outside contractors;

2.3 Storage, tagging and release of aeronautical products and material to aircraft maintenance;

2.4 Acceptance of tools and equipment;

2.5 Calibration of tools and equipment;

2.6 Use of tooling and equipment including alternate tools by staff;

2.7 Cleanliness standards of maintenance facilities;

2.8 Maintenance instructions and relationship to the aeronautical product, instructions of the manufacturer including updating and availability to staff;

2.9 Repair procedure;

2.10 Aircraft maintenance programme compliance;

2.11 Airworthiness Directives procedure;

2.12 Optional modification procedure;

2.13 Maintenance documentation in use and completion of same;

2.14 Technical record control;

2.15 Rectification of defects arising during base maintenance;

2.16 Release to service procedure;

2.17 Records for the air operator;

2.18 Reporting of defects to the Authority, Operator and the Manufacturer;

2.19 Return of defective aircraft components to store;

2.20 Defective components to outside contractors;

2.21 Control of computer maintenance record systems;

2.22 Reference to specific maintenance procedures such as—

*(a)* engine running procedures;
*(b)* aircraft pressure run procedures;
*(c)* aircraft towing procedures; and
*(d)* aircraft taxiing procedures.

**PART L2**

## ADDITIONAL LINE MAINTENANCE PROCEDURES

L2.1 Line maintenance control of aircraft components, tools, equipment, etc.;

L2.2 Line maintenance procedures related to servicing/fuelling/de-icing, etc.;

L2.3 Line maintenance control of defects and repetitive defects;

L2.4 Line procedure for completion of technical log;

L2.5 Line procedure for pooled parts and loan parts;

L2.6 Line procedure for return of defective parts removed from aircraft.

**PART 3**

## QUALITY SYSTEM PROCEDURES

3.1 Quality audit of organisation procedures;

3.2 Quality audit of aircraft;

3.3 Quality audit remedial action procedure;

3.4 Authorised aircraft maintenance engineer qualification and training procedures;

3.5 Authorised aircraft maintenance engineer records;

3.6 Quality audit personnel;

3.7 Qualifying inspectors;

3.8 Qualifying mechanics;

3.9 Exemption process control;

3.10 Concession control for deviation from organisations' procedures;

3.11 Qualification procedure for specialised activities such as non-destructive testing and welding; and

3.12 Control of working teams of the manufacturer.

**PART 4**

## DOCUMENTATION

4.1 Contracted air operators;

4.2 Air operator procedures and paperwork;

4.3 Air operator record completion.

**PART 5**

## APPENDICES

5.1 Sample of documents;

5.2 List of subcontractors;

5.3 List of line maintenance locations.

## SCHEDULE 5

(Regulation 37). [305/2004 227/2005].

## IMPLEMENTING STANDARDS

The following standards are numbered to correspond numerically with the relevant provision in these Regulations:

***Regulation 17***

An Approved Maintenance Organisation shall ensure that its housing and facilities, for the organisation under regulation 17, meet the following minimum standards:

*(a)* for ongoing maintenance of aircraft, aircraft hangars shall be available and large enough to accommodate aircraft during maintenance activities;

*(b)* where the hangar is not owned by the Approved Maintenance Organisation, the Approved Maintenance Organisation should—

(i) establish proof of authorisation to use hangar;

(ii) demonstrate sufficiency of hangar space to carry out planned base maintenance by preparing a projected aircraft hangar visit plan relative to the maintenance programme;

(iii) update the aircraft hangar visit plan on a regular basis;

(iv) ensure, for aircraft component maintenance, aircraft component workshops are large enough to accommodate the components on planned maintenance;

(v) ensure aircraft hangar and aircraft component workshop structures prevent the ingress of rain, hail, ice, snow, wind and dust, etc.;

(vi) ensure workshop floors are sealed to minimise dust generation; and

(vii) demonstrate access to hangar accommodation for usage during inclement weather for minor scheduled work and/or lengthy defect rectification;

*(c)* aircraft maintenance staff shall be provided with an area where they may study maintenance instructions and complete maintenance records in a proper manner;

*(d)* hangars used to house aircraft together with office accommodation shall be such as to ensure a clean, effective and comfortable working environment to include the following:

(i) temperatures should be maintained at a comfortable level;

(ii) dust and any other airborne contamination should be kept to a minimum and not permitted to reach a level in the work task area where visible aircraft/component surface contamination is evident;

(iii) lighting should be such as to ensure each inspection and maintenance task can be carried out; and

(iv) noise levels should not be permitted to rise to the point of distracting personnel from carrying out inspection tasks. Where it is impractical to control the noise source, such personnel should be provided with the necessary personal equipment to stop excessive noise causing distraction during inspection tasks;

(v) where a particular maintenance task requires the application of specific environmental conditions different from the foregoing, then such conditions shall be observed. Specific conditions are identified in the approved maintenance instructions;

(vi) where the working environment for line maintenance deteriorates to an unacceptable level with respect to temperature, moisture, hail, ice, snow, wind, light, dust or other airborne contamination; the particular maintenance or inspection tasks shall be suspended until satisfactory conditions are re-established;

(vii) for both base and line maintenance where dust or other airborne contamination results in visible surface contamination, all susceptible systems shall be sealed until acceptable conditions are re-established;

(viii) storage facilities for serviceable aircraft components shall be clean, well ventilated and maintained at an even dry temperature to minimise the effects of condensation;

(ix) standards and recommendations of the Manufacturer shall be followed for specific aircraft components;

(x) storage racks shall provide sufficient support for large aircraft components such that the component is not distorted; and

(xi) all aircraft components, wherever practicable, shall remain packaged in protective material to minimise damage and corrosion during storage.

***Regulation 18***

An Approved Maintenance Organisation shall ensure that the equipment, tools and material used in its organisation under regulation 18, meet the following minimum standards:

(*a*) all applicable tools, equipment, and test equipment used for product acceptance and for making a finding of airworthiness shall be traceable to the applicable standards acceptable to the Authority;

*(b)* except as provided in paragraph (1), in the case of foreign manufactured tools, equipment, and test equipment, the standard provided by the country of manufacture may be used if approved by the Authority;

*(c)* where the manufacturer specifies a particular tool, equipment or test equipment, then such tool, equipment or test equipment shall be used unless the manufacturer has identified the use of an equivalent;

*(d)* except as provided in paragraph (3), tool, equipment, or test equipment other than that recommended by the manufacturer may be acceptable based on at least the following:

(i) the Approved Maintenance Organisation shall have a procedure in the Maintenance Procedures Manual if it intends to use equivalent tools, equipment or test equipment other than that recommended by the manufacturer;

(ii) the Approved Maintenance Organisation shall have a programme to include—

(A) a description of the procedures used to establish the competence of personnel that make the determination of equivalency to tools, equipment or test equipment;

(B) conducting and documenting the comparison made between the specification of the tool, equipment or test equipment recommended by the manufacturer and the equivalent tool, equipment or test equipment proposed;

(C) ensuring that the limitations, parameters, and reliability of the proposed tool, equipment or test equipment are equivalent to the manufacturer's recommended tools, equipment or test equipment; and

(D) ensuring that the equivalent tool, equipment or test equipment is capable of performing the appropriate maintenance function, all normal tests, or calibrations and checking all parameters of the aircraft or aeronautical product undergoing maintenance or calibration;

(iii) the Approved Maintenance Organisation shall have full control of the equivalent tool, equipment or test equipment such as through ownership or lease;

*(e)* an Approved Maintenance Organisation approved shall have sufficient aircraft access equipment and inspection platforms and docking equipment where applicable such that the aircraft may be properly inspected;

*(f)* the Approved Maintenance Organisation shall have a procedure to inspect and service and where appropriate, calibrate tools, equipment and test equipment on a regular basis and indicate to users that an item is within any inspection, service or calibration time limit;

*(g)* the Approved Maintenance Organisation shall have a procedure if it uses a primary, secondary or transfer standard for performing calibration and such standard shall not be used to perform maintenance;

*(h)* a clear system of labelling all tools, equipment and test equipment shall be used to give information on when the next inspection, service or calibration is due, and if the item is unserviceable for any other reason where it may not be obvious;

*(i)* a clear system of labelling all tools, equipment and test equipment shall be used to give information on when such tools, equipment and test equipment is not used for product acceptance and for making a finding of airworthiness;

*(j)* a register shall be maintained for all calibrated tools, equipment and test equipment together with a record of calibrations and standards used;

*(k)* inspection, service or calibration on a regular basis shall be in accordance with the equipment instructions of the manufacturer except where the Approved Maintenance Organisation can show by results that a different time period is appropriate in a particular case and is acceptable to the Authority.

***Regulation 20***

An Approved Maintenance Organisation shall ensure that in employing persons in its organisation under regulation 20, it meets the following minimum standards:

*(a)* the Approved Maintenance Organisation functions shall be subdivided under individual managers or combined in any number of ways, dependent upon the size of the Approved Maintenance Organisation;

*(b)* the Approved Maintenance Organisation shall have, dependent upon the extent of approval, the following positions:

(i) a base maintenance manager;

(ii) a line maintenance manager;

(iii) a workshop manager; and

(iv) a quality manager;

Note: *In small Approved Maintenance Organisations, one or more of the above positions may be combined subject to approval by the Authority.*

*(c)* the Accountable Manager shall be responsible for ensuring that all necessary resources are available to accomplish maintenance required to support the Approved Maintenance Organisation;

*(d)* the Base Maintenance Manager shall be responsible for—

(i) ensuring that all maintenance required to be carried out in the hangar, plus any defect rectification carried out during base maintenance, is carried out to specified design and quality standards; and

(ii) any corrective action resulting from quality compliance monitoring;

*(e)* the Line Maintenance Manager shall be responsible for—

(i) ensuring that all maintenance required to be carried out on the line, including line defect rectification, is performed to the required standards; and

(ii) any corrective action resulting from quality compliance monitoring;

*(f)* the Workshop Manager shall be responsible for—

(i) ensuring that all work on aircraft components is performed to required standards; and

(ii) any corrective action resulting from quality compliance monitoring;

*(g)* the Quality Manager shall be responsible for—

(i) monitoring compliance with these Regulations by the Approved Maintenance Organisation; and

(ii) requesting remedial action as necessary by the base maintenance manager, line maintenance manager, workshop manager or the Accountable manager, as appropriate;

*(h)* the Approved Maintenance Organisation may adopt any title for managerial positions, but shall identify to the Authority the titles and persons chosen to carry out these functions;

*(i)* where an Approved Maintenance Organisation chooses to appoint managers for all or any combination of the identified functions because of the size of the undertaking, these managers shall report ultimately through either the Base Maintenance Manager or Line Maintenance Manager or Workshop Manager or Quality Manager, as appropriate, to the Accountable manager;

*(j)* the managers specified in this subsection shall be identified and their credentials submitted to the Authority to be accepted, such managers shall have relevant knowledge and satisfactory experience related to aircraft or aircraft component maintenance as appropriate in accordance with these Regulations;

Note: *Certifying staff may report to any of the managers specified depending upon which type of control the Approved Maintenance Organisation uses (for example, licensed engineers, independent inspection or dual function supervisors, etc.) so long as the quality compliance monitoring staff remain independent.*

*(k)* the Approved Maintenance Organisation shall have a production man-hours plan showing that it has sufficient man-hours for the intended work;

*(l)* if an Approved Maintenance Organisation is approved for base maintenance, the plan shall relate to the aircraft hangar visit plan;

*(m)* man-hour plans shall regularly be updated;

Note: *Work performed on any aircraft registered outside Trinidad and Tobago should be taken into account where it impacts upon the production man-hours plan.*

*(n)* quality monitoring compliance function man-hours shall be sufficient to meet the requirement of regulation 26(1)*(c)*;

*(o)* planners, mechanics, supervisors and certifying staff shall be assessed for competence by "on the job" evaluation or by examination relevant to their particular role within the Approved Maintenance Organisation before unsupervised work is permitted;

*(p)* to assist in the assessment of competence, job descriptions are recommended for each position. The assessment shall establish that—

(i) planners are able to interpret maintenance requirements into maintenance tasks, and have an appreciation that they have no authority to deviate from the aircraft maintenance programme;

(ii) mechanics are able to carry out maintenance tasks to any standard specified in the maintenance instructions and shall notify supervisors of mistakes requiring rectification to re-establish required maintenance standards;

(iii) supervisors are able to ensure that all required maintenance tasks are carried out and where not done or where it is evident that a particular maintenance task cannot be carried out to the maintenance instructions, then such problems shall be reported to and agreed by the quality organisation; and

(iv) certifying staff is able to determine when the aircraft or aircraft component is and is not ready to release to service;

*(q)* in the case of planners, supervisors, and certifying staff, knowledge of Approved Maintenance Organisation procedures relevant to their particular role shall be demonstrated;

*(r)* training of certifying staff shall be performed by the Approved Maintenance Organisation or by an institute selected by the Approved Maintenance Organisation. In either case, the Approved Maintenance Organisation shall establish the curriculum and standards for training, as well as pre-qualification standards for the personnel intended for training. Pre-qualification standards are intended to ensure that the trainee has a reasonable chance of successfully completing any course;

*(s)* examinations shall be set at the end of each training course;

*(t)* initial training shall cover—

(i) basic engineering theory relevant to the airframe structure and systems fitted to the class of aircraft the Approved Maintenance Organisation intends to maintain;

(ii) specific information on the actual aircraft type on which the person is intended to become a certifying person including the impact of repairs and system/structural defects; and

(iii) company procedures relevant to the certifying staff's tasks;

*(u)* continuation training should cover changes in Approved Maintenance Organisation procedures and changes in the standard of aircraft and/or aeronautical products maintained;

*(v)* the training programme shall include details of the number of personnel who will receive initial training to qualify as certifying staff over specified time periods;

*(w)* the training programme established for maintenance personnel and certifying staff by the Approved Maintenance Organisation shall include training in knowledge and skills related to human performance including co-ordination with other maintenance personnel and flight crew;

*(x)* in respect of understanding the application of human factors and human performance issues the following personnel are required to receive continuation training:

(i) nominated managers, managers and supervisors;

(ii) certifying staff, engineers, mechanics and technicians;

(iii) technical support staff—planners and technical records;

(iv) quality assurance and quality control staff;

(v) specialised services staff;

(vi) training instructors;

(vii) material procurement staff;

(viii) ground equipment staff; and

(ix) contract staff in the above categories.

***Regulation 22***

An Approved Maintenance Organisation shall ensure that records of certifying staff in his organisation under regulation 22, meet the following minimum standards:

*(a)* the following minimum information shall be kept on record in respect of each certifying person:

(i) name;

(ii) date of birth;

(iii) basic training;

(iv) type training;

(v) continuation training;

(vi) experience;
(vii) qualifications relevant to the approval;
(viii) scope of the authorisation;
(ix) date of first issue of the authorisation;
(x) expiration date of the authorisation (if appropriate); and
(xi) identification number of the authorisation;

*(b)* records of certifying staff may be kept in any format and shall be controlled, but not necessarily run by the quality department of the Approved Maintenance Organisation;

*(c)* the number of persons authorised to access the system shall be limited to minimise the possibility of records being altered in an unauthorised manner and to limit confidential records from becoming accessible to unauthorised persons;

*(d)* a certifying person shall be given reasonable access on request to his or her records;

*(e)* the Authority is authorised to and may investigate the records system for initial and continued approval, or when the Authority has cause to doubt the competence of a particular certifying person;

*(f)* the Approved Maintenance Organisation shall keep the record of a certifying person for at least two years after that person has ceased employment with the Approved Maintenance Organisation or upon withdrawal of his or her authorisation. Upon request, the certifying staff shall be provided with a copy of their record on leaving the Approved Maintenance Organisation;

*(g)* the authorisation document shall be in a style that makes its scope clear to certifying staff and any authorised person that may be required to examine the document. Where codes are used to define scope, an interpretation document shall be readily available; and

*(h)* certifying staff are not required to carry the authorisation document at all times but shall produce it within a reasonable time of a request from an authorised person.

***Regulation 26***

1. A system of inspection under regulation 26(1)*(c)*(i) to ensure that all maintenance is properly performed shall be described in the Maintenance Procedures Manual and set out in the manner described in the example hereunder.

**MAINTENANCE SYSTEM AND CERTIFYING STAFF**

2. The minimum standards applicable to maintenance system and certifying staff shall be as follows:

*(a)* an Approved Maintenance Organisation shall appoint as head of the certifying staff, a nominated manager reporting to the accountable manager who will be responsible for ensuring full compliance by the Approved Maintenance Organisation, with all procedures outlined in this system as appropriate to any item being inspected, repaired, overhauled or modified by the Approved Maintenance Organisation. The airworthiness of those items and compliance and record requirements of the operators of those items and of the Approved Maintenance Organisation depend upon compliance with the procedures of this system;

*(b)* certifying staff shall—

(i) be thoroughly familiar with all inspection methods, techniques and equipment used in their area of responsibility to determine the quality of airworthiness of an article undergoing maintenance, repair or alterations;

(ii) maintain proficiency in the use of the various types of inspection aids to be used for inspection of the particular items undergoing inspection;

(iii) have readily available, all current specifications involving inspection tolerances, limits, and procedures as set forth by manufacturer of the product undergoing inspection and other forms of inspection information such as Civil Aviation Authority airworthiness directives, manufacturer's bulletins, etc;

(iv) have readily available a current file of maintenance manuals, engineering letters, service letters, Civil Aviation Authority regulations, etc., maintained in the inspection office;

(v) be familiar with the Civil Aviation Authority regulations applicable to his areas of operations with particular emphasis on the following Civil Aviation Regulations:

(A) aircraft Registration and Marking;

(B) airworthiness;

(C) approved Maintenance Organisation;

(D) instruments and equipment;

(E) operations; and

(F) air Operator Certificate Certification and Administration;

*(c)* supervisors, certifying staff and mechanics shall be thoroughly familiar with the requirements of the Maintenance Procedures Manual, the Civil Aviation Regulations, airworthiness directives and advisory circulars, manufacturer's service letters and bulletins and engineering orders;

*(d)* mechanics shall be required to sign their name for work performed prior to submitting the item to certifying staff for final acceptance; and

*(e)* certifying staff shall indicate his acceptance of work performed by the mechanic in *(d)* above by appending his signature or affixing his acceptance stamp next to the item on the work cards or work sheets.

**MAINTENANCE CONTINUITY**

3. (1) This section shall include the title of the person in the organisation who performs the maintenance continuity, the forms to be used and disposition of the records, reference to inspection standards of the manufacturer for the maintenance of the particular items and description of procedures for handling of—

*(a)* incoming materials including preliminary, hidden damage and final inspection where applicable;

*(b)* items as they progress through various stages of repair, overhaul or modification, including other inspections, test and calibrations such as Rockwell Hardness Test, Magnaflux, Ultrasonic X-ray, and adjusting or calibrating VOR, DME or ILS equipment; and

*(c)* the continuity of inspection and other maintenance from one shift or person to another.

(2) Continuity of Maintenance Responsibility shall be—

*(a)* established through a "Line of Succession" list maintained by the Approved Maintenance Organisation through procedures in the Maintenance Procedures Manual to clearly identify at all times, the nominated manager responsible for maintenance or the person acting on his behalf;

*(b)* maintained through the use of a status book which provided in each hangar and workshop in which a status report shall

be left by each of the certifying staff leaving the job before completion of a project, for information to the succeeding certifying staff to ensure a continuing inspection responsibility for work inspections which are in progress;

*(c)* maintained by the use of forms designed to accommodate entries to indicate—

(i) work performed;

(ii) the name of the mechanic who performed or supervised the work; and

(iii) the names of the certifying staff inspecting that work.

**INCOMING MATERIALS**

4. (1) This section shall explain—

*(a)* how compliance with airworthiness standards is shown;

*(b)* how inspections are recorded;

*(c)* how incoming materials are—

(i) classified;

(ii) inspected for damage;

(iii) preserved and assigned a shelf life;

*(d)* the identification of parts by part number;

*(e)* how their part number, batch number and location in the stock are recorded;

*(f)* the title of the person responsible for performing the inspection; and

*(g)* the action to be taken when materials received do not meet specifications.

(2) Parts receiving policy shall be established by the Approved Maintenance Organisation to ensure that—

*(a)* all incoming materials and other hardware, parts, components, equipment and other products procured for use by the maintenance organisation are subject to receiving inspection to assure conformance to part number, purchase order and other applicable specifications;

*(b)* a record of inspections in paragraph *(a)* shall be recorded on the Approved Maintenance Organisation Receiving Inspection Form by Form Number;

*(c)* products that fail to meet applicable specifications shall be tagged as unserviceable using a red tag listing the discrepancy and such tagged product returned to the vendor; and

*(d)* tagged products that fail to meet applicable specifications in paragraph *(c)* are to be placed in a locked holding area until they are removed for shipping to the vendor to ensure that they are not used in the performance of maintenance.

(3) The following general inspection and test requirements shall apply to new, repaired and overhauled components as applicable:

*(a)* new components manufactured under a type or production certificate, or in accordance with a Technical Standard Order or similar Civil Aviation Authority approved technical data, or components which have been rebuilt by the manufacturer to production specifications, require a visual receiving inspection;

*(b)* repaired or overhauled components received from an Approved Maintenance Organisation do not normally require more than a visual receiving inspection before being returned to service;

*(c)* components that have been repaired or overhauled by other than an Approved Maintenance Organisation, shall, in addition to the normal receiving inspection, be functionally checked before being returned to stock;

*(d)* all components identified in paragraph *(c)*, requiring a functional check shall be routed to the proper facility for the accomplishment of this check;

*(e)* functional checks under paragraph *(c)* shall be performed in accordance with instructions contained in the appropriate publications of the manufacturer. Where such specific instructions are not available, functional check requirements may be determined by the Quality Manager, and issued on a form to provide a means of recording compliance therewith. Where suitable test facilities are not available at the Approved Maintenance Organisation, components may be functionally checked in the aircraft subject to the approval of the Authority. In any case, all functional checks shall be monitored and recorded by the Quality Manager or his designated representative;

*(f)* the Quality Manager or certifying staff may request a functional check of any component overhauled or repaired by any agency, when of the opinion that such a check is required;

*(g)* all adhesives, sealers, primers, finishings and other materials having limited shelf life shall be identified by material control labels showing the expiration date of the shelf life as established by applicable specifications;

*(h)* where inspectors and mechanics identify items in paragraph *(g)* in the workshop or storerooms without such identification or with expired shelf life, they shall dispose those materials in accordance with approved procedures; and

*(i)* the detailed functions of materials inspection are covered by the manufacturer's quality assurance directive and inspection bulletins, which shall be used to implement the operation of the Approved Maintenance Organisation with respect to the control and identification of materials, parts and equipment received for direct use in the Approved Maintenance Organisation. All new or overhauled parts purchased from vendors shall be checked for proper approval documentation prior to release for installation by the maintenance organisation.

**WORK ORDER**

5. This section shall describe the work order administration to ensure that receipt of a work request for maintenance or modification of aeronautical products or a product requiring a specialised service covered by the Operations Specifications of the Approved Maintenance Organisation Operations—

*(a)* the maintenance planning department shall issue a Work Order Number on a pre-numbered Work Order Form to authorise work to be accomplished;

*(b)* the Work Order Number under paragraph *(a)* shall be the basic reference for the maintenance record of the product maintained;

*(c)* the work order shall specify the work to be accomplished and shall be supplemented as necessary with detailed inspection instructions along with applicable forms to assure proper inspection and repair of the unit involved;

*(d)* the number of additional forms used shall be identified on the work order;

*(e)* the original of the printed and numbered work order form shall be secured and retained in a designated office;

*(f)* a logbook shall be maintained in the designated office for recording each work order in numerical order, identifying the customer, the product for which it was issued along with its serial number, special instructions and the work to be accomplished;

*(g)* it shall be the responsibility of the respective workshop manager to ensure that proper supplemental instructions are furnished

to assure proper progressive servicing, inspection and testing of the product involved;

*(h)* mechanics shall enter work accomplished on the form and, sign the form for performing such work;

*(i)* certifying staff may use their signature or inspection stamp to sign off inspections of work performed by the mechanics where such work was performed in accordance with accepted standards;

*(j)* a copy of the work order with all attachments shall be filed as a permanent record of all work accomplished; and

*(k)* the record specified in paragraph *(j)* above shall—

(i) reflect the identity of each mechanic and certifying staff that performed maintenance and inspection on each unit;

(ii) show exactly what work was accomplished;

(iii) show all of the parts used; and

(iv) be maintained for a period of two years.

**RECORD OF WORK**

6. This section shall describe the minimum standards applicable to record of work performed shall include the following:

*(a)* a detailed record shall be kept of all work performed by the maintenance organisation;

*(b)* a copy of each Work Order Form with all attached supplementary forms shall be maintained in the Approved Maintenance Organisation records section;

*(c)* a separate file area shall be provided for all paper work associated with the Approved Maintenance Organisations work activities;

*(d)* each work record shall be checked by an inspector for work accomplished, parts used signature of mechanic and inspectors who performed maintenance; and

*(e)* records shall be maintained in active file for two (2) years.

**PRELIMINARY INSPECTION**

7. (1) This section shall provide information on—

*(a)* the procedures and methods to be followed when conducting such inspection;

*(b)* the persons authorised to conduct such inspection;

*(c)* any special testing requirements; and

*(d)* procedures in recording defects and the requirement of making them part of the work order.

(2) Preliminary inspection shall be conducted as follows:

*(a)* the nominated manager responsible for maintenance of the Approved Maintenance Organisation shall be responsible for the performance of appropriate inspections including functional and non-destructive tests to assure that all units delivered to the maintenance organisation for maintenance, modification or repair under the privileges of the Approved Maintenance Organisation certificate are subjected to a preliminary inspection to determine the state of preservation and any defects on the items involved;

*(b)* the inspection specified in paragraph *(a)* shall be recorded on a specific Preliminary Inspection Form with any discrepancies noted and the form must be attached to the work order identified with the unit involved;

*(c)* the Preliminary Inspection Form under paragraph *(b)* shall—

(i) show the work order number;

(ii) remain with the applicable inspection records until the unit is released for functional or non-destructive tests;

(iii) be routed attached to the work order;

*(d)* prior to commencing work, the manager shall, in the case of work to be performed for an air operator under the continuous airworthiness requirements ensure that—

(i) all necessary current information and specifications are included or referred to in the work instructions that are to accompany the article through the Approved Maintenance Organisation; and

(ii) the work is performed in accordance with the manual of the air operator.

**HIDDEN DAMAGE INSPECTION**

8. This section shall describe—

*(a)* the title of the person in the organisation who is to perform the inspection;

*(b)* the depth of such inspection which shall include areas adjacent to obviously damaged members or components;

*(c)* how the inspection will be recorded;

*(d)* the recording and handling of any defects noted; and

*(e)* the requirement to make the inspection a part of the work order.

**INSPECTION FOR HIDDEN DAMAGE**

9. (1) This section shall explain how the results of required inspections are recorded and made part of the applicable work order and shall include instructions on the following:

*(a)* the preliminary inspection shall not be limited to the area of obvious damage or deterioration but include a thorough and searching inspection for hidden damage in areas adjacent to the damaged area;

*(b)* in the case of deterioration, a thorough review of all similar materials or equipment in a given system or structural area;

*(c)* the scope of this inspection shall be governed by the type of unit involved with special consideration accorded previous operating history, malfunction or defect reports, service bulletins and Airworthiness Directive notes applicable to the unit involved; and

*(d)* the person conducting such hidden damage inspection shall be responsible for listing all discrepancies noted during inspection on the work order prior to release for return to service.

(2) Certifying staff shall be assigned to make progressive inspections at various stages of teardown, overhaul, and repair of all units or components received by the maintenance organisation for service. Progressive inspections are accomplished with a frequency determined by applicable manual recommendations and work forms originated by the Approved Maintenance Organisation.

(3) Major repair and modification to aircraft and aeronautical products shall include the following:

*(a)* upon completion of the preliminary inspection, additional records may be prepared by the inspection department to provide a comprehensive historical record of the work performed;

*(b)* the records of work performed specified in paragraph *(a)* shall contain details, as applicable, of work orders, service bulletins, airworthiness directive notes, service letters, type of inspection, detailed figures related to functional tests and special non-destructive tests to be accomplished;

*(c)* the approved engineering or other approved technical data authorising the repair or modification shall be clearly indicated. Where special drawings are made to cover

specific repair conditions, a copy of the drawing shall be included with the aircraft records;

*(d)* units removed from the aircraft shall be tagged with the appropriate inspection identification tag listing the aircraft serial number, unit serial number and reason for removal; and

*(e)* units removed from the aircraft and tagged as specified in paragraph *(d)* shall not be reinstalled on the aircraft unless a visual inspection is conducted on such units and the unit is declared "serviceable" by an inspector.

(4) Self-contained accessory and appliance units such as actuators, pumps, valves, and generators, which, after preliminary inspection, have been established as eligible for overhaul or repair, shall be identified with a "Repairable Part" tag with appropriate repair instructions entered on the face of the tag, as authorised by the work order and shall not be approved for return to service without a maintenance release tag authorising such return to service.

(5) Inspection Procedures shall include the following:

*(a)* the nominated manager responsible for Maintenance shall be responsible for the complete and efficient performance of inspections assigned to the Approved Maintenance Organisation to assure that inspections are carried out in accordance with manual specifications or other approved technical data;

*(b)* workshop supervisors shall be responsible for the accomplishment of all work in accordance with manual specifications or other approved technical data;

*(c)* the work by the Approved Maintenance Organisation under its Specialised Services rating for Non-destructive Inspection by X-ray, magnetic particle, eddy current or ultrasonic shall be accomplished in accordance with process specifications approved by the Authority;

*(d)* modifications and repair shall be subject to progressive inspection by the certifying staff;

*(e)* discrepancies generated during the process of accomplishing the work involved shall be recorded on the appropriate work forms;

*(f)* discrepancies so recorded under paragraph *(e)*, shall be corrected before the unit is submitted for final inspection;

*(g)* upon completion of this progressive inspection, the area affected is given a detailed inspection and after all rework is

accomplished and accepted, the inspector shall clear the unit for final acceptance;

*(h)* upon completion of a specific operation, the mechanic shall sign off the records using his signature indicating that the item is complete and ready for inspection;

*(i)* the actions performed to correct a specific discrepancy shall be noted under each item on the work order;

*(j)* the certifying staff shall then inspect the item to assure conformance to specifications and established workmanship standards;

*(k)* all systems affected by the work involved shall be subjected to functional checks before final acceptance for return to service; and

*(l)* inspection acceptance for return to service shall be indicated by the signature of the inspector and his certifying stamp.

(6) Maintenance inspection shall be accomplished in accordance with the following:

*(a)* one hundred hour and progressive inspections and aircraft continuous maintenance programmes shall be accomplished in accordance with the inspection cards or inspection schedule provided for each specific model aircraft;

*(b)* the inspection paperwork shall be supplemented as necessary to cover items to be replaced for time, special inspection items, discrepancies and airworthiness directives;

*(c)* all one hundred hour and annual inspection paperwork shall comply with the airworthiness requirements;

*(d)* no aircraft shall be returned to service following an inspection as outlined in paragraphs *(a)*, *(b)* and *(c)* until all discrepancies affecting airworthiness have been corrected;

*(e)* maintenance supervisors shall be responsible for screening completed work orders covering work performed in their assigned area to assure that all items on the work order have been cleared, that there are no open discrepancies and that all major work is accomplished in accordance with approved data;

*(f)* after work orders have been screened for completeness and accuracy, they shall be routed to the office of the applicable nominated manager; and

*(g)* such inspection and work records shall be retained in active file for a period of not less than two years.

**HANDLING OF PARTS**

10. (1) This section shall explain the method of compliance for processing of parts and include the following:

*(a)* all items or components undergoing maintenance, repairs and modifications in the maintenance organisation shall have the component parts segregated and in containers in order to assure that all parts of the same unit are kept together;

*(b)* suitable trays, racks, stands and protective coverings where required shall be provided in workshop areas to ensure maximum protection of all parts;

*(c)* parts that fail to meet required standards shall be rejected and identified by the use of a red reject tag; and

*(d)* rejected parts specified in paragraph *(c)* shall be disposed of in accordance with acceptable methods established by the Approved Maintenance Organisation.

(2) Tagging and identification of parts may be accomplished using a "four-step" method as follows:

*(a)* a white identification tag shall be attached to the unit, showing details of the unit and of the customer;

*(b)* a yellow tag, processed by certifying staff only, shall be attached to units or parts requiring repairs or test and shall include work to be performed;

*(c)* a green tag with a Certificate of Release to Service printed or stamped thereon and signed by designated certifying staff only, shall be attached to units on which work has been completed and which have received final inspection for return to service;

*(d)* a red tag, shall be attached to rejected parts, pending final disposition. Where rejected parts are in large quantities, they may be placed in a special container marked "rejected parts" pending final disposition;

*(e)* all tags specified in paragraphs *(a)* to *(d)* shall contain the following information:

(i) name of manufacturer;

(ii) model;

(iii) part number;

(iv) serial number; and

(v) name of part owner;

*(f)* the yellow tag in paragraph *(c)* shall remain attached to the part returned to the customer; and

*(g)* the white, green and red tags in paragraphs *(a)*, *(b)* and *(d)* respectively, shall form part of the work order file. Where a rejected part is returned to the customer, the red tag shall remain attached and a record made on the work order showing that the part was returned to the customer.

(3) Part finishing which includes painting and spraying shall be accomplished in an area segregated from the assembly areas.

(4) Preservation of parts shall be accomplished as follows:

*(a)* components shall be preserved in accordance with the recommendations of the manufacturer or other acceptable industry standards;

*(b)* to afford protection against humidity, extreme temperatures, dust, rough handling or other damage, components shall be preserved by wrapping in suitable containers, plastic bags or rigid boxes as applicable, containing suitable shock absorption material; and

*(c)* storage of preserved components by the Approved Maintenance Organisation shall be accomplished by storing at a separate location in the Approved Maintenance Organisation, maintained by the "Stores" department and shall provide maximum protection from physical damage.

(5) Shelf life of items shall be controlled as follows:

*(a)* for those items having a specific shelf life, the maintenance organisation shall ensure that the receiving inspector records such information on a specific form that shall allow him to monitor the expiry dates so that items are removed from the shelf before their shelf life expires; and

*(b)* components of parts that have exceeded allowable shelf life limits shall be identified by a red tag and disposed of in an appropriate manner.

(6) Incoming material shall be controlled as follows:

*(a)* all incoming material shall be inspected for quantity, quality, conformity to dimensions or specifications and state of preservation; and

*(b)* where materials with an expiry date having shelf life are received, the expiry date shall be noted and a system shall be

utilised whereby older stock are used first on a "first-in, first-out system" provided the specifications of the manufacturer are not exceded.

(7) Hardware and equipment storage shall follow acceptable industry practices for the proper protection and storage of materials and ensure that only acceptable parts and supplies are issued for any job. The procedures for hardware and equipment storage shall include the following:

*(a)* the stockroom manager shall be responsible for the operation of the stockroom and controlling, segregating and maintaining all stock and tools;

*(b)* in addition the stockroom manager is required to—

(i) properly store, segregate and protect materials, parts and supplies;

(ii) provide suitable storage facilities for storing standard parts, spare parts and assure that raw materials are separated from workshop and working space;

(iii) provide for the preservation of all articles or parts, while in inventory, that are subject to deterioration and shelf life specifications.

**RECORD OF TEST AND CALIBRATION**

11. (1) This section shall include in-house tests applicable to the ratings of the Approved Maintenance Organisation and those contracted outside agencies. It shall include a requirement for the signature of the mechanic and certifying staff as appropriate and shall identify the article by serial number or company assigned number and include the following:

*(a)* procedures for recording specialised inspection, test and calibration shall be made on an appropriately printed work form with specific notations, attesting accomplishment, of the testing or calibration of the aeronautical product;

*(b)* where a record of the inspection by dimensions, tests or calibration is required by the technical data of the manufacturer, such record shall be made on an appropriate form properly identified with the Work Order date and signed by the mechanic performing the inspection, test or calibration, and the certifying staff as appropriate;

*(c)* a system shall be maintained on all precision test equipment that shall properly identify each piece of equipment. A filing

system shall be maintained to properly identify the equipment and record the date and person testing or calibrating each individual piece of precision equipment;

*(d)* where test and calibrations are performed by outside contractors such contractors shall be required to provide the records as outlined in paragraph *(b)* and *(c)*; and

*(e)* a list of outside contractors under paragraph *(d)* and the work for which they are contracted to perform for the Approved Maintenance Organisation shall be included in this section of the Maintenance Procedures Manual.

**RECORD OF PRECISION TEST EQUIPMENT CALIBRATION**

12. (1) This section shall identify the title of the person responsible for the calibration and the test of records. Such records shall include the name of the manufacturer, model and serial or company assigned number, date of check, the method used to calibrate and the frequency, the person or company who performs checks, and the results and any corrections made, when the next inspection is due and requirements to tag equipment.

(2) Procedures for the control of precision tools and test equipment shall include the following:

*(a)* precision tools, gauges, scales, pressure gauges, ammeters, ohmmeters, voltmeters, radio, electronic, X-ray, eddy current and ultrasonic test equipment used in the operations of the Approved Maintenance Organisation shall be subject to periodic checks and calibration in accordance with appropriate Approved Maintenance Organisation procedures; and

*(b)* all Approved Maintenance Organisation personnel, before using test equipment, shall be responsible for checking that the testing unit has a current calibration label attached. Any piece of test equipment found in the Approved Maintenance Organisation without a current calibration label attached shall be routed to the appropriate department in the Approved Maintenance Organisation for re-calibration.

(3) Test equipment calibration shall include the following:

*(a)* test equipment shall be calibrated at periodic intervals established on the basis of stability, purpose and degree of usage. One year shall be the maximum calibration interval;

*(b)* each piece of test equipment shall be labelled. The label shall identify the unit by manufacturer, model and serial number. The attached label shall indicate the last calibration date and when the next calibration is due;

*(c)* during the first week of each month the nominated manager responsible for maintenance shall review the test equipment calibration history card file and give cards for test equipment requiring calibration to the maintenance manager and each workshop foreman as appropriate. It shall be the responsibility of those persons to issue work orders to maintenance organisation workshops or outside contractors as necessary for the calibration of the units and attachment of updated calibration labels. After calibration, the test unit shall be checked for proper labelling and the equipment calibration history card shall be updated and returned to the inspection department active file;

*(d)* at no time shall any person be permitted to perform work on aircraft or components using test equipment, which is out of calibration. The test equipment labels shall be checked by supervisors at random to assure that equipment in use is in calibration. If at any time a piece of test equipment inadvertently exceeds its calibration due date, it shall immediately be removed from service until a calibration check has been performed; and

*(e)* standards used to calibrate test equipment shall be traceable to the Bureau of Standards or an approved standard of a foreign State by a certificate from the testing facility acceptable to the Authority. Frequency for calibration standards may vary for different units but shall never exceed a 12-month interval.

**RECORD OF SELF-EVALUATION**

12A. Record of self-evaluations shall include the following:

*(a)* the title of the person responsible for performing the self-evaluations and the individual that ensures that the capability list is kept current. The record of self-evaluation shall include the title of the person, date, and the results and any corrections made as appropriate; and

*(b)* the self-evaluation along with the capability list shall be reviewed and signed by the accountable manager. Procedures identifying that the Approved Maintenance Organisation shall not perform such maintenance on any article until such time as the accountable manager has accepted and signed the self-evaluation sheet and capability list.

**FINAL INSPECTION AND RELEASE TO SERVICE**

13. (1) This section shall include procedures for compliance with the regulations, who performs the inspection, how such inspection is recorded and how the maintenance work package is checked for completion.

(2) Procedures for final inspection and release to service shall include the following:

*(a)* prior to approval for return to service, irrespective of the method to be used to indicate such approval, the nominated manager responsible for maintenance shall audit the records "package" as identified by the work order, to determine that all work has been inspected as required for compliance with this inspection system;

*(b)* when approval has been given to the above audit, either the nominated manager responsible for maintenance or the individual authorised in the official roster and individual summary of employment, shall approve the article for return to service;

*(c)* this approval shall be accomplished as appropriate to the work done, the article involved, the records available with the article, and the instructions of the customer;

*(d)* whenever the aircraft records are available, record of work accomplished is expected to be made therein;

*(e)* articles such as appliances, accessories, and individual parts or components shall not have an individual record to which an entry may be added. However, the installation of these items on an aircraft constitutes an aircraft maintenance or alteration, and records must be made accordingly;

*(f)* it shall be the responsibility of the certifying staff authorising return to service to assure that the aircraft flight manual is properly revised following any modification to the aircraft and that the mass and balance record has been amended as necessary;

*(g)* aircraft components, appliances, and other items, other than completed aircraft repaired or overhauled as authorised by the maintenance organisation specifications, shall be returned to service through the use of a Certificate of Release to Service pre-printed on the serviceable parts tag described in this section of this manual. The authorised supervisor under whose jurisdiction the work is accomplished shall be responsible for the release of units in the category; and

*(h)* an aircraft or a unit shall not be released for return to service until the work order and other records have been reviewed for completeness and final acceptance for return to service cleared by inspection. Particular attention shall be accorded the status of applicable airworthiness directives.

(3) A Certificate of Release to Service stamp or pre-printed tag prepared in accordance with Civil Aviation [(No. 5) Airworthiness] Regulations, regulation 34, shall be used to release to service major repairs which have been accomplished by this Approved Maintenance Organisation in accordance with Civil Aviation [(No. 5) Airworthiness] Regulations. Other records required by Civil Aviation [(No. 5) Airworthiness] Regulations, shall be executed as required regardless of whether a Certificate of Release to Service has been issued to return the article to service. In any event, the Approved Maintenance Organisation shall indicate on its copy of the work order whether or not a Certificate of Release to Service was issued. The following or similarly worded statement may be used:

Sub. Leg.

"*The aircraft, airframe, aircraft engine, propeller or appliance identified above was repaired and inspected in accordance with current maintenance rules of the Civil Aviation Regulations and is approved for return to service*.

*'Pertinent details of the repair are on file at this maintenance organisation under Work Order Number* _____ Date _____'

Signed _____
*(Signature of authorised representative)*

*for* _____
*(Maintenance organisation name and certificate number)*

_____
*(Address)"*

**MALFUNCTION OR DEFECT AND MECHANICAL RELIABILITY REPORT**

14. (1) This section shall explain in detail how compliance with rules and reporting requirements are to be met and prescribe the responsibility by title, of persons who prepare and submit reports. The report requirements shall meet the following minimum standards as applicable:

*(a)* the Approved Maintenance Organisation shall report to the Civil Aviation Authority within 72 hours after it discovers any serious defect in, or other recurring unairworthy condition of an aircraft, power plant, propeller or any component of any of them;

*(b)* the report under paragraph (1) shall be made on a form prescribed by the Authority, describing the defect or malfunction completely without withholding any pertinent information;

*(c)* where the filing of a report under paragraph (2) might prejudice the Approved Maintenance Organisation, the Approved Maintenance Organisation should seek guidance from the Authority on whether the serious defect or other recurring unairworthy condition under paragraph (1) shall be reported; and

*(d)* where the defect or malfunction could result in an imminent hazard to flight, the Approved Maintenance Organisation shall use the most expeditious method to inform the Authority.

(2) Where the Approved Maintenance Organisation is accomplishing work for an air operator and a defect under paragraph (1)*(a)* is found, the air operator shall be notified.

(3) A notification under paragraph (2), shall assist an air operator in issuing a report required under regulation 22 of the Civil Aviation [(No. 5) Airworthiness] Regulations. Sub. Leg.

(4) A report under paragraph (1)*(b)*, shall be prepared by the nominated manager responsible for maintenance and submitted to the Authority through the Quality Manager.

**SUBCONTRACTED MAINTENANCE PROCEDURES**

15. (1) This section shall detail the procedures for the use of subcontracted maintenance and shall include the following:

*(a)* any work performed by another maintenance organisation for this Approved Maintenance Organisation shall be inspected by the nominated manager responsible for maintenance or certifying staff personnel delegated for such inspection;

*(b)* the inspection under subparagraph *(a)* shall be to verify that—

(i) the work was performed in accordance with prescribed standards;

(ii) parts and materials used met the required relevant airworthiness standards; and

(iii) the paperwork received with the material verifies the authenticity of the part and work performed;

*(c)* the stockroom manager of the Approved Maintenance Organisation shall not release any parts made by, or parts having had work performed on them by a subcontractor until the certifying staff personnel have approved the materials as being airworthy;

*(d)* all subcontracted work shall be segregated from regular stock until the inspection under paragraph *(a)* has been performed and the material accepted for use; and

*(e)* where subcontracted material is rejected as being unairworthy, it shall immediately be identified by tag as unairworthy and the proper disposition made, such as scrap or return to vendor.

(2) A list of the subcontracted services utilised by the Approved Maintenance Organisation such as the following as applicable shall be included:

*(a)* metal plating or anodizing;

*(b)* complex machine operations such as those involving the use of planers, shapers and, milling machines;

*(c)* abrasive air blasting and chemical cleaning operations;

*(d)* heat treatment;

*(e)* magnetic inspection;

*(f)* fabricate wood spars;

*(g)* overhaul and repair hydraulic-pneumatic shock absorber units;

*(h)* overhaul and repair hydraulic system components;

*(i)* fluorescent inspection of alloy parts; and

*(j)* recovering and refinishing of components and entire aircraft.

**PERFORMANCE OF MAINTENANCE, PREVENTIVE MAINTENANCE, MODIFICATIONS AND REQUIRED INSPECTION UNDER THE CONTINUOUS AIRWORTHINESS REQUIREMENTS OF AN AIR OPERATOR**

16. Where work is being performed by an Approved Maintenance Organisation for an air operator the following procedures shall be included in this section:

*(a)* the Approved Maintenance Organisation shall perform maintenance, preventive maintenance, modifications and required inspection under the continuous airworthiness requirements of the air operator in accordance with the manual of the air operator;

*(b)* the Approved Maintenance Organisation shall have a current copy of the applicable section of the manual of the air operator which contracts with the Approved Maintenance Organisation for the performance of the required maintenance of the air operator; and

*(c)* the nominated manager responsible for maintenance shall be responsible for keeping each manual of the air operator revised and determining that such manual is current before a work order is issued.

**PERFORMANCE OF WORK AT A LOCATION OTHER THAN THE MAINTENANCE ORGANISATION**

17. Where maintenance functions are being performed at a location other than at the Approved Maintenance Organisation the following procedures shall be included in this section:

*(a)* the Approved Maintenance Organisation shall indicate what maintenance service will be provided for its customers on an emergency on-call basis at a place away from the Approved Maintenance Organisation. Service shall only be provided for work for which the Approved Maintenance Organisation is rated;

*(b)* only the Accountable Manager or the nominated manager responsible for maintenance shall be authorised to initiate a work order for such work;

*(c)* the base maintenance manager shall be responsible for assigning the personnel necessary to perform the work and appoint a person to be in charge of the work force;

*(d)* the nominated manager responsible for maintenance shall assign the certifying staff responsible to inspect the work and ensure that all required forms and work are completed as necessary. The nominated manager responsible for maintenance shall assign one certifying staff personnel with the responsibility for returning the article to service;

*(e)* the base maintenance manager shall ensure that the article to undergo maintenance and the persons conducting the work shall be in an area safe for the work to be performed and that they shall be protected from the elements. The base maintenance manager shall be responsible for providing all the necessary manpower, work forms, technical data, tools, and equipment necessary for the accomplishment of the maintenance. The base maintenance manager shall establish a system of communications between the field force and the maintenance organisation;

*(f)* the stockroom manager shall be responsible for assigning a stockperson who shall provide parts and supply support between the maintenance organisation and the field force. All articles removed by the field force from a product undergoing maintenance at a location away from the maintenance organisation shall be routed through the stockroom parts receiving department.

The article(s) shall be inspected in accordance with the maintenance organisation inspection procedures and either routed to the maintenance organisation workshops or to contract maintenance organisations, as appropriate; and

*(g)* personnel assigned to accomplish work away from the maintenance organisation shall accomplish the specific function of work in the same manner as when performed at the maintenance organisation and in accordance with Part 6.

***Regulation 30***

A Certificate of Release to Service under regulation 30 shall meet the following minimum standards:

*(a)* a Certificate of Release to service is required for the following:

(i) before flight at the completion of any package of maintenance scheduled by the approved aircraft maintenance programme on the aircraft, whether such maintenance took place as base or line maintenance;

(ii) before flight at the completion of any defect rectification, while the aircraft operates between scheduled maintenance; and

(iii) at the completion of any maintenance on an aircraft component when such maintenance is conducted off the aircraft;

*(b)* the Certificate of Release to Service shall be in a form prescribed by the Director-General;

*(c)* the Certificate of Release to Service shall reference the data specified in instructions of a manufacturer or air operator or the aircraft maintenance programme which itself may cross-reference to instruction in the manufacturer maintenance manual, service bulletin, etc;

*(d)* where instructions under paragraph (3) include a requirement to insure that a dimension or test figure is within a specific tolerance as opposed to a general tolerance, the dimension or test figure shall be recorded unless the instruction permits the use of "GO/NO-GO" gauges. It shall not be sufficient to state that the dimension or the test figure is within tolerance;

*(e)* the date maintenance was carried out on an aeronautical product shall include the period when the maintenance took place relative to any life or overhaul limitation in terms of date, flying hours, cycles, or landings as appropriate;

*(f)* where extensive maintenance has been carried out, it shall be acceptable for the Certificate of Release to Service to summarise the maintenance as long as there is a cross-reference to the work-pack record containing full details of maintenance carried out. Dimensional information shall be retained in the work-pack record;

*(g)* the person issuing the Certificate of Release to Service shall use a full signature and preferably a certification stamp except in the case where a computer release to service system is used. In this latter case, the Approved Maintenance Organisation shall satisfy the Authority that only the particular person can electronically issue the Certificate of Release to Service;

*(h)* an Approved Maintenance Organisation may only defer maintenance in exceptional circumstances and then only in accordance with procedures specified in its Maintenance Procedures Manual.

***Regulation 32***

Maintenance Data under regulation 32 shall meet the following minimum standards:

*(a)* the Approved Maintenance Organisation shall be in receipt of all maintenance data appropriate to support the maintenance work performed from the Authority, the aircraft and associated aeronautical product design organisation, and any other approved design organisation in the State of Design, as appropriate;

*(b)* some examples of maintenance-related documents are—

(i) Civil Aviation Regulations;
(ii) associated advisory material;
(iii) airworthiness directives;
(iv) maintenance manuals of the manufacturer;
(v) repair manuals;
(vi) supplementary structural inspection documents;
(vii) service bulletins;
(viii) service letters;
(ix) service instructions;
(x) modification leaflets;

(xi) aircraft maintenance programme; and

(xii) NDT manual, etc.

Note 1: *Paragraph (1) primarily refers to maintenance data that has been transcribed from the Authority and all holders of Type Certificates into the format of the Approved Maintenance Organisation, such as customized maintenance cards or computer base data.*

Note 2: *To obtain acceptance from the Authority, it is important that accuracy of transcription is assured.*

*(c)* a procedure shall be established to monitor the amendment status of all data and maintain a check that all amendments are being received by being a subscriber to any document amendment scheme;

*(d)* maintenance data shall be made available in the work area in close proximity to the aircraft or aeronautical product being maintained and for supervisors, mechanics, and certifying staff to study; and

*(e)* where computer systems, and microfilm and microfiche reader printers are used to provide maintenance data, the number of computer terminals and reader printers shall be sufficient in relation to the size of the work programme to enable easy access, unless the computer system and reader printers can produce paper copies.

# CIVIL AVIATION [(NO. 7) INSTRUMENTS AND EQUIPMENT] REGULATIONS

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# CIVIL AVIATION [(NO. 7) INSTRUMENTS AND EQUIPMENT] REGULATIONS

*made under section 33*

106/2004.
[278/2004
306/2004
35/2005
228/2005
189/2006
289/2006
50/2007
33/2008
40/2009
201/2009].

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No. 7) Instruments and Equipment] Regulations.

Interpretation.
[40/2009].

**2.** (1) In these Regulations—

"Act" means the Civil Aviation Act;

"air operator" means any person, organisation or enterprise which undertake to engage in domestic commercial air transport or international commercial air transport, whether directly or indirectly or by a lease or any other arrangement;

"Automatic Emergency Locator Transmitter" means an Emergency Locator Transmitter, attached to the aircraft, which is automatically deployed and activated by impact, and in some cases, also by hydrostatic sensors;

"class C cargo compartment" means a cargo compartment on an aircraft in which—

*(a)* the presence of fire would not be easily discovered nor is the compartment accessible by the flight crew;

*(b)* there is a separate approved fire detector or fire detector system to give warning in the cockpit;

*(c)* there is an approved built-in fire extinguishing or suppression system to give warning in the cockpit;

*(d)* there are means to exclude hazardous quantities of smoke, flames or extinguishing agent from any compartment occupied by crew or passengers; and

*(e)* there are means to control ventilation and drafts within the compartment so that extinguishing agent used can control any fire that may start within the compartment;

"class E cargo compartment" means a cargo compartment on an aircraft, in which—

*(a)* there is a separate approved fire detector system to give warning in the cockpit;

*(b)* there are means to shut off ventilation airflow to or within the cargo compartment, and the controls for these means are accessible to the flight crew in the cockpit;

*(c)* there are means to exclude hazardous quantities of smoke, flames or noxious gases from the cockpit; and

*(d)* the required crew emergency exits are accessible under any cargo loading condition;

"cosmic radiation" means the total ionizing and neutron radiation of galactic and cosmic origin;

"data link communication" means all data link communications including but not limited to automatic dependent surveillance, controller-pilot data link communication, data link flight information services and aeronautical operational control messages;

"emergency exit" means—

*(a)* a Type I exit in an aeroplane which is at floor level with a rectangular opening of not less than twenty-four inches wide by forty-eight inches high with corner radii not greater than eight inches;

*(b)* a Type II exit in an aeroplane which is a rectangular opening of not less than twenty inches wide by forty-four inches high with corner radii not greater than seven inches located at floor level except over the wing in which case a step up inside the aeroplane of more than ten inches or a step down outside the aeroplane of more than seventeen inches shall not exist;

*(c)* a Type III exit in an aeroplane which is a rectangular opening of not less than twenty inches wide by thirty-six inches high with corner radii not

greater than seven inches and with a step up inside the aeroplane of not more than twenty inches and where located over the wing, the step down outside the aeroplane of not more than twenty-seven inches;

*(d)* a Type IV exit in an aeroplane which is rectangular opening of not less than nineteen inches wide by twenty-six inches high with corner radii of not greater than six and three tenths inches located over the wing with a step up inside the aeroplane of not more than twenty-nine inches and a step down outside the areoplane of not more than thirty-six inches;

*(e)* a Ventral exit in an aeroplane which is an exit from the passenger compartment through the pressure shell and the bottom fuselage skin of dimensions and physical configuration as the Type I exit; or

*(f)* a Tailcone emergency exit in an aeroplane which is an exit from the passenger compartment through the pressure shell and through an openable cone of the fuselage aft of the pressure shell with simple and obvious single operation means of opening the tailcone;

"Emergency Locator Transmitter" means a generic term used to describe equipment which broadcast distinctive signals on designated frequencies;

"equipment" means an article, item, component, unit, product or part, including first-aid and survival equipment and commissary supplies being an integral part of an aircraft or required to be carried on board an aircraft for use during flight but does not include spare parts or stores;

"extended over-water operation" means—

*(a)* an operation conducted a distance of more than 100 nautical miles from land which is suitable for making an emergency landing in a

single-engine land plane or a twin-engine land plane which is incapable of continuing flight with one engine inoperative;

*(b)* an operation conducted at a distance of more than 200 nautical miles from land which is suitable for making an emergency landing in a multi-engine land plane with the capability of continuing flight with one engine inoperative;

"instrument" means calibrated displays, gauges and signs used to present information in analog, digital or pictorial presentation to flight crew for use in the navigation and operations of an aircraft;

"liner" means all materials including any designed feature such as a joint or fastener, which would affect the capability of the liner to safely contain fire;

"long-range over-water flight" means a flight in which an aeroplane may be over water more than a distance corresponding to 120 minutes at cruising speed or 400 nautical miles, whichever is the lesser, away from land suitable for making an emergency landing operating under en route limitations of the Civil Aviation [(No. 2) Operations] Regulations;

Sub. Leg.

"national air operator" means a person, organisation or enterprise who has been issued an air operator certificate in accordance with the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations;

Sub. Leg.

"navigation equipment" means aircraft components consisting of radio equipment, Computers, instruments and equipment used in the navigation of an aircraft;

"operations in performance Class 1" means a helicopter operations with performance such that, in the event of a critical power unit failure, performance is available to enable the helicopter to safely continue the flight to an appropriate landing area, unless the failure occurs prior to reaching the TDP or after passing the landing decision point LDP, in which cases the helicopter must be able to land within the rejected take-off or landing area;

"operations in performance Class 2" means a helicopter operations with performance such that, in the event of critical power unit failure, performance is available to enable the helicopter to safely continue the flight to an appropriate landing area, except when the failure occurs early during the take-off manoeuvre or late in the landing manoeuvre, in which cases a forced landing may be required;

"operations in performance Class 3" means a helicopter operations with performance such that, in the event of a power unit failure at any time during the flight, a forced landing will be required;

"operator" means—

*(a)* a person, organisation or enterprise, engaged in or offering to engage in, aircraft operations, and any person who causes or authorises the operation of aircraft, in the capacity as owner, lessee or otherwise, whether with or without the control of the aircraft; and

*(b)* a person who or which is deemed to be engaged in the operation of aircraft within the meaning of the Act;

"required communication performance" means a statement of performance requirements for operational communication in support of specific air traffic management functions;

"RCP type" is a label that represents the values assigned to required communication performance parameters for communication transaction time, continuity, availability and integrity;

"Survival Emergency Locator Transmitter" means an Emergency Locator Transmitter which is removable from an aircraft, stowed so as to facilitate its ready use in an emergency, and manually activated by survivors; and

"VHF Omni-range" means a radio navigation signal, operating in the frequency band of 108 to 116.99 Megahertz, emanating from a ground navigation base and which is transmitted in all directions.

*L.R.O.*

(2) For the purposes of these Regulations—

"LDP" means landing decision point;

"TDP" means take-off decision point;

"RCP" means required commuication performance.

**GENERAL APPLICABILITY OF THESE REGULATIONS**

General applicability of these Regulations.

**3.** These Regulations shall apply to all aircraft operating in Trinidad and Tobago in respect to the minimum requirements for such aircraft to have instrument and equipment of such aircraft.

**PART I**

## GENERAL REQUIREMENTS

General applicability of Part I.

**4.** This Part prescribes the general instrument and equipment requirements which are on board aircraft operating in Trinidad and Tobago.

**GENERAL REQUIREMENTS FOR INSTRUMENTS AND EQUIPMENT**

General requirements for instruments and equipment on board aircraft. Sub. Leg. [189/2006 50/2007 201/2009].

**5.** (1) Notwithstanding the minimum equipment specified in the Type Certificate of an aircraft and required for the issuance of an Airworthiness Certificate under Civil Aviation [(No. 5) Airworthiness] Regulations, an operator shall ensure that additional instruments, equipment and flight documents are installed or carried, as appropriate, in such aircraft according to the circumstances under which the flight is to be conducted.

(1A) The prescribed instruments and equipment, including their installation, shall be approved or accepted by the State of Registry of the aircraft.

(1B) An operator shall ensure that—

*(a)* a certified true copy of his air operator certificate; and

*(b)* a copy of the operations specifications relevant to the aircraft type issued in conjunction with the air operator certificate, in the English Language,

are carried on board the aircraft during operations.

(2) An operator shall ensure that the additional instrument and equipment referred to in subregulation (1) are installed in accordance with the applicable airworthiness requirements approved by the State of Design of the aircraft and installed in accordance with the instructions of such State of Design to meet the airworthiness requirements.

(3) An operator shall ensure that a flight is not commenced unless all required instruments and equipment required on board an aircraft for flight—

*(a)* is installed in accordance with the instructions of such State of Design to meet the airworthiness requirements;

*(b)* meets the minimum performance standard and the operational and airworthiness requirements prescribed by the Authority;

*(c)* is installed in such a manner that the failure of any single unit required for either communication or navigational purposes, or both, shall not result in the inability of the flight crew to communicate and navigate safely on the route being flown; and

*(d)* is in an operable condition for the kind of operation being conducted, except as provided in the Minimum Equipment List.

(4) Prior to operation in Trinidad and Tobago of any civil aircraft not registered in Trinidad and Tobago that uses an airworthiness inspection programme approved or accepted by another State, the operator of such aircraft shall ensure that all instruments and equipment required by the Authority are properly installed and inspected in accordance with the requirements of the State of Registry.

(5) An operator shall ensure that where equipment is to be used by one flight crew member at his station during flight, it shall be installed so as to be readily operable from his station.

*L.R.O.*

(6) An operator shall ensure that when a single item of equipment is required to be operated by more than one flight crew member, it shall be installed so that the equipment is readily operable from any station at which the equipment is required to be operated.

## PART II

## FLIGHT AND NAVIGATIONAL INSTRUMENTS

General applicability of Part II.

**6.** This Part prescribes the minimum requirements for flight and navigational instruments for aircraft operating in Trinidad and Tobago.

### GENERAL FLIGHT AND NAVIGATIONAL INSTRUMENTS REQUIREMENTS

General requirements for flight and navigational instruments. [306/2004].

**7.** (1) An operator of an aircraft shall ensure that such aircraft is equipped with flight and navigational instruments which shall enable—

*(a)* the flight crew to—

(i) control the flight path of the aircraft;

(ii) carry out any required procedural manoeuvres;

(iii) observe the operating limitations of the aircraft in the expected operating conditions; and

*(b)* the aircraft to proceed in accordance with—

(i) its operational flight plan; and

(ii) the requirements of Air Traffic Control, except when, if not prescribed by the Authority, navigation for flights under the visual flight rules is accomplished by visual reference to land marks at least every sixty nautical miles.

(1A) The sixty nautical miles distance prescribed in subregulation (1) does not apply to air operators.

(2) An operator shall ensure that when a means is provided for transferring an instrument from its primary operating system

to an alternative system, such means includes a positive positioning control and it shall be marked to indicate clearly which system is being used.

(3) An operator shall ensure that instruments used by a flight crew member are arranged in such a manner that would allow such flight crew member to see the indications readily from his station, with the minimum practicable deviation from the position and line of vision which he normally assumes when looking forward along the flight path.

(4) An operator shall ensure that all equipment is installed on an aircraft in such a manner that the failure of any single unit required either for communication or navigational purposes or both shall not result in the failure of another unit required for communication or navigational purposes.

(5) An operator shall ensure that his aircraft is equipped with the necessary instruments and equipment to ensure that in the event of the failure of one item of equipment at any stage of the flight, the remaining equipment shall enable the aircraft to be navigated in accordance with the—

*(a)* general, Minimum Navigation Performance Specifications; and

*(b)* Reduced Vertical Separation Minimum; and

*(c)* RNP type,

requirements of these Regulations where applicable.

**NAVIGATIONAL INSTRUMENTS**

Minimum flight and navigational instruments.

**8.** (1) An operator shall not operate an aircraft under Visual Flight Rules unless it is equipped with the following flight and navigational instruments:

*(a)* an airspeed indicating system calibrated in knots;

*(b)* a sensitive pressure altimeter calibrated in feet with a sub-scale setting calibrated in hectopascals or millibars, adjustable for any barometric pressure likely to be set during flight;

*(c)* an accurate timepiece indicating the time in hours minutes and seconds;

*(d)* a magnetic compass; and

*(e)* such additional instruments or equipment as may be required by the Authority.

(2) Where an operator intends to conduct operations in an aircraft under Visual Flight Rules as a controlled flight, he shall ensure that such aircraft is equipped with instruments specified under regulation 10.

**INSTRUMENTS FOR OPERATIONS REQUIRING TWO PILOTS**

Specific instrument required for operation requiring two pilots.

**9.** An operator shall ensure that, where two pilots are required to operate an aircraft, the stations of each pilot have separate flight instruments which include—

*(a)* an airspeed indicator calibrated in knots;

*(b)* a sensitive pressure altimeter calibrated in feet with a sub-scale setting calibrated in hectopascals or millibars, adjustable for any barometric pressure likely to be set during flight;

*(c)* a vertical speed indicator;

*(d)* a turn and slip indicator or a turn co-ordinator incorporating a slip indicator;

*(e)* an attitude indicator; and

*(f)* a stabilised direction indicator.

**INSTRUMENTS FOR INSTRUMENT FLIGHT RULES OPERATIONS**

Instrument Flight Rating instruments.

**10.** (1) An operator shall not conduct operations in an aircraft under Instrument Flight Rules, at night or when the aircraft cannot be maintained in a desired attitude without reference to one or more flight instruments, unless such aircraft is equipped with—

*(a)* a magnetic compass;

*(b)* an accurate timepiece indicating the time in hours, minutes and seconds;

*(c)* a sensitive pressure altimeter calibrated in feet with a sub-scale setting calibrated in hectopascals

or millibars, adjustable for any barometric pressure likely to be set during flight, with counter-drum pointer or equivalent presentation;

*(d)* an airspeed indicating system calibrated in knots with a means of preventing malfunctioning due to either condensation or icing;

*(e)* a turn and slip indicator for an aeroplane and a slip indicator for a helicopter;

*(f)* an attitude indicator for an aeroplane and two attitude indicators for a helicopter, one of which may be replaced by a turn indicator;

*(g)* a heading indicator;

*(h)* a means of indicating whether the supply of power to the gyroscopic instruments is adequate;

*(i)* a means of indicating in the flight crew compartment the outside air temperature;

*(j)* a rate-of-climb and descent indicator; and

*(k)* such additional instruments or equipment as may be required by the Authority.

(2) The requirements of *(e)*, *(f)* and *(g)* may be met by combination of instruments or by integrated flight director system provided that the safeguards against total failure, inherent in the three separate instruments, are retained.

(3) An air operator shall not operate an aeroplane under Instrument Flight Rules, or at night or when the aircraft cannot be maintained in a desired attitude without reference to one or more flight instruments, unless such aircraft is equipped with—

*(a)* the instruments required under subregulation (1); and

*(b)* a sensitive pressure altimeter calibrated in feet with a sub-scale setting calibrated in hectopascals or millibars, adjustable for any barometric pressure likely to be set during flight, with counter-drum pointer or equivalent presentation.

(4) An air operator shall not operate a helicopter under Instrument Flight Rules, or at night or when the aircraft cannot be maintained in a desired attitude without reference to one or more flight instruments, unless such helicopter is equipped with—

*(a)* the instrument required under subregulation (1);

*(b)* an attitude indicator; and

*(c)* a stabilising system.

(5) A stabilisation system under subregulation (4)*(b)*, may not be required where it was demonstrated to the satisfaction of the State of Design that the helicopter possesses, by nature of its design, adequate stability without such stabilisation system.

(6) An air operator shall not operate an aeroplane under Instrument Flight Rules, or under Visual Flight Rules over routes that cannot be navigated by reference to visual landmarks, unless such aeroplane is equipped with navigational equipment in accordance with the requirements of Air Traffic Control in the area of operations, that includes—

*(a)* one VHF Omni-Range receiving system, one Automatic Direction Finder system, one Distance Measuring Equipment and one Marker Beacon receiving system;

*(b)* one Instrument Landing System or Microwave Landing System where Instrument Landing System or Microwave Landing System is required for approach navigation purposes;

*(c)* an Area Navigational System when area navigation is required for the route being flown;

*(d)* an additional VHF Omni-Range receiving system to the requirements of paragraph *(a)*, on any route, or part thereof, where navigation is based only on VHF Omni-Range signals; and

*(e)* an additional Automatic Direction Finder system to the requirements of paragraph *(a)*, on any route, or part thereof, where navigation is based only on non-directional beacon signals.

(7) An operator shall ensure that an aircraft intended to land in Instrument Meteorological Conditions or at night is provided with radio navigation equipment capable of receiving signals that provide guidance to—

*(a)* a point from which a visual landing can be effected; or

*(b)* each aerodrome at which it is intended to land in Instrument Meteorological Conditions; and

*(c)* any designated alternate aerodrome.

(8) An air operator shall not conduct single-pilot Instrument Flight Rules operations unless the aeroplane is equipped with an automatic pilot with at least an altitude hold mode and a heading mode.

**STANDBY ATTITUDE INDICATOR**

Standby attitude indicator.

**11.** (1) An operator shall not operate—

*(a)* an aeroplane with a maximum certified take-off mass exceeding five thousand, seven hundred kilogrammes;

*(b)* an aircraft having a maximum approved passenger seating configuration of more than nine seats; or

*(c)* a Performance Class 1 helicopter or a Performance Class 2 helicopter,

unless it is equipped with a single stand-by attitude indicator or artificial horizon indicator that—

*(d)* is operated and illuminated independently of any other attitude indicating system;

*(e)* is powered continuously during normal operations; and

*(f)* is automatically powered for a minimum of thirty minutes from a source independent of the normal electrical generating system, after a total failure of the normal electrical generating system.

(2) When the stand-by attitude indicator is operating on emergency power, such emergency power operation, shall be clearly indicated to the flight crew.

(3) When the stand-by attitude indicator is operating on its own power supply, there shall be an associated indication, either on the instrument or on the instrument panel that such power supply is in use.

(4) Where the stand-by attitude instrument system is installed and usable through flight attitudes of 360° of pitch and roll, the turn and slip indicator may be replaced by slip indicators.

**INSTRUMENTS AND EQUIPMENT FOR CATEGORY II OPERATIONS**

Instruments and Equipment for Category II Operations. Schedule 1.

**12.** An operator shall ensure that his aircraft engaged in Category II operations is installed with the instruments and equipment listed in Schedule 1 appropriate to its group.

**NAVIGATION EQUIPMENT FOR OPERATIONS IN AIRSPACE**

Navigation equipment for operations in Minimum Navigational Performance Specifications airspace. [306/2004 189/2006 201/2009].

**13.** (1) An air operator shall not operate an aeroplane in Minimum Navigation Performance Specifications airspace unless it is equipped with navigation equipment that—

*(a)* continuously provides indications to the flight crew of adherence to or departure from the defined track to the required degree of accuracy at any point along such track; and

*(b)* has been authorised by the Authority for Minimum Navigation Performance Specifications operations.

(2) An air operator shall ensure that—

*(a)* navigation equipment required for operations in Minimum Navigation Performance Specifications airspace are visible and usable by each pilot seated at his duty station;

*(b)* an aeroplane operating unrestricted in Minimum Navigation Performance Specifications airspace is equipped with two independent Long Range Navigation Systems; and

*(c)* an aeroplane operating in Minimum Navigation Performance Specifications airspace along

notified special routes is equipped with one Long Range Navigation System, unless otherwise specified by the Authority.

(3) Where an operator is conducting operations in an aircraft in which a navigation specification for performance-based navigation has been prescribed, he shall ensure that the—

*(a)* aircraft is equipped with navigation equipment that will enable it to operate in accordance with the prescribed navigation specifications; and

*(b)* operations of the aircraft are approved by the Authority.

(4) Where an operator is conducting operations in an aeroplane in defined portions of airspace based on a Regional Air Navigation Agreement and where a Reduced Vertical Separation Minimum of 1000 feet is applied between FL 290 and FL 410 inclusive, the operator shall ensure that the aeroplane—

*(a)* has the required equipment that is capable of—

(i) indicating to the flight crew the flight level being flown;

(ii) automatically maintaining a selected flight level;

(iii) automatically reporting pressure-altitude;

(iv) providing an alert at a maximum threshold of plus or minus 300 feet to the flight crew when a deviation occurs from the selected flight level; and

*(b)* is authorised by the Authority for the operations in the airspace concerned.

## PART III

## COMMUNICATION EQUIPMENT

General applicability of Part III.

**14.** This Part prescribes the minimum radio equipment requirements for aircraft operating in Trinidad and Tobago.

**RADIO EQUIPMENT**

Radio equipment requirements. [40/2009].

**15.** (1) An operator shall not operate an aircraft unless it is equipped with the required radio equipment for the type of operation being conducted.

(2) An operator shall ensure that an aeroplane or helicopter engaged in commercial air transport operations is provided with radio communication equipment capable of—

*(a)* conducting two-way communication for aerodrome control purposes;

*(b)* receiving meteorological information at any time during the flight;

*(c)* conducting two-way communication at any time during the flight with at least one aeronautical station and with such aeronautical stations and on such frequencies prescribed by the Authority; and

*(d)* conducting two-way communication on the aeronautical emergency frequency 121.5 megahertz.

(2A) An operator shall ensure that an aeroplane not engaged in commercial air transport operations, operating—

*(a)* in accordance with the Instrument Flight Rules or at night is equipped with radio communication equipment capable of conducting two-way communication with such aeronautical stations and on such frequencies as prescribed by the Authority;

*(b)* in accordance with the visual flight rules as a controlled flight is equipped with radio communication equipment capable of conducting two-way communication at any time during the flight with such aeronautical stations and such frequencies prescribed by the Authority; and

*(c)* on flights over water—

(i) at a distance of more than 93 kilometres (50 nautical miles) away from land suitable for making an emergency landing; or

(ii) away from land suitable for making an emergency landing at a distance of more than 185 kilometres (100 nautical miles), in the case of single-engine aeroplanes, and more than 370 kilometres (200 nautical miles), in the case of multi-engine aeroplanes capable of continuing flight with one engine inoperative,

is equipped with radio communication equipment capable of conducting two-way communication at any time during the flight with such aeronautical stations and such frequencies prescribed by the Authority.

(2B) An operator shall ensure that a helicopter that is not engaged in commercial air transport operations, operating—

*(a)* in accordance with the Instrument Flight Rules or at night is equipped with radio communication equipment that is capable of conducting two-way communication with such aeronautical stations and on such frequencies as prescribed by the Authority;

*(b)* in accordance with the visual flight rules as a controlled flight is equipped with radio communication equipment capable of conducting two-way communication at any time during the flight with such aeronautical stations and such frequencies as prescribed by the Authority; and

*(c)* on flights over—

(i) water; or

(ii) land areas, which have been designated by the State concerned as areas in which search and rescue would be especially difficult,

is equipped with radio communication equipment capable of conducting two-way communication at any time during the flight with such aeronautical stations and such frequencies prescribed by the Authority.

(2C) An operator of an aeroplane or helicopter shall ensure that the radio communication equipment under subregulation (2), (2A) or (2B) provides for communication on the aeronautical emergency frequency 121.5 megahertz.

(2D) An operator of an aeroplane or helicopter shall ensure when operating in defined portions of airspace or on routes where an RCP types have been prescribed, in addition to the requirements of subregulations (2), (2A), (2B) and (2C), the aeroplane or helicopter is—

*(a)* provided with communication equipment which will enable it to operate in accordance with—

(i) the prescribed requirements for flights in the defined portions of airspace; or

(ii) the prescribed RCP types; and

*(b)* authorised by the Authority for operations in such airspace.

(3) An air operator shall not conduct operations in an aircraft—

*(a)* under Instrument Flight Rules; or

*(b)* in Visual Flight Rules over routes that cannot be navigated by reference to visual landmarks,

unless such aircraft is equipped with communication and navigation equipment in accordance with the requirements of Air Traffic Control in the area of operations.

(4) The communication and navigational equipment under subregulation (3) shall comprise—

*(a)* two independent radio communication systems under normal operating conditions to communicate with an appropriate ground station from any point on the route including diversions with each system having—

(i) an independent antenna installation; or

(ii) where rigidly supported non-wire antennae or other antenna installations are used, only one antenna is required; and

*(b)* a Secondary Surveillance Radar Transponder equipment required for the route flown.

(5) An operator shall ensure that where the route of the aircraft or area of operations to be flown requires more than one communications equipment unit, each unit shall be independent of the other to the extent that a failure in any one will not result in failure of any other.

(6) An operator shall not conduct operations in an aircraft under Instrument Flight Rules unless it is equipped with an audio selector panel accessible to each required flight crew member.

(7) An operator shall not conduct operations in an aircraft at night or conduct single-pilot Instrument Flight Rules unless the aircraft is equipped with a head-set with boom microphone or equivalent and a transmit button on the control wheel.

**CREW MEMBER INTERPHONE SYSTEM**

Crew member interphone system.

**16.** (1) An air operator shall not conduct operations in an aircraft on which more than one member of a flight crew is required, unless such aircraft is equipped with a flight crew interphone system, including head-sets and microphones, not of a hand-held type, for use by members of the flight crew.

(2) An air operator shall not conduct operations in an aircraft with a maximum certified take-off mass exceeding fifteen thousand kilogrammes or having a maximum approved passenger seating configuration of more than nineteen, unless such aircraft is equipped with a crew member interphone system that—

*(a)* operates independently of the public address system except for hand-sets, head-sets, microphones, selector switches and signaling devices;

*(b)* provides a two-way means of communication between the flight crew compartment and each—

(i) passenger compartment;

(ii) galley location other than on a passenger deck level; and

(iii) remote crew compartment that is not on the passenger deck and is not easily accessible from a passenger compartment;

*(c)* is readily accessible for use—

(i) in the flight crew compartment, from each of the required flight crew stations; and

(ii) at required cabin crew member stations close to each separate or pair of floor level emergency exits;

*(d)* has an alerting system incorporating aural or visual signals for use by flight crew members to alert the cabin crew and for use by cabin crew members to alert the flight crew;

*(e)* has a mechanism through which a recipient of a call can determine whether it is a normal call or an emergency call; and

*(f)* provides on the ground, a means of two-way communication between ground personnel and at least two flight crew members.

## PART IV

## AIRCRAFT LIGHTS AND INSTRUMENT ILLUMINATION

Applicability of Part IV.

**17.** This Part prescribes the minimum aircraft lights and instrument illuminations for aircraft operating in Trinidad and Tobago.

### AIRCRAFT LIGHT AND INSTRUMENT ILLUMINATION

Aircraft lights and instrument illumination. [189/2006].

**18.** (1) An operator shall not conduct operations in an aircraft at night unless such aircraft is equipped with the following lights—

*(a)* a landing light;

*(b)* anti-collision and position lights;

*(c)* illumination for all flight instruments and equipment that are essential for the safe operation of such aircraft that are used by the flight crew;

*(d)* lights in all passenger compartments; and

*(e)* a flashlight for each crew member station, acceptable to the Authority.

(2) An air operator shall not conduct operations in an aircraft by day or night unless, such aircraft is equipped with the following lights—

*(a)* the lights required by subregulations (1)*(b)* through *(e)*; and

*(b)* in the case of an aeroplane two landing lights or a single landing light having two separately energised filaments; or

*(c)* in the case of a helicopter two landing lights of which at least one is adjustable in the vertical plane; and

*(d)* lights that conform to international regulations for prevention of collisions at sea where the aircraft is a seaplane or an amphibian aircraft.

## PART V

## ENGINE INSTRUMENTS

Applicability of Part V.

**19.** This Part prescribes the minimum engine instruments requirement for aircraft operating in Trinidad and Tobago.

### ENGINE INSTRUMENTS

Engine instruments requirements. [189/2006].

**20.** (1) An air operator shall not conduct commercial air transport operations without the following engine instruments installed in his aircraft where such instrument is required to be installed by the applicable airworthiness code of the State of Design of the aircraft or engine:

*(a)* a fuel pressure indicator for each engine;

*(b)* a fuel flow meter;

*(c)* a means for indicating fuel quantity in each fuel tank to be used;

*(d)* an oil pressure indicator for each engine;

*(e)* an oil quantity indicator for each oil-tank when a transfer or separate oil reserve supply is used;

*(f)* an oil-in temperature indicator for each engine;

*(g)* a tachometer for each engine; and

*(h)* an independent fuel pressure warning device for each engine or a master warning device for all engines with a means for isolating the individual warning circuits from the master warning device.

(2) Notwithstanding subregulation (1), the Authority may require an air operator to have different instrumentation for turbine engine powered aeroplanes, which provides for an equivalent level of safety.

(3) In addition to the required engine instruments listed in subregulation (1), an air operator shall ensure that a reciprocating engine aircraft is operated with the following engine instruments installed in his aircraft where such instrument is required to be installed by the applicable airworthiness code of the State of Design of the aircraft or engine:

*(a)* a carburetor air temperature indicator for each engine;

*(b)* a cylinder head temperature indicator for each air-cooled engine;

*(c)* a manifold pressure indicator for each engine; and

*(d)* a device for each reversible propeller, to indicate to the pilot when the propeller is in reverse pitch, that complies with the following:

(i) the device shall be capable of being actuated at any point in the reversing cycle between the normal low pitch stop position and full reverse pitch, but it shall not give an indication at or above the normal low pitch stop position; and

(ii) the source of the indication system shall be actuated by the propeller blade angle or be directly responsive to it.

## PART VI

## WARNING INSTRUMENTS AND SYSTEMS

Applicability of Part VI.

**21.** This Part prescribes the minimum warning instruments and systems requirements for aircraft operating in Trinidad and Tobago.

**MACH NUMBER INDICATOR**

Mach number indicator.

**22.** An operator shall ensure that his aircraft which has speed limitations expressed in terms of mach number in the Aircraft Flight Manual, is equipped with a mach number indicator.

**REQUIREMENT FOR LOSS OF PRESSURISATION WARNING**

Loss of pressurisation indicator.

**23.** An operator shall ensure that a pressurised aircraft intended to be operated at flight altitudes at which the atmospheric pressure is less than 376 hectopascals or twenty-five thousand feet or more shall be equipped with a device to provide an aural or distinct visual warning to the flight crew of any dangerous loss of pressurisation.

**LANDING GEAR WARNING DEVICE**

Landing gear aural warning device.

**24.** (1) An air operator shall ensure that an aeroplane in which he conducts operations has a landing gear also has a landing gear aural warning system that gives continuous aural warning under the following conditions:

*(a)* for aeroplanes with an established approach wing-flap position, whenever the wing flaps are extended beyond the maximum certified approach climb configuration position in the Aeroplane Flight Manual and the landing gear is not fully extended and locked; and

*(b)* for aeroplanes without an established approach climb wing flap position, whenever the wing flaps are extended beyond the position at which landing gear extension is normally performed and the landing gear is not fully extended and locked.

(2) A flap position-sensing unit utilised under subregulation (1) may be installed at any suitable place on the aeroplane.

(3) The landing gear aural warning system required under subregulation (1) shall not be capable of manual shut-off.

*L.R.O.*

(4) Where an aeroplane has a throttle activated device installed, the air operator of such aeroplane shall ensure that it has a landing gear aural warning system, which meets the requirements of this regulation.

(5) The landing gear aural warning system of an aeroplane under subregulation (4) may utilise any part of the throttle-actuated system as part of the landing gear aural warning system.

**ALTITUDE ALERTING SYSTEM**

Altitude alterting system.

**25.** (1) An air operator shall not operate—

*(a)* a turbine propeller powered aeroplane with a maximum certified take-off mass in excess of five thousand, seven hundred kilogrammes or having a maximum approved passenger seating configuration of more than nine seats; or

*(b)* a turbojet powered aeroplane,

unless it is equipped with an alerting system capable of alerting the flight crew—

*(c)* upon approaching pre-selected altitude in either ascent or descent; and

*(d)* by at least an aural signal, when deviating above or below a pre-selected altitude.

(2) The equipment on an aeroplane that operates in defined portions of airspace where a Reduced Vertical Separation Minimum of 1000 feet is applied above FL 290 under regulation 13, shall be capable of—

*(a)* indicating to the flight crew the flight level being flown; and

*(b)* providing an alert at a maximum threshold of plus or minus 300 feet to the flight crew when a deviation occurs from the selected flight level.

**GROUND PROXIMITY WARNING SYSTEM**

Ground proximity award warning visual system.

**26.** (1) An operator shall not conduct operations in a turbine-engined aeroplane having a maximum certified take-off mass in excess of five thousand, seven hundred kilogrammes or having a

maximum approved passenger seating configuration of more than nine seats for which a Certificate of Airworthiness was first issued after 31st December 2003 and all such aeroplanes after 31st December 2006, unless it is equipped with a ground proximity warning system which has a forward looking terrain avoidance function.

(2) An operator shall not conduct operations unless his aircraft ground proximity warning system automatically provides, as a minimum, by means of aural signals, which may be supplemented by visual signals, timely and distinctive warning to the flight crew when the aircraft is in potentially hazardous proximity to the surface of the earth in the following circumstances:

*(a)* excessive descent rate;

*(b)* excessive altitude loss after take-off or go-around; and

*(c)* unsafe terrain clearance.

(3) An air operator shall not conduct operations in a turbine-engined aeroplane with a maximum certified take-off mass in excess of five thousand, seven hundred kilogrammes or having a maximum approved passenger seating configuration of more than nine seats, unless it is equipped with a ground proximity warning system.

(4) An air operator shall not conduct operations in a turbine-engined aeroplane with a maximum certified take-off mass in excess of fifteen thousand kilogrammes or having a maximum approved passenger seating configuration of more than thirty seats, unless it is equipped with a ground proximity warning system which has a forward looking terrain avoidance function.

(5) An air operator shall not conduct operations in a piston-engined aeroplane of a maximum certified take-off mass in excess of five thousand, seven hundred kilogrammes or having a maximum approved passenger seating configuration of more than nine passengers, unless it is equipped with a ground proximity warning system which provides the warnings specified in subregulation (6)*(a)* and *(c)*, warning of unsafe terrain clearance and a forward looking terrain avoidance function.

*L.R.O.*

(6) An air operator shall not conduct operations unless his aircraft ground proximity warning system automatically provides, as a minimum, by means of aural signals, which may be supplemented by visual signals, timely and distinctive warning to the flight crew when the aircraft is in potentially hazardous proximity to the surface of the earth in the following circumstances:

*(a)* excessive descent rate;

*(b)* excessive terrain closure rate;

*(c)* excessive altitude loss after take-off or go-around; and

*(d)* unsafe terrain clearance while the aircraft is not in landing configuration where—

(i) gear is not down and locked;

(ii) flaps not in a landing position; and

*(e)* excessive descent below the instrument glide path.

#### WEATHER RADAR

Airborne weather radar equipment.

**27.** An air operator shall not operate an aircraft in commercial air transport operations whenever such an aircraft is being operated at night or in instrument meteorological conditions in an area where a thunderstorm or other potentially hazardous weather condition, which may be detectable with an airborne weather radar, may be expected to occur along the route, unless such aircraft is equipped with airborne weather radar equipment.

### PART VII

## FLIGHT RECORDERS

Applicability of Part VII.

**28.** This Part prescribes the minimum requirements for flight recorder systems installed on aircraft operating in Trinidad and Tobago.

#### FLIGHT RECORDER SYSTEM REQUIREMENTS

Flight recorders system requirements.

**29.** (1) An operator shall not conduct operations in an aircraft in Trinidad and Tobago unless such aircraft is equipped with the applicable flight recorder system specified for such aircraft under this regulation.

(2) An operator shall ensure that the flight recorder system required under subregulation (1) shall—

*(a)* be comprised of, where applicable—

(i) a flight data recorder system;

(ii) a cockpit voice recorder system; or

(iii) both;

*(b)* be constructed, located and installed on such aircraft as to provide maximum practical protection for the recordings to ensure that the recorded information can be preserved, recovered and transcribed;

*(c)* be calibrated where required by the Authority;

*(d)* meet the specifications approved or accepted by the Authority for protection from fire and destruction as a result of a crash; and

*(e)* not be switched off or disabled during flight time.

(3) An operator shall ensure that where a flight recorder system utilises a combination of a flight data recorder and a cockpit voice recorder contained in a single unit to meet the flight recorder equipment requirements, such combination recorders shall be installed in accordance with these Regulations.

(4) An operator shall ensure that, where an aircraft accident or incident occurs, the flight recorder system on board such aircraft is de-activated by the pilot in command upon completion of flight time so as to preserve data.

(5) A flight recorder system under subregulation (4) shall not be re-activated before the examination of such flight recorder system and approval has been granted to re-activate the flight recorder system by the authority responsible for the investigation of the aircraft accident or incident.

(6) An operator of an aircraft involved in an accident or incident shall comply with the instructions of the authority responsible for investigating such aircraft accident or incident in the State conducting the investigation where, after giving due regard to the

seriousness of the aircraft accident or incident and the circumstances, the authority responsible for investigating the aircraft accident or incident requires the operator to remove the cockpit voice recorder and the flight data recorder units from the aircraft.

(7) The pilot in command of an aircraft involved in an accident or incident specified in subregulation (4), in general aviation operations shall ensure the preservation of all related flight recorder records, and if necessary the associated flight recorders, and their retention in safe custody pending their disposition by the authority responsible for investigating the accident or incident.

(8) An operator shall ensure that operational checks and evaluations of recordings from the flight data recorder and cockpit voice recorder systems are conducted once every twelve months to ensure the continued serviceability of the recorders.

(9) In order to facilitate the location and identification of the cockpit voice recorder and flight data recorder units of a flight recorder system required under subregulation (1) where an aircraft incident or accident occurs, an operator shall ensure such cockpit voice recorder and flight data recorder units—

*(a)* are either bright orange or bright yellow in colour;

*(b)* have reflective tape affixed to the external surface to facilitate their location under water; and

*(c)* have an approved underwater locating device on or adjacent to each unit, which is secured in such a manner, that it is not likely to be separated during a crash impact.

**COCKPIT VOICE RECORDER SYSTEM REQUIREMENTS**

Cockpit voice recorder system requirements. [228/2005 189/2006].

**30.** (1) An operator shall not conduct operations in—

*(a)* an aeroplane with a maximum certified take-off mass of over five thousand, seven hundred kilogrammes for which a Certificate of Airworthiness was first issued after 31st December 1986;

*(b)* a helicopter with a maximum certified take-off mass of over three thousand, one hundred and seventy-five kilogrammes for which a Certificate of Airworthiness was first issued after 31st December 1986.

*(c)* a multi-engine turbine-powered aeroplane with a maximum certified take-off mass of five thousand seven hundred kilogrammes and less for which an individual Certificate of Airworthiness was first issued after 31st December 1989;

*(d)* a turbine-engine aeroplane with a maximum certified take-off mass of over five thousand seven hundred kilogrammes for which the prototype was certified by the State of manufacture after 30th September 1969 and for which the individual Certificate of Airworthiness was first issued before 1st January 1987; or

*(e)* a helicopter with a maximum certified take-off mass of over seven thousand kilogrammes for which an individual Certificate of Airworthiness was first issued before 1st January 1987,

unless such aircraft has a cockpit voice recorder system installed for the recording of the aural environment in the cockpit during flight time.

(2) ***(Deleted by LN 228/2005).***

(3) Where a helicopter under this regulation, is not equipped with a flight data recorder system, the operator or air operator, as applicable, shall ensure that at least the main rotor speed is recorded on one track of the cockpit voice recorder system.

**DURATION OF RECORDINGS OF A COCKPIT VOICE RECORDER SYSTEM**

**31.** An operator shall ensure that a Cockpit Voice Recorder System installed in an aircraft on which he conducts operations is capable of recording information during the last thirty minutes

Duration of recording of cockpit voice recorder system.

of operation of the aircraft, except where a cockpit voice recorder system is installed in—

*(a)* an aeroplane with a maximum certified take-off mass of over five thousand, seven hundred kilogrammes for which the individual Certificate of Airworthiness was first issued after 1st January 2003; and

*(b)* a helicopter for which the individual Certificate of Airworthiness was first issued after 1st January 2003,

shall be capable of recording information of the operations during at least the last two hours of operation.

**RECORDING OF DATA LINK COMMUNICATION**

Recording of data link communication. [228/2005].

**32.** (1) An operator shall ensure that an aircraft in which he conducts operations and for which an individual Certificate of Airworthiness is first issued after 1st January 2005, which utilises data link communications has a cockpit voice recorder, records on a flight recorder system all data link communications to and from the aircraft.

(2) An operator shall ensure that from 1st January 2007, that an aircraft in which he conducts operations, which utilises data link communications and has a cockpit voice recorder, records on a flight recorder system all data link communications to and from the aircraft.

(3) An operator under subregulations (1) and (2) shall ensure that the minimum recording duration is equal to the duration of the cockpit voice recorder system, and is correlated with the recorded cockpit audio.

(4) An operator shall ensure that where a data link communication specified in subregulation (1) and (2), is installed on his aircraft, sufficient information can be recorded on the flight recorder system to derive the content of the data link communication message and whenever practical, the time the message was displayed to or generated by the crew.

(5) Whenever time is utilised in the application of data link communications, it shall be accurate to within one second of co-ordinated universal time.

**REQUIREMENTS FOR FLIGHT DATA RECORDER SYSTEM**

Requirements for flight data recorder system. [189/2006].

**33.** (1) An operator shall ensure that a flight data recorder system required by these Regulations records the parameters required to determine accurately—

*(a)* the aeroplane flight path, speed, attitude, engine power, configuration and operations specified in Part A of Schedule 2 for a Type I Flight Data Recorder; Part A. Schedule 2.

*(b)* the aeroplane flight path, speed, attitude, engine power, configuration and operations specified in Part B of Schedule 2 for a Type IA Flight Data Recorder; Part B. Schedule 2.

*(c)* the aeroplane flight path, speed, attitude, engine power and configuration of lift and drag devices specified in Part A of Schedule 2 for a Type II and IIA Flight Data Recorder; Part A. Schedule 2.

*(d)* the helicopter flight path, speed, attitude, engine power and operations specified in Part C of Schedule 2 for a Type IV Flight Data Recorder; Part C. Schedule 2.

*(e)* the helicopter flight path, speed, attitude, engine power, configuration and operations specified in Part D of Schedule 2 for a Type IVA Flight Data Recorder; or Part D of Schedule 2.

*(f)* the helicopter flight path, speed, attitude and engine power specified in Part C of Schedule 2 for a Type V Flight Data Recorder. Part C. Schedule 2.

(2) An operator shall ensure when conducting operations on an aeroplane for which the individual Certificate of Airworthiness—

*(a)* was first issued after 31st December 1988 and with a maximum certified take-off mass of over twenty-seven thousand kilogrammes such aeroplane is equipped with a Type I Flight Data Recorder;

*(b)* is first issued after 1st January 2005 and with a maximum certified take-off mass of over five thousand, seven hundred kilogrammes such aeroplane is equipped with a Type IA Flight Data Recorder; and

*(c)* was first issued after 31st December 1988 and with a maximum certified take-off mass of over five thousand, seven hundred kilogrammes up to and including twenty-seven thousand kilogrammes such aeroplane is equipped with a Type II Flight Data Recorder.

(3) An air operator shall ensure when conducting operations in a turbine-engined aeroplane with a maximum certified take-off mass of over five thousand, seven hundred kilogrammes and for which a Certificate of Airworthiness was first issued—

*(a)* after 31st December 1986 but before 1st January 1989, such aeroplane is equipped with a flight data recorder to record the parameters required to determine accurately time, altitude, airspeed, normal acceleration and heading and such additional parameters as are necessary to determine pitch attitude, roll attitude, radio transmission keying and power on each engine;

*(b)* before 1st January 1987, such aeroplane is equipped with a flight data recorder to record time, altitude, airspeed, normal acceleration and heading.

(4) Notwithstanding subregulation (3), an air operator shall ensure when conducting operations in a turbine-engined aeroplane with a maximum certified take-off mass of over twenty-seven thousand kilogrammes that is of a type of which the prototype was certified by the State of Design after 30th September 1969 and the individual Certificate of Airworthiness was issued after 31st December 1986 but before 1st January 1989, shall be equipped with a Type II flight data recorder system.

(5) An air operator shall ensure that when conducting operations in a turbine-engined aeroplane with a maximum certified take-off mass of over twenty seven thousand kilogrammes that is of a type for which its prototype was certified by the State of Design of the aeroplane after 30th September 1969 for which an individual Certificate of Airworthiness was issued before 1st January 1987, such turbine-engined aeroplane is equipped with a flight data recorder system to record in addition to time, altitude, airspeed, normal acceleration and heading, such parameters as are necessary to meet the objectives of determining—

*(a)* the attitude of the aeroplane in achieving the flight path of such aeroplane; and

*(b)* the basic forces acting upon the aeroplane resulting in the achieved flight path and the origin of such basic forces.

(6) An air operator shall ensure that when conducting operations in a multi-engined turbine-powered aeroplane with a maximum certified take-off mass of five thousand seven hundred kilogrammes or less and which was first issued a Certificate of Airworthiness after 31st December 1989, such multi-engined turbine-engined aeroplane is equipped with a Type IIA flight data recorder.

(7) An operator shall ensure that when conducting operations on a helicopter for which a Certificate of Airworthiness was first issued—

*(a)* after 31st December 1988 and with a maximum certified take-off mass of over seven thousand kilogrammes such helicopter is equipped with a Type IV flight data recorder; and

*(b)* after 1st January 2005 and with a maximum certified take-off mass of over three thousand, one hundred and seventy-five kilogrammes such helicopter is equipped with a Type IVA flight data recorder.

(8) An operator shall not use on his aircraft a flight data recorder system which utilises—

*(a)* engraving metal foil;

*(b)* analogue frequency modulation; or

*(c)* photographic film.

**ALTERNATIVE FLIGHT RECORDER SYSTEM**

Alternative flight recorder system.

**34.** (1) An aeroplane with a maximum certified take-off mass of over five thousand, seven hundred kilogrammes and which is required to be equipped with a flight data recorder unit and a cockpit voice recorder unit, may alternatively be equipped with two combined cockpit voice recorder and flight data recorder units.

(2) A multi-engined turbine-engined aeroplane with a maximum certified take-off mass of five thousand, seven hundred kilogrammes or less, which is required to be equipped with—

*(a)* a flight data recorder unit or a cockpit voice recorder unit; or

*(b)* a flight data recorder unit and a cockpit voice recorder unit,

may alternatively be equipped with a single combined cockpit voice recorder and flight data recorder unit.

(3) A helicopter with a maximum certified take-off mass over two thousand, seven hundred kilogrammes which is required to be equipped with—

*(a)* a flight data recorder unit or a cockpit voice recorder unit; or

*(b)* a flight data recorder unit and a cockpit voice recorder unit, may alternatively be equipped with a single combined cockpit voice recorder and flight data recorder unit.

**DURATION OF RECORDINGS OF A FLIGHT DATA RECORDER SYSTEM**

Duration of recordings of flight data recorder system.

**35.** An operator shall ensure that a flight data recorder system installed in his aircraft in which he conducts operations is capable of retaining recorded information for the duration specified for such flight data recorder set out in Part E of Schedule 2.

Part E. Schedule 2.

**PART VIII**

## EMERGENCY, RESCUE AND SURVIVAL EQUIPMENT

Applicability of Part VIII.

**36.** This Part prescribes the minimum requirements for emergency, rescue and survival equipment for aircraft operating in Trinidad and Tobago.

### EMERGENCY EQUIPMENT

Emergency equipment.

**37.** An operator shall ensure that emergency and flotation equipment on an aircraft on which he intends to or conducts operations is—

*(a)* readily accessible to the crew and stored so as to facilitate easy access during emergencies;

*(b)* clearly identified and marked to indicate the procedures for use;

*(c)* marked with the date of its last and next inspection date; and

*(d)* marked as to contents when carried in a compartment or container.

### EMERGENCY EXIT EQUIPMENT

Emergency exit equipment.

**38.** (1) An air operator shall ensure that when conducting operations in a passenger carrying aeroplane—

*(a)* each passenger emergency exit, its means of access and its means of opening are conspicuously marked by a sign visible to the crew and passengers approaching along the main passenger aisle; and

*(b)* the means of opening each passenger emergency exit from the outside is marked on the outside of the aeroplane.

(2) An air operator shall ensure that a passenger-carrying aeroplane in which he conducts or intends to conduct operations has an emergency lighting system, independent of the main lighting system that—

*(a)* illuminates each passenger exit marking and locating sign;

*(b)* provides enough general lighting in the passenger cabin to allow vision during an emergency; and

*(c)* includes floor proximity emergency escape path lighting systems.

(3) An air operator shall ensure that a passenger-carrying aeroplane in which he conducts or intends to conduct operations is equipped with an escape route that is slip resistant and meets the requirements under which such aeroplane was type certified.

(4) An air operator shall not conduct operations in a land plane unless the emergency exits of such land plane, except emergency exits over the wings which are more than six feet from the ground, have an approved means to assist the crew and passengers in descending to the ground.

(5) In subregulation (4), the reference to "six feet from the ground" shall be the distance measured with the aeroplane on the ground and with its landing gear extended.

**VISUAL SIGNALING DEVICES AND SURVIVAL KITS**

Visual signaling devices and survival kits.

**39.** (1) An operator shall not conduct operations in an aircraft over water or across land areas which have been designated by the civil aviation authority of the State being overflown as areas in which search and rescue would be especially difficult, unless such aircraft is equipped with signaling devices as may be appropriate to the area overflown and which include—

*(a)* visual signals for use by intercepting and intercepted aircraft; and

*(b)* at least one pyrotechnic signaling device for each life raft required for over water operations.

(2) An operator shall not conduct operations in an aircraft across land areas which have been designated by the civil aviation authority of the State being overflown as areas in which search and rescue would be especially difficult, unless such aircraft is—

*(a)* equipped with enough survival kits for the number of occupants of the aircraft; and

*(b)* appropriately equipped for the route to be flown.

**PORTABLE FIRE EXTINGUISHERS**

Portable fire extinguishers. [189/2006].

**40.** (1) An air operator shall not conduct operations on an aircraft unless such aircraft is equipped with portable fire extinguishers of a type acceptable to the Authority and accessible for use in the crew, passenger and cargo compartments.

(2) A portable fire extinguisher under subregulation (1) shall—

*(a)* have the type and quantity of extinguishing agent which is suitable for the kinds of fires likely to occur in the compartment where the extinguisher is intended to be used; and

*(b)* be designed to minimise the hazard of toxic gas concentrations where used in an aircraft with passenger compartments.

(3) An air operator shall ensure that at least one portable fire extinguisher required under subregulation (1), is provided and available on an aircraft he operates or intends to operate and positioned in the following manner:

*(a)* conveniently located for use in each Class E cargo compartment in an aircraft which is easily accessible to crew members during flight;

*(b)* located in each upper and lower lobe galley;

*(c)* conveniently located on the flight deck for use by the flight crew; and

*(d)* conveniently located in the passenger compartment of an aircraft having a passenger seating capacity of thirty or less.

(4) An air operator shall ensure when conducting operations on an aeroplane having a passenger seating capacity of more than thirty, such aeroplane has a minimum number of portable fire extinguishers conveniently located and uniformly distributed throughout the compartment as specified in Part A of Schedule 3.

Part A. Schedule 3.

**LAVATORY BUILT-IN FIRE EXTINGUISHER**

Built-in fire extinguisher in lavatory.

**41.** (1) An air operator shall not conduct passenger carrying operations on an aeroplane unless each lavatory in such aeroplane is equipped with a built-in fire extinguisher of a type approved by the Authority for each disposal receptacle for towels and paper within the lavatory.

(2) A built-in lavatory fire extinguisher under subregulation (1) shall be designed to discharge automatically into each disposal receptacle upon occurrence of a fire in such receptacle.

**LAVATORY SMOKE DETECTOR**

Requirement for lavatory smoke detector.

**42.** An air operator shall not conduct passenger carrying operations on an aeroplane unless each lavatory on such aeroplane is equipped with a smoke detector system or equivalent system that provides—

*(a)* a warning light in the cockpit; or

*(b)* a warning light or aural warning in the passenger cabin, which would be readily detected by a cabin attendant, taking into consideration the positioning of flight attendants throughout the passenger compartment during various phases of flight.

**CRASH AXE**

Requirement to have crash axe on board an aeroplane.

**43.** An air operator shall not conduct operations on an aeroplane with a maximum certified take-off mass in excess of five thousand, seven hundred kilogrammes unless such aeroplane is equipped with a crash axe appropriate to effective use in that type of aeroplane, stored in a place not visible to passengers on the aeroplane.

**MARKING OF BREAK-IN POINTS**

Requirement for break-in points markings.

**44.** (1) Where an operator installs break-in markings on the fuselage of an aeroplane suitable for break-in by rescue crews in an emergency, such markings shall be either red or yellow and where necessary, outlined in white to contrast with the background.

(2) Where the corner markings of the break-in markings are more than two metres apart, intermediate lines 9cm x 3cm shall be inserted so that there is no more than two metres between adjacent markings.

**FIRST-AID AND EMERGENCY MEDICAL KIT**

Requirement to have first-aid and emergency medical kit on board an aircraft.

**45.** (1) An air operator shall not conduct passenger carrying operations on an aircraft unless such aircraft is equipped with accessible first-aid kits and where an aircraft is authorised to carry more than two hundred and fifty passengers, an approved emergency medical kit for treatment of injuries or medical emergencies that might occur during flight time or in minor accidents.

(2) The number of first-aid kits required on an aircraft under subregulation (1), shall be in proportion to the number of passenger seats on an aircraft as outlined in Part B of Schedule 3. Part B. Schedule 3.

**OXYGEN STORAGE AND DISPENSING APPARATUS**

Oxygen storage and dispensing apparatus.

**46.** (1) An operator shall ensure that where his aircraft operates at altitudes requiring the use of supplemental oxygen or where the atmospheric pressure is greater than ten thousand feet in the cabin area, such aircraft shall have adequate oxygen supply and dispensing apparatus stored.

(2) An operator shall ensure that the minimum rate of flow of oxygen supply and the oxygen apparatus under subregulation (1) shall meet applicable airworthiness standards for the type certification in the transport category of such aircraft as specified by the Authority.

(3) An air operator shall not conduct passenger-carrying operations on—

*(a)* an aircraft at altitudes above ten thousand feet unless such aircraft is equipped with oxygen masks, located within the immediate reach of flight crew members while at their assigned duty station;

*(b)* a pressurised aircraft at altitudes above twenty-five thousand feet unless—

(i) the flight crew members have oxygen masks which are of a quick donning type and will readily supply oxygen when required;

(ii) sufficient spare outlets and masks or sufficient portable oxygen units with masks are distributed evenly throughout the cabin area to ensure immediate availability of oxygen to cabin crew members regardless of their location where a cabin pressurisation failure occurs; and

(iii) there are oxygen-dispensing units connected to oxygen supply terminals that are immediately available to each occupant, wherever seated.

(4) The number of dispensing units and outlets under subregulation (3)*(b)*(iii) shall exceed the number of seats on such aircraft by at least 10% and the extra units shall be evenly distributed throughout the cabin area of the personnel compartments.

(5) The supplemental oxygen required to sustain a particular operation shall be determined on the basis of flight altitudes and flight duration, consistent with the operating procedures established for each operation, the emergency procedures specified in the Operations Manual of the aircraft and with the routes to be flown.

(6) An operator shall not conduct passenger carrying operations on an aircraft at flight altitudes where the atmospheric pressure in the personnel compartments of such aircraft will be greater than ten thousand feet, unless sufficient breathing oxygen is stored on such an aircraft to supply—

*(a)* all crew members and 10% of the passengers for any period in excess of thirty minutes where the pressure in compartments occupied by crew members and passengers will be between 10,000 feet and 13,000 feet; and

*(b)* the crew and passengers of such aircraft for any period, where the atmospheric pressure in such compartments occupied by crew members and passengers will be greater than thirteen thousand feet.

(7) An air operator shall ensure that where a flight to be operated in a pressurised aircraft such flight shall not be commenced unless a sufficient quantity of stored breathing oxygen is carried to supply all the crew members and passengers, as is appropriate to the circumstances of the flight being undertaken, in the event of loss of pressurisation, for any period where the cabin altitude in any compartment occupied by them would be greater than 10,000 feet.

(8) When a pressurised aircraft is on a flight under subregulation (7), where the flight altitude is more than 25,000 feet and such pressurised aircraft cannot descend safely within four minutes to a flight altitude of 13,000 feet there shall be on board no less than a ten minute supply of breathing oxygen for the occupants of the passenger compartment.

**PROTECTIVE BREATHING EQUIPMENT**

Protective breathing equipment. [228/2005].

**47.** (1) An air operator shall not conduct passenger-carrying operations on an aeroplane with a maximum certified take-off mass exceeding fifty-seven hundred kilogrammes or having a maximum approved seating configuration of more than nineteen seats unless such aeroplane—

*(a)* has sufficient protective breathing equipment to protect the eyes, nose and mouth of flight crew members while on flight deck duty and to provide oxygen for a period of not less than fifteen minutes; and

*(b)* has sufficient portable protective breathing equipment to protect the eyes, nose and mouth of all required cabin crew members on board the aricraft to provide breathing gas for such cabin crew members for a period of not less than fifteen minutes.

(2) An air operator, when providing oxygen for the protective breathing equipment under subregulation (1) on an aeroplane on which he conducts or intends to conduct operations, may provide such oxygen from the required supplemental oxygen system.

(3) An air operator shall ensure that the protective breathing equipment intended for the use of the flight crew under subregulation (1), is conveniently located on the flight deck and easily accessible for immediate use by each required flight crew member at his assigned duty station.

(4) An air operator shall ensure that the protective breathing equipment intended for cabin crew use is installed adjacent to each cabin crew member duty station.

(5) An air operator shall ensure that portable breathing equipment is installed, provided or located at or adjacent to each required hand fire extinguisher.

(6) An air operator shall ensure that portable breathing equipment is stowed outside and adjacent to the entrance to a cargo compartment in which a hand fire extinguisher is located.

(7) An air operator shall ensure that the portable breathing equipment required under this regulation shall not prevent required communication.

**FIRST-AID OXYGEN**

First-aid oxygen dispensing units.

**48.** (1) An air operator shall not conduct passenger carrying operations on a pressurised aeroplane at altitudes above twenty-five thousand feet, where a cabin crew member is required to be carried on board unless such aeroplane is equipped with—

*(a)* undiluted first-aid oxygen for passengers who may require, undiluted first-aid oxygen for physiological reasons following a cabin depressurisation; and

*(b)* a sufficient number of oxygen dispensing units but in no case less than two, for cabin crew to have access and use of the oxygen supply.

(2) An air operator shall ensure that the amount of first-aid oxygen required under regulation (1), for a particular operation and route is determined on the basis of—

*(a)* flight duration after cabin depressurisation at cabin altitudes of more than eight thousand feet;

*(b)* an average flow rate of at least three litres per minute per person at standard temperature pressure; and

*(c)* at least 2% of the passengers carried on board such aeroplane, but in no case for less than one person.

**MEGAPHONE REQUIREMENT**

Requirement for megaphones on board an aeroplane.

**49.** (1) An air operator shall not conduct passenger-carrying operations on an aeroplane unless such aeroplane has a portable battery-powered megaphone or a megaphone approved by the Authority readily accessible to all crew members assigned to direct emergency evacuation.

(2) An air operator shall ensure that the number and location of megaphones required under subregulation (1) is determined as follows:

*(a)* on an aeroplane with a seating capacity of more than sixty and less than one hundred passengers, one megaphone shall be located at the most rearward location in the passenger cabin where it would be readily accessible to a normal flight attendant seat; and

*(b)* on an aeroplane with a seating capacity of more than ninety-nine passengers, two megaphones in the passenger cabin on each aeroplane with one installed at the forward end and the other at the most rearward location where it would be readily accessible to a normal flight attendant seat.

(3) The Director-General may recommend that the Authority grant a deviation from the requirements under

subregulation (2), where the Director-General finds that a different location for the megaphone would be more effective in aiding the evacuation of persons on board such aeroplane during an emergency situation.

**INDIVIDUAL FLOTATION DEVICE**

Requirement for individual flotation devices on board an aeroplane. [189/2006 40/2009].

**50.** (1) An air operator shall not conduct operations on an aeroplane unless such aeroplane is equipped with one life jacket or equivalent individual floatation device for each person on board the aeroplane, when—

*(a)* operated on flights over water at a distance of more than fifty nautical miles from land suitable for making an emergency landing, or beyond gliding distance from the shore; or

*(b)* when taking off or landing at an aerodrome where, in the opinion of the Director-General, the take-off or approach path is so disposed over water that in the event of a mishap there would be a likelihood of a ditching.

(1A) An operator of a helicopter operating in performance Class 1, 2 and 3 in accordance with the provisions of regulation 53, shall be equipped with one life jacket, or equivalent individual flotation device for each person on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided.

(1B) The life jacket referred to in subregulation (1A) shall be worn constantly during offshore operations, unless the occupant is wearing an integrated survival suit that includes the functionality of the life jacket.

(1C) An operator of a helicopter operating in performance Class 2 and 3 taking off or landing at a heliport where in the opinion of the Authority, the take-off or approach path is so disposed over water that in the event of a mishap there would be likelihood of a ditching, such helicopter shall be

equipped with one life jacket, or equivalent individual flotation device for each person on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided.

(2) An air operator shall ensure that all life jackets or equivalent individual floatation devices under this regulation are stowed on an aircraft in which he conducts or intends to conduct operations, in such a manner to ensure that it is easily accessible to a person to whom by seating assignment such device is assigned, from his seat or berth.

(3) An air operator shall ensure that on his aircraft used in extended over water operations, is fitted on each individual flotation device on board such aircraft a survivor locator light acceptable to the Authority.

(4) Notwithstanding subregulation (3) the Authority may approve operations of an aircraft over extended water operations without individual flotation devices, where the air operator proves to the satisfaction of the Authority that the water over which the aircraft is to be operated is not of such size and depth that individual flotation devices are necessary to ensure the safety of each person on board the aircraft.

(5) An operator shall not operate a seaplane unless such seaplane is equipped with one life jacket, or equivalent individual flotation device, for each person on board that seaplane, and that the life jacket or individual flotation device is stowed in such a manner that it is easily accessible from the seat or berth of such person on board the seaplane.

**LIFE RAFT REQUIREMENT**

Requirement to have life raft on board an aeroplane. [189/2006 40/2009].

**51.** (1) An air operator shall not conduct commercial air transport extended over water operations unless the aeroplane in which he conducts or intends to conduct operations is equipped with sufficient number of life rafts with rated capacity and buoyancy to accommodate the total number of persons on board such aeroplane.

(1A) An operator of a helicopter operating in—

*(a)* performance Class 1 or 2 on flights over water at a distance from land corresponding to more than 10 minutes flying time at normal cruising speed; or

*(b)* performance Class 3 on flights over water beyond auto-rotational or safe forced landing distance from land,

unless it is equipped with sufficient number of life rafts with rated capacity and buoyancy to accommodate the total number of persons aboard that helicopter.

(2) Where excess rafts specified in subregulation (1), with adequate capacity are not available on board an aircraft, the buoyancy and seating capacity of such available rafts on board the aircraft shall be capable of accommodating all persons on board the aircraft in the event that a raft with the largest seating capacity is lost.

(3) A life raft specified in subregulation (1), on board an aircraft shall be stowed in such a manner that it can be readily available for use in an emergency situation.

(4) All life rafts under this regulation shall be equipped with—

*(a)* a survivor locator light;

*(b)* a survival kit; and

*(c)* a pyrotechnic signalling device.

**EMERGENCY LOCATOR TRANSMITTER**

Emergency locator transmitter. [306/2004].

**52.** (1) Where an individual Certificate of Airworthiness for an aeroplane or helicopter was first issued after 1st January 2002, operations shall not be conducted on—

*(a)* that aeroplane by an air operator on long-range over-water flights unless it is equipped with at least two Emergency Locator Transmitters one of which shall be automatic;

*(b)* that aeroplane by an air operator on flights over land areas specified in subregulation (2) unless such aeroplane is equipped with at least one Automatic Emergency Locator Transmitter;

*(c)* that aeroplane by an air operator on extended flights over water or on flights over land areas specified in subregulation (2) unless such aeroplane is equipped with one Automatic Emergency Locator Transmitter;

*(d)* that helicopter with Performance Class 1 or Performance Class 2 by an operator on flights over water at a distance from land corresponding to more than ten minutes at normal cruise speed or in a Performance Class 3 helicopter by an operator on flights over water beyond auto-rotational on safe landing distance from land, unless such helicopter is equipped with at least one Automatic Emergency Locator Transmitter and one Survival Emergency Locator Transmitter in a raft; and

*(e)* that helicopter by an operator on flights over land areas specified in subregulation (2) unless it is equipped with at least one Automatic Emergency Locator Transmitter.

(2) An air operator shall not conduct operations on an aeroplane on flight over land areas designed by the State concerned as areas in which search and rescue would be especially difficult, unless such aeroplane is equipped with at least one Survival Emergency Locator Transmitter.

(3) Notwithstanding subregulation (2) an air operator shall not conduct operations in an aeroplane on flights over land areas specified in subregulation (2), unless that aeroplane is equipped with at least one automatic Emergency Locator Transmitter with effect from 1st January 2005.

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(4) An operator shall not conduct operations in an aeroplane on extended flights over water or on flights over land areas specified in subregulation (2), unless such aeroplane is equipped with one Emergency Locator Transmitter.

(5) Notwithstanding subregulation (4) an operator shall not conduct operations in an aeroplane on extended flights over water or on flights over land areas specified in subregulation (2), unless such aeroplane is equipped with one Automatic Emergency Locator Transmitter with effect from 1st January 2005.

(6) An operator shall not conduct operations in a Performance Class 1 or Performance Class 2 helicopter on flights over water at a distance from land corresponding to more than ten minutes at normal cruise speed or in a Performance Class 3 helicopter operating on flights over water beyond auto-rotational or safe landing distance from land unless such helicopter is equipped with at least one Survival Emergency Locator Transmitter per raft carried but not more than a total of two Emergency Locator Transmitters are required.

(7) Notwithstanding subregulation (6), an operator shall not conduct operations in a Performance Class 1 or Performance Class 2 helicopter on flights over water at a distance from land corresponding to more than ten minutes at normal cruise speed or in a Performance Class 3 helicopter operating on flights over water beyond auto-rotational or safe landing distance from land, unless such helicopter is equipped with at least one Automatic Emergency Locator Transmitter and one Survival Emergency Locator Transmitter in a raft with effect from 1st January 2005.

(8) An operator shall not conduct operations in a helicopter on flights over land areas specified in subregulation (2) unless such helicopter is equipped with at least one Emergency Locator Transmitter.

(9) Notwithstanding subregulation (8) an operator shall not conduct operation in a helicopter on flights over land areas specified in subregulation (2), unless it is equipped with at least one Automatic Emergency Locator transmitter with effect from 1st January 2005.

(10) An air operator shall not operate an aeroplane on long-range over-water flights, unless it is equipped with at least two Survival Emergency Locator Transmitters.

(11) Notwithstanding subregulation (10) an operator shall not conduct operations in an aeroplane on long-range over-water flights, unless it is equipped with at least two Emergency Locator Transmitters, one of which shall be automatic with effect from 1st January 2005.

(12) An operator shall ensure that an Emergency Locator Transmitter required by this regulation operates on either 121.5 Megahertz or 121.5 Megahertz and 406 Megahertz.

(13) Notwithstanding subregulation (12) an operator shall ensure that with effect from 1st January 2005, an Emergency Locator Transmitter operates on 121.5 Megahertz and 406 Megahertz simultaneously and meets the technical standards prescribed in Annex 10 to the Convention on International Civil Aviation.

(14) An operator shall not conduct operations in an aircraft, unless all batteries used in an Emergency Locator Transmitter are replaced or recharged where applicable when—

*(a)* such Emergency Locator Transmitter has been in use for more than one cumulative hour; or

*(b)* fifty per cent of the useful life of the batteries has expired or where the batteries are rechargeable, fifty per cent of the useful life of charge has expired.

(15) An operator shall ensure that the expiration date of the batteries for an Emergency Locator Transmitter is legibly marked on the outside of such Emergency Locator Transmitter.

(16) An operator shall take into consideration when making a determination under subregulation (14), the useful life of that battery or charge requirements of an Emergency Locator Transmitter does not apply to batteries such as water-activated batteries that are likely to be affected during probable storage intervals.

(17) In this regulation—

"Emergency Locator Transmitter" is a generic term used to describe equipment which broadcast distinctive signals on designated frequencies;

"Survival Emergency Locator Transmitter" means an Emergency Locator Transmitter which is removable from an aircraft, stowed so as to facilitate its ready use in emergency, and manually activated by survivors;

"Automatic Emergency Locator Transmitter" means an Emergency locator Transmitter, attached to the aircraft, which is automatically deployed and activated by impact, and in some cases, also by hydrostatic sensors;

"long-range over-water flight" means a flight in which an aeroplane may be over water more than a distance corresponding to 120 minutes at cruising speed or 400 nautical miles, whichever is the lesser, away from land suitable for making an emergency landing operating under en route limitations of the Civil Aviation [(No. 2) Operations] Regulations.

Effective date. [40/2009].

**52A.** (1) With effect from 1st July 2008, an operator of—

*(a)* an aeroplane authorised to carry nineteen passengers or less and engaged in commercial air transport operations shall ensure that the aeroplane is equipped with at least one—

(i) Emergency Locator Transmitter of any type; or

(ii) automatic Emergency Locator Transmitter where the individual certificate of airworthiness is first issued after 1st July 2008;

*(b)* an aeroplane authorised to carry more than nineteen passengers and engaged in commercial air transport operations shall ensure that the aeroplane is equipped with at least—

(i) one Automatic Emergency Locator Transmitter; or

(ii) two Emergency Locator Transmitter of any type; or

(iii) two Emergency Locator Transmitter, one of which shall be automatic when operating on flights over water beyond auto-rotational or safe forced landing where the individual certificate of airworthiness is first issued after 1st July, 2008;

*(c)* an aeroplane not engaged in commercial air transport operations shall ensure that the aeroplane is equipped with at least one—

(i) Emergency Locator Transmitter of any type; or

(ii) automatic Emergency Locator Transmitter where the individual certificate of airworthiness is first issued after 1st July 2008;

*(d)* a helicopter shall ensure when operating in—

(i) performance Class 1 or Class 2—

(A) that the helicopter is equipped with at least one Automatic Emergency Locator Transmitter; and

(B) on flight over water at a distance from land corresponding to more than ten minutes at normal cruise speed that the helicopter is equipped with at least one Automatic Emergency Locator Transmitter and one Emergency Locator Transmitter in a raft or life jacket;

(ii) performance Class 3—

(A) that the helicopter is equipped with at least one Automatic Emergency Locator Transmitter; and

(B) on flight over water beyond auto-rotational or safe forced landing distance from land that the helicopter is equipped with at least one Automatic Emergency Locator Transmitter and one Emergency Locator Transmitter in a raft or life jackets on flights.

(2) An operator of an aeroplane or helicopter shall ensure that each Emergency Locator Transmitter installed on the aeroplane or helicopter operates on 121.5 megahertz and 406 megahertz frequencies and meets the technical standards prescribed in Volume III of Annex 10 of the Convention on International Civil Aviation.

(3) An operator shall not conduct operations in an aeroplane or helicopter, unless all batteries used in an Emergency Locator Transmitter on the aeroplane or helicopter are replaced or recharged where applicable when—

*(a)* the Emergency Locator Transmitter has been in use for more than one cumulative hour; or

*(b)* fifty per cent of the useful life of the batteries has expired or where the batteries are rechargeable, fifty per cent of the useful life of charge has expired.

(4) An operator shall ensure that the expiration date of the batteries for an Emergency Locator Transmitter is legibly marked on the outside of the Emergency Locator Transmitter.

(5) An operator shall take into consideration when making a determination under regulation 52(14), the useful life of a battery or charge requirements of an Emergency Locator Transmitter does not apply to batteries such as water-activated batteries that are likely to be affected during probable storage intervals.

### FLOTATION DEVICE FOR HELICOPTER

**53.** An operator shall ensure that all helicopters intended to be flown over water shall be fitted with a permanent or rapidly deployable means of flotation so as to ensure a safe ditching of the helicopter when— Flotation device for helicopter ditching. [40/2009].

*(a)* engaged in offshore operations, or other over water operations specified by the Authority;

*(b)* flying over water in a hostile environment at a distance from land corresponding to more than ten minutes at normal cruise speed when operating in performance Class 1 or 2;

*(c)* flying over water in a non-hostile environment at a distance from land specified by the appropriate authority of the responsible State when operating in performance Class 1; or

*(d)* flying over water beyond auto-rotational or safe forced landing distance from land when operating in performance Class 3.

### LIFE-SAVING EQUIPMENT REQUIREMENT FOR SEARCH AND RESCUE OVER SEA AREA

**53A.** An air operator of a helicopter operating over sea areas which have been designated by the State concerned as areas in which search and rescue would be especially difficult, shall ensure that such helicopter is equipped with life-saving equipment including means of sustaining life as may be appropriate to the area over-flown. Life-saving equipment requirement for search and rescue over sea area. [40/2009].

## PART IX

## MISCELLANEOUS SYSTEMS AND EQUIPMENT

### APPLICABILITY OF PART IX

**54.** This Part prescribes the minimum requirements for miscellaneous systems and equipment on aircraft in Trinidad and Tobago. Applicability of Part IX.

**SEATS, SAFETY BELTS AND SHOULDER HARNESSES**

Seats, safety belts and shoulder harnesses.

**55.** (1) An air operator shall not conduct passenger carrying operations on an aircraft unless such aircraft is equipped with the following seats, safety belts and shoulder harness that meet the airworthiness requirements for type certification of that aircraft:

*(a)* a seat or berth for each person on board such aircraft over the age of two years;

*(b)* a seat belt for each seat and a restraining belt for each berth;

*(c)* an approved safety belt for use by two occupants during en route flight only for a berth designed to be occupied by two persons, such as a multiple lounge or divan seat;

*(d)* a combination safety belt and shoulder harness, for each flight crew seat which shall incorporate a device that will automatically restrain the torso of the occupant to prevent interference with the flight controls in the event of rapid decompression and sudden incapacitation of the pilot; and

*(e)* forward or rearward-facing seat, fitted with a safety harness for the use of each cabin crew required to be carried on board.

(2) The cabin crew seats referred to in subregulation (1)*(e)*, shall be located near floor level and at different emergency exits to facilitate evacuation as required by the Authority.

**PASSENGER AND PILOT COMPARTMENT DOORS SAFETY AND SECURITY REQUIREMENTS**

Passenger and pilot compartment doors safety requirement. [189/2006].

**56.** (1) An air operator shall not conduct passenger-carrying operations in an aeroplane unless such aeroplane has a—

*(a)* key for each door that separates a passenger compartment from another compartment that has emergency exit provisions;

*(b)* means for the crew, in an emergency situation, to unlock each door that leads to a compartment that is normally accessible to passengers that can be locked by passengers; and

*(c)* placard on each door used to access a required passenger emergency exit, indicating that such door shall be opened during take-off and landing.

(1A) Where an aeroplane is equipped with a flight crew compartment door, an air operator shall ensure that such door is capable of being locked and that there is a means by which cabin crew can discretely notify the flight crew in the event of suspicious activity or security breaches in the cabin.

(2) An air operator shall ensure that when conducting passenger-carrying operations with an aeroplane of a maximum certified take-off mass in excess of forty-five thousand five hundred kilogrammes or with a seating capacity greater than sixty, such aeroplane is equipped with an approved flight crew compartment door that is designed to resist penetration by small arms fire and grenade shrapnel and to resist forcible intrusion by unauthorised persons.

(3) An air operator conducting passenger carrying operations under subregulation (2), shall provide a means for monitoring from the station of each pilot, the entire door area outside the flight crew compartment to identify persons requesting entry and detect suspicious behaviour or potential threat.

(4) An air operator shall ensure that an aeroplane in which he conducts or intends to conduct operations, which is equipped with a flight crew compartment door required under subregulation (2), shall be capable of being locked and unlocked from the station of each pilot.

**PASSENGER INFORMATION SIGNS**

Passenger information signs. [228/2005 40/2009].

**57.** (1) An air operator shall not conduct passenger carrying operations on an aircraft, unless such aircraft is equipped with passenger information signs using either letters or symbol displays to ensure that the following information and instructions are conveyed to passengers:

*(a)* when seatbelts or harnesses are to be fastened;

*(b)* when and how oxygen is to be used where the carriage of oxygen is required to be carried on such aircraft;

*(c)* restriction on smoking;

*(d)* location and use of life jackets or equivalent individual flotation devices where their carriage is required; and

*(e)* location and method of opening emergency exits.

(2) An air operator shall ensure that the passenger information sign under subregulation (1), when illuminated, is legible to each person seated in the passenger cabin under all probable conditions of cabin illumination.

(3) An air operator shall ensure that illuminated "No Smoking" and "Fasten Seatbelt" signs can be turned on and off by the crew.

(4) An air operator shall ensure that a sign or placard that reads "Fasten Seat Belt While Seated" shall be affixed to each forward bulkhead and each passenger seat back.

**PUBLIC ADDRESS SYSTEM REQUIREMENT**

Public address system requirement. [228/2005].

**58.** (1) An air operator shall not conduct passenger-carrying operations on an aeroplane with a maximum approved passenger seating configuration of more than nineteen or a helicopter with an approved passenger seating configuration of more than nine, unless a public address system is installed—

*(a)* which operates independently of the interphone systems except for hand-sets, microphones and the selector switch signalling devices;

*(b)* for each required floor level passenger emergency exit on an aeroplane that has an adjacent cabin crew seat, has a microphone which is readily accessible to seated cabin crew member, except where one microphone serves more than one exit, and the proximity of the exits allows

unassisted verbal communication between seated cabin crew members;

*(c)* that is capable of operating within ten seconds of being selected on by a cabin crew member at each of those stations in the compartment from which its use is accessible; and

*(d)* that is audible and intelligible from all passenger seats, toilets, cabin crew seats and workstations.

(2) Notwithstanding subregulation (1), in the case of a helicopter with a maximum approved passenger seating configuration of more than nine but less than nineteen, a public address system is not required where—

*(a)* the helicopter is designed without a bulkhead between the pilot and passengers; and

*(b)* the operator is able to demonstrate that when in flight the voice of the pilot is audible and intelligible at all passenger seats.

**MATERIAL FOR CABIN INTERIORS**

Airworthiness requirement for materials for cabin interiors.

**59.** (1) An air operator shall ensure that where materials in each compartment of an aeroplane in which he conducts or intends to conduct operations, used by the crew or passengers do not meet the current airworthiness requirements of materials to be used in the interior of cabin, for the applicable airworthiness requirements for the aeroplane type in the transport category, such materials are replaced with materials that meet the airworthiness requirements of such aeroplane type, upon the first major overhaul of such aeroplane or refurbishment of such cabin interior.

(2) An air operator shall ensure that all seat cushions, except those of flight crew member seats, in any compartment of an aeroplane on which he conducts or intends to conduct operations, which is occupied by crew or passengers meets the requirements pertaining to fire protection as specified by the airworthiness requirements for the aeroplane type.

**MATERIALS FOR CARGO AND BAGGAGE COMPARTMENTS**

Ceiling and liner materials for cargo and baggage compartments.

**60.** (1) Where an air operator conducts operations in a transport category aeroplane type certified after 1st January 1958, with a Class C or D cargo compartment greater than two hundred cubic feet in volume, he shall ensure that such aeroplane has ceiling and sidewall liner panels that are constructed of—

*(a)* glass fiber reinforced resin;

*(b)* materials which meet the test requirements for flame resistance of cargo compartment liners required for the applicable type certificate; or

*(c)* aluminum, where the installations were approved prior to 20th March 1989.

(2) The term "liners" referred to in this regulation, includes any design feature, such as joint or fastener, which would affect the capability of the liner to safely contain a fire.

**POWER SUPPLY DISTRIBUTION AND INDICATION SYSTEM**

Power supply, distribution and indication system.

**61.** (1) An air operator shall not conduct passenger carrying operations on an aeroplane unless such aeroplane is equipped with—

*(a)* a power supply and distribution system that meets the airworthiness requirements for certification of an aeroplane in the transport category, as specified by the Authority; or

*(b)* a power supply and distribution system that has the capability to produce and distribute the power supply to the required instruments and equipment, with use of an external power supply if any one power source or component of the power distribution system fails; and

*(c)* a means for indicating the adequacy of the power being supplied to required flight instruments.

(2) An air operator shall ensure that when engine-driven sources of energy are used for the power supply required in subregulation (1), they shall be on separate engines.

**PROTECTIVE CIRCUIT FUSES**

Spare protective circuit fuses.

**62.** An air operator shall not conduct passenger carrying operations on an aircraft on which protective fuses are installed, unless such aircraft has spare fuses available for use in flight equal to at least 10% of the number of fuses for each rating or three of each rating, whichever is the greater.

**ICING PROTECTION EQUIPMENT**

Icing protection equipment.

**63.** (1) An operator shall not operate an aircraft in icing conditions unless such aircraft—

*(a)* is certified by the State of Design in respect of the airworthiness requirements for ice protection for transport category aircraft; and

*(b)* is equipped for the prevention or removal of ice on the windshields, wings, empennage, propellers, and other parts of the aircraft where ice formation will adversely affect the safe operation of the aircraft.

(2) An air operator shall not operate an aircraft in expected or actual icing conditions at night, unless such aircraft is equipped with a means to illuminate or detect the formation of ice.

(3) Where illumination is used under subregulation (2) such illumination shall be of a type that will not cause glare or reflection that would hamper a crew member in the performance of his duties.

**PITOT INDICATION SYSTEMS**

Pitot heat indicator systems. [201/2009].

**64.** An air operator shall not operate an aircraft equipped with a flight instrument pitot heating system, unless such aircraft is equipped with an operable pitot heat indication system except where such pitot heat indication system is not required to be installed by the applicable airworthiness code of the State of Design of the aircraft, that complies with the following requirements:

*(a)* the indication system provided shall incorporate an amber light that is in clear view of the flight crew; and

*(b)* the indication system provided shall be designed to alert the flight crew if either—

(i) the pitot heat system is switched off; or

(ii) the pitot heat system is switched on and any pitot heater tube heating elements is inoperative.

**STATIC PRESSURE SYSTEM**

Independent static pressure system.

**65.** An air operator shall not operate an aircraft unless such aircraft has two independent static pressure systems—

*(a)* vented to the outside atmospheric pressure to ensure that the effect on such static pressure systems by airflow variation or moisture or other foreign matter is minimal; and

*(b)* installed so as to be airtight except for the vent.

**WINDSHIELD WIPERS**

Windshield wipers.

**66.** An air operator shall not operate an aircraft unless such aircraft is equipped with—

*(a)* a windshield wiper on the windshield of such aircraft which corresponds to each pilot station; or

*(b)* an equivalent means, to maintain a clear portion of the windshield during precipitation to allow for clear forward vision a clear portion of the windshield during precipitation.

**CHART HOLDER**

Chart holder.

**67.** An air operator shall not conduct operations on an aeroplane unless such aeroplane has a chart holder installed in an easily readable position, which can be illuminated for night operations.

**COSMIC RADIATION MEASURING EQUIPMENT**

Cosmic radiation measuring equipment.

**68.** (1) An air operator shall not conduct operations in an aeroplane above forty-nine thousand feet unless such aeroplane is equipped with an instrument to continuously measure and

indicate to flight crew the dose rate of total cosmic radiation being received and the cumulative dose on each flight.

(2) The display of instrument under subregulation (1) shall be readily visible to members of the flight crew.

**MARITIME SOUND SIGNALING DEVICE**

Maritime sound signaling device.

**69.** An operator shall not conduct operations in a seaplane unless such seaplane is equipped with equipment for making the sound signals prescribed by the International Regulations for Preventing Collisions at Sea or the Shipping (Distress Signals and Prevention of Collision) Regulations.

242 of 1990.

**ANCHORS**

Anchors.

**70.** An operator shall not conduct operations in a seaplane or an amphibian, unless such seaplane or amphibian is equipped with a sea anchor and other equipment necessary to facilitate mooring, anchoring or manoeuvering the aircraft on water, appropriate to its size, weight and handling characteristics.

**AIRBORNE COLLISION AVOIDANCE SYSTEM**

Airborne collision avoidance system.

**71.** (1) An air operator shall not conduct operations in a turbine-engined aeroplane of a maximum certified take-off mass in excess of fifteen thousand kilogrammes and having a maximum approved passenger seating configuration of more than thirty passengers, unless such aeroplane is equipped with an airborne collision avoidance system.

(2) An air operator shall not conduct operations in a turbine-engined aeroplane with a maximum certified take-off mass in excess of fifteen thousand kilogrammes or having a maximum approved passenger seating configuration of more than nineteen passengers after 31st December 2004, unless such turbine-engined aeroplane is equipped with an airborne collision avoidance system.

(3) The Authority may prescribe the manner in which an airborne collision avoidance system under this regulation shall operate.

**PRESSURE ALTITUDE REPORTING TRANSPONDER**

Pressure Altitude Reporting Transponder. [40/2009].

**72.** (1) An operator of an aeroplane or helicopter engaged in commercial air transport operations shall ensure that the aeroplane or helicopter is equipped with a pressure-altitude reporting transponder which operates in accordance with the relevant provision of Volume IV of Annex 10 to the Convention on International Civil Aviation.

(2) Aeroplanes specified under subregulation (1) for which the individual certificate of airworthiness is first issued after 1st January 2009, shall be equipped with a data source that provides pressure-altitude information with a resolution no greater than 7.26 metres or 25 feet.

(3) After 1st January 2012, an operator of an aeroplane engaged in commercial air transport operations shall ensure that the aeroplane or helicopter is equipped with a data source that provides pressure-altitude information with a resolution no greater than 7.26 metres or 25 feet.

(4) An operator of an aircraft or helicopter not engaged in commercial air transport operations shall ensure that the aeroplane or helicopter is equipped with a pressure-altitude reporting transponder which operates in accordance with the relevant provision of Volume IV of Annex 10 to the Convention on International Civil Aviation.

(5) Where the situation warrants such action, the Director General may recommend the Authority exempt an operator from the requirements of subregulation (4).

**IMPLEMENTING STANDARDS**

Implementing Standards.

**73.** An air operator in meeting the requirements of regulations 12, 38 and 46, shall ensure that he complies with the minimum implementing standards set out in Schedule 4.

Schedule 4.

**DIRECTOR-GENERAL MAY AMEND SCHEDULES**

Director-General to amend Schedules.

**74.** The Director-General may by Order amend any of the Schedules.

**COMMENCEMENT**

Commencement. [278/2004 35/2005 228/2005 289/2006 33/2008].

**75.** (1) The requirements of these Regulations shall come into effect ten months from the date of publication of these Regulations.

(2) Notwithstanding the requirements of subregulation (1), a person who on the commencement of these Regulations operates an aircraft with instruments and equipment applicable to a valid Airworthiness Certificate, may continue to operate his aircraft with such instruments and equipment under the conditions of his existing Airworthiness Certificate, until 24th September 2005 and thereafter shall meet the requirements of these Regulations.

(3) Notwithstanding subregulation (2), an operator of an aircraft of maximum certified take-off mass of less than 20 000 kilogrammes shall meet the requirements of these Regulations on or before 1st October 2009.

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## SCHEDULE 1

Regulation 12. [228/2005].

The following instruments and equipment shall be installed on an aircraft engaged in Category II operations in accordance with its aircraft group:

*(a)* Group I. Aircraft

(i) two localizer and glide slope receiving systems in which—

(A) each system shall provide a basic Instrument Landing System display; and

(B) each side of the instrument panel must have a basic Instrument Landing System display;

(ii) a communication system that does not affect the operation of at least one of the Instrumental Landing System;

(iii) a marker beacon receiver that provides distinctive aural and visual indications of the outer and the middle markers;

(iv) two gyroscopic pitch and bank indicating systems;

(v) two gyroscopic direction indicating systems;

(vi) two airspeed indicators;

(vii) two sensitive altimeters adjustable for barometric pressure, having markings at 20-foot intervals and each having a placarded correction for altimeter scale error and for the wheel height of the aircraft;

(viii) two vertical speed indicators; and

(ix) a flight control guidance system that consists of—

(A) either an automatic approach coupler; or

(B) a flight director system;

Note: *A flight director system must display computed information as steering command in relation to an Instrument Landing System localizer and, on the same instrument, either computed information as pitch command in relation to an Instrument Landing System glide slope or basic Instrument Landing System glide slope information. An automatic approach coupler must provide at least automatic steering in relation to an Instrument Landing System localizer. The flight control guidance system may be operated from one of the receiving systems required by paragraph (1)(a)(i).*

(x) for Category II operations with decision heights below 150 feet either a marker beacon receiver providing aural and visual indications of the inner marker or a radio altimeter.

*(b)* Group II. Aircraft

(i) all the items under paragraph (1);

(ii) warning systems for immediate detection by the pilot of system faults in paragraphs *(a)*(i), (iv), (v) and (ix) of Group I and, if installed for use in Category III operations—

(A) the Radio Altimeter system; and

(B) auto-throttle system;

(iii) dual controls;

(iv) an externally vented static pressure system with an alternate static pressure source;

(v) a windshield wiper or equivalent means of providing adequate cockpit visibility for a safe visual transition by either pilot to touchdown and rollout; and

(vi) a heat source for each airspeed system pitot tube installed or an equivalent means of preventing malfunctioning due to icing of the pitot system.

Note: *For the purpose of Schedule 1—*

*(a) "Group I" means propeller-driven aircraft; and*

*(b) "Group II" means turbo-jet powered aircraft.*

## SCHEDULE 2

### PART A

Regulation 33*(a)*, *(c)*.

The following parameters are required to be recorded to satisfy the requirements for a Type I Flight Data Recorder and parameters marked with an asterisk (*) are required to be recorded to satisfy the requirements for Types II and IIA Flight Data Recorders:

*(a)* time*;
*(b)* pressure-altitude*;
*(c)* indicated airspeed*;
*(d)* heading*;
*(e)* normal acceleration*;
*(f)* pitch attitude*;
*(g)* roll attitude*;
*(h)* radio transmission keying*;
*(i)* record sufficient inputs to determine power in each engine*;
*(j)* trailing edge flap or cockpit control selection*;
*(k)* leading edge flap or cockpit control selection*;
*(l)* thrust reverser position*;
*(m)* ground spoiler or speed brake position*;
*(n)* outside air temperature*;
*(o)* autopilot or auto-throttle or Automatic Flight Control System mode and engagement status*;
*(p)* longitudinal acceleration;
*(q)* lateral acceleration;
*(r)* pilot input and or control surface position-primary control (pitch, roll and yaw). (For aeroplanes with conventional control system "or" applies. For aeroplanes with non-mechanical control system "and" applies. In aeroplanes with split surfaces, a suitable combination of inputs is acceptable in lieu of recording each surface separately);
*(s)* pitch trim position;
*(t)* radio altitude;
*(u)* glide path deviation;
*(v)* localiser deviation;
*(w)* marker beacon passage;
*(x)* master warning;

*(y)* navigation system (1) and (2) frequency selection where signal available in digital form;

*(z)* Distance Measuring Equipment System 1 and 2 distance where signal is available in digital form recording of latitude and longitude from Inertia Navigation System or other navigation system is a preferred alternative;

*(aa)* landing gear squat switch status;

*(bb)* Ground Proximity Warning System;

*(cc)* angle of attack;

*(dd)* low pressure warning on each hydraulics system;

*(ee)* Navigation data; and

*(ff)* landing gear position and landing gear position selector.

Regulation 33*(b)*.

**PART B**

The following parameters are required to be recorded to satisfy the requirements for a Type IA Flight Data Recorder:

*Flight path and speed:*

*(a)* pressure altitude;

*(b)* indicated airspeed or calibrated airspeed;

*(c)* air-ground status and each landing gear air-ground sensor when practicable;

*(d)* total or outside air temperature.

*(e)* heading from the primary flight crew reference;

*(f)* normal acceleration;

*(g)* lateral acceleration;

*(h)* longitudinal acceleration reference from the body axis;

*(i)* time or relative time count;

*(j)* navigation data*: drift angle, wind speed, wind direction, latitude and longitude;

*(k)* groundspeed*; and

*(l)* radio altitude*.

*Attitude:*

*(a)* pitch attitude;

*(b)* roll attitude;

*(c)* yaw or sideslip angle*; and

*(d)* angle of attack*.

*Engine power:*

*(a)* engine thrust or power: propulsive thrust or power on each engine, cockpit thrust or power lever position;

*(b)* thrust reverse status*;

*(c)* engine thrust command*;

*(d)* engine thrust target*;

*(e)* engine bleed valve position*; and

*(f)* additional engine parameters*: EPR, N1, indicated vibration level, N2, EGT, TLA, fuel flow, fuel cut-off lever position.

*Configuration:*

*(a)* pitch trim surface position;

*(b)* flaps*: trailing edge flap position, cockpit control selection;

*(c)* slats*: leading edge flap position, cockpit control selection;

*(d)* landing gear*: landing gear, gear selector position;

*(e)* yaw trim surface position*;

*(f)* roll trim surface position*;

*(g)* cockpit trim control input position pitch*;

*(h)* cockpit trim control input position roll*;

*(i)* cockpit trim control input position yaw*;

*(j)* ground spoiler and speed brake*: ground spoiler position;

*(k)* ground spoiler selection, speed brake position, and speed brake selection;

*(l)* de-icing and or anti-icing systems selection*;

*(m)* hydraulic pressure each system*;

*(n)* fuel quantity*;

*(o)* alternate circuit electrical bus status*;

*(p)* direct circuit electrical bus status*;

*(q)* auxiliary power unit bleed valve position*; and

*(r)* computed center of gravity*.

*Operation:*

*(a)* warnings;

*(b)* primary flight control surface and primary flight control pilot input: pitch axis, roll axis, yaw axis;

*(c)* marker beacon passage;

*(d)* each navigation receiver frequency selection;

*(e)* manual radio transmission keying and cockpit voice recorder or Flight Data Recorder synchronisation reference;

*(f)* autopilot or auto-throttle or Automatic Flight Control System mode and engagement status*;

*(g)* selected barometric setting*: pilot, first officer;

*(h)* selected altitude for all pilot selectable modes of operation*;

*(i)* selected speed for all pilot selectable modes of operation*;

*(j)* selected Mach for all pilot selectable modes of operation*;

*(k)* selected vertical speed for all pilot selectable modes of operation*;

*(l)* selected heading for all pilot selectable modes of operation*;

*(m)* selected flight path for all pilot selectable modes of operation*: course or desired track, path angle;

*(n)* selected decision height*;

*(o)* electronic flight engineer system display format*: pilot, first officer;

*(p)* multi-function or engine or alerts display format*;

*(q)* ground proximity warning system Terrain Awareness and Warning System Ground Awareness System status*: selection of terrain display mode including pop-up display status, terrain alerts, both cautions and warnings, and advisories, on or off switch position;

*(r)* low pressure warning*: hydraulic pressure, pneumatic pressure;

*(s)* computer failure*;

*(t)* loss of cabin pressure*;

*(u)* Traffic Collision Awareness System Airborne Collision Avoidance System*;

*(v)* ice detection*;

*(w)* engine warning each engine vibration*;

*(x)* engine warning each engine over temperature*;

*(y)* engine warning each engine oil pressure low*;

*(z)* engine warning each engine over speed*;

*(aa)* wind shear warning*;

*(bb)* operational stall protection, stick shaker and pusher activation*;

*(cc)* all cockpit flight control input forces*: control wheel, control column, rudder pedal cockpit input forces;

*(dd)* vertical deviation*: Instrument Landing System glide path, Microwave Landing System elevation, Global Navigation System approach path;

*(ee)* horizontal deviation*: Instrument Landing System localizer, Microwave Landing System azimuth, Global Navigational System approach path;

*(ff)* distance Measuring Equipment 1 and 2 distances*; and

*(gg)* primary navigation system reference*: Global Navigational System, Inertia Navigational System, Omni-directional Range or Distance Measuring Equipment, Microwave Landing System, Loran C.

*Instrument Landing System:*

*(a)* brakes*: left and right brake pressure, left and right brake pedal position;

*(b)* date*;

*(c)* event marker*;

*(d)* head up display in use*; and

*(e)* para visual display on*.

Note: T*he number of parameters to be recorded will depend on aeroplane complexity. Parameters without an (*) are to be recorded regardless of aeroplane complexity. Those parameters designated by an (*) are to be recorded if an information source for the parameter is used by aeroplane systems and flight crew to operate the aeroplane*.

**PART C**

Regulation 33*(d)*, *(f)*.

The following parameters satisfy the requirements for a Type IV Flight Data Recorder and the parameters marked with an asterisk (*) satisfy the requirements for a Type V Flight Data Recorder:

*(a)* time*;

*(b)* pressure-altitude*;

*(c)* indicated airspeed*;

*(d)* heading*;

*(e)* normal acceleration*;

*(f)* pitch attitude*;

*(g)* roll attitude*;

*(h)* radio transmission keying*;

*(i)* record sufficient inputs to determine power in each engine;

*(j)* main rotor speed*;

*(k)* pilot input and control surface position-primary controls for collective pitch, longitudinal cyclic pitch. Lateral cyclic pitch, tail rotor pedal*;

*(l)* low pressure for each hydraulics system*;

*(m)* outside air temperature*;

*(n)* autopilot or auto-throttle Automatic Flight Control System mode and engagement status*;

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*(o)* stability augmentation system engagement;

*(p)* main gearbox oil pressure;

*(q)* main gearbox oil temperature;

*(r)* yaw acceleration;

*(s)* sling load force;

*(t)* longitudinal acceleration;

*(u)* lateral acceleration;

*(v)* radio altitude;

*(w)* glide path deviation;

*(x)* localiser deviation;

*(y)* marker beacon passage;

*(z)* master Warning;

*(aa)* NAV 1 and 2 frequency selection where signal is in digital form;

*(bb)* distance measuring equipment systems 1 and 2 where signal available in digital forms recording latitude and longitude from Inertia Navigation System or other navigation system is a preferred alternative;

(*cc*) navigation data; and

*(dd)* landing gear position and gear selector position.

Regulation 33*(d)*.

**PART D**

The following parameters satisfy the requirements for a Type IVA Flight Data Recorder:

*Flight path and speed:*

*(a)* pressure altitude;

*(b)* indicated airspeed;

*(c)* outside air temperature;

*(d)* heading;

*(e)* normal acceleration;

*(f)* lateral acceleration;

*(g)* longitudinal acceleration (body axis);

*(h)* time or relative time count;

*(i)* navigation data*: drift angle, wind speed, wind direction, latitude/longitude; and

*(j)* radio altitude*.

*Attitude:*

*(a)* pitch attitude;

*(b)* roll attitude; and

*(c)* yaw rate.

*Engine power:*

*(a)* power on each engine: free power turbine speed (Nf), engine torque, engine gas generator speed (Ng), cockpit power control position;

*(b)* rotor: main rotor speed, rotor brake;

*(c)* main gearbox oil pressure*;

*(d)* gearbox oil temperature*: main gearbox oil temperature, intermediate gearbox oil;

*(e)* temperature, tail rotor gearbox oil temperature;

*(f)* engine exhaust gas temperature*; and

*(g)* turbine inlet temperature*.

*Configuration:*

*(a)* landing gear or gear selector position*;

*(b)* fuel contents*; and

*(c)* ice detector liquid water content*.

*Operation:*

*(a)* hydraulics low pressure;

*(b)* warnings;

*(c)* primary Flight Controls—Pilot input and or control output position: collective pitch, longitudinal cyclic pitch, lateral cyclic pitch, tail rotor pedal, controllable stabilator, hydraulic selection;

*(d)* marker beacon passage;

*(e)* each navigation receiver frequency selection;

*(f)* Automatic Flight Control System mode and engagement status*;

*(g)* stability augmentation system engagement*;

*(h)* indicated sling load force*; and

*(i)* vertical deviation*: Instrument Landing System glide path, Microwave Landing System elevation.

*Ground Navigational System approach path:*

*(a)* horizontal deviation*: Instrument Landing System localiser, Microwave Landing System azimuth;

*(b)* Distance Measuring Equipment 1 and 2 distances*;

*(c)* altitude rate*;

*(d)* mice detector liquid water content*; and

*(e)* helicopter health and usage monitor system*: engine data, chip detectors, track timing, exceedances discretes, and broadband average engine vibration.

Note 1: *The number of parameters to be recorded will depend on helicopter complexity.*

Note 2: *Parameters without an (*) are to be recorded regardless of helicopter complexity.*

Note 3: *Those parameters designated by an (*) are to be recorded if an information source for the parameter is used by helicopter systems or flight crew to operate the helicopter.*

Regulation 35.

**PART E**

| FLIGHT DATA RECORDER TYPE | DURATION |
|---|---|
| Type I | 25 hours |
| Type II | 25 hours |
| Type IIA | 30 minutes |
| Type IV | 10 hours |
| Type IVA | 10 hours |
| Type V | 10 hours |

## SCHEDULE 3

Regulation 40.

**PART A**

Where an aeroplane has the seating capacity specification under column 1, it shall have the corresponding fire extinguisher under column 2 or board.

| Passenger Seating | Minimum Number of Hand Fire Extinguishers Capacity |
|---|---|
| 30 through 60 | 2 |
| 61 through 200 | 3 |
| 201 through 300 | 4 |
| 301 through 400 | 5 |
| 401 through 500 | 6 |
| 501 through 600 | 7 |
| 601 or more | 8 |

**PART B**

Regulation 45.

Where an aeroplane has the seating capacity specified under column 1, it shall have the corresponding first-aid kits under column 2 on board.

| Number of passenger seats installed | Number of first-aid kits required |
|---|---|
| 0 to 99 | 1 |
| 100 to 199 | 2 |
| 200 to 299 | 3 |
| 300 and more | 4 |

## SCHEDULE 4

Regulation 73.

## IMPLEMENTING STANDARDS

The following standards are numbered to correspond numerically to the relevant provisions in the Regulations:

***Regulation 12***

**CATEGORY II:**

**INSTRUMENTS AND EQUIPMENT APPROVAL AND MAINTENANCE REQUIREMENTS**

1. The instruments and equipment required by regulation 12 shall be approved as provided in this implementing standard before being used in Category II operations. Before presenting an aircraft for approval of the instruments and equipment, it must be shown that since the beginning of the 12th month before the date of submission—

*(a)* the ILS localiser and glide slope equipment was bench checked according to the manufacturer's instructions and found to meet those standards specified in Radio Technical Commission for Aeronautics Paper 23-63/DO-177 dated March 14, 1963, "Standards Adjustment Criteria for Airborne Localiser and Glide slope Receivers.";

*(b)* the altimeters and the static pressure systems were tested and inspected; and

*(c)* all other instruments and items of equipment specified in regulation 12 that are listed in the proposed maintenance programme were bench checked and found to meet the manufacturer's specifications.

*L.R.O.*

2. All components of the flight control guidance system shall be approved as installed by the evaluation programme specified in paragraph 5 if they have not been approved for Category III operations under applicable type or supplemental type certification procedures. In addition, subsequent changes to make, model, or design of the components must be approved under this paragraph. Related systems or devices, such as the autothrottle and computed missed approach guidance system, shall be approved in the same manner if they are to be used for Category II operations.

3. A radio altimeter must meet the following performance criteria of this paragraph for original approval and after each subsequent alteration:

*(a)* it shall display to the flight crew clearly and positively the wheel height of the main landing gear above the terrain;

*(b)* it shall display wheel height above the terrain to an accuracy of ±5 feet or 5 per cent, whichever is greater, under the following conditions:

(i) pitch angles of zero to ±5° about the mean approach attitude;

(ii) roll angles of zero to 20° in either direction;

(iii) forward velocities from minimum approach speed up to 200 knots; and

(iv) sink rates from zero to 15 feet per second at altitudes from 100 to 200 feet;

*(c)* over level ground, it must track the actual altitude of the aircraft without significant lag or oscillation;

*(d)* with the aircraft at an altitude of 200 feet or less, any abrupt change in terrain representing no more than 10 per cent of the aircraft's altitude must not cause the altimeter to unlock, and indicator response to such changes must not exceed 0.1 seconds and, in addition, if the system unlocks for greater changes, it must reacquire the signal in less than 1 second;

*(e)* systems that contain a push to test feature must test the entire system (with or without an antenna) at a simulated altitude of less than 500 feet; and

*(f)* the system must provide to the flight crew a positive failure warning display any time there is a loss of power or an absence of ground return signals within the designed range of operating altitudes.

4. All other instruments and items of equipment required by regulation 12 shall be capable of performing as necessary for Category II operations. Approval is also required after each subsequent alteration to these instruments and items of equipment.

5. Evaluation programme.

*(a)* approval by evaluation is requested as a part of the application for approval of the Category II manual;

*(b)* unless otherwise authorised by the Authority, the evaluation programme for each aircraft requires the demonstrations specified in this paragraph. At least 50 ILS approaches shall be flown with at least five approaches on each of three different ILS facilities and no more than one half of the total approaches on any one ILS facility. All approaches shall be flown under simulated instrument conditions to a 100-foot decision height and 90 per cent of the total approaches made shall be successful. A successful approach is one in which—

(i) at the 100-foot decision height, the indicated airspeed and heading are satisfactory for a normal flare and landing (speed must be ±5 knots of programmed airspeed, but may not be less than computed threshold speed if autothrottles are used);

(ii) the aircraft at the 100-foot decision height, is positioned so that the cockpit is within, and tracking so as to remain within, the lateral confines of the runway extended;

(iii) deviation from glide slope after leaving the outer marker does not exceed 50 per cent of full-scale deflection as displayed on the ILS indicator;

(iv) no unusual roughness or excessive attitude changes occur after leaving the middle marker; and

(v) in the case of an aircraft equipped with an approach coupler, the aircraft is sufficiently in trim when the approach coupler is disconnected at the decision height to allow for the continuation of a normal approach and landing;

*(c)* during the evaluation programme the following records of information shall be maintained by the applicant for the aircraft with respect to each approach and made available to the Authority upon request:

(i) each deficiency in airborne instruments and equipment that prevented the initiation of an approach;

(ii) the reasons for discontinuing an approach, including the altitude above the runway at which it was discontinued;

(iii) speed control at the 100-foot DH if auto-throttles are used;

(iv) trim condition of the aircraft upon disconnecting the auto coupler with respect to continuation to flare and landing;

(v) position of the aircraft at the middle marker and at the decision height indicated both on a diagram of the basic ILS display and a diagram of the runway extended to the middle marker. Estimated touchdown point shall be indicated on the runway diagram;

(vi) compatibility of flight director with the auto coupler, if applicable; and

(vii) quality of overall system performance;

*(d)* a final evaluation of the flight control guidance system is made upon successful completion of the demonstrations. If no hazardous tendencies have been displayed or are otherwise known to exist, the system is approved as installed.

6. Each maintenance programme for Category II instruments and equipment shall contain the following:

*(a)* a list of each instrument and item of equipment specified in regulation 12 that is installed in the aircraft and approved for Category II operations, including the make and model of those specified in regulation 12;

*(b)* a schedule that provides for the performance of inspections under subparagraph *(e)* of this paragraph within 3 months after the date of the previous inspection. The inspection shall be performed by a person authorised by the Civil Aviation [(No. 5) Airworthiness] Regulations, except that each alternate inspection may be replaced by a functional flight check. This functional flight check shall be performed by a pilot holding a Category II pilot authorisation for the type aircraft checked;

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*(c)* a schedule that provides for the performance of bench checks for each listed instrument and item of equipment that is specified in regulation 12 within 12 months after the date of the previous bench check;

*(d)* a schedule that provides for the performance of a test and inspection of each static pressure system within twelve months after the date of the previous test and inspection;

*(e)* the procedures for the performance of the periodic inspections and functional flight checks to determine the ability of each listed instrument and item of equipment specified in regulation 12 to perform as approved for Category II operations including a procedure for recording functional flight checks;

*(f)* a procedure for assuring that the pilot is informed of all defects in listed instruments and items of equipment;

*(g)* a procedure for assuring that the condition of each listed instrument and item of equipment upon which maintenance is performed is at least equal to its Category II approval condition before it is returned to service for Category II operations; and

*(h)* a procedure for an entry in the maintenance records that shows the date, airport, and reasons for each discontinued Category II operation because of a malfunction of a listed instrument or item of equipment.

7. A bench check required by this section shall comply with the following paragraph:

*(a)* except as specified in paragraph *(b)* of this subsection, it shall be performed by a certified repair station holding one of the following ratings as appropriate to the equipment checked:

(i) an instrument rating; and

(ii) an avionics rating;

*(b)* it shall be performed by a certified air operator on aircraft identified in its approved specific operating provisions with the approved authorisations to perform maintenance and approve for return to service its own aircraft maintained under a continuous maintenance programme under an equivalent system identified in the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations; Sub. Leg.

*(c)* it shall consist of removal of an instrument or item of equipment and performance of the following:

(i) a visual inspection for cleanliness, impending failure, and the need for lubrication, repair, or replacement of parts;

(ii) correction of items found by that visual inspection; and

(iii) calibration to at least the manufacturer's specifications unless otherwise specified in the approved Category II manual for the aircraft in which the instrument or item of equipment is installed.

8. After the completion of one maintenance cycle of 12 months, a request to extend the period for checks, tests, and inspections is approved if it is shown that the performance of particular equipment justifies the requested extension.

*L.R.O.*

***Regulation 38***

**EMERGENCY EXIT EQUIPMENT**

1. The assisting means for a floor level emergency exit shall meet the requirements under which the aeroplane was type certified.

2. The location of each passenger emergency exit shall be—

*(a)* recognisable from a distance equal to the width of the cabin; and

*(b)* indicated by a sign visible to occupants approaching along the main passenger aisle.

3. There shall be an emergency exit locating sign—

*(a)* above the aisle near each over-the-wing passenger emergency exit, or at another ceiling location if it is more practical because of low headroom;

*(b)* next to each floor level passenger emergency exit, except that one sign may serve two such exits if they both can be seen readily from that sign; and

*(c)* on each bulkhead or divider that prevents fore and aft vision along the passenger cabin, to indicate emergency exits beyond and obscured by it, except that if this is not possible, the sign may be placed at another appropriate location.

4. Each passenger emergency exit marking and each locating sign shall be manufactured to meet the interior emergency exit marking requirements under which the aeroplane was type certified, unless the Authority cites different requirements for compliance with this paragraph.

Note: *No sign may continue to be used if its luminescence or brightness decreases to below 250 microlamberts.*

5. Sources of general cabin illumination may be common to both the emergency and the main lighting systems if the power supply to the emergency light system is independent of the power supply to the main lighting system.

6. The emergency lighting system shall provide enough general lighting in the passenger cabin so that the average illumination, when measured at 40-inch intervals at seat armrest height, on the centerline of the main passenger aisle, is at least 0.05 foot-candles.

7. Each emergency light shall—

*(a)* be operable manually both from the flight crew station and from a point in the passenger compartment that is readily accessible to a normal flight attendant seat;

*(b)* have a means to prevent inadvertent operation of the manual controls;

*(c)* when armed or turned on at either station, remain lighted or become lighted upon interruption of the aeroplane's normal electric power; and

*(d)* provide the required level of illumination for at least 10 minutes at the critical ambient conditions after emergency landing.

8. Have a cockpit control device that has an "on", "off", and "armed" position.

9. The location of each passenger emergency exit operating handle and instructions for opening the exit shall be shown in accordance with the requirements under which the aeroplane was type certified, unless the Authority cites different requirements for compliance with this paragraph.

10. No operating handle or operating handle cover may continue to be used if its luminescence or brightness decreases to below 100 microlamberts.

11. Access to emergency exits shall be provided as follows for each passenger-carrying aeroplane:

*(a)* each passageway between individual passenger areas, or leading to a Type I or Type II emergency exit, shall be unobstructed and at least 20 inches wide;

*(b)* there shall be enough space next to each Type I or Type II emergency exit to allow a crew member to assist in the evacuation of passengers without reducing the unobstructed width of the passageway below that required in paragraph *(a)* of this section;

*(c)* there shall be access from the main aisle to each Type III and Type IV exit. The access from the aisle to these exits shall not be obstructed by seats, berths, or other protrusions in a manner that would reduce the effectiveness of the exit. In addition, the access shall meet the emergency exit access requirements under which the aeroplane was type certified, unless the Authority cites different requirements for compliance with this paragraph;

*(d)* if it is necessary to pass through a passageway between passenger compartments to reach any required emergency exit from any seat in the passenger cabin, the passageway shall not be obstructed. However, curtains may be used if they allow free entry through the passageway;

*(e)* no door may be installed in any partition between passenger compartments; and

*(f)* if it is necessary to pass through a doorway separating the passenger cabin from other areas to reach any required emergency exit from any passenger seat, the door shall have a means to latch it in open position, and the door shall be latched open during each take-off and landing. The latching means shall be able to withstand the loads imposed upon it when the door is subjected to the ultimate inertia forces, relative to the surrounding structure, prescribed in the airworthiness standards for type certification in the transport category as cited by the Authority.

12. Each passenger emergency exit and the means of opening that exit from the outside shall be marked on the outside of the aeroplane with a 2-inch coloured band outlining the exit on the side of the fuselage.

13. Each passenger emergency exit marking, including the band, shall be readily distinguishable from the surrounding fuselage area by contrast in colour and shall comply with the following:

*(a)* if the reflectance of the darker colour is 15 per cent or less, the reflectance of the lighter colour shall be at least 45 per cent;

*(b)* if the reflectance of the darker colour is greater than 15 per cent, at least a 30 per cent difference between its reflectance and the reflectance of the lighter colour shall be provided; and

Note: *"Reflectance" is the ratio of the luminous flux reflected by a body to the luminous flux it receives.*

*(c)* exits that are not in the side of the fuselage shall have external means of opening and applicable instructions marked conspicuously in red or, if red is inconspicuous against the background colour, in bright chrome yellow and, when the opening means for such an exit is located on only one side of the fuselage, a conspicuous marking to that effect shall be provided on the other side.

14. Each passenger-carrying aeroplane shall be equipped with exterior lighting that meets the requirements under which that aeroplane was type certified, unless the Authority cites different requirement for compliance with this paragraph.

15. Each passenger-carrying aeroplane shall be equipped with a slip-resistant escape route that meets the requirements under which that aeroplane was type certified, unless the Authority cites different requirements for compliance with this paragraph.

16. Each floor level door or exit in the side of the fuselage (other than those leading into a cargo or baggage compartment that is not accessible from the passenger cabin) that is 44 or more inches high and 20 or more inches wide, but not wider than 46 inches, each passenger ventral exit and each tailcone exit, shall meet the requirements of this section for floor level emergency exits.

Note 1: *The Authority may grant a deviation from this paragraph if he finds that circumstances make full compliance impractical and that an acceptable level of safety has been achieved.*

Note 2: *Approved emergency exits in the passenger compartments that are in excess of the minimum number of required emergency exits shall meet all of the applicable provisions of this subsection section and shall be readily accessible.*

17. On each large passenger-carrying turbojet powered aeroplane each ventral exit and tailcone exit shall be—

*(a)* designed and constructed so that it cannot be opened during flight; and

*(b)* marked with a placard readable from a distance of 30 inches and installed at a conspicuous location near the means of opening the exit, stating that the exit has been designed and constructed so that it cannot be opened during flight.

## *Regulation 46*

### OXYGEN STORAGE AND DISPENSING APPARATUS

1. The supplemental oxygen supply requirements for non-pressurised aircraft are as follows:

*(a)* each member of the flight crew on flight deck duty shall be supplied with supplemental oxygen in accordance with Table 1.

If all occupants of flight deck seats are supplied from the flight crew source of oxygen supply then they shall be considered as flight crew on flight deck duty for the purpose of oxygen supply; and

*(b)* cabin crew and passengers shall be supplied with oxygen in accordance with Table 1. Cabin crew carried in addition to the minimum number of cabin crew required, and additional crew, shall be considered as passengers for the purpose of oxygen supply.

**TABLE 1**

**SUPPLEMENTAL OXYGEN FOR NON-PRESSURISED AEROPLANES**

| SUPPLY FOR: | DURATION AND PRESSURE ALTITUDE |
|---|---|
| 1. All occupants of flight deck seats on flight deck duty | Entire flight time at pressure altitudes above 10,000 feet |
| 2. All required cabin crew members | Entire flight time at pressure altitudes above 13,000 feet and for any period exceeding 30 minutes at pressure altitudes above 10,000 feet but not exceeding 13,000 feet |
| 3. 100% of passengers | Entire flight time at pressure altitudes above 13,000 feet |
| 4. 10% of passengers | Entire flight time after 30 minutes at pressure altitudes greater than 10,000 feet but not exceeding 13,000 feet |

2. The supplemental oxygen supply requirements for pressurised aircraft are as follows:

*(a)* the amount of supplemental oxygen required shall be determined on the basis of cabin pressure altitude, flight duration and the assumption that a cabin pressurisation failure will occur at the altitude or point of flight that is most critical from the standpoint of oxygen need, and that, after the failure, the aeroplane will descend in accordance with emergency procedures specified in the Aeroplane Flight Manual to a safe altitude for the route to be flown that will allow continued safe flight and landing;

*(b)* following a cabin pressurisation failure, the cabin pressure altitude shall be considered the same as the aeroplane altitude, unless it is demonstrated to the Authority that no probable failure of the cabin or pressurisation system will result in a cabin pressure altitude equal to the aeroplane altitude. Under these circumstances, this lower cabin pressure altitude may be used as a basis for determination of oxygen supply;

*(c)* each member of the flight crew on flight deck duty shall be supplied with supplemental oxygen in accordance with Table 2. If all occupants of flight deck seats are supplied from the flight crew source of oxygen supply then they shall be considered as flight crew on flight deck duty for the purpose of oxygen supply. Flight deck seat occupants, not supplied by the flight crew source, are to be considered as passengers for the purpose of oxygen supply; and

*(d)* cabin crew, additional crew, and passengers:

(i) cabin crew and passengers shall be supplied with supplemental oxygen in accordance with Table 2. Cabin crew carried in addition to the minimum number of cabin crew required, and additional crew, shall be considered as passengers for the purpose of oxygen supply; and

(ii) the oxygen supply requirements, as specified in Table 2, for aeroplanes not certified to fly at altitudes above 25,000 feet, may be reduced to the entire flight time between 10,000 feet and 14,000 feet cabin pressure altitudes for all required cabin crew and for at least 10% of the passengers if, at all points along the route to be flown, the aeroplane is able to descend safely within 4 minutes to a cabin pressure altitude of 14,000 feet.

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*L.R.O.*

**TABLE 2**

**REQUIREMENTS FOR SUPPLEMENTAL OXYGEN-PRESSURISED AEROPLANE DURING AND FOLLOWING EMERGENCY DESCENT (NOTE 1)**

| SUPPLY FOR: | DURATION AND CABIN PRESSURE ALTITUDE |
|---|---|
| 1. All occupants of seats on flight deck duty flight | Entire flight time when the cabin pressure altitude exceeds 13,000 feet and entire time when the cabin pressure altitude exceeds 10,000 feet but does not exceed 13,000 feet after the first thirty minutes at those altitudes but in no case less than—<br>*(a)* thirty minutes for aeroplanes certified to fly at altitudes not exceeding 25,000 feet (Note 2); and<br>*(b)* two hours for aeroplanes certified to fly at altitudes more than 25,000 feet (Note 3) |
| 2. All required cabin crew members | Entire flight time when cabin pressure altitude exceeds 13,000 feet but not less than 30 minutes and entire flight time when cabin pressure altitude is greater than 10,000 feet but does not exceed 13,000 feet after the first thirty minutes at these altitudes (Note 2) |
| 3. 100% of passengers | 10 minutes or the entire flight time when the cabin pressure altitude exceeds 15,000 feet whichever is the greater (Note 4) |
| 4. 30% of passengers | Entire flight time when the cabin pressure altitude exceeds 14,000 feet but does not exceed 15,000 feet |
| 5. 10% of passengers | Entire flight time when the cabin pressure altitude exceeds 10,000 feet but does not exceed 14,000 feet after the first 30 minutes at these altitudes |

Note 1: *The supply provided shall take account of the cabin pressure altitude and descent profile for the routes concerned.*

Note 2: *The required minimum supply is that quantity of oxygen necessary for a constant rate of descent from the aeroplane's maximum certified operating altitude to 10,000 feet in 10 minutes and followed by 20 minutes at 10,000 feet.*

Note 3: *The required minimum supply is that quantity of oxygen necessary for a constant rate of descent from the aeroplane's maximum certified operating altitude to 10,000 feet in 10 minutes and followed by 110 minutes at 10,000 feet. The oxygen required to meet the Crew Protective Breathing Equipment provisions of this Part may be included in determining the supply required.*

Note 4: *The required minimum supply is that quantity of oxygen necessary for a constant rate of descent from the aeroplane's maximum certified operating altitude to 15,000 feet.*

*L.R.O.*

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# CIVIL AVIATION [(NO. 8) AVIATION SECURITY] REGULATIONS

107/2004. [190/2006 95/2009].

*made under section 33*

## PRELIMINARY

**1.** These Regulations may be cited as the Civil Aviation [(No. 8) Aviation Security] Regulations. Citation.

**2.** For the purpose of these Regulations— Interpretation. [95/2009].

"act of unlawful interference" means an act which seeks to or jeopardises the safety of civil aviation and air transport such as—

*(a)* unlawful seizure of an aircraft in flight or on the ground;

*(b)* hostage taking on board an aircraft or at an aerodrome;

*(c)* forcible intrusions on board an aircraft at an aerodrome or at the premises of an aeronautical facility;

*(d)* introduction on board an aircraft or at an aerodrome of a weapon or hazardous device or material intended for criminal purposes; or

*(e)* communication of false information so as to jeopardise the safety of aircraft in flight or on the ground, of passengers, crew, ground personnel or the general public, at an aerodrome or at the premises of a civil aviation facility;

"aerial work" means an aircraft operation in which the aircraft is used for specialised services such as agriculture, construction, photography, surveying observation and patrol, search and rescue and aerial advertisement;

"aerodrome operator" means a person who operates an aerodrome in Trinidad and Tobago, holding an aerodrome licence issued under the Civil Aviation [(No. 12) Aerodrome Licensing] Regulations, in respect of such aerodrome and Sub. Leg.

regularly serving scheduled, non-scheduled passenger operations and cargo operations in accordance with the Act or Regulations made thereunder;

"aerodrome tenant" means any enterprise that is resident at an aerodrome;

"aircraft operator" means a national aircraft operator and a foreign aircraft operator;

"air operations area" means a portion of an aerodrome designed and used for landing, take-off or surface manoeuvering of aircraft;

"aircraft security check" means an inspection of the interior of an aircraft to which passengers may have had access and an inspection of the hold for the purposes of discovering suspicious objects, weapons, explosives or other dangerous devices, articles and substances;

"aircraft security search" means a thorough inspection of the interior and exterior of the aircraft for the purpose of discovering suspicious objects, weapons, explosives or other dangerous devices, articles and substances;

"airside" means the movement area of an airport, adjacent terrain and buildings or portions thereof, access to which is controlled;

"Authority" means the Trinidad and Tobago Civil Aviation Authority established under the Civil Aviation Act;

"authorised search" means a search carried out of persons or goods destined to or within a restricted area of an aerodrome, or on board an aircraft, by a designated aviation security officer, police officer or any other person designated by the Civil Aviation Authority;

"aviation security officer" means—

*(a)* a person who is trained in accordance with the security training requirements of the approved Aerodrome Operator Security Programme and who has been appointed as an aviation security officer by an aerodrome operator, aircraft operator or aerodrome tenant; and

*(b)* any member of the Trinidad and Tobago Police Service or Trinidad and Tobago Defence Force when assigned aerodrome security duties;

"aviation screening officer" means a person who by virtue of his training has been employed by the aerodrome operator to carry out aviation security screening duties;

"background check" means a check of a person's identity and previous experience, including where legally permissible, any criminal history, as part of the assessment of an individual's suitability to implement security control or for unescorted access to security restricted areas;

"cargo" means any property carried on an aircraft other than mail, stores and accompanied or mishandled baggage;

"carry-on baggage" means luggage and personal belongings to which a person will have access while on board an aircraft;

"catering stores" means all items, other than catering supplies, associated with passenger in-flight services, that includes newspapers, magazines, headphones, audio and video tapes, pillows and blankets, amenity kits;

"catering supplies" means food, beverages, other dry stores and associated equipment used on board an aircraft;

"certification" means a formal evaluation and confirmation by or on behalf of the appropriate authority for aviation security that a person possesses the necessary competencies to perform assigned functions to an acceptable level as defined by the appropriate authority;

"checked baggage" means luggage and personal belongings accepted for transportation by an aircraft operator and to which a person will not have access while on board an aircraft;

"commercial air transport operation" means an aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire;

"corporate aviation" means the non-commercial operation or use of aircraft by a company for the carriage of passengers or goods as an aid to the conduct of company business, flown by a professional pilot employed to fly the aircraft;

"dangerous goods" means articles or substances which are capable of posing significant risk to health, safety or property when transported by air and which are classified according to the International Civil Aviation Organisation Technical Instructions for the Safe Transport of Goods by Air;

"disruptive passenger" means a passenger who fails to respect the rules of conduct at an airport or on board an aircraft or to follow the instructions of the airport staff or crew members and thereby disturbs the good order and discipline at an airport or on board an aircraft;

"escort" means to accompany or supervise an individual who does not have unescorted access authority to areas restricted for security purposes, as identified in the Aerodrome Operator Security Programme, in a manner sufficient to take action should the individual engage in activities other than those for which the escorted access is granted;

"exclusive area" means that part of an air operations area for which an aircraft operator has agreed in writing with the aerodrome operator to exercise exclusive security responsibility under an approved security programme or a security programme used in accordance with Part VI of these Regulations;

Ch.16:01. "firearm" has the meaning given to it in the Firearms Act;

"foreign air operator" means an aircraft operator who conducts international air transport operations under the authority of an air operator certificate issued by a State other than Trinidad and Tobago;

"general aviation" means all aviation activity at an aerodrome associated with the arrival and departure of aircraft other than air operators;

"general aviation operation" means an aircraft operation other than a commercial air transport operation or an aerial work operation and includes corporate aviation;

"goods" means personal belongings, baggage, cargo, mail, article, thing or conveyance that may be taken or placed on board an aircraft or taken into a restricted area;

"hijacking" has the meaning given to it under the Hijacking Act; Ch.11:22.

"Human Factors principles" means principles which apply to design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance;

"human performance" means human capabilities and limitations which have an impact on the safety, security and efficiency of aeronautical operations;

"incendiary device" means an object, other than a match or pocket lighter, that is fabricated with combustible materials and when ignited may cause fire damage to property or inflict burn injuries on individuals;

"in-flight security officer" means a member of the protective services specially trained in aviation security;

"national aircraft operator" means an aircraft operator operating under the authority of the Civil Aviation Authority of Trinidad and Tobago;

"person in custody" means a person who is for the time being under the control of an escort officer;

"personal search" means a search of the clothing of a person and personal belongings for prohibited items by a designated aviation security officer or a member of the Trinidad and Tobago Police Service;

"piracy" has the meaning given to it in the Civil Aviation (Tokyo Convention) Act; Ch.11:21.

"protective services" means officers of the Trinidad and Tobago Police Service and Trinidad and Tobago Defence Force;

"private charter" means an agreement to hire an entire aircraft for the carriage of passengers and goods;

"public charter" means an agreement to hire a specified cargo space or number of passenger seats on an aircraft for the carriage of passengers and goods;

"record" includes any writing, drawing, map, tape, film, photograph, or other means by which information is preserved;

"regulated agent" means an agent, freight forwarder or any other entity who conducts business with an air operator and provides security controls that are accepted or required by the appropriate authority in respect to cargo and mail;

"restricted area" means any area of an aerodrome that is identified as an area to which access is restricted to authorised persons and includes any aircraft or vehicle on that aerodrome;

"restricted area pass" means a document issued by the designated pass issuing authority, that entitles the holder to have access to a specific restricted area of an aerodrome during a specified period;

"scheduled passenger operations" means the provision of an air transportation service for passengers from identified air terminals at a set time announced by timetable or schedule published in a newspaper, magazine or other advertising medium;

"screening" means the application of technical or other means which are intended to identify or detect weapons, explosives or other dangerous devices, articles or substances which may be used to commit an act of unlawful interference;

"screening staff" includes an aviation security officer and an aviation screening officer;

"security" means safeguarding civil aviation against acts of unlawful interference, achieved by a combination of measures and human and material resources;

"security audit" means an in-dept compliance examination of all aspects of the implementation of the national civil aviation security programme;

"security control" means the means by which the introduction of weapons, explosives or other dangerous devices, articles or substances which may be used to commit an act of unlawful interference can be prevented;

"security inspection" means an examination of the implementation of relevant national civil aviation security programme requirements by an aircraft operator, airport or other entity involved in security;

"security programme" means an Aerodrome Operator Security Programme, National Aircraft Operator Security Programme, Foreign Aircraft Operator Security Programme, Catering Operator Security Programme and a Regulated Agent Security Programme, where applicable;

"security restricted area" means those areas of the airside of an airport which are identified as priority risk areas where in addition to access control, other security controls are applied and will include areas such as all commercial aviation passenger departure areas between the screening checkpoint and the aircraft, the ramp, baggage make-up, including those areas where aircraft are being brought into service and where screened baggage and cargo are present, cargo sheds, mail centres, airside catering and aircraft cleaning premises;

"security survey" means an evaluation or security needs including the identification of vulnerabilities which could be exploited to carry out an act of unlawful interference, and the recommendation of corrective actions;

"security test" means a covert or overt trial of an aviation security measure which simulates an attempt to commit an unlawful act;

"sterile area" means—

*(a)* an area within a restricted area to which access is controlled by the inspection of persons and property in accordance with Parts I and II of these Regulations;

*(b)* a facility within a restricted area of an aerodrome accessible to screened persons and set apart to facilitate security control of persons embarking and disembarking aircraft;

"Technical Instructions" means the International Civil Aviation Organisation Instructions for the transport of Dangerous Goods by air;

"transit passenger" means a passenger departing from an aerodrome on the same flight on which he arrived;

"transfer passenger" means a passenger making direct connection between two different flights;

"unidentified baggage" means baggage at an airport, with or without a baggage tag, which is not picked up by or identified with a passenger; and

"weapon" means any thing designed, used or capable of inflicting harm and includes a firearm.

**APPLICABILITY**

Applicability.

**3.** (1) These Regulations apply to—

*(a)* aerodrome operators;

*(b)* national aircraft operators;

*(c)* foreign aircraft operators;

*(d)* aerodrome tenants;

*(e)* a person in or within the vicinity of an aerodrome;

*(f)* a person who offers goods for transport by air;

*(g)* a person who provide a service to an aircraft operator; and

*(h)* a person on board an aircraft.

Sub. Leg.

(2) The provisions of Part I of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, with respect to the surrender, suspension or revocation of aviation documents apply to certificates, authorisations and ratings issued under these Regulations.

**PART I**

**PROHIBITION ORDERS**

Power of the Director-General to issue prohibition orders.

**4.** The Director-General may issue an order prohibiting the carriage by aircraft of any item, either as personal belongings, freight, catering, cargo or mail.

**PART IA**

**NATIONAL SECURITY PROGRAMMES**

National Security Programmes. [95/2009].

**4A.** The Director-General shall ensure that—

*(a)* a written national civil aviation security programme is established, implemented and

maintained to safeguard civil aviation operations against acts of unlawful interference, through regulations, practices and procedures which take into account the safety, regularity and efficiency of flights;

*(b)* the level of threat to civil aviation within Trinidad and Tobago is kept under constant review and policies and procedures are established to adjust the relevant elements of the national civil aviation security programme accordingly, based upon a security risk assessment acceptable to the Authority;

*(c)* tasks are defined and allocated and activities are co-ordinated between departments, agencies and other organisations, aerodrome and aircraft operators and other entities concerned with or responsible for the implementation of various aspects of the national civil aviation security programme;

*(d)* a written national civil aviation security training programme is developed, implemented and maintained for personnel of all entities involved with or responsible for the implementation of various aspects of the national civil aviation security programme and designed to ensure effectiveness of the national civil aviation security programme;

*(e)* training standards for the national civil aviation security training programme referred to in paragraph *(d)* are defined, and trainers and training programme meet those standards;

*(f)* a written national civil aviation security quality control programme is developed, implemented and maintained to determine compliance with and validate the effectiveness of the national civil aviation security programme and any civil aviation regulations, policies and procedures;

*(g)* a written national civil aviation security screener certification programme is developed, implemented and maintained to ensure that persons assigned to conduct aviation security screening functions are properly trained and tested and meet the basic qualifications to perform such screening functions;

*(h)* a written version of the appropriate parts of the national civil aviation security programme and relevant information or guidelines are made available to all airport operators, aircraft operators and other appropriate security entities operating in Trinidad and Tobago, enabling them to meet the requirements of the national civil aviation security programme;

*(i)* the national civil aviation security programme includes procedures for—

(i) sharing, as appropriate, the results of audits carried out by International Civil Aviation Organisation and the corrective actions taken by Trinidad and Tobago, if requested, by a Contracting State;

(ii) procedures for the inclusion in each bilateral agreement on air transport, a clause related to aviation security in accordance with the model developed by International Civil Aviation Organisation;

(iii) making available to other Contracting States on request a written version of the appropriate parts of the national civil aviation security programme;

(iv) notifying International Civil Aviation Organisation where information was shared under paragraph *(a)*; and

(v) providing International Civil Aviation Organisation with the information regarding the current office in Trinidad and Tobago responsible for the development, implementation and maintenance of the national civil aviation security programme.

**MANAGEMENT AND RESPONSE TO ACTS OF UNLAWFUL INTERFERENCE**

Management and response to acts of unlawful interference. [95/2009].

**4B.** The Director-General shall, in establishing the national civil aviation security programme under regulation 4A, ensure that the programme provides elements for the management of response to acts of unlawful interference as follows:

*(a)* Preventive measures—

(i) when reliable information exists that an aircraft may be subjected to an act of unlawful interference—

(A) to safeguard the aircraft where it is still on the ground; and

(B) to provide as much prior notification as possible of the arrival of the aircraft to relevant airport authorities and air traffic services of the States concerned where the aircraft has already departed;

(ii) for the aircraft to be searched for concealed weapons, explosives or other dangerous devices, articles or substances having provided prior notification of the search to the operator concerned;

(iii) for arrangements to be made to investigate, render safe or dispose of, where necessary, suspected dangerous devices or other potential hazards at aerodromes;

(iv) for contingency plans to be developed and tested on a regular basis and for adequate resources to be made available to safeguard civil aviation against acts of unlawful interference; and

(v) to ensure authorised and suitably trained personnel are readily available for deployment at its aerodromes serving civil aviation to assist in dealing with suspected or actual cases of unlawful interference in civil aviation;

*(b)* Response—

(i) take appropriate measures for the safety of passengers and crew of an aircraft, which is subjected to an act of unlawful interference, while on the ground in Trinidad and Tobago, until their journey can be continued;

(ii) when responsible for providing air traffic services for an aircraft, which is the subject of an act of unlawful interference, for the collection of all pertinent information on the flight of that aircraft and to transmit that information to all other States responsible for the air traffic services units concerned, including those at the airport of known or presumed destination, so that timely and appropriate safeguarding action may be taken en route and at the known, likely or possible destination of the aircraft;

(iii) provide assistance to an aircraft subjected to an act of unlawful seizure, including the provision of navigation aids, air traffic services and permission to land as may be necessitated by the circumstances;

(iv) take measures, as it may find practicable, to ensure that an aircraft subjected to an act of unlawful seizure which has landed in Trinidad and Tobago is detained on the ground unless its departure is necessitated by the overriding duty to protect human life;

(v) recognise the importance of consultations, wherever practicable, between the State where that aircraft has landed and the State of the Operator of the aircraft, and notification by the Director-General where the aircraft has landed in Trinidad and Tobago to the States of assumed or stated destination;

(vi) notify by the most expeditious means the State of Registry of the aircraft subjected to an act of unlawful interference which has landed in Trinidad and Tobago and the State of the Operator of the landing and shall similarly transmit by the most expeditious means all other relevant information to—

(A) the State of Registry and the State of the Operator;

(B) each State whose citizens suffered fatalities or injuries;

(C) each State whose citizens were detained as hostages;

(D) each State whose citizens are known to be on board the aircraft; and

(E) the International Civil Aviation Organisation; and

*(c)* in the exchange of information and reporting, provide the International Civil Aviation Organisation with all pertinent information

concerning the security aspects of the act of unlawful interference which concerns Trinidad and Tobago, as soon as practicable after the act is resolved.

**INTERNATIONAL CO-OPERATION**

International co-operations. [95/2007].

**4C.** (1) In promoting international co-operation in aviation security, the Director-General may, where he considers it appropriate—

*(a)* ensure that request from other Contracting States for additional security measures in respect to a specific flight by operators of the other State are met, as far as practicable;

*(b)* co-operate with other Contracting States in the development and exchange of information concerning—

(i) national civil aviation security programmes;

(ii) training programmes; and

(iii) quality control programmes;

*(c)* ensure that where procedures are established and implemented, to share with other Contracting States threat information that applies to aviation security interest of those States;

*(d)* establish and implement suitable handling procedures for the protection of security information shared with other Contracting States, in order to ensure that inappropriate use of disclosure of the security information is avoided;

*(e)* promote research and development of new security equipment, processes and procedures with other Contracting States which will better achieve civil aviation security objectives while observing Human Factors principles.

(2) The Director-General may request another Contracting State to provide additional security measures in respect of a specific flight by a national operator.

(3) Where a request is made by the Director-General under subregulation (2), the Director-General shall give consideration to alternative security measures offered by that State that are equivalent to the request.

## PART II

## OPERATOR SECURITY PROGRAMME

Restrictions on aerodrome operators and aircraft operators in respect of security programmes. [95/2009].

**5.** (1) An aerodrome operator shall not operate the aerodrome specified in his aerodrome licence unless he has submitted, for such aerodrome, a proposed Aerodrome Operator Security Programme, which meet the requirements of these Regulations for acceptance and subsequent approval by the Authority.

(2) A person shall not operate a Trinidad and Tobago aircraft within Trinidad and Tobago or internationally unless he has submitted a proposed Aircraft Operator Security Programme for his operations, to the Authority for its acceptance and subsequent approval.

(3) A foreign air operator shall not conduct operations in Trinidad and Tobago unless he has submitted a proposed Aircraft Operator Security Programme as part of his application for an Operations Specifications under the Civil Aviation [(No. 10) Foreign Air Operator] Regulations, to the Authority for its acceptance and subsequent approval. Sub. Leg.

(4) A person shall not operate an enterprise or an organisation whose purpose is the movement of goods by air, within and through Trinidad and Tobago, unless he has submitted a proposed Regulated Agent Security Programme for his operations, to the Authority for its acceptance and subsequent approval.

(5) A person shall not operate an enterprise or an organisation whose purpose is the provision of catering supplies

and stores for use in air transport, within and through Trinidad and Tobago, unless he has submitted a proposed Catering Operator Security Programme for his operations, to the Authority for its acceptance and subsequent approval.

(6) Where a person wishes his proposed security programme under this regulation to be approved by the Authority he shall—

*(a)* submit such security programme in writing at least ninety days before the intended date of operations;

*(b)* pay the prescribed fee;

*(c)* meet the requirements of these Regulations.

(7) A security programme under these Regulations shall—

*(a)* be signed by the applicant;

*(b)* provide for the protection and safety of—

(i) passengers, crew, ground personnel and the general public and their property;

(ii) the aircraft; and

(iii) related aviation support facilities,

in all matters related to safeguarding against acts of unlawful interference with civil aviation; and

*(c)* be capable of responding rapidly to meet any increased security threat.

**ADDITIONAL REQUIREMENTS FOR APPLICATIONS**

Additional requirements for applications under regulation 5.

**6.** (1) Where a person, under regulation 5, submits his security programme as part of his application for—

*(a)* an aerodrome licence under the Act or Regulations made thereunder;

Sub. Leg.

*(b)* an Air Operator Certificate under the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations; and

Sub. Leg.

*(c)* a foreign air operator operations specifications authorisation under the Civil Aviation [(No. 10) Foreign Air Operators] Regulations,

he shall in addition to meeting the requirements of that Regulation, meet the requirements for his security programme under these Regulations.

(2) For the purpose of administering these Regulations a security programme shall be assessed by the Director-General, for adequacy.

Acceptance of a proposed security programme.

**7.** (1) Where the Director-General is satisfied that a proposed security programme submitted under regulation 5, meets the requirements of these Regulations and does not conflict with the National Civil Aviation Security Programme, he may recommend the Authority accept such proposed security programme.

(2) Where the Director-General determines that a proposed security programme submitted under regulation 5, requires modification he may direct the applicant to modify and re-submit the proposed security programme for the acceptance of the Authority.

(3) An acceptance under this regulation does not authorise the aerodrome operator, aircraft operator, regulated agent or catering operator to use his proposed security programme, submitted for approval under these Regulations, in his operations until the implementation of such programme has been evaluated and the programme has been approved for use.

**CONTENTS OF AN AERODROME OPERATOR SECURITY PROGRAMME**

Contents of an Aerodrome Operator Security Programme. [95/2009].

**8.** (1) An Aerodrome Operator Security Programme under regulations 5 and 6 in respect of a licensed aerodrome shall be designed to safeguard against acts of unlawful interference and shall include—

*(a)* the objective of the security programme;

*(b)* a description of the aerodrome;

*(c)* composition and responsibilities of the Aerodrome Security Committee;

*(d)* details of the security measures at the aerodrome;

*(e)* duties and responsibilities of persons who are required by the nature of their duties to be resident at the aerodrome;

*(f)* description of the security and communication procedures;

*(g)* details of the procedures to be followed in response to acts of unlawful interference;

*(h)* details of security training for staff;

*(i)* recruitment and selection of staff; and

*(j)* such other matters as may be required by the Authority.

(2) An Aerodrome Operator Security Programme under subregulation (1), shall be accompanied by a current scale map of the aerodrome under subregulation 21(3).

(3) An Aerodrome Operator Security Programme under subregulation (1) shall be in the manner set out in Schedule 1.

Schedule 1.

**DEVELOPMENT OF SECURITY MEASURES**

Aerodrome operator to develop security measures. [95/2009].

**9.** In developing an Aerodrome Operator Security Programme under regulation 5, an aerodrome operator shall take into consideration—

*(a)* the national civil aviation security programme;

*(b)* the national civil aviation security training programme;

*(c)* the special needs of general aviation, including reasonable access to aerodrome facilities and aircraft; and

*(d)* the optimising of aerodrome security arrangements in his development, renovation and expansion plans.

**APPROVED AERODROME OPERATOR SECURITY PROGRAMME**

Approval of Aerodrome Operator security programme. [95/2009].

**10.** (1) Upon a proposed Aerodrome Operator Security Programme submitted under regulation 5 being accepted by the Authority under regulation 7, an aerodrome operator shall within thirty days of such acceptance ensure that such Aerodrome Operator Security Programme is implemented and in full operation.

(2) Where an aerodrome operator has implemented his accepted Aerodrome Operator Security Programme he shall notify the Authority that he—

*(a)* has implemented such accepted Aerodrome Operator Security Programme; and

*(b)* wishes to commence operations under such implemented Aerodrome Operator Security Programme once it is approved by the Authority.

(3) Where the Director-General is satisfied that the Aerodrome Operator Security Programme implemented in the operations at the aerodrome and the accepted Aerodrome Operator Security Programme of the aerodrome operator are identical he may recommend the Authority approve the Aerodrome Operator Security Programme for full operation in commercial air transport operations.

(4) Notwithstanding subregulation (3), where the Aerodrome Operator Security Programme implemented in the operations of the aerodrome operator and the accepted Aerodrome Operator Security Programme are not identical, but the differences are within an acceptable level the Director-General may recommend the Authority approve such Aerodrome Operator Security Programme subject to a limitation.

**DEVELOPMENT OF SECURITY MEASURES**

**11.** A proposed Aircraft Operator Security Programme under regulations 5 and 6 shall meet the requirements of the National Civil Aviation Security Programme and shall contain measures to ensure that— Aircraft operator security programme to develop security measures. [95/2009].

*(a)* passengers and their carry-on baggage are screened prior to boarding an aircraft engaged in civil aviation operations;

*(b)* transfer and transit passengers and the carry-on baggage of such passengers are subjected to adequate security controls aimed at preventing unauthorised articles from being taken on board an aircraft engaged in civil aviation operations;

*(c)* weapons, incendiary devices or any other dangerous device, the carriage or bearing of which is not authorised and which may be used to commit an act of unlawful interference, are not introduced, by any means whatsoever, on board an aircraft engaged in civil aviation operations;

*(d)* measures are taken to ensure that disembarking passengers do not leave items on board the aircraft at transit stops for such flights;

*(e)* adequate measures are taken to ensure that during flight unauthorised persons are prevented from entering the flight crew compartment;

*(f)* there is no possibility, after the security screening points at aerodromes serving civil aviation operations have been passed, of mixing or contact between passengers subjected to screening and other security control and other persons not subjected to such control;

*(g)* checked baggage is subjected to screening and other appropriate security controls prior to being loaded into an aircraft engaged in civil aviation operations;

*(h)* checked baggage intended for carriage in commercial air transportation operations and general aviation operations flights is protected from unauthorised access, interference and tampering from the point it is screened or checked in whether at an aerodrome or elsewhere, until departure of the aircraft on which it is carried;

*(ha)* re-screening of checked baggage for which security has been jeopardised having been subjected to unauthorised access, interference or tampering;

*(i)* the baggage of passengers who are not on board the aircraft is not transported unless that baggage is subjected to appropriate security controls which may include additional screening and identified as unaccompanied;

*(j)* secured and controlled storage areas are established at aerodromes through which the aircraft operator operates, where mishandled baggage may be held until forwarded, claimed or disposed of in accordance with local laws to ensure that they are not tampered with;

*(k)* consignments checked in as baggage by courier services for carriage on passenger aircraft engaged in civil aviation operations are screened;

*(l)* transfer checked baggage is screened prior to being loaded onto an aircraft to protect against unauthorised interference and to prevent unauthorised articles from being taken on board aircraft engaged in civil aviation operations, except where a validation process has been accepted by the Authority which determined that the baggage has been screened at the point of origin and subsequently protected from unauthorised interference from the originating aerodrome to the departing aircraft at the transfer aerodrome to prevent unauthorised articles from being taken on board aircraft engaged in civil aviation operations;

*(m)* when providing a passenger service only checked baggage which is authorised for carriage in accordance with the requirements specified in the National Civil Aviation Security Programme is transported;

*(n)* procedures are specified for the control of entry of firearms on board an aircraft which ensure that checked firearms are not loaded and are not accessible to passengers during flight time;

*(o)* cargo and mail accepted for transport on an aircraft engaged in commercial air transport operations are subjected to appropriate security controls and protected from interference from the point of screening to loading onto an aircraft;

*(p)* adequate supervision is provided to monitor and control the movement of screened passengers between the boarding gate and the aircraft to prevent screened passengers from coming into contact with unscreened persons;

*(q)* only items of hold baggage which have been individually identified as accompanied or unaccompanied, screened to the appropriate standard, recorded as meeting the criteria and authorised for that flight are accepted for carriage on the flight by an aircraft operator; and

*(r)* procedures are established to deal with unidentified baggage and suspect baggage.

**CONTENT OF SECURITY PROGRAMME**

Contents of Aircraft Operator Security Programme. [95/2009].

**12.** (1) In addition to the matter set out in regulation 11 an aircraft operator shall ensure that his Aircraft Operator Security Programme, required under regulation 5, contains—

*(a)* provisions to meet his international obligations;

*(b)* provisions to meet the requirement of the National Civil Aviation Security Programme and his national obligations under the Act or Regulations made thereunder;

(2) In addition to the requirements under subregulation (1), a national aircraft operator shall ensure that his Aircraft Operator Security Programme contains—

*(a)* a security policy and the procedures for ensuring—

(i) security of passengers and passenger carry-on and checked baggage;

(ii) security of crew, crew carry-on and checked baggage;

*(b)* procedures for—

(i) passenger and checked baggage reconciliation;

(ii) ensuring security of—

(A) his aircraft;

(B) airline catering, stores and supplies;

(C) aircraft cleaning operations;

(D) cargo, courier, express parcels and mail;

(iii) selection and recruitment of staff;

(iv) initial and refresher training of staff;

(v) initial and recurrent background checks; and

(vi) incident reporting;

*(c)* details of contingency planning; and

*(d)* supervision and performance monitoring procedures through the establishment of an internal security management system to meet the security requirements for aerodromes through which he operates.

(3) An Aircraft Operator Security Programme under subregulation (1) shall include details of how he plans to meet the requirements set out in Schedule 2 in the manner set out therein. Schedule 2.

**APPROVAL OF AIRCRAFT OPERATOR SECURITY PROGRAMME**

Aircraft operator to ensure accepted aircraft operator security programme is implemented. [95/2009].

**13.** (1) Upon a proposed Aircraft Operator Security Programme submitted under regulation 5, being accepted by the Authority under regulation 7, the aircraft operator shall within thirty days of such acceptance ensure that such Aircraft Operator Security Programme is implemented and in full operation.

(2) Where an aircraft operator has implemented his accepted Aircraft Operator Security Programme, he shall notify the Authority that he—

*(a)* has implemented such accepted Aircraft Operator Security Programme; and

*(b)* wishes to commence operations under such implemented Aircraft Operator Security Programme once it is approved by the Authority.

(3) Where the Director-General is satisfied that the implemented Aircraft Operator Security Programme implemented in the operations of the aircraft operator and the accepted Aircraft Operator Security Programme are identical, he may recommend the Authority approve the Aircraft Operator Security Programme for full operation in commercial air transport operations and general aviation operations.

(4) Notwithstanding subregulation (3), where the Aircraft Operator Security Programme implemented in the operations of the aircraft operator and the accepted Aircraft Operator Security Programme are not identical, but the differences are within an acceptable level the Director-General may recommend the Authority approve such Aircraft Operator Security Programme subject to a limitation.

**CONTENTS OF A REGULATED AGENT SECURITY PROGRAMME**

Contents of a Regulated Agent Security Programme. [95/2009].

**14.** (1) A regulated agent shall ensure that his Regulated Agent Security Programme, required under regulation 5, contains—

*(a)* provisions to meet his international obligations;

*(b)* provisions to meet the requirement of the National Civil Aviation Security Programme and his national obligations under the Act or Regulation made thereunder; and

*(c)* include details of how he plans to meet the requirements set out in Schedule 3 in the manner set out therein;

Schedule 3.

*(d)* procedures for—

(i) ensuring the security of his goods;

(ii) ensuring the security of his buildings, premises, transport facilities and cargo buildings;

(iii) selection and recruitment of staff;

(iv) initial and refresher training of staff;

(v) initial and recurrent background checks; and

(vi) incident reporting.

(2) A Regulated Agent Security Programme under subregulation (1), shall be set out in the manner specified in Schedule 3. Schedule 3.

**APPROVAL OF REGULATED AGENT SECURITY PROGRAMME**

Approval of Regulated Agent Security Programme.

**15.** (1) Upon a proposed Regulated Agent Security Programme submitted under regulation 5, being accepted by the Authority under regulation 7, the regulated agent shall within thirty days of such acceptance ensure that such accepted Regulated Agent Security Programme is implemented and in full operation.

(2) Where the regulated agent has implemented his accepted Regulated Agent Security Programme in accordance with subregulation (1), he shall—

*(a)* notify the Authority that he has implemented his accepted Regulated Agent Security Programme; and

*(b)* wishes to commence operations under such implemented Regulated Agent Security Programme once it is approved by the Authority.

(3) Where the Director-General is satisfied that the Regulated Agent Security Programme implemented in the operations of the regulated agent and the accepted Regulated Agent Security Programme are identical, he may recommend the Authority approve the Regulated Agent Security Programme, (hereinafter referred to as "an approved Regulated Agent Security Programme") for full operation in the operations of the regulated agent.

(4) Notwithstanding subregulation (3), where the approved Regulated Agent Security Programme implemented in the operations of the regulated agent and the accepted Regulated Agent Security Programme are not identical, but the differences are within an acceptable level the Director-General may recommend the Authority approve such Regulated Agent Security Programme subject to a limitation.

**CONTENTS OF A CATERING OPERATOR SECURITY PROGRAMME**

Contents of a Catering Operator Security Programme. [95/2009].

**16.** (1) A catering operator shall ensure that his Catering Operator Security Programme, required under regulation 5, contains—

*(a)* provisions to meet his international obligations;

*(b)* provisions to meet the requirement of the National Civil Aviation Security Programme and his national obligations under the Act or Regulation made thereunder; and

*(c)* include details of how he plans to meet the requirements set out in Schedule 4 in the manner set out therein;

Schedule 4.

*(d)* procedures for—

(i) ensuring the security of his goods;

(ii) ensuring the security of his buildings, premises, transport facilities and catering buildings;

(iii) selection and recruitment of staff;

(iv) initial and refresher training of staff involved in the handling of goods;

(v) initial and recurrent background checks; and

(vi) incident reporting.

(2) A Catering Operator Security Programme under subregulation (1), shall be set out in the manner specified in Schedule 4.

Schedule 4.

**APPROVAL OF CATERING OPERATOR SECURITY PROGRAMME**

Approval of Catering Operator Security Programme.

**17.** (1) Upon a proposed Catering Operator Security Programme submitted under regulation 5, being accepted by the Authority under regulation 7, the catering operator shall within thirty days of such acceptance ensure that such accepted Catering Operator Security Programme is implemented and in full operation.

(2) Where the catering operator has implemented his accepted Catering Operator Security Programme in accordance with subregulation (1), he shall—

*(a)* notify the Authority that he has implemented his accepted Catering Operator Security Programme; and

*(b)* wishes to commence operations under such implemented Catering Operator Security Programme once it is approved by the Authority.

(3) Where the Director-General is satisfied that the Catering Operator Security Programme implemented in the operations of the catering operator and the accepted Catering Operator Security Programme are identical, he may recommend the Authority approve the Catering Operator Security Programme, (hereinafter referred to as "an approved Catering Operator Security Programme") for full operation in the operations of the Catering Operator.

(4) Notwithstanding subregulation (3), where the Catering Operator Security Programme implemented in the operations of the catering operator and the accepted Catering Operator Security Programme are not identical, but the differences are within an acceptable level the Director-General may recommend the Authority approve such Catering Operator Security Programme subject to a limitation.

**CHANGED CONDITIONS AFFECTING SECURITY**

Procedures where changed conditions affect aerodrome security.

**18.** (1) Where a security programme has been approved under regulations 10, 13, 15 and 17 (hereinafter referred to as "an approved Security Programme"), the aerodrome operator, aircraft operator, regulated agent or catering operator where applicable shall follow the procedures under subregulation (2), whenever he determines—

*(a)* in respect of an aerodrome operator—

(i) any description of the aerodrome area set out in such Aerodrome Operator Security Programme is no longer accurate;

(ii) the changes to the designation of the Aerodrome Security Co-ordinator required under regulation 38;

*(b)* any description of his operations set out in his programme is no longer accurate the procedures included, and the facilities and equipment described, in such Aerodrome Operator Security programme are no longer adequate.

(2) Whenever a condition described in subregulation (1) occurs, the aerodrome operator, aircraft operator, regulated agent or catering operator where applicable shall—

*(a)* immediately notify the Director-General of the changed condition, and identify each interim measure being taken to maintain adequate security until approval is granted for an appropriate amendment to his approved Security Programme; and

*(b)* within thirty days after notifying the Director-General in accordance with paragraph *(a)*, submit for approval in accordance with regulation 19, an amendment to his Security Programme to bring it into compliance with these Regulations.

**AMENDMENT OF APPROVED SECURITY PROGRAMME BY AERODROME OPERATOR, AIRCRAFT OPERATOR, REGULATED AGENT OR CATERING OPERATOR**

Amendments to approved Security Programme.

**19.** (1) Where an aerodrome operator, aircraft operator, regulated agent, or catering operator wishes to amend his approved Security Programme, he shall submit the request for such approval to the Authority at least thirty days before the proposed effective date of intended implementation of the amended approved Security Programme.

(2) When the Director-General is satisfied that the proposed amendment to the approved Security Programme provides the level of security required by these Regulations, he may recommend the Authority approve the amended approved Security Programme.

**AMENDMENT OF APPROVED SECURITY PROGRAMME BY THE AUTHORITY**

Amendment to approved Security Programme upon request by Authority.

**20.** (1) The Director-General may recommend that the Authority require an aerodrome operator, aircraft operator, regulated agent or catering operator amend his approved Security Programme, where he determines that safety and the public interest require the amendment.

(2) Except in an emergency as provided in subregulation (5), where the Authority requires an aerodrome operator, aircraft operator, regulated agent or catering operator amend his approved Security Programme under subregulation (1), the Director-General shall notify the aerodrome operator, aircraft operator, regulated agent or catering agent in writing of the required amendment and allow a period of thirty days from the date contained in the notice, for a written response from such aerodrome operator, aircraft operator, regulated agent or catering operator.

(3) Upon receipt of a notice of a proposed amendment under subregulation (2), the aerodrome operator, aircraft operator, regulated agent or catering operator may submit an alternative amendment to his approved Security Programme which meets the intent of the required amendment under subregulation (2), for consideration by the Director-General.

(4) When the Director-General is satisfied that the alternative amendment submitted under subregulation (3), would provide an overall level of security equal to that required by the Authority, he may recommend the Authority approve the alternative amendment to the approved Security Programme.

(5) Where the Director-General determines that an emergency exists which requires immediate action that makes the procedure in subregulations (2) and (3), impracticable or contrary to the public interest and safety, he may recommend the Authority direct the aerodrome operator, aircraft operator, regulated agent or catering operator to deviate in a specified manner from his approved security programme in the area of concern, for a specified period.

## PART III

## AERODROME SECURITY

### AERODROME OPERATOR RESPONSIBILITIES

General responsibilities of aerodrome operator in relation to his Aerodrome Operator Security Programme. [95/2009].

**21.** (1) An aerodrome operator shall ensure that airport design requirements including architectural and infrastructure related requirements necessary for the implementation of security measures in the national civil aviation security programme are integrated into the design and construction of new facilities and alteration to existing facilities at his aerodrome.

(2) An aerodrome operator shall, prior to the implementation of any renovation and expansion works to his aerodrome or the construction of additional aerodrome facilities at the same location, submit to the Authority a revision of his measures designed to safeguard against acts of unlawful interference which may arise.

(3) Where foreign air operator uses the aerodrome facilities of an aerodrome operator the Director-General may, in co-ordination with the aerodrome operator, recommend the Authority approve an inspection by the authority responsible for aviation security of the Contracting State of such foreign air operator in order to assess the adequacy of the security measures.

(4) An aerodrome operator shall keep at the aerodrome a current scale map of the aerodrome that identifies the restricted areas, security barriers and restricted area access points.

(5) When arranging security controls and procedures at an aerodrome, an aerodrome operator shall take into consideration minimum interference with or delay of the activities of civil aviation provided the effectiveness of such security controls and procedures are not compromised.

(6) An aerodrome operator shall ensure that adequate human and material resources, equipment and facilities are made available to meet the requirements of his approved Aerodrome Security Programme and the National Civil Aviation Security Programme.

**AERODROME SECURITY COMMITTEE**

Requirement to establish Aerodrome Security Committee.

**22.** (1) An aerodrome operator shall establish an Aerodrome Security Committee to ensure the implementation of any national civil aviation security initiatives that may be required by the Authority from time to time.

(2) An Aerodrome Security Committee under subregulation (1), shall comprise—

*(a)* the aerodrome manager;

*(b)* a representative of the aerodrome tenants;

*(c)* a representative of each governmental agency resident at the aerodrome;

*(d)* operators who utilise the aerodrome;

*(e)* a representative of the Air Traffic Control;

*(f)* where applicable, a representative of general aviation and aerodrome security agencies; and

*(g)* any other representatives of the tenants of the aerodrome who the aerodrome operator determines should be included.

(3) The terms of reference for the Aerodrome Security Committee shall be as set out in Schedule 5. Schedule 5.

**AVIATION SECURITY OFFICERS AND AVIATION SCREENING OFFICERS**

Aerodrome operator to provide aviation security officers. [95/2009].

**23.** (1) An aerodrome operator shall provide aviation security officers and aviation screening officers, in the number and in a manner adequate to support—

*(a)* his Aerodrome Operator Security Programme; and

*(b)* each passenger screening system required under this Part IV of these Regulations.

(2) An aerodrome operator shall ensure that an aviation security officer or aviation screening officer employed by him—

*(a)* abstains from the consumption of alcoholic beverages while assigned to duty; and

*(b)* is readily identifiable by uniform and displays or carries a badge or other identification of his authority while assigned to duty; and

*(c)* has completed a training programme that meets the requirements in subregulation (7).

(3) An aerodrome operator shall ensure that an aviation security officer employed by him—

*(a)* is a precepted officer within the meaning of the Supplemental Police Act; and

*(b)* conducts security duties in accordance with the applicable provisions of these Regulations.

(4) An aerodrome operator may have an aviation security officer armed with a firearm while on duty at the aerodrome.

(5) An aviation security officer shall, while on duty at an aerodrome, have the authority to arrest with or without a warrant, for—

*(a)* a crime committed in his presence; or

*(b)* an offence, when he has reason to believe that the suspect has committed such offence.

(6) The training programme required by subregulation (2)*(c)*, shall provide training in the subjects specified in subregulation (7) and meet the training standards for members of the Trinidad and Tobago Police Service performing comparable functions.

(7) The training programme required by subregulation (2)*(c)* shall include training in—

*(a)* the courteous and efficient treatment of persons subject to inspection, detention, search, arrest, and other aviation security activities;

*(b)* the responsibilities of members of the Trinidad and Tobago Police Service under the approved Aerodrome Operator Security Programme; and

*(c)* any other area the Authority determines necessary.

(8) An aerodrome operator shall ensure that an aviation screening officer employed by him—

*(a)* meets the basic selection criteria and qualification for performing aviation screening duties prior to being assigned to conduct the aviation screening duties;

*(b)* meets the training standards required for aviation screening officers established by the Authority and where appropriate, the International Civil Aviation Organisation; and

*(c)* is not assigned to perform any aviation screening functions until properly trained, examined, tested and certified.

**EMPLOYER RESPONSIBILITY FOR AVIATION SECURITY OFFICERS AND AVIATION SCREENING OFFICERS**

Restrictions of the employment of aviation security officers and aviation screening officers. [95/2009].

**24.** (1) An aerodrome operator shall not employ any person as an aviation security officer or aviation screening officer unless—

*(a)* such person meets the requirements of these Regulations;

*(b)* such person has been trained in accordance with the requirements of these Regulations, where his duties are in respect to screening of passengers, crew, baggage and mail;

*(c)* where employed by the aerodrome tenant as an aviation security officer, such person is approved by the aerodrome operator.

(2) An aerodrome operator shall ensure that—

*(a)* initial background checks for the preceding five years and recurrent backgound checks not exceeding a two-year period are performed in respect of each aviation security officer and aviation screening officer; and;

*(b)* initial and recurrent training on aviation security to meet the requirements of these Regulations and his approved Aerodrome Security Programme is received by each aviation security officer and aviation screening officer in his employ.

(3) An aerodrome operator shall keep an accurate current record of the initial and periodic background check, experience and training of an aviation security officer and aviation screening officer in his employ and such record shall be retained for the duration of his employment and thereafter for a period of two years from the date the person ceased to be in his employ.

**USE OF MEMBERS OF THE PROTECTIVE SERVICES**

Requirements for the use of members of the protective services.

**25.** (1) Whenever the number of aviation security officers, required under regulation 23, are not available to meet the requirements of these Regulations, an aerodrome operator may request through the Authority the use of members of the protective services.

(2) A request for the use of members of the protective services under subregulation (1), shall be accompanied by the following information:

*(a)* the number of passengers who boarded at the aerodrome during the preceding year and the current year as of the date of the request;

*(b)* the anticipated risk of criminal violence and acts of unlawful interference including aircraft piracy at the aerodrome involving the operations of aircraft operator at the aerodrome;

*(c)* a copy of that portion of the approved Aerodrome Operator Security Programme of the aerodrome operator which describes the required support from the protective services necessary to comply with these Regulations;

*(d)* an estimate from the aerodrome operator of the number of persons required from the protective services to supplement available aviation security officers and the period of time for which they would be needed; and

*(e)* any other information the Authority considers necessary.

(3) In response to a request submitted in accordance with this regulation, the Director-General may recommend that

the Authority, with the approval of the Minister with responsibility for National Security, approve the assignment of members of the protective services at the aerodrome.

**REQUIREMENT TO SCREEN CARRY-ON BAGGAGE, GOODS OR VEHICLE**

Requirement to screen carry-on baggage,goods or vehicle [95/2009].

**26.** (1) An Aviation Screening Officer employed by an aerodrome operator shall require each person entering or leaving a security restricted area to have his carry-on baggage and any hand-carried items screened and or inspected by an appropriate means or method.

(2) An Aviation Security Officer or an Aviation Screening Officer shall require each person entering and leaving a restricted area to have his hand-carried items, goods and vehicle screened or inspected by an appropriate means or method.

**REFUSAL OF SCREENING**

Procedure on refusal of person to submit to screening.

**27.** (1) Where, after entering a restricted or sterile area, a person who is required by an aviation security officer or aviation screening officer, to submit to screening of his person, goods, vehicle or means of conveyance refuses such a search, the aviation security officer shall order such person to leave the restricted or sterile area and remove the goods, vehicle or means of conveyance in his possession from the restricted or sterile area.

(2) Where, after having boarded an aircraft, a passenger is required by an aviation security officer or aviation screening officer to submit to screening of his person, or of the goods that he carried or had placed on board the aircraft and he refuses such a screening, the aviation security officer shall order such person to disembark the aircraft and remove the carry-on baggage, goods or checked baggage of such person.

**UNACCOMPANIED GOODS**

Treatment of unaccompanied goods.

**28.** Where goods are received at an aerodrome for transport on an aircraft and such goods are not accompanied by a person who

may give the permission to screen such goods, an aviation security officer or aviation screening officer, may carry out an authorised search of the goods in the presence of the aircraft operator concerned or a regulated agent and in carrying out that search may use such force as may reasonably be necessary to gain access to the goods.

**SECURITY INCIDENTS**

Requirement for resident aerodrome security co-ordinator to be notified. [95/2009].

**29.** (1) An aerodrome operator, aircraft operator, aerodrome tenant, catering operator or regulated agent shall immediately notify an aviation security officer or aviation screening officer, when there is—

*(a)* the discovery of an unauthorised firearm other than an unloaded firearm allowed under the security programme of an aircraft operator;

*(b)* the discovery, at the aerodrome, or on board an aircraft, of an explosive substance or an incendiary device or a suspected explosive substance or suspected incendiary device;

*(c)* refusal by a person to submit to the security screening required under these Regulations;

*(d)* refusal by a person to remove himself and his goods from a restricted area when so ordered by an aviation security officer;

*(e)* a report of unattended baggage located in his area of responsibility;

*(f)* a report of suspicious packages, articles or goods in his area of responsibility;

*(g)* a specific threat against the aerodrome comes to his attention.

(2) An aerodrome operator shall investigate any of the reported security incidents set out in subregulation (1), and provide a written report of the incident to the Authority.

(3) An aerodrome operator shall not assign or let any area in the defined sterile area to any person other than an aircraft operator.

**AERODROME TENANT RESPONSIBILITY**

Responsibilities of aerodrome tenants. [95/2009].

**30.** (1) An aerodrome tenant shall develop security measures to manage access to restricted areas under his control in compliance with the Aerodrome Operator Security Programme of the aerodrome and submit the details in writing for the approval of the aerodrome operator.

(2) An aerodrome tenant shall ensure that his personnel receive aerodrome security training or security awareness training as appropriate, in accordance with the approved Aerodrome Operator Security Programme.

(3) An aerodrome tenant shall not use a person as an aviation security officer unless the employment of such person has been approved by the aerodrome operator.

(4) An aerodrome tenant shall provide to the aerodrome operator details of his service providers relating to the provision of security measures for his operations at the aerodrome, including contact details of the person responsible for his security operations.

**SENSITIVE SECURITY INFORMATION**

Prohibition on release of security measures at an aerodrome. [95/2009].

**31.** A person shall not divulge documented sensitive security information in respect of security measures in effect at an aerodrome without the permission of the aerodrome operator.

**FALSE STATEMENTS, ENTRIES OR UNAUTHORISED REPRODUCTION**

Prohibition on making false statements, entries or unauthorised reproductions.

**32.** A person shall not make, or cause to be made, any of the following:

*(a)* a fraudulent or intentionally false statement in any Aerodrome Operator Security Programme or an application for any security programme, access medium, or identification medium;

*(b)* a fraudulent or intentionally false entry in any record or report that is kept, made or used to show compliance with this Part or exercise any privileges under this Part; and

*(c)* a reproduction or alteration of any report, record, security programme, access medium or identification medium issued under this Part without the approval of the aerodrome operator.

**ACCESS CONTROL SYSTEM**

Aerodrome operator to control access to and within aerodrome. [95/2009].

**33.** (1) An aerodrome operator shall ensure that the location and function of restricted areas at the aerodrome are designated and properly defined.

(1A) The areas identified in subregulation (1) shall be prominently identified using appropriate signs that are strategically located at the aerodrome.

(2) The level of access to a restricted or sterile area shall be clearly defined and made known to all persons at the aerodrome whose duties require them to have restricted or sterile areas access.

(3) An aerodrome operator shall include in his approved Approved Aerodrome Operator Security Programme details of a system, method and procedure which shall ensure that—

*(a)* access points into restricted or sterile areas are limited in number and physical access through those points are strictly controlled;

*(aa)* identification of each person is verified at each designated check point before access is allowed to the airside and security restricted areas;

*(b)* entry points which cannot be effectively controlled are locked or otherwise secured against entry by unauthorised persons;

*(c)* access by persons and vehicles to restricted and sterile areas is restricted only to persons who have a clear need for such access by virtue of their duties;

*(d)* security restricted areas not subject to continual access control measures shall be subjected to a thorough search prior to being brought into use;

*(e)* a person whose duties require him to be at the aerodrome is required to have on display on his person, a valid aerodrome identification media and any baggage or item he carries shall be screened before being allowed access to restricted or sterile areas;

*(f)* the screening under paragraph *(e)* shall be to the same standard as that required for passengers, under regulation 26;

*(g)* persons at an aerodrome are aware of what areas they are prohibited access; and

*(h)* the movement of persons and vehicles to and from the aircraft is supervised in security restricted areas to prevent unauthorised access.

(4) Notwithstanding the screening requirements under subregulation 3*(e)*, the Authority may consider screening at certain access points on a random basis depending on the assessed risk where details of such risks are included in an approved Aerodrome Operator Security Programme.

(5) The system under subregulation (2), shall provide a means to differentiate between persons authorised to have access to only a particular portion of the secured areas and persons authorised to have access only to other portions or to the entire secured area and shall be capable of limiting the access of an individual by time and date.

(6) The system under subregulation (2), shall describe the scope of initial and periodic background checks conducted on applicants for all types of passes issued.

**AERODROME IDENTIFICATION MEDIA SYSTEM**

**34.** (1) An aerodrome operator shall ensure that access to a restricted or sterile area of his aerodrome is controlled by the use of an identification media system to—

Aerodrome operator to establish and use aerodrome identification media system. [95/2009].

(i) identify persons including aircraft crew members, and vehicles; and

(ii) facilitate access by such persons and vehicles where authorised.

(1A) The identification media system referred to in subregulation (1) shall—

*(a)* be designed to prevent unauthorised tampering and falsification;

*(b)* be issued for a specific period in accordance with the approved Aerodrome Operator Security Programme; and

*(c)* meet the specifications established by the International Civil Aviation Organisation for identity documents.

(2) An aerodrome operator shall ensure that all persons working at his aerodrome are issued with an aerodrome security identification media by the organisation approved for such purpose and all such persons shall display such identification permit on their person at all times while at the aerodrome.

(3) An aerodrome operator shall not issue to a person an identification medium that allows unescorted access privileges to a restricted or security restricted area unless—

*(a)* a background check and criminal records history checks of the person reveals no criminal records over the past five years; and

*(b)* the person has successfully completed training in accordance with a curriculum specified in his approved Aerodrome Operator Security Programme.

(3A) Background checks referred to in subregulation (3) shall be conducted on a regular basis in accordance with the approved Aerodrome Operator Security Programme.

(4) The curriculum under subregulation (3), shall detail the methods of instruction and shall include—

*(a)* control, use and display of approved aerodrome security identification media;

*(b)* procedures by aviation security officers, aviation screening officers and members of the protective services for dealing with perceived unauthorised access;

*(c)* restrictions on disclosure of information concerning an act of unlawful interference with civil aviation where such information is likely to jeopardise the safety of domestic or international aviation;

*(d)* non-disclosure of information regarding the aerodrome security system or any security system of an aerodrome tenant; and

*(e)* any other topic deemed necessary by the Authority.

(5) A person shall not use an aerodrome identification medium that provides unescorted access to a security restricted area to gain such access unless that medium was issued to such person by the aerodrome operator.

(6) An aerodrome operator shall keep a record of all training given to each person under this regulation for twelve months after the termination of the unescorted access privileges of that person.

**DIRECTOR-GENERAL AND INSPECTOR TO HAVE UNRESTRICTED ACCESS TO AERODROMES**

**34A.** Notwithstanding the requirements under regulation 34 the Director-General and Inspectors designated by him shall have free, unrestricted and uninterrupted access to all areas of an aerodrome for the purposes of performing their duty under the authority of a credentials or warrant issued by the Authority for that purpose.

Director-General and Inspector to have unrestricted access to aerodromes. [95/2009].

**SECURITY OF AIR OPERATIONS AREA**

**35.** (1) An aerodrome operator of an aerodrome serving scheduled passenger operations shall perform the following control functions:

*(a)* control of access to each air operations area, including methods for preventing the entry of unauthorised persons and ground vehicles;

Requirements of aerodrome operator when conducting passenger screening on behalf of aircraft operator. [190/2006 95/2009].

*(b)* control of movement of persons and ground vehicles within each air operations area, including, when appropriate, requirements for the display of security identification;

*(c)* detection and taking action to control each entry, or attempted entry to an air operations area by a person whose entry is not authorised under his approved Aerodrome Operator Security Programme; and

*(d)* random screening of a proportion of persons granted unescorted access to each air operations area, together with items carried, other than passengers.

(2) An aerodrome operator is not required to comply with subregulation (1), with respect to an exclusive area under the control of the aircraft operator, where the aerodrome operator is satisfied that the aircraft operator has included the following in his approved Aircraft Operator Programme:

*(a)* a description of the procedure to satisfy the control functions under subregulation (1);

*(b)* a description of the facilities and equipment, used by the aircraft operator to perform the control functions described in subregulation (1); and

*(c)* procedures by which the aircraft operator will notify the aerodrome operator when his procedures, facilities, and equipment are not adequate to perform the control functions described in subregulation (1).

(3) An aerodrome operator shall prohibit the consumption of all alcoholic beverage in the Airside or other restricted areas of an aerodrome.

(4) Notwithstanding subregulation (3), an aerodrome operator may permit the consumption of alcoholic beverage in the Airside or other restricted areas at an aerodrome in a lounge

exclusively used by air operators, special categories of passengers and very important persons, where the aerodrome operator satisfies the following requirements in his Aerodrome Operator Security Programme:

*(a)* a description of the procedure to control access, including method of preventing entry of unauthorised persons;

*(b)* a description of the procedure to control the consumption of alcoholic substances to ensure no person becomes intoxicated; and

*(c)* a description of the procedures by which the aerodrome operator will notify the Authority when his procedures and facilities are not adequate to perform the control functions specified in paragraphs *(a)* and *(b)*.

(5) An aerodrome operator shall not hold any public functions in the Airside or any other restricted areas of the aerodrome.

(6) Notwithstanding subregulation (5), the Director-General may recommend that the Authority authorise an aerodrome operator to hold a public function in the Airside or a restricted area of an aerodrome where—

*(a)* the aerodrome operator submits an application in writing to the Authority with all pertinent details of the public function and the proposed additional security measures that would be implemented to maintain the required standard of safety and security at the aerodrome; and

*(b)* the Director-General has determined that the proposed additional security measures would not adversely affect safety and security at the aerodrome.

**RECORDS**

**36.** (1) An aerodrome operator shall ensure that a detailed record is kept of every security incident that occurred at his aerodrome.

Requirement of aerodrome operator to keep records. [95/2009].

*L.R.O.*

(2) A record required to be kept under subregulation (1), shall—

*(a)* be kept for a minimum period of ten years, or for such period that may be directed by the Authority;

*(b)* be made available to the Authority upon request; and

*(c)* include the number—

(i) and type of weapons and incendiary devices discovered during any passenger screening process and the method of detection of each;

(ii) of acts and attempted acts of air piracy;

(iii) of bomb threats received, real and simulated bombs found and actual bombings at the aerodrome; and

(iv) of detentions and arrests and the immediate disposition of each person detained or arrested.

**EVIDENCE OF COMPLIANCE**

Aerodrome operator to provide evidence of compliance.

**37.** On request of the Director-General, an aerodrome operator shall provide evidence of compliance with this Part and his approved Aerodrome Operator Security Programme.

**AERODROME SECURITY CO-ORDINATOR**

Designation of aerodrome security co-ordinator. [95/2009].

**38.** (1) An aerodrome operator shall employ a suitably qualified and trained person as an Aerodrome Security Co-ordinator for the management and co-ordination of the implementation of security controls at his aerodrome.

(2) An aerodrome operator shall designate, in his approved Aerodrome Operator Security Programme, an officer in his organisation as the Aerodrome Security Co-ordinator, who shall be available at all times.

(3) An Aerodrome Security Co-ordinator shall serve as the primary contact of the aerodrome operator for security-related activities and communications with the Director-General, as set forth in the approved Aerodrome Operator Security Programme.

(4) An Aerodrome Security Co-ordinator referred to under subregulation (1) shall be responsible for the development, implementation and maintenance of the approved Aerodrome Operator Security Programme for the aerodrome where he is employed.

**MEASURES IN THE EVENT OF SPECIFIC THREAT AT AERODROME**

Aerodrome operator to take necessary measures in event of specific threat at aerodrome. [95/2009].

**39.** (1) Where an aerodrome operator determines that a specific threat that jeopardises the security of his aerodrome exists, he shall immediately take all of the measures necessary to ensure the safety of the aerodrome and persons at the aerodrome, including informing the appropriate protective service and the Authority of the nature of the threat.

(2) Where under subregulation (1) an aerodrome operator—

*(a)* implements measures, the aerodrome operator shall notify the Authority as soon as practicable; or

*(b)* proposes to implement measures, the aerodrome operator shall endeavour to notify the Authority of those measures prior its implementation,

and shall specify the time period for which the measures will be implemented.

(3) An aerodrome operator shall immediately inform the Authority on receipt of a bomb threat or any other threat that jeopardises the safety against a specific aircraft which is at his aerodrome or which is en route to his aerodrome.

**OBLIGATION OF AERODROME OPERATOR WHERE THREAT IS AGAINST FACILITIES OR AERODROME**

Obligation of aerodrome operator where threat is against facility or aerodrome. [95/2009].

**40.** An aerodrome operator who is made aware of a threat against his facility or any part of his aerodrome that is under the control of a person carrying on any activity at his aerodrome, other than the aerodrome operator, he shall immediately—

*(a)* notify the person of the nature of the threat; and

*(b)* determine whether there is a specific threat that jeopardises the security of the aerodrome.

**PERSON AUTHORISED TO SCREEN TO INFORM AERODROME OPERATOR OF THREAT AGAINST AERODROME**

Person authorised to screen to inform aerodrome operator of threat against aerodrome.

**41.** Where a person authorised to conduct any screening activity at an aerodrome is made aware of a threat against the aerodrome, such person shall—

*(a)* immediately notify the aerodrome operator of the nature of the threat; and

*(b)* assist the aerodrome operator in determining whether there is a specific threat that jeopardises the security of the aerodrome.

**42.** ***(Revoked by LN 95/2009).***

**DISCOVERY OF WEAPONS, INCENDIARY DEVICES OR EXPLOSIVES AT AERODROME**

Aerodrome operator to notify Authority on discovery of weapons, incendiary devices or explosives at aerodrome. [95/2009].

**43.** (1) An aerodrome operator shall immediately notify the Authority when there is—

*(a)* the discovery, at the aerodrome, of a weapon, other than an unloaded firearm allowed under regulation 29(1)*(a)* or 49;

*(b)* the discovery, at the aerodrome, of an explosive substance or an incendiary device, other than an explosive substance or incendiary device allowed under the Act or regulations made thereunder;

*(c)* an explosion at the aerodrome, unless the explosion is known to be the result of an excavation, a demolition, construction or the use of fireworks displays; or

*(d)* a specific threat against the aerodrome.

(2) An aerodrome operator shall ensure that arrangements are made to investigate, render safe or dispose of, where necessary, suspected explosive or incendiary devices or other potential hazards at his aerodrome.

**AERODROME OPERATOR TO KEEP MAP OF AERODROME**

**44.** An aerodrome operator shall keep at the aerodrome a current map to scale of the aerodrome that identifies the restricted and sterile areas, security barriers and restricted area access points and sterile area access points.

Aerodrome operator to keep map of aerodrome. [95/2009].

**AERODROME OPERATOR TO PROVIDE INFORMATION AND MAP OF AERODROME**

**45.** (1) The aerodrome operator shall provide to the Authority, on reasonable notice given by the Authority, written or electronic records or other information relevant to the security of the aerodrome, including—

Aerodrome operator to provide information and map of aerodrome to Authority. [95/2009].

*(a)* information concerning the method of implementing the security measures that apply to the aerodrome operator under regulation 5(1); and

*(b)* a copy of the scale map referred to in regulation 44.

(2) An aerodrome operator shall provide the Authority with written notice of any new commercial air transportation service that is to commence operations at his aerodrome.

**PART IV**

## AIRCRAFT OPERATOR SECURITY

**REQUIREMENT OF AIRCRAFT OPERATOR SECURITY PROGRAMME**

**46.** An aircraft operator having an approved Aircraft Operator Security Programme shall—

Requirement of Aircraft Operator Security Programme. [95/2009].

*(a)* maintain one complete copy of his approved Aircraft Operator Security Programme at his principal business office;

*(b)* maintain a complete copy or the pertinent portions of his approved Aircraft Operator Security Programme at each aerodrome where security screening is being conducted;

*(c)* make the documents under paragraphs *(a)* and *(b),* available for inspection upon request by the Director-General; and

*(d)* restrict the distribution, disclosure, and availability of sensitive security information and his approved Aircraft Operator Security Programme only to persons who by their defined roles in the programme require to have such information for the performance of their function.

**SCREENING OF PASSENGERS AND PROPERTY**

Security requirements of national aircraft operator. [95/2009].

**47.** (1) An aircraft operator shall conduct screening of—

*(a)* originating passengers, transit passengers, transfer passengers and crew travelling on his aircraft;

*(b)* carry-on baggage of persons under paragraph *(a);*

*(c)* checked baggage of persons under paragraph *(a)*; and

*(d)* other goods in the hold of his aircraft.

(2) Notwithstanding subregulation (1), an aircraft operator may authorise in writing the aerodrome operator of the aerodrome from which he operates or any other person to conduct the screening functions set out in his approved Aircraft Operator Security Programme.

(3) In giving an authorisation to an aerodrome operator or any other person under subregulation (2), the aircraft operator shall further instruct such aerodrome operator or person, to prohibit any passenger refusing to be screened from entry onto any of his aircraft.

(4) An aircraft operator or person authorised by him under subregulation (1), shall use the procedures and the facilities and equipment described in his Aircraft Operator Security Programme—

*(a)* to prevent or deter the carriage of any weapon, explosive or incendiary device or any dangerous articles or substances which may be used to

commit an act of unlawful interference on or about the person of an individual or accessible property and the carriage of any weapon or incendiary device in checked baggage on aircraft;

*(b)* to detect the existence of a weapon or incendiary device, to inspect each person entering a sterile area at each pre-boarding screening check point and to inspect all accessible property under the control of such person; and

*(c)* to perform the following control functions with respect to each aircraft operation for which screening is required:

(i) prohibit unauthorised access to the aircraft;

(ii) ensure that baggage carried on an aircraft is checked in by an authorised and properly trained agent and that appropriate identification is obtained and verified from all passengers and persons shipping goods or cargo on board the aircraft;

(iii) ensure that cargo and checked baggage carried on board the aircraft are handled in a manner that prohibits unauthorised access from the point of acceptance to loading onto the aircraft;

(iv) conduct an aircraft security search of the interior and exterior of the aircraft before placing it in service; and

(v) where an aircraft has been left unattended after an aircraft security search was accomplished, the aircraft security search shall be performed again before flight.

(5) An aircraft operator shall refuse to transport—

*(a)* any person who does not consent to an authorised search of his person when required to do so by the aircraft operator or person authorised to conduct such searches on his behalf; and

*(b)* any property of any person who does not consent to a search, screening or inspection of that property in accordance with the screening system prescribed by subregulation (1).

(6) An aircraft operator shall ensure that screening check point areas are properly served with properly trained supervisory and non-supervisory personnel in adequate numbers and in accordance with the standards specified in his Aircraft Operator Security Programme.

(7) An aircraft operator shall take measures to ensure that passengers disembarking from an aircraft at any time do not leave items on board the aircraft.

**PREVENTION AND MANAGEMENT OF HIJACKINGS AND SABOTAGE ATTEMPTS**

Aircraft operator to prevent and manage hijackings and sabotage attempts. [95/2009].

**48.** (1) An aircraft operator shall—

*(a)* assign an appropriately qualified and trained person as a Ground Security Co-ordinator to co-ordinate the ground security duties specified in his approved Aircraft Operator Security Programme;

*(b)* designate the pilot in command as the In-flight Security Co-ordinator for each flight, as required by his approved Aircraft Operator Security Programme to co-ordinate activities in response to threats of acts of unlawful interference;

*(c)* conduct an aircraft security search of the interior and exterior of aircraft for the purpose of discovering suspicious objects, weapons, explosives or other dangerous devices, articles or substances prior to the boarding of passengers and the loading of baggage, cargo, mail, stores and catering;

*(d)* conduct an aircraft security check of the interior and exterior of aircraft to which passengers may have had access and conduct an inspection of

the hold in order to discover suspicious objects, weapons, explosives or other dangerous devices, articles or substances;

*(e)* take the necessary measures to ensure that passengers disembarking from an aircraft at any time do not leave items on board;

*(f)* ensure that the aircraft subjected to security measures referred to in paragraphs *(c)* and *(d)* are protected from unauthorised interference from the time the search or check has commenced until the aircraft departs;

*(g)* ensure that appropriate measures are taken during flight to prevent unauthorised persons from entering the flight crew compartment;

*(h)* ensure that the aircraft security search or check referred to in paragraphs *(c)* and *(d)* are documented on a checklist, a copy of which must be presented to the pilot in command;

*(i)* develop the checklist referred to in paragraph *(h)* in accordance with the guidance established in the International Civil Aviation Organisation's Security Manual for Safeguarding Civil Aviation against Acts of Unlawful Interference, Document 8973;

*(j)* ensure that only items of hold baggage which have been individually identified as accompanied or unaccompanied, using a verifiable tracking system and authorised for carriage on that flight are accepted for carriage on the specific flight;

*(k)* verify the identity of each passenger by examining their travel documents at the point of check-in and at the time of boarding the aircraft;

*(l)* ensure that security controls are applied to an aircraft when the aircraft is not in the security restricted area to prevent unauthorised access;

*(m)* ensure that all items of hold baggage under paragraph *(j)* are screened;

*(n)* ensure that passengers and cabin baggage which have been screened are protected from unauthorised interference from the point of screening until they board the aircraft;

*(o)* ensure that where mixing or contact takes place, with passengers and their cabin baggage that the passengers concerned and their cabin baggage must be re-screened before boarding the aircraft; and

*(p)* ensure that measures are taken to deal with unidentified baggage in accordance with the approved Aerodrome Operator Security Programme from which he operates.

(2) Notwithstanding the measures required under subregulation (1), in applying security measures for the prevention and management of hijackings and sabotage attempts under this regulation, an aircraft operator or the aerodrome operator shall ensure that the measures set out in Schedule 6 and other measures prescribed by the Authority from time to time are applied in the manner specified.

Schedule 6.

(3) An aircraft operator shall, where directed by the Director-General, permit and facilitate the carriage of an in-flight security officer on specific flights to prevent—

*(a)* unauthorised persons from gaining access to the flight deck; and

*(b)* hijackings and other criminal acts on board the aircraft.

(4) An in-flight security officer under this section, where required to be on board a flight, shall—

*(a)* prevent unauthorised persons from gaining access to the flight deck and prevent hijackings and other criminal acts on board the aircraft; and

*(b)* conduct a crew briefing prior to departure to ensure the flight crew and cabin crew understand his role on board the aircraft.

**CARRIAGE OF WEAPONS**

Requirement of aircraft operator to prohibit the carriage of weapons by passengers on board an aircraft. [95/2009].

**49.** (1) An aircraft operator required to conduct screening under an approved Aircraft Operator Security Programme shall not permit any person to have, nor may any person have, on or about his person or property, a weapon, either concealed or unconcealed, accessible to him while on board an aircraft.

(2) Subregulation (1), shall not apply to an in-flight security officer required to be on board under regulation 48.

(3) A person shall not, while on board an aircraft operated by an aircraft operator, carry on or about his person, a weapon, either concealed or unconcealed.

(4) An aircraft operator shall not knowingly permit any person to transport, nor shall any person transport or tender for transport, a weapon, incendiary device or loaded firearm on his person or in carry-on baggage in the cabin of an aircraft.

(5) For the purpose of this regulation, "a loaded firearm" means a firearm, which has inserted in it a live round of ammunition, cartridge, detonator or powder in the chamber or in a clip, magazine or cylinder.

(6) An aircraft operator shall not knowingly permit any person to transport, nor may any person transport or tender for transport, any firearm in checked baggage on board an aircraft unless—

*(a)* such person declares to the aircraft operator, either orally or in writing before tendering the baggage for the purpose of being checked in that he has a firearm carried in his checked baggage and it is unloaded;

*(b)* a suitably qualified and trained person verify that the firearm is unloaded;

*(c)* the firearm is transported in an appropriate container or case and is locked to prevent unauthorised access;

*(d)* the checked baggage or container containing the firearm is loaded on the aircraft in an area that is inaccessible to passengers; and

*(e)* such person presents—

(i) a licence for the firearm from the State that permitted him to have in his possession the firearm;

(ii) an export licence for the firearm from the State of departure; and

(iii) an import licence for the firearm to the State of destination.

(7) Where a firearm to be transported in checked baggage but is not secured in such checked baggage it shall be carried in the hold of the aircraft, in a container that the aircraft operator considers appropriate for air transportation.

(8) Where an aircraft operator is granted approval by the Authority to transport unloaded firearms in the hold of his aircraft, the aircraft operator shall notify all passengers in writing or by placing appropriate signage at the point of check-in, relating to the declaration and transportation of firearms.

**USE OF X-RAY SYSTEMS**

Requirements for the use of X-ray systems by an aircraft operator. [95/2009].

**50.** (1) An aircraft operator or person authorised to conduct screening on his behalf, shall not use an X-ray system within Trinidad and Tobago to inspect carry-on or checked baggage unless specifically authorised under an approved Aircraft Operator Security Programme required by regulation 12 or use such a system contrary to his approved Aircraft Operator Security Programme.

(2) An aircraft operator may be authorised by the Authority, to use X-ray systems for inspecting carry-on or

checked baggage under an approved Aircraft Operator Security Programme where he shows that—

*(a)* his X-ray system complies with the standards for cabinet X-ray systems designed primarily for the inspection of carry-on and checked baggage and meets the performance requirements set out in of Schedule 7A and has been appropriately calibrated;

*(b)* a programme for initial and recurrent training and certification of operators of the system is established, which includes training in radiation safety, the efficient use of X-ray systems, and the identification of weapons and other dangerous articles and approved by the Authority; and

*(c)* the system meets the imaging requirements described in the approved Aircraft Operator Security Programme in accordance with the combined test requirements set out in of Schedule 7B.

(3) An aircraft operator shall ensure that an X-ray system is not used—

*(a)* unless within the preceding twelve months, a radiation survey has been conducted which show, that the system meets the applicable performance standards or guidelines prescribed by the Director-General;

*(b)* after the system is initially installed or after it has been moved from one location to another, unless a radiation survey is conducted which shows that the system meets the applicable performance standards or guidelines prescribed by the Director-General; and

*(c)* to inspect carry-on or checked articles unless appropriate signs are posted in a conspicuous place at the screening checkpoint which—

(i) notifies passengers that security measures are being taken to screen and or inspect passengers and all carry-on items;

(ii) notifies passengers that persons refusing to subject themselves and or their carry-on items to screening will not be allowed beyond the screening checkpoint;

(iii) advises passengers of items which are not permitted beyond the screening checkpoint;

(iv) notifies passengers that such items are being inspected by an X-ray and advises them to remove all X-ray, scientific and high-speed film from carry-on and checked baggage before inspection; and

(v) advises passengers that an inspection may be made of their photographic equipment and film packages without exposure to an X-ray system.

(4) Where the X-ray system under subregulation (2)*(c)*, exposes any carry-on or checked articles to more than 1 milliroentgen during the inspection, the aircraft operator shall post a sign which advises passengers to remove film of all kinds from their baggage before inspection.

(5) Where a passenger requests his photographic equipment and film packages be inspected without exposure to an X-ray system under subregulation (3)*(c)*(ii), such photographic equipment and film packages shall be inspected without exposure to an X-ray system.

(6) An aircraft operator shall maintain at least one copy of the results of the most recent radiation survey conducted under

subregulation (3) and shall make it available for inspection upon request by the Authority at each of the following locations:

*(a)* the principal business office of the aircraft operator; and

*(b)* the place where the X-ray system is in operation.

(7) An aircraft operator shall ensure that screening staff comply with X-ray operator duty time limitations specified in his Aircraft Operator Security Programme.

**SECURITY THREATS AND PROCEDURES**

Obligations of an aircraft operator where there is specific threat to aircraft or flight. [95/2009].

**51.** (1) Where an aircraft operator determines that there is a specific threat which jeopardises the security of an aircraft on the ground or in flight, he shall immediately take all of the measures necessary to ensure the safety of the aircraft, passengers and crew on board such aircraft, including—

*(a)* informing the pilot in command, the crew members assigned to the aircraft or flight, the aerodrome operator and the appropriate protective service of the nature of the threat;

*(b)* where the aircraft is on the ground, moving such aircraft to a place of safety at the aerodrome according to the directions of the aerodrome operator; and

*(c)* an aircraft security search or check as necessitated by the nature of the threat and screening of the passengers and goods on board the aircraft, unless the aircraft search or check and screening is likely to jeopardise the safety of the passengers and crew members.

(2) Where the aircraft, under subregulation (1), is on the ground, the pilot in command shall comply with any direction given by the aerodrome operator under subregulation 1*(a)*, or a member of the appropriate protective service, unless complying with such direction is likely to jeopardise the safety of the passengers and crew members.

(3) Immediately upon receiving information that an act or suspected act of unlawful interference has been committed, the aircraft operator shall immediately notify the Authority.

(4) Where an aircraft operator determines that there is a specific threat which jeopardises the security of a facility or part of an aerodrome under his control, he shall immediately take all of the measures necessary to ensure the safety of the facility or part of the aerodrome and persons at the facility or aerodrome, including informing the aerodrome operator and the appropriate protective service of such threat.

(5) Where the aircraft under subregulation (3), is in airspace within the jurisdiction of a State other than Trinidad and Tobago, the aircraft operator shall also notify the appropriate authority of the State in whose territory the aircraft is located and, if the aircraft is in flight, the appropriate authority of the State in whose territory the aircraft is to land.

(6) Upon receipt of a bomb threat against a specific aircraft, each aircraft operator shall attempt to determine whether or not any explosive or incendiary device is aboard the aircraft involved by doing the following:

*(a)* conducting an aircraft security search on the ground before the next flight or, where the aircraft is in flight, immediately after its next landing;

*(b)* where the aircraft is being operated on the ground, advising the pilot in command to immediately submit the aircraft for an aircraft security search; and

*(c)* where the aircraft is in flight, immediately advising the pilot in command of all pertinent information available so that necessary emergency action can be taken.

(7) Immediately notify the appropriate air traffic control authority of the nature of the threat.

**REPORTING OF SECURITY INCIDENTS**

An aircraft operator to notify where Authority in specific circumstances. [95/2009].

**52.** (1) An aircraft operator shall immediately notify the Authority when there is—

*(a)* a hijacking or attempted hijacking of an aircraft;

*(b)* the discovery, on board an aircraft, of a weapon, other than an unloaded firearm allowed under regulation 29(1)*(a)* or 49;

*(c)* the discovery, on board an aircraft, of an explosive substance or an incendiary device, other than an explosive substance or incendiary device allowed on board the aircraft under the Act or Regulations made thereunder;

*(d)* an explosion on an aircraft; or

*(e)* a specific threat against an aircraft, a flight or a facility or part of an aerodrome under its control.

(2) An aircraft operator shall immediately notify the aerodrome operator and the Authority when a weapon other than a firearm allowed under regulation 29(1)*(a)*, or 49, is detected in any part of the aerodrome under its control.

(3) An aircraft operator shall immediately notify the aerodrome operator and the Authority when a weapon or other dangerous devices, articles or substances which may be used to commit an act of unlawful interference is discovered in any area beyond a screening checkpoint or security restricted area.

**PERSON AUTHORISED TO CONDUCT SCREENING ACTIVITIES**

Obligation of person authorised to conduct screening activities. [95/2009].

**53.** (1) A person authorised to conduct screening activities shall immediately notify the appropriate aircraft operator, aerodrome operator, the Trinidad and Tobago Police Service and the Authority when any of the following is detected at a restricted area access point or security restricted area where screening is conducted of persons and carry-on baggage and other articles in the possession or control of persons who are screened:

*(a)* a weapon, other than a weapon allowed under regulation 29(1)*(a)* or 49;

*(b)* an explosive substance, other than—

(i) ammunition carried by a person allowed to carry or have access to a weapon or firearm under regulation 29(1)*(a)* and 49;

(ii) an explosive substance allowed under the Act or Regulations made thereunder; or

*(c)* an incendiary device, other than an incendiary device allowed under the Act or Regulations made thereunder.

(2) A person authorised to conduct screening activities shall immediately notify the appropriate aircraft operator, the aerodrome operator, the regulated agent, the catering operator, the appropriate protective service and the Authority when any of the following is detected in checked baggage:

*(a)* a loaded firearm;

*(b)* an explosive substance, other than ammunition; or

*(c)* an explosive or incendiary device.

**SECURITY INFORMATION**

An aircraft operator to provide Authority with information on the security of his operations.

**54.** An aircraft operator shall where the Authority provides reasonable notice, provide the Authority, with a written or electronic record or other information relevant to the security of his operations, including—

*(a)* information concerning the method of implementing the security measures that apply to the aircraft operator under regulation 5(2); and

*(b)* a description of the nature of operations related to a particular flight and the services provided in respect of the flight.

**PROVISION OF INFORMATION TO THE AUTHORITY ON THE SECURITY OF OPERATIONS BY SERVICE PROVIDERS**

Persons who provide services to an aircraft operator and who transport goods to provide Authority with information on the security of their operations. [95/2009].

**55.** A person who provide services to an aircraft operator and a person who provides a service related to the transportation of goods by air, shall provide to the Authority, on reasonable notice given by the Authority, written or electronic records or other

information relevant to the security of the operations of the aircraft operator, including—

*(a)* information concerning the method of implementing the security measures that apply to those persons under regulation 5(2);

*(b)* a description of the nature of the operations related to a particular flight and the services provided in respect of the flight; and

*(c)* any other information related to aviation security.

**PROVISION OF INFORMATION TO THE AUTHORITY ON THE SECURITY OF OPERATIONS BY SCREENING PERSONNEL**

Persons authorised to screen on behalf of aircraft operator to provide Authority with information on the security of his operations.

**56.** A person authorised to perform screening on behalf of an aircraft operator shall provide to the Authority, on reasonable notice given by the Authority, written or electronic records or other information relevant to the security of his screening operations, including—

*(a)* information concerning the method of implementing the security measures that apply to it under regulation 5(2); and

*(b)* a description of the nature of the screening operations related to a particular flight or at a particular aerodrome.

**USE OF EXPLOSIVES DETECTION SYSTEMS**

National aircraft operator to use explosive detections system to screen checked baggage.

**57.** Where required by the Authority, an aircraft operator required to conduct screening under a security programme shall use an explosive detection system that has been approved by the Authority to screen checked baggage in accordance with his Aircraft Operator Security Programme.

**CARRIAGE OF PASSENGERS UNDER THE CONTROL OF UNARMED OFFICER OF THE PROTECTIVE SERVICES**

Procedures for the carriage of passengers in the custody of escort officer. [95/2009].

**58.** (1) An aircraft operator required to conduct screening under a security programme may carry a passenger in the custody

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of an officer of the protective services (hereinafter called an "escort officer") on board an aircraft.

(1A) The State agency requesting the carriage of a person subjected to judicial or administrative proceedings shall inform the aircraft operator prior to the departure date of the person, the nature of the escort, including the results of any risk assessment carried out to determine the number of escorts required, the use of restraining devices and any special boarding and disembarking requirements not required under this regulation.

(2) An aircraft operator shall ensure that prior to departure—

*(a)* the escort officer, under subregulation (1), is equipped with adequate restraining devices to be used in the event restraint of any passenger under his control becomes necessary;

*(b)* each passenger under the control of the escort officer under subregulation (1), has been searched and does not have on or about his person or property anything that can be used as a weapon;

*(c)* a passenger under the control of an escort officer, under this regulation, is—

(i) boarded before any other passengers when boarding at the aerodrome from which the flight originates and deplaned at the destination after all other deplaning passengers have deplaned;

(ii) seated in the rear-most passenger seat when boarding at the aerodrome from which the flight originates; and

(iii) seated in a seat that is neither located in any lounge area nor located close to or directly across from any exit; and

*(d)* an escort officer and his escorted passengers shall be seated only in a row of two or more seats and at least one escort officer shall sit between the escorted passenger and any aisle.

(3) An aircraft operator operating an aircraft under subregulation (1), shall—

*(a)* not serve food, beverage, or provide eating utensils made of metal to a passenger under the control of an escort officer while on board such aircraft unless authorised to do so by the escort officer; or

*(b)* not serve an escort officer or the passenger under the control of the escort officer any alcoholic beverages while on board such aircraft;

*(c)* ensure that the pilot in command and the cabin crew are informed of—

(i) the names and assigned seats of persons under escort and the names of the escorting officers; and

(ii) the reason for the escort officers.

(4) An escort officer carried under the provisions of subregulation (1), shall, at all times, accompany the passenger under his control and keep the passenger under surveillance while on board the aircraft including visits to the lavatory.

(5) Where an escort officer is transported under this regulation, the aircraft operator shall ensure that such escort officer or any passenger under the control of such escort officer are not served and do not consume alcoholic beverages while on board the aircraft.

(6) This regulation shall not apply to the carriage of passengers under voluntary protective escort.

(7) An aircraft operator shall not conduct a flight with a passenger on board who refuses to submit to a screening, required under these Regulations, or while the carry-on or checked baggage of such person is on board his aircraft.

(8) A foreign aircraft operator shall not conduct a flight within Trinidad and Tobago with a passenger on board who

refuses to submit to a screening, required under these Regulations or while the carry-on or checked baggage of such person is on board his aircraft.

(9) Where a pilot in command of an aircraft has reasonable grounds to believe that a person on board an aircraft is in violation of any regulation under this Part or is a potential risk to the safety of the passenger and crew on board the aircraft he may order the person to disembark the aircraft.

**TRAINING**

Restrictions on use of persons as Security Co-ordinator by a national aircraft operator. [95/2009].

**59.** (1) An aircraft operator shall not use any person as a Security Co-ordinator unless, within the preceding twelve months, such person has satisfactorily completed the required security training specified in the National Civil Aviation Security Training Programme and any other training in his approved Aircraft Operator Security Programme.

(2) A national aircraft operator shall not use any person as a crew member on any domestic or international flight unless within the preceding twelve months that person has satisfactorily completed the security training specified in the National Civil Aviation Security Training Programme, required under these Regulations or specified in his approved Aircraft Operator Security Programme.

(3) An aircraft operator shall not use any person as an—

*(a)* Aviation Screening Officer to perform any screening functions unless, within the preceding twelve months, that person has successfully completed the security training specified in the National Civil Aviation Security Training Programme and was tested and certified by the Authority;

*(b)* Aviation Security Officer to perform any aviation security functions unless, within the preceding twelve months, such person has satisfactorily completed security training

specified in the National Civil Aviation Security Training Programme or as specified in his approved Aircraft Operator Security Programme; or

*(c)* Aviation Security Instructor to deliver the security training specified in the National Civil Aviation Security Training Programme or his approved Aircraft Operator Security Programme unless, within the preceding twelve months, such person has met the basic qualifications for those duties as specified by the Authority and has been assessed and certified by the Authority.

(4) An aircraft operator shall develop and implement aviation security training programmes to meet the requirements of the National Civil Aviation Security Training Programme and any other training required under these Regulations.

(5) An aviation security training programme under subregulation (4) shall be submitted to the Authority for review and subsequent approval.

(6) Subregulations (3)*(c)* and (4) shall not apply to any qualified person or organisation outside Trinidad and Tobago providing professional aviation education recognised by the Authority.

**STANDARDS FOR SECURITY OVERSIGHT**

Security obligations of an aircraft operator. [95/2009].

**60.** (1) An aircraft operator shall employ a suitably qualified person within its organisation as a Security Co-ordinator to be responsible for the management and co-ordination of the implementation of security controls for his operations.

(2) An aircraft operator shall designate, in his approved Aircraft Security Programme, the Security Co-ordinator as the primary contact of the aircraft operator for all aviation security-related activities and communications with the Director-General, and who shall be available at all times.

(3) The Security Co-ordinator shall be responsible for the development, maintenance and implementation of the Aircraft Operator Security Programme required under these Regulations.

(4) An aircraft operator shall ensure that—

*(a)* a person authorised to perform and performing a security-related function on his behalf has knowledge of—

(i) the provisions of Part III of these Regulations, applicable security directives and information circulars promulgated pursuant to regulation 70; and

(ii) elements of the approved Aircraft Operator Security Programme required for the performance of his functions;

*(b)* the Security Co-ordinator of the aircraft operator at each aerodrome—

(i) reviews daily all security-related functions for effectiveness and compliance with—

(A) these Regulations;

(B) the approved Aircraft Operator Security Programme; and

(C) applicable security directives; and

(ii) immediately initiates corrective action for each instance of non-compliance with—

(A) these Regulations;

(B) the approved Aircraft Operator Security Programme; and

(C) applicable security directives.

(5) The requirements prescribed under subregulation (1), shall apply to all security-related functions performed for the aircraft operator whether by his employee or the employee of a contractor.

(5A) An aircraft operator shall not use any person to perform any required screening function, unless such person—

*(a)* meets the basic selection criteria and qualifications for such duties prior to being assigned to conduct screening function;

*(b)* meets the training standards for aviation screening officers established by the Authority and where appropriate, by the International Civil Aviation Organisation; and

*(c)* is properly trained, examined, tested and certified by the Authority.

(6) An aircraft operator conducting operations in Trinidad and Tobago shall not use any person to perform any required screening function, unless such person has—

*(a)* a combination of education and experience, which the aircraft operator has determined is necessary for the person to perform his duties;

*(b)* the following basic aptitudes and physical abilities:

(i) the ability to distinguish on the X-ray monitor the appropriate imaging standard specified in his national aircraft operator security programme including the perception of colours where displayed by the X-ray system;

(ii) the ability to distinguish each colour displayed on every type of screening equipment and explain what each colour signifies;

(iii) the ability to hear and respond to the spoken voice and to audible alarms generated by screening equipment in an active check point environment;

(iv) the ability to efficiently and thoroughly manipulate and handle such baggage, containers, and other objects subject to security processing; and

(v) the ability to have sufficient dexterity and capability to conduct partial and full body searches or hand held metal detector searches in accordance with the guidelines set out in Schedule 8;

Schedule 8.

*(c)* the ability to read, write, and speak the English Language well enough to—

(i) carry out written and oral instructions in the English Language regarding the proper performance of screening duties;

(ii) read English Language identification media, credentials, airline tickets, and labels on items normally encountered in the screening process;

(iii) provide direction to and understand and answer questions from English-speaking persons undergoing screening; and

(iv) write incident reports and statements and log entries into security records in the English Language; and

*(d)* satisfactorily completed all initial, recurrent, and appropriate specialised aviation security training required by the National Civil Aviation Security Programme and the approved Aircraft Operator Security Programme.

(7) Notwithstanding the provisions of subregulation (6)*(d)*, an aircraft operator may use a person during the on-the-job portion of training to perform security functions, not requiring a precepted officer, provided that the person is closely supervised by a qualified person and does not make independent judgments as to whether persons or property may enter a sterile area without further inspection.

(8) An aircraft operator shall not use a person to perform a screening function after that person has failed an operational test related to that function, until such person has

successfully completed the remedial training specified in the National Civil Aviation Security Training Programme and his Aircraft Operator Security Programme and has passed a re-test related to that function.

(8A) An aircraft operator shall ensure that screening officers are rotated regularly among the positions during a tour of duty. No screening officer shall be required to scrutinise X-ray images continually for more than 20 minutes and shall not resume this duty again for a further 40 minutes.

(9) An aircraft operator shall ensure that a Security Co-ordinator conducts and documents an annual evaluation of each person assigned screening duties and may continue the employment of that person in a screening capacity only upon the determination by that Security Co-ordinator that the person—

*(a)* has not suffered a significant diminution of any physical ability required to perform a screening function since the last evaluation of those abilities;

*(b)* has a satisfactory record of performance and attention to duty; and

*(c)* demonstrates the current knowledge and skills necessary to courteously, vigilantly, and effectively perform screening functions.

(10) Subregulations (1) through (9), shall not apply to those aviation security screening functions conducted outside Trinidad and Tobago over which the national aircraft operator does not have operational control.

(11) At locations outside Trinidad and Tobago where the national aircraft operator has operational control over a screening function, he may use aviation security screeners who do not meet the requirements of subregulation (6)*(c)*, provided that at least one of his representatives who has the ability to functionally read and speak the English language is present while the passengers of the aircraft operator are undergoing security processing.

**PART V**

## REGULATED AGENT SECURITY

### AVIATION SECURITY RESPONSIBILITIES OF A REGULATED AGENT

Responsibilities of a regulated agent. [95/2009].

**61.** (1) A regulated agent prior to accepting goods for transport in an aircraft shall—

*(a)* establish and register the name and address of the consignor;

*(b)* establish the credentials of the person who delivers the goods as an agent of the consignor;

*(c)* ensure on the basis of random checks or security screening that such goods do not contain any prohibited items;

*(d)* ensure the safeguarding of such goods from unauthorised interference after acceptance from the point security controls are applied until departure of the aircraft;

*(e)* ensure the goods are received by staff who are properly recruited and trained by him in accordance with his approved Regulated Agent Security Programme;

*(f)* designate a person as Security Co-ordinator to implement and supervise the screening process;

*(g)* ensure that the following categories of goods are not carried by air unless they have been subjected to screening:

(i) unaccompanied baggage;

(ii) goods from unknown consignors;

(iii) goods for which the contents do not coincide with the description delivered; and

*(h)* ensure that each shipment of goods be accompanied by documentation providing the statement of the security status of such shipment.

(2) An approved regulated agent who offers goods to an aircraft operator for transport by aircraft shall produce and make available to the aircraft operator, and the Authority on demand, shipping documents, records of goods accepted and offered for air transport, employee training records and airway bills.

**RESPONSIBILITY OF THE AIRCRAFT OPERATOR RECEIVING GOODS FROM A REGULATED AGENT**

Responsibility of the aircraft operator when receiving goods from a regulated agent. [95/2009].

**62.** (1) An aircraft operator accepting goods for transport on his aircraft—

*(a)* may conduct screening of such shipments of goods; and

*(b)* shall ensure—

(i) the safeguarding of such goods against unlawful interference until such goods have been placed in the aircraft;

(ii) that his shipments of goods are recorded; and

(iii) that whenever the goods are received from an approved regulated agent such goods are delivered by an authorised employee of such regulated agent.

(2) An aircraft operator shall not accept any goods for transport by aircraft unless the documentation for such goods is examined for inconsistencies and is accompanied by a valid Security Declaration.

(3) An aircraft operator shall not accept any goods, from a regulated agent, for transport by aircraft unless initially and within the preceding twelve months prior to accepting the goods, the aircraft operator—

*(a)* has inspected facilities and procedures of such regulated agent;

*(b)* has issued a letter to the regulated agent either accepting him or renewing his acceptance as a

regulated agent for the purposes of the transport of goods through the national aircraft operator; and

*(c)* assures the security of the goods in accordance with the procedures approved by the national aircraft operator.

(4) An aircraft operator shall require an approved regulated agent to comply with the Technical Instructions.

(5) An aircraft operator shall make available to the Director-General a report of any incident where an air waybill or equivalent document did not provide an accurate record of the goods being offered for air transport.

(6) An aircraft operator, except as provided in the Technical Instructions, shall not place in an aircraft any goods that are not acceptable.

(7) An aircraft operator shall preserve for not less than one year any record of acceptance checklists and inspections carried out under this Part.

**INSPECTION OF GOODS OFFERED FOR TRANSPORT BY REGULATED AGENT**

Inspection of goods offered for transport by regulated agent. [95/2009].

**63.** (1) An aircraft operator may inspect any goods or any package, or container having goods offered for transport by air by a regulated agent.

(2) Where an inspection is conducted pursuant to subregulation (1), a regulated agent or a representative of the regulated agent may observe the inspection.

(3) In the absence of a regulated agent, or a representative of a regulated agent, an aircraft operator may use such force as is necessary to access the contents of any package or container containing goods offered for transport by air by such regulated agent, representative of a regulated agent or national aircraft operator.

(4) Where an inspection is conducted by an aircraft operator pursuant to subregulation (1), the package, container or goods shall remain in possession of the national aircraft operator until after the inspection is complete.

(5) Where an inspection of goods under this regulation provides evidence of a breach of this Part, the national aircraft operator shall maintain possession of the goods offered for air transport by a regulated agent and the air waybill and inform the Authority in the prescribed form.

## PART VI

## CATERING OPERATOR SECURITY

### AVIATION SECURITY RESPONSIBILITIES OF A CATERING OPERATOR

Responsibilities of a catering operator.

**64.** (1) A catering operator prior to accepting raw materials and equipment for preparation as catering supplies for transport in an aircraft shall—

*(a)* establish and register the name and address of the supplier of such raw materials and equipment;

*(b)* establish the credentials of the person who delivers the raw materials and equipment as an agent of the supplier of such raw materials and equipment;

*(c)* ensure on the basis of random checks or security screening that such raw materials and equipment do not contain any prohibited items;

*(d)* ensure the safeguarding of such raw materials and equipment from unauthorised interference after acceptance;

*(e)* ensure the raw materials and equipment are received by staff who are properly recruited and trained by him;

*(f)* designate a person to implement and supervise the screening process;

*(g)* ensure that the all catering stores and supplies are not carried by air unless they have been subjected to screening;

*(h)* ensure that each shipment of catering stores and supplies be accompanied by documentation providing the statement of the security status of such shipment.

(2) An approved catering operator who offers catering stores and supplies to an aircraft operator for transport by aircraft shall produce and make available to the aircraft operator, and the Authority on demand, shipping documents, records of raw materials and equipment accepted and catering stores and supplies offered for air transport, employee training records and other accountable catering documents.

**RESPONSIBILITY OF THE AIRCRAFT OPERATOR RECEIVING CATERING STORES AND SUPPLIES FROM A CATERING OPERATOR**

Responsibilities of the aircraft operator when receiving goods from catering operator. [95/2009].

**65.** (1) An aircraft operator accepting catering stores and supplies for transport on his aircraft—

*(a)* may conduct screening of such shipments of catering stores and supplies; and

*(b)* shall ensure—

(i) the safeguarding of such catering supplies and stores against unlawful interference from the point where security controls are applied until such catering supplies and stores have been placed in the aircraft;

(ii) that his shipments of catering supplies and stores are recorded; and

(iii) that whenever the catering supplies and stores are received such catering supplies and stores are delivered by an authorised employee of such catering operator.

(2) An aircraft operator shall not accept any catering supplies and stores for transport by aircraft unless the

documentation for such catering supplies and stores is examined for inconsistencies and is accompanied by a valid Security Declaration.

(3) An aircraft operator shall not accept any catering supplies and stores, from a catering operator, for transport by aircraft unless initially and within the preceding twelve months prior to accepting the catering supplies and stores, the aircraft operator—

*(a)* has inspected facilities and procedures of such catering operator;

*(b)* has issued a letter to the catering operator either accepting him or renewing his acceptance as a catering operator for the purposes of the transport of catering supplies and stores through the national aircraft operator; and

*(c)* assures the security of the catering supplies and stores in accordance with the procedures approved by the national aircraft operator.

(4) An aircraft operator shall provide an approved catering operator to comply with the Technical Instructions.

(5) An aircraft operator shall make available to the Director-General a report of any incident where a catering or equivalent document did not provide an accurate record of the catering supplies and stores being offered for air transport.

(6) An aircraft operator, except as provided in the Technical Instructions, shall not place in an aircraft any catering supplies and stores that are not acceptable.

(7) An aircraft operator shall preserve for not less than one year any record of acceptance checklists and inspections carried out under this Part.

**INSPECTION OF CATERING SUPPLIES AND STORES OFFERED FOR TRANSPORT BY AIR**

Inspection of goods offered for transport by regulated agent.

**66.** (1) An aircraft operator may inspect any catering supplies and stores or any package, or container having catering supplies and stores offered for transport by air by an approved catering operator.

(2) Where an inspection is conducted pursuant to subregulation (1), a catering operator or a representative of the catering operator may observe the inspection.

(3) In the absence of a catering operator, or a representative of a catering operator, an aircraft operator may use such force as is necessary to access the contents of any package or container containing catering supplies and stores offered for transport by air by such catering operator, or representative of a catering operator.

(4) Where an inspection is conducted by an aircraft operator pursuant to subregulation (3), the package, container or catering supplies and stores shall remain in possession of the national aircraft operator until after the inspection is complete.

(5) Where an inspection of catering supplies and stores under this regulation provides evidence of a breach of this Part, the national aircraft operator shall maintain possession of the catering supplies and stores offered for air transport by a catering operator and the catering document and inform the Authority in the prescribed form.

## PART VII

## MISCELLANEOUS

### PROTECTION OF SENSITIVE SECURITY INFORMATION

Protection of sensitive security information. [95/2009].

**67.** (1) For the purpose of these Regulations the following information and records containing such information constitute sensitive security information:

*(a)* an approved security programme for an aircraft operator, aerodrome operator, regulated agent or catering operator, any security programme that relates to transportation by air and any comments, instructions or implementing guidance pertaining thereto;

*(b)* security directives, information circulars and any comments, instructions or implementing guidance pertaining thereto;

*(c)* any profile used in any security screening process, including for persons, baggage or cargo;

*(d)* any security contingency plan or information and any comments, instructions, or implementing guidance pertaining thereto;

*(e)* technical specifications of any device used for the detection of any deadly or dangerous weapon, explosive, incendiary, or destructive substance;

*(f)* a description of, or technical specifications of, objects used to test screening equipment;

*(g)* communication procedures and technical specifications of any security communication equipment;

*(h)* any information that the Director-General has determined may reveal a systemic vulnerability of the aviation system or a vulnerability of aviation facilities, to attack;

*(i)* information concerning threats against civil aviation released by the Authority;

*(j)* specific details of aviation security measures whether applied directly by the Authority or regulated parties and includes, but is not limited to, information concerning specific numbers of aviation security officers and aviation security officers, deployments or missions, and the methods involved in such operations;

*(k)* any other information, the disclosure of which the Authority has prohibited; and

*(l)* any draft, proposed or recommended change to the information and records identified in these Regulations.

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(2) An aircraft operator, aerodrome operator, catering operator, regulated agent or person authorised to access information, records or documents shall—

*(a)* take every possible measure to safeguard such information, records or documents against unauthorised access; and

*(b)* not disclose such information, records or documents to any person who do not have a need to know, on the basis of his functions.

(3) An aircraft operator, aerodrome operator, regulated agent and catering operator shall not release his approved Security Programme required under these Regulations to any person outside his organisation without authorisation from the Director-General.

**QUALITY CONTROL**

Quality control. [95/2009].

**67A.** (1) The Director-General shall—

*(a)* ensure that a national civil aviation security control programme is developed, implemented and maintained to satisfy the requirements of the Act or Regulations made thereunder to determine and validate the effectiveness of the national civil aviation security control programme;

*(b)* ensure that the implementation of civil aviation security measures in Trinidad and Tobago is regularly subjected to verification of compliance with the national civil aviation security control programme;

*(c)* arrange for security audits, tests, surveys and inspections to be conducted on a regular basis to verify compliance with the Act or Regulations made thereunder and determine and validate the effectiveness of the national civil aviation security programme; and

*(d)* ensure the rapid and effective rectification of any deficiencies or non-compliance identified during a security audit, test, survey or inspection.

(2) The Director-General shall ensure the priority and frequency of monitoring under subregulation (1)*(b)* is based on a security risk assessment.

**DIRECTOR-GENERAL TO PRESCRIBE AVIATION SECURITY STANDARDS**

**68.** For the purposes of protecting passengers, crew members, aircraft, goods on board aircraft, aerodrome facilities, air navigation facilities and preventing unlawful interference against civil aviation and ensuring that appropriate action is taken where that interference is likely to occur, the Director-General may prescribe Aviation Security Standards applicable to— Director-General to prescribe aviation security standards. [95/2009].

*(a)* aerodrome operators;

*(b)* aircraft operators;

*(c)* regulated agents;

*(d)* catering operator;

*(e)* persons who provide a service to a national aircraft operator that is related to the transport of passengers and goods;

*(f)* persons who provide security services at aerodromes;

*(g)* an aerodrome tenant, or any other person conducting a commercial activity at an aerodrome;

*(h)* ground personnel; and

*(i)* the general public.

**ISSUE OF SECURITY DIRECTIVE OR INFORMATION CIRCULAR**

**69.** (1) The Director-General may recommend that the Authority issue a security directive or information circular to an aerodrome operator, aircraft operator, catering operator or regulated agent or any person who provides a service to a National Aircraft Operator where necessary. Issue of Security Directive or information circular. [95/2009].

(2) An aerodrome operator, aircraft operator, catering operator or regulated agent or any person who provides a service to a National Aircraft Operator shall comply with all security directives issued by the Director-General within the time frame prescribed for compliance.

(3) An aerodrome operator, aircraft operator, catering operator or regulated agent or any person who provides a service to a National Aircraft Operator who receives a security directive shall—

*(a)* no later than twenty-four hours after delivery by the Director-General or within the time prescribed in the security directive, acknowledge receipt of such security directive;

*(b)* within the time prescribed in such security directive, specify the method by which the aerodrome operator, aircraft operator, catering operator or regulated agent has implemented or plans to implement the measures in the security directive; and

*(c)* ensure that information regarding the security directive and measures implemented in response to such security directive are distributed to specified personnel as prescribed in the security directive and to other personnel who require to have such information for the performance of their functions.

(4) In the event that an aerodrome operator, aircraft operator, catering operator or regulated agent is unable to implement the measures contained in the security directive, received under subregulation (3), he shall submit proposed alternative measures, and the basis for submitting the alternative measures, to the Director-General within the time frame for compliance prescribed in the security directive.

(5) The Director-General shall review alternative measures submitted by the aerodrome operator, aircraft operator, catering operator or regulated agent, under subregulation (4),

and where he is satisfied that they meet the requirements of the security directive, he may recommend the Authority approve such alternative measures.

(6) The aerodrome operator, aircraft operator, catering operator or regulated agent shall implement any alternative measures approved by the Director-General under subregulation (3).

(7) An aerodrome operator, aircraft operator, catering operator or regulated agent who receives a security directive or information circular, under subregulation (1), and each person who receives information from a security directive or information circular from the aerodrome operator, aircraft operator, catering operator or regulated agent in respect of his duties, shall—

*(a)* restrict the availability of the security directive or information circular and information therein to those persons who require such information for the performance of their functions; and

*(b)* refuse to release the security directive or information circular and information regarding the security directive or information circular to other persons without the prior written consent of the Authority.

**SEARCH OF PERSONS AND GOODS**

Requirements to submit to search of goods and person. [95/2009].

**70.** (1) A person who, prior to entering a restricted or sterile area is required by an aviation security officer or aviation screening officer—

*(a)* to submit to a search of his person;

*(b)* to permit a search to be carried out of the goods that such person intends to take or have placed on board an aircraft or take into a restricted area; or

*(c)* to submit to a search of a vehicle or other means of conveyance, under his control,

shall not board and shall not be allowed to board the aircraft, or enter the restricted or sterile area unless he submits to a search or permits a search to be carried out, as the case may be.

(2) Where a person is given an order by an aviation security officer or aviation screening officer pursuant to subregulation (1), the person shall thereupon leave the restricted or sterile area immediately and remove the goods, vehicle or means of conveyance in his possession from the restricted or sterile area.

(3) A person under subregulation (1) or (2) who is requested to leave a restricted or sterile area shall be escorted out of such restricted or sterile area by an aviation security officer or aviation screening officer.

(4) This regulation shall not apply to—

*(a)* uniformed members of the protective services and armed forces of Trinidad and Tobago; and

*(b)* the Director-General and Inspectors of the Authority on official duties at an aerodrome where appropriate identification or credentials of those persons have been verified by an aviation security officer or aviation screening officer.

**RESTRICTIONS OF PASSENGERS**

Restrictions of passengers. [95/2009].

Sub. Leg.

**71.** (1) A person shall not carry, or attempt to carry, prohibited items or dangerous good not authorised for transport under the Civil Aviation [(No. 2) Operations] Regulations, in carry-on baggage on board an aircraft.

(2) A person shall not offer for air transport, as goods or in checked baggage a weapon, incendiary device or any other dangerous device.

(3) A person shall not submit to screening of his person or of his carry-on baggage while in possession of a weapon, incendiary device, or any other dangerous device.

(4) A person shall not make a false statement to an aviation security officer, or aviation screening officer, an aircraft operator, or a member of the Trinidad and Tobago Police Service assigned to aerodrome duties, in regard to possession of a weapon, incendiary device or any other dangerous device.

(4A) A person shall not knowingly communicate false information by any means that will or is likely to jeopardise the safety of an aircraft in flight or on the ground, or passengers, crew, ground personnel or the general public, at an aerodrome or on the premises of a civil aviation facility.

(5) A person shall not enter or remain in any part of an aerodrome that is not a public area where a notice is given orally by the aerodrome operator, aerodrome tenant, aircraft operator or by posted sign stating that trespassing is prohibited, or that entry is restricted to authorised persons.

(6) Where a person has been ordered to disembark an aircraft in accordance with regulation 27 or 58, he shall disembark the aircraft.

(7) A person who acts in contravention of this regulation commits an offence and shall be liable on summary conviction to a fine of four thousand dollars and to imprisonment for six months.

(8) A person under subregulation (3) shall upon a request to disembark, shall so disembark the aircraft and remove his carry-on baggage and have his checked baggage removed from the aircraft.

(9) A person who refuses the screening of goods that he intends to have transported on an aircraft or intends to take into a restricted or sterile area, shall not—

*(a)* place or attempt to place such goods; or

*(b)* cause the goods to be placed on board the aircraft, or taken into a restricted or sterile area.

**ACCESS TO AERODROME RESTRICTED AREAS**

Restricted areas at an aerodrome. [95/2009].

**72.** (1) A person shall not access or attempt to access a restricted area or security restricted area of an aerodrome unless the aerodrome operator has granted him a restricted area pass and is gaining access to the restricted area in accordance with the provisions of such restricted area pass.

(2) A person who has been granted access to a restricted area of an aerodrome, shall only access or attempt to access such restricted area at a restricted area access point.

(3) Subject to subregulation (4), a person shall not—

*(a)* provide another person with physical access to a restricted area where the latter has not been issued with a restricted area pass; or

*(b)* assist another person in gaining physical access to a restricted area where the latter has been issued a restricted area pass but does not have such restricted area pass in his possession.

(4) Notwithstanding subregulation (3), a person may enter certain restricted areas of an aerodrome where such person—

*(a)* has a valid boarding pass issued by an aircraft operator, is proceeding to the assigned gate for the purpose of boarding an aircraft and has been subject to the screening requirements of these Regulations; or

*(b)* he is identified in the emergency response plan of the aerodrome operator and is attending to an aerodrome emergency.

**RESTRICTION ON ENTRY INTO STERILE AREA**

Restriction on entry into sterile area.

**73.** A person shall not enter a sterile area unless he has been screened and cleared for entry by an aviation security officer or aviation screening officer.

**SUBMISSION TO SCREENING**

Requirement to submit to screening.

**74.** A person shall not enter a sterile area without submitting to the screening of his person and property in accordance with the procedures being applied to control access to that area under regulation 33.

**DIRECTOR-GENERAL MAY AMEND SCHEDULES**

Director-General to amend Schedules.

**75.** The Director-General may, by Order amend any of the Schedules.

## SCHEDULE 1

Regulation 8(3).

# AERODROME OPERATOR SECURITY PROGRAMME (CIVIL AVIATION SECURITY AT INTERNATIONAL AND DOMESTIC AERODROMES)

### 1. PROGRAMME OBJECTIVE

This Aerodrome Operator Security Programme is designed to meet the international standards and recommended practices contained in Annex 17 to the convention on International Civil Aviation Organisation as well as related aviation security provisions found in annexes 2, 6, 9, 10, 11, 13 and 14.

The objective of the Aerodrome Operator Security Programme is to ensure that aviation security measures and responsibilities are clearly defined and understood by those who need to implement them. It shall clarify and detail all measures that are required to be implemented at the aerodrome to meet the requirements of the national civil aviation security programme.

An Aerodrome Operator Security Programme shall be produced and developed for each aerodrome within Trinidad and Tobago. The programme shall be prepared by the aerodrome security officer in consultation with all aerodrome users and endorsed, signed and dated by the aerodrome manager.

The programme shall be drafted in accordance with the layout detailed herein and submitted to the Authority for approval. It shall be reviewed and updated regularly and at least once every 12 months.

Proposed amendments and variations to the programme, other than minor changes or changes resulting from a change of national legislation shall be submitted to the Authority for approval before incorporation.

The programme shall have classified "restricted" in accordance with national guidelines and its contents handled in accordance with the national guidelines for document security.

### 2. SOURCES OF REGULATIONS

*National legislation*—Detail the national legislation (laws, decrees, etc.) that provides authority to the programme.

*National civil aviation security programme*—Refer to the appropriate articles of the national civil aviation security programme, on which the Aerodrome Operator Security Programme is based, and the relevant provisions for the development of measures and procedures.

*Other regulations or legislation*—Detail any other form of regulations or legislation which provides legal support for the Aerodrome Operator Security Programme. References to appropriate parts of Trinidad and Tobago criminal law shall be made as required.

### 3. DUTIES AND RESPONSIBILITIES

*Aerodrome management*—Describe the role and specific tasks of aerodrome management staff involved in the implementation of the Aerodrome Operator Security Programme.

*Aerodrome security section*—State the role and responsibilities of the aerodrome security officer, the organisation of the aerodrome security section and the aviation security tasks they carry out.

*Policing authority*—State the tasks of the Trinidad and Tobago Police Service. Their responsibilities concerning aviation security shall be clearly described.

*Other government agencies*—State the role of the other government agencies (customs, immigration, etc.) involved in supporting the Aerodrome Operator Security Programme.

*Aircraft operators*—Describe the role of the aircraft operators (both national and foreign) operating at the aerodrome and any security function or task assigned to them in support of the programme. A list of persons in charge and their alternates for every airline, with all pertinent contact details (i.e., phone numbers both at work and home, home address, etc.), shall be included in an appendix.

*Aerodrome tenants*—Describe the responsibility of tenants and how their co-operation and assistance are required to contribute to aviation security.

*District authorities*—State which tasks will be required of any district authorities to assist in the implementation of the Aerodrome Operator Security Programme.

*Other authorities*—Any other authority involved in this programme (postal, communication, fire fighting, health, etc.) shall be mentioned. Describe the role they have and what assistance they may be required to provide.

*General aviation*—Describe how the Aerodrome Operator Security Programme affects general aviation operations at the aerodrome.

**4. AERODROME SECURITY COMMITTEE**

*Terms of reference*—State the relevant national programme requirements to establish an aerodrome security committee. Its terms of reference must be described clearly. Describe that the tasks of the committee shall mainly be the implementation of the requirements of the national security programme through the establishment of procedures and measures for the effective safeguarding of the aerodrome against acts of unlawful interference. The committee shall meet regularly, in its totality or partly as a smaller operational group, preferably with a specified periodicity indicated. Minutes for each meeting shall be kept, and after approval by the members, circulated to the authorities concerned.

*Membership*—List the membership of the aerodrome security committee. The list must include all agencies engaged in the operation of the aerodrome which contribute to the establishment and implementation of security measures. A full list of names, titles and any other useful details of all members of the aerodrome security committee must be included. The aerodrome manager will normally act as chair of the committee with the aerodrome security officer providing specialist security advice as appropriate.

**5. COMMUNICATIONS**

This section shall describe how the appropriate authority for security and the civil aviation security policy and regulatory section communicate the requirements of the national civil aviation security programme to the State's aviation industry.

Reference shall also be made to consultation procedures and the distribution of any reports resulting from security inspections, audits, surveys, tests and investigations carried out by the civil aviation security policy and regulatory section. Instructions and guidance on the correct classification and handling procedures for sensitive information contained in such reports shall also be described.

Policy on communications with other States, ICAO and the media regarding aviation security shall also be detailed.

**6. DESCRIPTION OF AERODROME**

*General*—This shall include the name, location with respect to closest town, and official address of the aerodrome, its nature, name of aerodrome proprietor, telephone number and identification code.

*Landslide, airside and security restricted areas*—The various airside and landside areas and sectors of the aerodrome shall be defined followed by a brief description. The airside of the aerodrome shall be clearly marked and all security restricted areas indicated together with all control of access points. An accurate and to-scale location map and aerodrome plan shall be attached as an appendix.

*Hours of operation*—Detail the aerodrome operating hours, the hours of operation of the air traffic control tower, any on-site communications facilities. Detail whether control of access into security restricted areas and internal security of such areas is conducted on a 24-hour basis. Procedures for security outside the normal hours of operation shall also be included.

***Aerodrome Operations and Organisations***

List and detail a brief description of activities carried out by all aerodrome organisations and other entities which operate within or from the aerodrome. For example:

*Aerodrome operating services*—Includes administration, maintenance, communication, firefighting or any other operational service.

*Air traffic services*—Includes tower, terminal, centre and flight services.

*Aircraft operators*—List all operators using the aerodrome and destinations served. Detail the average daily passenger movement and air cargo volume aggregated for all operators during high and low seasons.

*General aviation*—List all general aviation companies operating to and from the aerodrome. Detail volume of general aviation traffic and include any security controls imposed to certain locations, responsibility over general aviation facilities and access to the commercial ramp and apron areas.

*Private organisations and businesses*—Detail all the aerodrome tenants, shops, cargo handling firms, catering firms, tourist offices, private security firms or any other private firm operating at the aerodrome with particulars of managers and telephone numbers. Their location on the aerodrome and terminal premises shall be indicated on maps that shall be attached as an appendix.

*Military organisations*—Mention contact point for any military unit operating at the aerodrome. Details of memoranda of understanding shall be included.

**7. SECURITY MEASURES AT AERODROME**

This section shall detail the security measures, procedures and controls applied at the aerodrome in support of the national civil aviation security

programme. The following headings and sample content shall be adapted to reflect actual local conditions.

***Aerodrome Security***

*Access control measures*—Describe the control of access methods applied to the airside and restricted security areas, including details of the pass or permit system as it pertains to persons and vehicles and the screening and searching procedures carried out. Describe the scope of background checks conducted on applicants for all types of passes issued. Describe what patrols are conducted of the landside, airside and restricted security areas including off aerodrome patrols of possible stand off attack and surface-to-air missile launch sites.

*Physical security measures*—Describe the physical security measures in relation to fencing, lighting, intruder detection systems, closed circuit television, etc., applied to the security of all airside and security restricted areas, parked aircraft and aprons, public terminal areas and observation decks and car parks, in-flight catering facilities, air cargo areas, aircraft maintenance areas and essential aerodrome facilities.

*Air traffic services facilities, communication and navigation aids*—Describe the physical security measures used for the protection of air traffic services facilities, communication and navigation aids, together with an assessment of vulnerability to interference, with reference to relative importance of individual facilities to the safety of air navigation.

*General aviation*—Describe the security measures for general aviation and any special procedure applied to general aviation crew or passengers operating to and from the aerodrome. Give details about the average number of daily movements with seasonal variations and the number of permanently stationed aircraft at the aerodrome.

***Passenger and cabin baggage security***

*Authority*—Describe the source giving legal authority for security measures and any local laws. Detail procedures to be followed if a person refuses to be subjected to security measures or is denied boarding for any reason. List in an appendix any persons such as diplomats or Heads of State exempt from screening or search.

*Check-in*—Describe the check-in process and location and any special measures or facilities for high risk passengers. Procedures for the protection of tickets, boarding passes, baggage tags documents. State clearly the authority and responsibility of handling agents in accordance with the provisions of the national security programme.

*Travel documents*—Describe where, when and how passenger identification and travel documents are checked including originating, transfer and transit passengers.

*Screening procedures*—Describe screening procedures and measures including minimum hand search ratios if applicable, identification of prohibited items and dangerous goods, special measures for electrical items, standards to be achieved, the procedures for persons with special needs, private arrangements and action to be taken on discovering weapons or explosive devices.

*Equipment*—List the equipment available at each search point and the routine testing and maintenance procedures required to ensure it is serviceable and meets the standards before use. Detail procedures to be followed when equipment fails or is unserviceable for any reason.

*Security staff*—Describe the staffing levels, positions and rotation of duties at each screening point as well as the training required (initial, "on-the-job" and refresher) and what records of such training maintained.

*Segregation and control*—State if segregation of screened and non-screened persons is achieved in the terminal after the screening point. If segregation is not achieved describe what compensatory procedures such as secondary screening at the gate area, are carried out. Describe what procedures can ensure the control of screened passengers when walking across apron areas or being transported by vehicle to aircraft.

*Staff and flight crew procedures*—State if the security measures will apply to all aerodrome staff, police and other government agencies. Clarify the procedures to be adopted and state clearly any particular measures to avoid misunderstanding and assure consistent implementation of security measures.

*Diplomatic pouches and government couriers*—State the procedures to be applied to diplomatic pouches and government couriers. Clarify whether the diplomatic bags may be screened, and if so, state the procedure. State the procedures for diplomatic mail in official pouches and embassy correspondence not in bags.

*VIP facilities*—Describe the location of any VIP facilities and the procedures for processing of VIP's. State clearly the existence of any prior arrangements for the handling of VIP passengers privately or semi-privately and any measures to limit exceptions from normal passenger screening channels minimum.

*Special category passengers*—Describe the procedures to be followed for passengers with diplomatic status and potentially disruptive passengers, for example, persons in custody, dangerous prisoners, and persons suffering from mental illness. State clearly the various tasks of the agencies involved. Make reference to the notification of the operator and the relevant pilot in command.

*General Aviation*—Mention any specific measures for security controls relating to aircraft passengers and crew of general aviation in particular during high threat situations.

***Hold Baggage Security***

*Authority*—Describe the source giving legal authority for security measures and detail procedures followed if a person refuses to allow hold baggage to be subjected to security measures. List in any persons such as diplomats or Heads of State whose hold baggage is exempt from screening or search.

*Check-in*—Describe the check-in process regarding hold baggage and the location and any special arrangements, measures or facilities for group travel or high risk passengers which will differ from normal procedures. Detail if any passenger questioning is carried out. State clearly the authority and responsibility of handling agents in accordance with the provisions of the national security programme.

*Off-aerodrome check-in*—If off-aerodrome or curb check-in is authorised, describe the measures for protection of baggage against acts of unlawful interference until it is loaded onto the aircraft.

*Screening procedures*—Describe screening procedures and measures including minimum hand search ratios if applicable, identification of prohibited items and dangerous goods, special measures for electronic and electrical items, standards to be achieved, and action to be taken on discovering weapons or explosive devices.

*Equipment*—List the equipment available at each search point and the routine testing and maintenance procedures required to ensure it is serviceable and meets the standards before use. Detail procedures to be followed when equipment fails or is unserviceable for any reason.

*Security staff*—Describe the staffing levels, positions and rotation of duties at each screening point as well as the training required (initial, "on-the-job" and refresher) and what records of such training are to be maintained.

*L.R.O.*

*Passenger and hold baggage reconciliation*—Describe the procedures to ensure that the only hold baggage that is loaded belongs to passengers of the relevant flight who have actually boarded the aircraft, and that the hold baggage has been subjected to the necessary security controls and is authorised for loading on that flight. Specific reference to the various categories of passengers (originating, online and interline transfer, disembarking transit passengers) shall be made. The use of automation shall be mentioned describing the principle of the system and what is accomplished.

*Staff and flight crew procedures*—State if the security measures will apply to all flight crew. Clarify the procedures to be adopted and state clearly any particular measures to avoid misunderstanding and assure consistent implementation of security measures.

*Unaccompanied baggage*—Describe the procedures relating to baggage that is separated from its owner through a breakdown of the baggage handling system with reference to the additional security controls the baggage is subjected to before being loaded onto an aircraft.

*Baggage reclaim areas*—Describe what measures are applied to hold baggage which is not reclaimed by a passenger including details of screening or searching and secure storage. Describe also the measures to prevent passengers from retrieving prohibited items concealed in hold baggage at the baggage reclaim area which could be subsequently used to commit an act of unlawful interference in the arrival aerodrome terminal.

***Air cargo security***

The term "air cargo" in the context of aviation security includes normal freight, consolidations, transhipments, unaccompanied courier items, postal mail, diplomatic mail, company stores and unaccompanied baggage shipped as freight on a passenger-carrying aircraft.

*Authority*—Describe the source giving legal authority for security measures and the agency responsible for compliance.

*Security procedures*—Describe the procedures followed with reference to regulated agents, known consignors, known and unknown cargo, transhipment cargo, the role of the aircraft operator, random checks, documentary records, access control, secure storage and transportation.

*Equipment*—List the equipment available to carry out screening of air cargo and the required routine testing and maintenance procedures required to ensure it is serviceable and meets the required standards before use. Detail

the procedures to be followed when equipment fails or is unserviceable for any reason.

***Security of aircraft catering supplies and stores***

*Authority*—Describe the source giving legal authority for security measures and the agency responsible for compliance.

*Security procedures*—Describe the procedures followed and responsibilities with reference to known and unknown stores, physical security measures, access control measures, customs bonded warehouses, tamper-evident sealing of goods, searching and sealing of vehicles, catering carts and containers, multiple loads, airside catering operations, receipt and validation of consignments into security restricted areas and aircraft operator security measures.

***Control of firearms and weapons***

*Legislation and regulations*—Describe the national legislation and regulations related to carriage of weapons and firearms on board aircraft departing or arriving at the aerodrome or carriage by persons in the area of jurisdiction of the aerodrome. The relevant provisions of the appropriate laws or decrees could be attached as an appendix.

*Transporting firearms*—Describe the procedure for handling and transportation of firearms in compliance with the provisions of the national security programme, in hold baggage or as cargo. Describe the role of the operator and crew. Mention any special arrangements to be made at check-in or baggage reclaim areas.

*Carriage of firearms*—Describe the national policy on authorised carriage of firearms in both national and foreign aircraft and the measures for the implementation of that policy. Explain the tasks of the agencies involved and those of the aircraft operators. State clearly the authority for the carriage of weapons granted to in flight security personnel, escorts of prisoners, deportees or escorts of VIPs. Describe the relevant procedure including notification of the aircraft operator and the pilot in command.

***Security of aircraft***

Basic responsibility for the security of aircraft rests with the operator, whose plans shall take into account the Aerodrome Operator Security Programme so that security measures can be co-ordinated.

*Control of access to aircraft*—Describe the measures for protection of aircraft on the ground with reference to the duty of aircraft crew and maintenance

personnel servicing aircraft to identify any person approaching or boarding the aircraft, and that aircraft not in service or undergoing maintenance shall have all access points secured and access stairs or passenger loading bridges removed.

*Security patrols*—Describe what security patrols operate within the airside area, detail what communications are provided between security control and local air traffic control and what security equipment is carried.

*Pre-flight precautions*—Describe the pre-flight precautions conducted on a regular basis, during high threat situations or upon request. State clearly the agencies involved and their respective tasks.

*Threat notification*—Describe the procedures to respond to information which indicates that a specific aircraft may be subject to an act of unlawful interference and indicate who is responsible for implementing the additional security measures considered necessary to counter the threat. Define responsibilities for informing the appropriate authority for security if not the initiating agency of such threat notifications.

*Flights under increased threat*—Describe the procedures to be implemented for specific flights under increased threat, including isolated parking areas, individual guarding of aircraft, escorting of taxiing aircraft, and inspection of approach and take-off flight paths. Include a plan of parking places.

*Aircraft search*—Describe the procedures for the inspection and searching of aircraft during both routine operations and at times when an aircraft may be under high threat. Define: which agencies will be responsible to conduct a search; the necessity for checklists to avoid duplication of effort; good lighting; and well-trained personnel with the support of aircraft crew or aircraft engineering support personnel. State the actions to be taken on discovery of suspect explosive devices and the responsibilities for decisions to move or evacuate the aircraft and the continuance of aerodrome operations.

***Security equipment and specifications***

*Operation and maintenance*—Describe the allocation of responsibilities among the agencies having responsibility for the procurement, installation, operation and maintenance of security equipment. List all security equipment at the aerodrome used in the support of civil aviation security including number, location, maintenance and calibration, and responsibilities. Include X-ray equipment, explosives detection equipment, hand-held and walk-through metal detectors, simulation chambers, explosive detection dogs and explosive disposal equipment. Provide a plan as an appendix showing the distribution of equipment at the aerodrome.

**8. RESPONSE TO ACTS OF UNLAWFUL INTERFERENCE**

*Aerodrome contingency plan*—The aerodrome contingency plan shall work in conjunction with the Aerodrome Operator Security Programme. Guidelines on the structure and the content of the plan shall be obtained from the appropriate authority for security and the civil aviation security policy and regulatory section. The plan shall include information regarding responsibilities for command, control and communications procedures, hostage negotiation procedures, designated aircraft parking locations, incident site access and control, communications equipment, guidelines on dealing with the media and the public. A copy of the aerodrome contingency plan shall be attached as an appendix to the Aerodrome Operator Security Programme.

**9. SECURITY TRAINING**

Describe the aviation security training programmes given to security staff at the aerodrome and all other persons who have roles to play in aviation security, including management and the security personnel of the aerodrome, aircraft operators and cargo "regulated agents", police, military, customs and immigration personnel, aircraft crew members and other aerodrome personnel. Also describe any other training including contingency plan exercises and exercises involving a reaction to an act unlawful of unlawful interference designed to test readiness.

**10. APPENDICES**

*(a)* Organisational diagrams referring to the organisational structure of the aerodrome administration and security management;

*(b)* Scale map of the aerodrome and peripheral area;

*(c)* Detailed scale map showing landside, airside and security restricted areas and access control points;

*(d)* Detailed map of the terminal incorporating security equipment location(s);

*(e)* Aircraft operators' contact information;

*(f)* Private organisations and businesses operating at the aerodrome;

*(g)* List of persons exempt from screening or search measures;

*(h)* National legislation and regulations related to carriage of weapons and firearms; and

*(i)* Aerodrome contingency plan.

Regulation 12(3).

## SCHEDULE 2

## AIRCRAFT OPERATOR SECURITY PROGRAMME

1. International obligations and organisations
1.1 The structure and roles of ICAO and ECAC
1.2 The purpose of the various Conventions, ICAO Annex 17 and ECAC Doc. 3D
2. National obligations and responsibilities
2.1 The relevant appropriate authority for the State of registration
2.2 The relevant appropriate authority for the host State of operation
2.3 The national aviation security programme of the host State
3. Airline security policy and organisation
3.1 Airline security policy
3.2 The roles and responsibilities for aviation security in the airline
3.3 Information and communication
3.4 Description of airline's operation
4. Security of passengers and cabin baggage
4.1 Purpose of screening and searching
4.2 Procedures for screening and hand-searching of originating passengers
4.2.1 Standards of screening and searching
4.2.2 Location of screening or searching
4.2.3 Details of screening equipment
4.2.4 Details of operator or service provider
4.3 Procedures for screening and hand-searching of transfer passengers
4.3.1 Standards of screening and searching
4.3.2 Location of screening or searching
4.3.3 Details of screening equipment
4.3.4 Details of operator or service provider
4.4 List of persons exempted from screening and searching
4.5 Screening and searching of cabin baggage
4.5.1 Standards of screening and searching
4.5.2 Location of screening and searching
4.5.3 Details of screening equipment
4.5.4 Details of operator or service provider
4.6 Treatment of suspect passengers or cabin baggage
4.7 Control of movement of passengers

4.8 Measures for special category passengers
4.8.1 Diplomats and other privileged persons
4.8.2 Government couriers and diplomatic bags
4.8.3 Passengers with reduced mobility and medical cases
4.8.4 Inadmissible passengers/deportees/escorted prisoners
4.9 Policy for unruly passengers
4.9.1 Procedures on the ground
4.9.2 Procedures in the air
4.9.3 Authority for use of restraints
4.9.4 Reporting procedures
5. Security of hold baggage
5.1 Purpose of the security measures
5.2 Passenger identification checks
5.2.1 Standard of checks
5.2.2 Location of checks
5.3 Questioning of passengers
5.3.1 Description of questions
5.3.2 Location of delivery
5.3.3 Details of service provider
5.4 Procedures for originating hold baggage screening and hand-searching
5.4.1 Standard of screening and searching
5.4.2 Location of screening and searching
5.4.3 Details of screening equipment
5.4.4 Details of operator or service provider
5.5 Procedures for transfer hold baggage screening and hand-searching
5.5.1 Standard of screening and searching
5.5.2 Location of screening and searching
5.5.3 Details of screening equipment
5.5.4 Details of operator or service provider
5.6 Protection of hold baggage
5.6.1 Description of procedures
5.7 Procedures for off aerodrome check-in of hold baggage
5.8 Procedures for carriage of firearms and weapons
5.8.1 Legal provisions and regulations
5.8.2 Acceptance procedures
5.8.2.1 Escorts of prisoners/deportees
5.8.2.2 Bodyguards to government VIPs

5.8.2.3 In-flight security guards
5.8.3 Protection on the ground
5.9 Treatment of suspect bags
6. Security of crew, cabin and hold baggage
6.1 Standards of screening and searching
6.2 Location of screening and searching
6.3 Details of screening equipment
6.4 Details of operator or service provider
7. Passenger and hold baggage reconciliation
7.1 Purpose of measures
7.2 Description of procedures
7.2.1 Details of equipment if automated
7.2.2 Details of manifest if relevant
7.2.3 Identification of no-show passengers
7.2.4 Identification of unaccompanied baggage
7.3 Procedures for screening of unaccompanied baggage
7.3.1 Standard of screening
7.3.2 Location of screening
7.3.3 Details of screening equipment
7.3.4 Details of operator or service provider
8. Security of aircraft
8.1 Purpose of security measures
8.2 Searches and checks of aircraft
8.2.1 Standard of searches and checks
8.2.2 Details of service provider
8.3 Control of access to aircraft
8.3.1 Standard of access control
8.3.2 Details of service provider
9. Security of airline catering, stores and supplies
9.1 Purpose of measures
9.2 Description of measures at airline catering unit
9.2.1 Standard of physical security of premises
9.2.2 Standard of access control to premises
9.3 Description of measures for despatch and transportation
9.3.1 Standard of access control to prepared meals
9.3.2 Standard of access control to despatch bank
9.3.3 Standard of access control to vehicles

10. Security of aircraft cleaning operations
10.1 Purpose of measures
10.2 Description of measures
10.2.1 Standard of access control to cleaning stores
11. Security of cargo, courier, express parcels and mail
11.1 Purpose of measures
11.2 Description of measures for cargo
11.2.1 Procedures for acceptance
11.2.2 Regulated agent scheme and criteria
11.2.3 Known consignor scheme and criteria
11.2.4 Standard of screening and physical examination
11.2.5 Location of screening and physical examination
11.2.6 Details of screening equipment
11.2.7 Details of operator or service provider
11.2.8 List of exemptions from security screening or physical examination
11.3 Description of measures for unaccompanied baggage and personal effects carried as cargo
11.3.1 Standard of screening and hand-searching
11.3.2 Location of screening and searching
11.3.3 Details of screening equipment
11.3.4 Details of operator or service provider
11.4 Description of measures for courier and express parcels
11.4.1 Procedures for acceptance
11.4.2 Standard of screening and hand-searching
11.4.3 Location of screening and searching
11.4.4 Details of screening equipment
11.4.5 Details of operator or service provider
11.5 Description of measures for mail
11.5.1 Procedures for acceptance
11.5.2 Regulated postal authority/administration scheme and criteria
11.5.3 Known consignor scheme and criteria
11.5.4 Standard of screening
11.5.5 Location of screening
11.5.6 Details of screening equipment
11.5.7 Details of operator
11.6 Safeguarding of cargo, courier, express parcels and mail
11.6.1 Description of measures

11.7 Procedures for carriage of diplomatic mail
11.8 Treatment of suspect cargo or mail
12. Recruitment of staff
12.1 Description of procedures for recruitment of security staff, including background checks
13. Training of staff
13.1 Description of initial training for the following groups of staff:
13.1.1 Aircrew
13.1.2 Security staff who carry out screening, searching or checking duties
13.1.3 Staff who question passengers
13.1.4 Awareness training for other staff, including ground-handling staff
13.1.5 Airline security managers/officers
13.2 Description of recurrent training for the following groups of staff:
13.2.1 Aircrew
13.2.2 Security staff who carry out screening, searching or checking duties
13.2.3 Staff who question passengers
13.2.4 Awareness training for other staff, including ground handling staff
13.2.5 Airline security managers/officers
14. Contingency planning
14.1 Description of plans to deal with the following contingencies:
14.1.1 Aircraft hijack
14.1.2 Bomb threat
14.1.3 Discovery of a suspect or prohibited article
14.1.4 Equipment failure
14.1.5 Enhanced measures for an increase in the level of threat
14.1.6 High risk flights
15. Incident reporting
15.1 Description of airline security incident reporting procedures
16. Supervision and performance monitoring
16.1 Description of airline arrangements for monitoring implementation of security measures and quality control
17. Local aerodrome procedures

## SCHEDULE 3

Regulation 14.

## REGULATED AGENT SECURITY PROGRAMME

1. International obligations and organisations
1.1 The structure and roles of ICAO and ECAC
1.2 The purpose of the various Conventions, ICAO Annex 17 and ECAC Doc. 3D
2. National obligations and responsibilities
2.1 The relevant appropriate authority for the State of registration
2.2 The relevant appropriate authority for the host State of operation
2.3 The national aviation security programme of the host State
3. Procedures for the ensuring the security of:
3. Security of cargo, courier, express parcels and mail
3.1 Purpose of measures
3.2 Description of measures for cargo
3.2.1 Procedures for acceptance
3.2.2 Regulated agent scheme and criteria
3.2.3 Known consignor scheme and criteria
3.2.4 Standard of screening and physical examination
3.2.5 Location of screening and physical examination
3.2.6 Details of screening equipment
3.2.7 Details of operator or service provider
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3.3.1 Standard of screening and hand-searching
3.3.2 Location of screening and searching
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*L.R.O.*

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4.1 Description of procedures for recruitment of security staff, including background checks
5. Training of staff

Description of initial and recurrent training for the following groups of staff:

5.1 Staff who carry out screening or searching duties
5.2 Awareness training for other staff, including ground-handling staff
5.3 Managers/officers
6. Description of plans to deal with the following contingencies:
6.1 Bomb threat
6.2 Discovery of a suspect or prohibited article
6.3 Equipment failure
7. Incident reporting
7.1 Description of security incident reporting procedures
7.2 Supervision and performance monitoring
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## SCHEDULE 4

Regulation 16(2).

## CATERING OPERATOR SECURITY PROGRAMME

1. International obligations and organisations
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3.1.1 Purpose of measures
3.1.2 Description of measures
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3.1.5 Location of screening and physical examination
3.1.6 Details of screening equipment
3.1.7 Details of operator or service provider
3.1.8 List of exemptions from security screening or physical examination
3.2 Security of catering supplies and stores
3.2.1 Purpose of measures
3.2.2 Description of measures
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3.2.4 Standard of screening and hand-searching
3.2.5 Location of screening and searching
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3.3.1 Purpose of measures
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3.3.5 Location of screening and searching

3.3.6 Details of screening equipment
3.3.7 Details of operator or service provider
3.4 Security of carts, containers and catering transportation
3.4.1 Purpose of measures
3.4.2 Description of measures
3.4.3 Procedures for securing carts, containers and catering transportation
3.4.4 Standard of screening and hand-searching
3.4.5 Location of screening and searching
3.4.6 Details of screening equipment
3.4.7 Details of operator or service provider
3.5 Recruitment of staff
3.5.1 Description of procedures for recruitment of security staff, including background checks
3.6 Training of staff
3.6.1 Description of initial and recurrent training for the following groups of staff:
3.6.2 Staff who carry out screening or searching duties
3.6.3 Awareness training for other staff, including ground-handling staff
3.6.4 Managers/officers
3.7 Description of plans to deal with the following contingencies:
3.7.1 Bomb threat
3.7.2 Discovery of a suspect or prohibited article
3.7.3 Equipment failure
3.8 Incident reporting
3.8.1 Description of security incident reporting procedures
3.8.2 Supervision and performance monitoring
3.9 Local aerodrome procedures

## SCHEDULE 5

Regulation 22(3).

## TERMS OF REFERENCE AERODROME SECURITY COMMITTEE

*(a)* Co-ordinate the implementation of the National Civil Aviation Security Programme;

*(b)* Oversee and monitor the Aerodrome Security Programme, including special measures introduced by the aerodrome administration, operators and aerodrome tenants;

*(c)* Use the National Civil Aviation Security Programme manual or the Security Manual for Safeguarding Civil Aviation Against Acts of Unlawful Interference as a guide;

*(d)* Draw up and maintain a list of vulnerable points including essential equipment and facilities and review the security of those points from time to time;

*(e)* Ensure that the minimum security measures and procedures are adequate to meet threats and are under constant review, providing normal situation and contingencies for periods of hightened tension and emergency situation;

*(f)* Arrange for irregular spaced security surveys and inspections to be carried out;

*(g)* Ensure the recommendations for improvements in security measures and procedures are implemented;

*(h)* Inform the appropriate authority for security of the current state of security measures and procedures in effect at the aerodrome and refer any problems relating to the protection of the aerodrome and its services which cannot be resolved at the local level;

*(i)* Arrange for security education and training of aerodrome and other staff; and

*(j)* Ensure that the planning of aerodrome expansion programmes includes the planning of modifications to be made to the aerodrome control systems and equipment.

Regulation 48(2).

## SCHEDULE 6

*(a)* Knives: Steak knives for meal services and pocket knives that belong to crew members are not allowed into the cabin of an aircraft. Rounded blade butter knives and plastic knives are permitted for meal services in the cabin.

*(b)* Carry-on Bags: Physical searches of carry-on bags shall be conducted to ensure that a continuous inspection process is taking place while passengers are boarding at the gate. Knives of any length or description [except as permitted in paragraph (4)*(a)* above] found during the search shall not allowed to be carried in the cabin of the aircraft. These inspections shall be performed in the presence of the passenger and at a location just prior to boarding the aircraft.

(*c*) Checked Baggage: Physical searches of checked baggage shall be conducted to ensure that a continuous inspection process is taking place for each flight. These inspections shall be performed in the presence of the passenger. Ensure that no one other than direct aircraft operator employees, representatives of government agents have access to the contents or an compartment of a checked bag after it has been accepted for carriage.

(*d*) Aircraft Security: Prior to entry into the cabin of the aircraft, screen all persons and their property, except that personnel employed directly by the aircraft operator and passengers boarding for transport who have previously been subjected to screening.

(*e*) Crew members: An authorised aircraft operator representative shall examine the identification of all operational crew members and verify their assignment on that flight. If identification cannot be verified, deny boarding and notify appropriate authorities.

*(f)* Aircraft Search: The following measures shall be applied to each aircraft after servicing, and prior to boarding any passengers:

(i) Conduct a thorough physical search of the empty interior of the aircraft. The search shall include: overhead bins; closets; lavatories; galleys; trash receptacles; storage bins; seat backs; seat pockets; under seats; and other accessible compartments in the passenger cabin and flight deck; and galley carts that have not been sealed by the government or monitored from preparation to delivery. Personnel conducting the search shall be familiar with the aircraft and shall be provided with instructions for notifying the appropriate authorities if suspicious items are detected.

(ii) Conduct a visual inspection of accessible exterior areas if the aircraft for items that do not belong. Prior to loading freight or baggage, search the empty cargo hold areas of the aircraft for items that do not belong.

(iii) At intermediate stops, conduct continuous monitoring of freight and cargo loading activities.

*(g)* Personnel: Physical inspection and pat-downs may only be carried out by direct aircraft operator employees, or authorised representatives, who have been trained to conduct such inspections in accordance with the approved security programme.

*(h)* Certification: Prior to resuming service, the aircraft operator shall certify to its Primary Security Inspector that these requirements are being implemented at each location.

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## SCHEDULE 7A

Regulation 50 (2)*(a)*.

## INTRODUCTION

1. Conventional X-ray equipment is used in support of the national civil aviation security programme to screen passenger cabin baggage, hold baggage and, increasingly, cargo, supplemented with manual searches. It is anticipated that equipment using X-ray technology, perhaps supported by other techniques, will be the basis of screening for the foreseeable future.

2. Difficulties in detecting explosive devices by X-ray, and difficulties which may be posed in the future by non-metallic firearms, demand further development of X-ray equipment. The information in this Attachment sets out the requirements for X-ray screening equipment which the civil aviation security policy and regulatory section considers incorporates the best features of current technology, but which leaves scope for further development.

## DETENTION REQUIREMENTS

3. X-ray screening equipment is required for use in detecting both metallic and non-metallic objects. These items may be concealed in any form of luggage carried or placed on board an aircraft. The list of items to be identified includes—

*(a)* firearms both metallic and non-metallic;

*(b)* firearms components;

*(c)* ammunition of all calibers;

*(d)* grenades and other fragmentation/blast weapons; knives, batons, swords, etc.;

*(e)* explosives, military and commercial;

*(f)* detonators and timing devices;

*(g)* electrical and electronic items; and

*(h)* power sources.

## PERFORMANCE REQUIREMENTS

4. Performance of conventional X-ray equipment should be measured using a combined test piece (CTP). These tests will determine whether an X-ray machine meets the civil aviation security policy and regulatory section requirements in terms of image quality parameters.

## DISPLAY REQUIREMENTS

Most modern machines incorporate the following facilities:

*(a)* Detector positioning. The arrangement of the detectors should be such that both a "top" and a "side" view of the object are displayed. Such an arrangement is commonly known as a "folded array";

*(b)* Black and white image. Objects are distinguished by differing shades of grey. Such shades are caused by variations in the amount of X-rays penetrating the target bag. The image should be reversible. The civil aviation security policy and regulatory section considers that any equipment that uses only a black and white image display does not meet the standards required by the national civil aviation security programme;

*(c)* Colour-coded image. Different colours should be assigned to metallic and organic material in multi-energy X-ray images. Also a third colour should be assigned to objects through which the X-rays cannot penetrate. The following colours can be used: (orange) for materials of low average atomic number (e.g., organic materials), (blue) for metals and (red) for areas where the X-rays cannot penetrate. With this method of imaging it should be possible to distinguish high-density organic material such as explosives. [The (colours)

are given as examples and are those used on one type of commercially available equipment];

*(d)* Organic colour only. It should be possible to display a single colour image representing just the organic component. This simplified image should make it easier to identify explosives;

*(e)* Image enlargement. The operator should be able to select a section of the image and expand it. There should be at least nine enlargeable sections in the complete image;

*(f)* Brightness scanning. The human eye cannot distinguish between more than about a dozen variations in brightness, but computers have no such limitation. There should be at least 256 shades in the X-ray image. These 256 shades should be displayable in turn, as one of a group of adjacent shades, by scanning across the complete range of shades. Each level in the displayed group is to be assigned a visually discernible shade. In this way, more detail can be displayed;

*(g)* Edge enhancement. This feature modifies the periphery of the image of an object so as to make it more visible on the display;

*(h)* Display time. Every part of the item being examined should be displayed for not less than five seconds. When not in use the image of the last bag should be removed or a screen saver used to prevent image "burn in";

*(i)* Operator identification. It should be possible for the displayed image to show an operator;

*(j)* identification number and the time and date; and

*(k)* Automatic detection. There is X-ray equipment available that can detect the presence of explosive material or components of an explosive device automatically. Such equipment does not need to provide an image if it is being used in a fully automatic mode. If such equipment is used in a way that requires an operator to make a decision based on an image (indicative mode), this image should be to the same standard as a conventional X-ray machine. Operators intending to use such equipment should discuss the application with the civil aviation security policy and regulatory section.

## HARDWARE AND SOFTWARE

*(a)* Expandability. New techniques will become available, particularly in image processing and pattern recognition. The equipment should be designed so that software enhancements can be easily implemented or a separate module can be easily added. It should be possible to program the machine via an input port. The protocol for this should be documented and be readily available to service technicians;

*(b)* Software. The image processing and control software should be written to allow ease of updating;

*(c)* Speed of operation. Any display mode should be available within one second of detection or selection. This time limit may not apply to future image processing techniques such as pattern recognition. However, the maximum allowable delay is six seconds;

*(d)* Video connections. It should be possible to record easily the image seen by the operator. Outputs should be provided to permit the connection of a video recorder or an external "black box". Such outputs should provide both composite video and RGB signals compatible with the video system used by the State. It should be possible to input test images via a video input;

*(e)* Health and safety. The machine must comply with the requirements of the State's current health and safety legislation, particularly with regard to mechanical, electrical and radiation hazards; and

*(f)* Future developments. These requirements will be kept under review and may be subject to amendment in the future. However, it is the civil aviation security policy and regulatory section's intention that future requirements embody earlier versions. This should give an orderly progress to X-ray development.

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Regulation 50(2)*(c)*.

## SCHEDULE 7B

This Attachment should be read in conjunction with the log sheet for the combined test piece. A tick on the log sheet should be used to record each correct image.

Together, tests 3 and 5 will also demonstrate the machine's dynamic range.

**Test 1A: Single Wire Resolution**

*The Requirement is to Display the 33 Gauge Wire not Covered by the Step Wedge.*

(A tick should be used on the log sheet to indicate visible wires.)

This test defines the ability of the system to display a single thin wire, 33 SWG (standard wire gauge, 0.254 mm). The composition of the wire should be un-insulated tinned copper wire. Wires of 25 SWG (0.508 mm), 33 SWG (0.254 mm), 36 SWG (0.193 mm), and 40 SWG (0.122 mm) are included in the CTP to demonstrate whether the X-ray machine single wire resolution capability surpasses that required or if its performance has deteriorated with time. The wires are laid out in "S" shaped curves.

**Test 1B: Useful Penetration**

*The Requirement is that the 25 Swg Wire be seen under the Second Step of the Wedge ( 5/16").*

This test defines what level of detail should be seen behind a thickness of a known material. The CTP has different gauges of wire behind varying thicknesses of aluminium. This is similar to the American Society for Testing and Materials (ASTM) step wedge that has wires behind the steps.

**Test 2: Material Discrimination**

*The Requirement is that Different Colours be Allocated to the Sample of Organic and Inorganic Substances.*

With multi-energy X-rays, it is possible to distinguish between materials of different average atomic number. This means that organic and inorganic substances can be differentiated. (Multi-energy, dual-energy and materials differentiation are considered synonymous in the present context.) The use of sugar and salt samples encapsulated on the test piece, as well as the various materials used in the construction of the CTP, will check the material discrimination facility. The present requirement is to allocate different colours to different types of material. This test is applicable only to those machines with this facility. A tick will indicate that the two samples are shown in different colours.

**Test 3: Simple Penetration**

*The Requirement is that the Lead be Visible beneath 14 mm of Steel.*

This test defines what thickness of steel the machine should be able to penetrate. The steel step wedge on the CTP begins with a 12 mm depth, with 2 mm increments per step up to 24 mm. A lead strip runs under the length of the wedge to check the capability of the machine. Ticks should indicate where the lead strip is visible.

**Test 4: Spatial Resolution**

*The Requirement is that a Vertical and Horizontal Grating be seen.*

This test defines the ability of the system to distinguish and display objects which are close together. The CTP tests this aspect of performance by using 16 copper sheet gratings at right angles to each other. A tick on the log sheet will indicate that gaps in the gratings are visible.

**Test 5: Thin Metal Imaging**

*The Requirement is to Image Steel 0.1 mm thick.*

This tests the machine's ability to image thin metal.

The staff should be rotated regularly among the positions during a tour of duty. No person should be required to scrutinize X-ray images continually for more than 20 minutes and should not resume this duty again for a further 40 minutes. This rotation can be easily achieved if the X-ray operator and bag searchers operate as a separate working unit with each X-ray operator actually searching the items he or she selects for hand search. This also serves to improve their X-ray image interpretation knowledge base.

In lieu of the general guidance provided above, a precise formula for determining passenger security screening area staffing requirements may be developed by States. Such a formula should take into account anticipated passenger flow, flight schedules, type of aircraft and the possible requirement for the screening of persons other than passengers.

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Regulation 60(3).

## SCHEDULE 8

## SCREENING PERSONNEL

Personnel assigned to conduct passenger, baggage or cargo screening should meet the basic qualifications for such duties and not be assigned to conduct these functions until properly trained, examined, tested and certified by the appropriate authority for security. Recruitment of fully suitable people motivated to this type of work is of utmost importance. Initial and refresher training should focus primarily on:

*(a)* screening regulations and pertinent legislation;

*(b)* identification of firearms, weapons, incendiary or explosive devices, other dangerous devices, or parts thereof;

*(c)* operation and testing of security equipment (metal detectors, X-ray units, explosives detection devices);

*(d)* manual search of the person;

*(e)* manual search of baggage, cargo, mail and stores; and

*(f)* emergency procedures.

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# CIVIL AVIATION [(NO. 9) APPROVED TRAINING ORGANISATION] REGULATIONS

ARRANGEMENT OF REGULATIONS

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5. General requirements for issue of Approved Training Organisation Certificate.
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6A. Issue of Training Specifications.
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39. Check Instructor qualifications for Approved Training Organisation with Level 1 Flight Training Specifications.

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ARRANGEMENT OF REGULATIONS—*Continued*

**REGULATION**

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**SCHEDULE 2.**
**SCHEDULE 3.**

# CIVIL AVIATION [(NO. 9) APPROVED TRAINING ORGANISATION] REGULATIONS

*made under section 33*

108/2004. [36/2005 229/2005 191/2006 290/2006 34/2008 202/2009].

**1.** These Regulations may be cited as the Civil Aviation [(No. 9) Approved Training Organisation] Regulations. Citation. [191/2006].

## PART I

## CERTIFICATION REQUIREMENTS

### APPROVED TRAINING ORGANISATION

**2.** In these Regulations— Interpretation. [191/2006].

"accountable manager" means the manager who has corporate authority for ensuring that all training can be financed and carried out to the standard required by the Authority;

"advanced flight training device" means a flight training device which has a cockpit that accurately replicates a specific make, model, and type aircraft cockpit, and handling characteristics that accurately model the aircraft handling characteristics;

"approved training" means training conducted under special curricula and supervision approved by the Authority that, in the case of flight crew members, is conducted within an approved training organisation;

"Approved Training Organisation" means an organisation approved by the Authority to perform flight crew training and other aviation training specified by the Authority and operating under the supervision of the Authority;

"Approved Training Organisation Satellite" means a facility of an Approved Training Organisation at a location other than primary location of such Approved Training Organisation;

"authorised instructor" has the meaning assigned to it under Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations; Sub. Leg.

"examiner" has the meaning assigned to it by Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations;

"flight simulator" means a device that—

*(a)* is a full-size aircraft cockpit replica of a specific type, make model and series of aircraft;

*(b)* includes the hardware and software necessary to represent the aircraft in ground operations and flight operations;

"flight training device" means an instrument that—

*(a)* is a full-size replica of the instrument, equipment, panels, and controls of an aircraft, open or in an enclosed cockpit, including the hardware and software for the systems installed, that is necessary to stimulate the aircraft in ground and flight operations;

*(b)* need not have a force cueing or visual system; and

*(c)* has been approved or accepted by the Authority;

"flight training equipment" means a flight simulator, a flight training device and an aircraft;

"Level 1 Flight Training Specifications" means the specific approvals of a flight training facility that conducts all or substantially all of each flight training course using aircraft;

"Level 2 Flight Training Specifications" means the specific approvals of a flight training facility that conducts all or substantially all of each flight training course using simulation media that are qualified and approved by the Director-General;

"line-operational simulation" means simulation conducted using operational-oriented flight scenarios that accurately replicate interaction among flight crew members and between flight crew members and dispatch facilities, other crew members, air traffic control, and ground operations;

"line orientation flight training" means flight training in a simulator with a complete crew using representative flight segments that contain normal, abnormal, and emergency procedures that may be expected in line operations;

"specialty curriculum" means a set of courses designed to comply with the Act or Regulations made thereunder which is approved by the Authority for use at an Approved Training Organisation with Level 2 Flight Training Specifications; and

"Training Specifications" means a document issued to an Approved Training Organisation by the Authority that specifies the checking, testing authorisations, limitations and training programme requirements for such organisation.

Application of Civil Aviation [(No.1) General] Regulations to these Regulations. Sub. Leg.

**3.** The provisions of Part I of the Civil Aviation [(No.1) General Application and Personnel Licensing] Regulations, shall apply to all certificates issued by the Authority in accordance with these Regulations.

## PART II

## GENERAL REQUIREMENTS FOR APPROVED TRAINING ORGANISATIONS

Restriction on conduct of aviation training. [229/2005 191/2006].

**4.** (1) Approved training shall provide a level of competency at least equal to that provided by the minimum requirements for personnel not receiving such approved training.

(2) A person shall not operate an Approved Training Organisation unless he—

*(a)* holds a valid Approved Training Organisation Certificate with the appropriate Training Specifications for such training issued by the Authority in accordance with these Regulations;

*(aa)* holds a valid certificate for the training of airmen, issued by another Contracting State, which is accepted by the Authority under these Regulations and has been issued Training Specifications by the Authority; and

*(b)* is permitted under the Act or Regulations made thereunder, to conduct such aviation training.

(3) A person shall not conduct training, testing or checking in an advanced flight training device or a flight simulator unless—

*(a)* he is an air operator training his own flight crew;

*(b)* he holds an Approved Training Organisation Certificate with the appropriate Training Specifications, issued under these Regulations; and

*(c)* he holds a valid certificate for the training, testing or checking of airmen in an advanced training device or a flight simulator issued by another Contracting State which is accepted by the Authority under these Regulations and he has been issued Training Specifications by the Authority.

**APPLICATION FOR AN APPROVED TRAINING ORGANISATION CERTIFICATE**

General requirements for issue of Approved Training Organisation Certificate. [191/2006].

**5.** (1) A person wishing to apply for an Approved Training Organisation Certificate to conduct aviation training and testing for airmen shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee;

*(c)* be at least eighteen years of age;

*(d)* be able to or have persons employed in the Organisation who are able to read, speak, write and understand the English language; and

*(e)* meet the requirements of these Regulations.

(2) An application under subregulation (1), shall be—

*(a)* submitted at least ninety days before the date of intended commencement of training by the applicant; and

*(b)* accompanied by—

(i) two copies of the Training and Procedures Manual of the applicant which contains the matters set out in Schedule 1 and which shall be approved by the Authority;

Schedule 1.

(ii) a list of the training functions to be performed by the Approved Training Organisation; and

(iii) any additional information the Director-General requires the applicant to submit.

(3) Where the applicant under subregulation (1)(*d*), is unable to read, speak, write or understand the English language, but employs a person who can read, speak, write and understand the English Language, such person shall hold a management function in his organisation.

(4) An applicant for an Approved Training Organisation Certificate shall ensure that the facilities and equipment described in his application are—

*(a)* available for inspection and evaluation prior to the grant of the Approved Training Organisation Certificate; and

*(b)* in place and operational at the location of the proposed Approved Training Organisation prior to issuance of an Approved Training Organisation Certificate under these Regulations.

Application for training specifications. [229/2005].

**5A.** (1) A person who holds a valid training certificate for the training, testing or checking of airmen; issued by another Contracting State may apply to the Authority for the issue of Training Specifications.

(2) An application under subregulation (1), shall be accompanied by —

*(a)* the prescribed fee; and

*(b)* such documents as may be specified by the Authority.

**ISSUE OF AN APPROVED TRAINING ORGANISATION CERTIFICATE**

Issue of Approved Training Organisation Certificate. [191/2006].

**6.** (1) Where the Director-General is satisfied that an applicant for an Approved Training Organisation Certificate under regulation 5, meets the requirements of these Regulations he may recommend the Authority issue to such applicant an Approved Training Organisation Certificate.

(2) An Approved Training Organisation Certificate under subregulation (1), shall comprise—

*(a)* a document for public display signed by the Authority; and

*(b)* a document containing the Training Specifications with the terms, conditions and authorisations applicable to the Approved Training Organisation.

(3) The document for display under subregulation (2)(*a*), shall contain—

*(a)* all the business names included on the application under which the holder of an Approved Training Organisation Certificate (hereinafter referred to as an "Approved Training Organisation"), may conduct operations and the address of each business office used by the Approved Training Organisation;

*(b)* the principal location of the Approved Training Organisation;

*(c)* the date of issue and period of validity for each page issued;

*(d)* the authorised locations of operations; and

*(e)* training specifications for the following categories, as applicable:

(i) flight crew training;

(ii) aircraft maintenance training; and

(iii) any other aviation training.

(4) The Training Specifications under subregualtion (2)*(b)* shall contain—

*(a)* the type of training authorised, including approved courses;

*(b)* the category, class, and type of aircraft that may be used for training, testing, and checking where applicable;

*(c)* for each flight simulator or flight training device, the make, model, and series of aeroplane or the set of aeroplanes being simulated and the qualification level assigned, or the make, model, and series of rotorcraft, or set of rotorcraft being simulated and the qualification level assigned;

*(d)* for each flight simulator and flight training device subject to qualification evaluation by the Authority, the identification number assigned by the Director-General;

*(e)* the name and address of each satellite Approved Training Organisation and the approved courses offered at each satellite Approved Training Organisation;

*(f)* authorised deviations or waivers from these Regulations; and

*(g)* any other items the Authority may require.

Issue of Training Specifications. [229/2005].

**6A.** The Director-General may recommend the Authority issue Training Specifications to an applicant under regulation 5A where he is satisfied that the applicant meets the applicable requirements of these Regulations.

**SUSPENSION OR REFUSAL OF AN APPROVED TRAINING ORGANISATION CERTIFICATE**

Suspension or refusal of an Approved Training Organisation Certificate. [191/2006].

**7.** The Director-General may recommend that the Authority suspend or refuse to issue an Approved Training Organisation Certificate in accordance with these Regulations where it comes to his attention that—

*(a)* the applicant or the Approved Training Organisation—

(i) does not meet the requirements of these Regulations;

(ii) has failed for more than sixty days to maintain the required facilities, aircraft or personnel;

(iii) held an approval for the management and conduct of aviation services which was suspended or revoked within the previous five years;

(iv) has provided incomplete, inaccurate, fraudulent or false information in applying for the Approved Training Organisation Certificate;

(v) held a certificate or aviation document issued by the Authority that was suspended or revoked within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such person; or

(vi) employs or proposes to employ a person in a management position or supervisor capacity who—

(A) held a certificate or aviation document issued by the Authority that was suspended or revoked within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such person; or

(B) contributed materially to the suspension or revocation of a certificate or aviation document issued by the Authority; or

*(b)* where a person having substantial ownership of the organisation—

(i) held a certificate or aviation document issued by the Authority that was suspended or revoked within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such a person; or

(ii) contributed materially to the suspension or revocation of a certificate or aviation document issued by the Authority.

**REVOCATION OF AN APPROVED TRAINING ORGANISATION CERTIFICATE**

Revocation of an Approved Training Organisation. [191/2006]. Sub. Leg

**8.** In addition to the general conditions under Part I of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, for the revocation of aviation documents issued by the Authority, the conditions for refusal or suspension of an Approved Training Organisation Certificate under regulation 7, shall apply to the revocation of an Approved Training Organisation Certificate.

**RENEWAL OF AN APPROVED TRAINING ORGANISATION CERTIFICATE**

Renewal of Approved Training Organisation Certificate. [191/2006].

**9.** (1) An Approved Training Organisation shall, sixty days before the expiration of its Approved Training Organisation Certificate issued in accordance with these Regulations, apply to the Authority for the renewal of such Approved Training Organisation Certificate.

(2) An application under subregulation (1), shall be—

*(a)* made in the prescribed form;

*(b)* accompanied by—

(i) the prescribed fee; and

(ii) any documents required by the Authority.

(3) The Director-General may, where he is satisfied that an Approved Training Organisation under subregulation (1), continues to meet the requirements of these Regulations, recommend the Authority issue a renewed Approved Training Organisation Certificate to an Approved Training Organisation which shall contain the initial date of issue of its Approved Training Organisation Certificate as well as the date on which it was renewed.

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**ACCEPTANCE OF AN APPROVED CERTIFICATE ISSUED BY AN APPROVED TRAINING ORGANISATION OF ANOTHER CONTRACTING STATE**

Acceptance of an Approved Training Certificate issued by another Contracting State. [191/2006].

**10.** Where the Director-General is satisfied that an Approved Training Organisation, approved by another Contracting State meets the requirements of these Regulations, he may recommend the Authority accept an Approved Training Organisation Certificate and training specifications issued by the Contracting State.

**AMENDMENT OF AN APPROVED TRAINING ORGANISATION CERTIFICATE**

Amendment to an Approved Training Organisation Certificate. [191/2006].

**11.** (1) The Director-General may recommend that the Authority amend an Approved Training Organisation Certificate—

*(a)* where he determines that such amendment is required; or

*(b)* upon the application of the Approved Training Organisation.

(2) An Approved Training Organisation shall submit an application to amend its Approved Training Organisation Certificate issued under regulation 5, at least sixty days before the commencement of operations under the amended Approved Training Organisation Certificate, unless the Director-General specifies a different period for the filing of the application.

(3) An Approved Training Organisation shall not amend any part of its Training and Procedures Manual without the prior approval of the Authority.

**DURATION OF AN APPROVED TRAINING ORGANISATION CERTIFICATE**

Duration of an Approved Training Organisation Certificate. [191/2006].

**12.** (1) An Approved Training Organisation Certificate issued in accordance with these Regulations shall remain valid until—

*(a)* the last day of the twelfth month from the month on which the Approved Training Organisation Certificate was issued;

*(b)* the date that any change in ownership of the Approved Training Organisation occurs; or

*(c)* the date of any significant change in the Approved Training Organisation facilities.

(2) A change of ownership of an Approved Training Organisation invalidates the Approved Training Organisation Certificate issued to such Approved Training Organisation unless—

*(a)* the Approved Training Organisation makes an application for an appropriate amendment to such Approved Training Organisation Certificate within thirty days; and

*(b)* no significant change in the facilities, operating personnel, or approved training courses is involved.

(3) Notwithstanding subregulations (1) and (2), an Approved Training Organisation with Level 1 or Level 2 Flight Training Specifications issued in accordance with these Regulations, shall remain valid unless surrendered, suspended or revoked.

(4) Where an Approved Training Organisation Certificate is surrendered or revoked, the holder of such Approved Training Organisation Certificate shall return it to the Authority.

**DEVIATIONS**

Approval for deviation from Regulations. [191/2006].

**13.** (1) The Director-General may recommend that the Authority issue a deviation from any requirement of these Regulations.

(2) An Approved Training Organisation requesting a deviation under this Regulation shall provide the Authority with information acceptable to the Director-General which shows—

*(a)* justification for the deviation; and

*(b)* that such deviation will not adversely affect the quality of instruction, testing or evaluation.

**RESTRICTIONS ON ADVERTISING**

Restrictions on advertising by Approved Training Organisation. [191/2006].

**14.** (1) An Approved Training Organisation shall not—

*(a)* make any statement relating to its Approved Training Organisation Certificate and training specifications that is false or designed to mislead any person contemplating enrolment in such Approved Training Organisation;

*(b)* advertise that such Approved Training Organisation is certified,

unless such advertisement clearly differentiates between courses that have been approved and those that have not been approved under these Regulations.

(2) An Approved Training Organisation whose Approved Training Organisation Certificate has been surrendered, suspended or revoked shall promptly—

*(a)* remove all indications, including signs, wherever located, that the Approved Training Organisation was certified by the Authority; and

*(b)* notify all advertising agents and advertising media employed or contracted by the Approved Training Organisation, to cease all advertising which indicates that such Approved Training Organisation is certified by the Authority.

**TRAINING AND PROCEDURES MANUAL**

Training and procedures manual. [191/2006].

**14A.** An applicant for an Approved Training Organisation Certificate shall provide a Training and Procedures Manual for the use and guidance of all personnel concerned containing the information set out in Schedule 1.

Schedule 1.

**QUALITY ASSURANCE SYSTEM**

Quality assurance system. [191/2006].

**14B.** An Approved Training Organisation shall establish a quality assurance system, acceptable to the Authority, which ensures that training and instructional practices comply with all relevant requirements.

**PERSONNEL REQUIREMENTS**

Required personnel for an Approved Training Organisation. [191/2006].

**15.** (1) An applicant for an Approved Training Organisation Certificate under regulation 5, shall nominate a person in his organisation as the accountable manager responsible for establishing and promoting the training standards and quality policy to ensure compliance with the requirements for an Approved Training Organisation.

(2) The accountable manager nominated under subregulation (1) shall be approved by the Authority.

(3) An Approved Training Organisation shall employ the necessary personnel to plan, perform and supervise the training to be conducted and for the conduct of knowledge examinations and practical assessments in accordance with its approval, except that, when another organisation is used to provide practical training and assessments, the staff of such other organisations may be nominated to carry out any combination of the roles of authorised instructor and examiner, subject to compliance with Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations. Sub. Leg.

(4) An Approved Training Organisation shall ensure that the competence of instructional personnel is in accordance with procedures and at a level acceptable to the Authority.

(5) An Approved Training Organisation shall ensure that all instructional personnel receive initial and continuation training appropriate to their assigned tasks and responsibilities. The training programme established by the training organisation shall include training in knowledge and skills related to human performance.

**LOCATION, FACILITIES AND EQUIPMENT**

Location, facilities equipment and materials of an Approved Training Organisation. [191/2006].

**16.** (1) An Approved Training Organisation shall—

*(a)* maintain facilities, working environment, equipment and material appropriate for the task to be performed, to the standards required by its Approved Training Organisation Certificate and acceptable to the Authority.

*(b)* have, or have access to, the necessary information, equipment, training devices and material to conduct the courses for which it is approved; and

*(c)* ensure that synthetic training devices are qualified according to requirements established by the Authority and that their use are approved by the Authority to ensure that they are appropriate for the task.

(2) Where an Approved Training Organisation wishes to make a change to its facilities, equipment or material that have been approved for a particular curriculum under its Training and Procedures Manual, it shall, prior to making such changes apply first to the Authority for approval.

(3) Where an Approved Training Organisation wishes to relocate its facilities it shall apply to the Authority in writing for approval for such relocation.

(4) An application under subregulation (3) for approval to relocate facilities shall be made at least thirty days before the date of the intended relocation.

(5) The Director-General may prescribe the conditions under which the Approved Training Organisation may operate while it is changing its location or housing facilities.

(6) Where an Approved Training Organisation changes the location of its facilities without first seeking and obtaining the approval of the Authority for such relocation, its Approved Training Organisation Certificate shall be revoked.

(7) An applicant under regulation 5 shall establish and an Approved Training Organisation shall maintain a principal business office located at the address specified in its application or its Approved Training Organisation Certificate.

(8) The principal business office of an Approved Training Organisation under subregulation (7), shall not be shared with, or used by, any other person who holds an Approved Training Organisation Certificate.

(9) An applicant under regulation 5, or an Approved Training Organisation shall ensure that—

*(a)* each room, training booth or other space used or proposed to be used for instructional purposes is temperature controlled, lit and ventilated to conform to local building, sanitation and health codes;

*(b)* the facilities used or proposed to be used for instruction are not routinely subject to significant distractions caused by flight operations and maintenance operations at the airport; and

*(c)* a student shall not attend classes of instruction more than eight hours in any day or more than six days of forty hours in any consecutive seven-day periods.

(10) An Approved Training Organisation shall maintain records required by these Regulations in facilities adequate for such purpose.

(11) An Approved Training Organisation with Aircraft Maintenance Training Specification or an applicant under regulation 5 for an Approved Training Organisation with Aircraft Maintenance Training Specifications shall maintain the following instructional equipment as appropriate to the Training Specifications applied for or which he holds:

*(a)* various kinds of airframe structures, airframe systems and components, power plants, and power plant systems and components, including propellers, of a quantity and type suitable to complete the practical projects required by its approved curricula; and

*(b)* at least one aircraft of a type acceptable to the Authority.

(12) The equipment under subregulation (11)*(a)*, is not required to be in an airworthy condition, and where damaged prior to use by the Approved Training Organisation, shall have been repaired enough for complete assembly.

(13) An Approved Training Organisation with Aircraft Maintenance Training Specification or an applicant under regulation 5 for an Approved Training Organisation with Aircraft Maintenance Training Specifications, shall—

*(a)* have airframes, power plants, propellers, appliances, and components thereof, to be used for instruction and from which students will gain practical working experience;

*(b)* ensure that the airframes, power plants, propellers, appliances, and components thereof be sufficiently diversified as to show the different methods of construction, assembly, inspection, and operation when installed in an aircraft for use;

*(c)* provide and maintain training aids or operational mock-ups of the retractable landing gear and wing flaps that are acceptable to the Authority, where an aircraft used for instructional purposes does not have retractable landing gear and wing flaps;

*(d)* ensure that the special tools and shop equipment required by subregulation (14) are in satisfactory working condition for instructional and practice purposes.

(14) An Approved Training Organisation with Aircraft Maintenance Training Specifications shall—

*(a)* ensure that it maintains a sufficient number of units of the material described in subregulation (13) so that no more than eight students work on any one unit at one time; and

*(b)* maintain, on its premises and under the full control of the Approved Training Organisation, an adequate supply of material, special tools, and shop equipment used in constructing and maintaining aircraft as is appropriate to its approved curriculum, in order to assure that each student will be properly instructed.

(15) An applicant for an Approved Training Organisation Certificate with Aircraft Maintenance Training Specifications, shall have the facilities, equipment, and materials prescribed in Schedule 2, appropriate to the training specification sought and the maximum number of students expected to be taught at any time. Schedule 2.

(16) An applicant for an Approved Training Organisation Certificate with Level 1 or Level 2 Flight Training Specifications and an Approved Training Organisation with Level 1 or Level 2 Flight Training Specifications shall have available exclusively, for adequate periods of time and at a location approved by the Authority, adequate flight training equipment and courseware, including flight simulator or advanced flight training device as applicable.

(17) An applicant under regulation 5, that plans to conduct pilot flight training shall show that he has continuous use of a briefing area located at each airport at which training flights originate that is—

*(a)* adequate to shelter students waiting to engage in their training flights;

*(b)* arranged and equipped for the conduct of pilot briefings; and

*(c)* for an Approved Training Organisation with an instrument rating or commercial pilot course, equipped with adequate communication to sources of weather and flight planning information.

(18) The airport used under subregulation (17), shall have an adequate runway, the necessary training equipment and meet the requirements prescribed by the Implementing Standards to this regulation under Schedule 3. Schedule 3.

**APPROVAL OF TRAINING COURSE**

**17.** (1) A Training and Procedures Manual under regulation 5(2)*(b)*(i), shall indicate in the Training and Examination Procedures Part of the Training and Procedures Manual— Approval of training course. [191/2006].

*(a)* which courses are parts of the core curriculum and which courses are parts of the specialty curriculum;

Sub. Leg.

*(b)* which requirements of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, would be satisfied by the curriculum or curricula; and

*(c)* which requirements of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, would not be satisfied by the curriculum or curricula.

(2) Where an Approved Training Organisation commences operations under a curriculum specified in its Training and Procedures Manual, and the Director-General determines that such Approved Training Organisation is not meeting the requirements of such curriculum, the Director-General may recommend that the Authority direct such Approved Training Organisation to make revisions to such curriculum.

(3) Where an Approved Training Organisation is directed to make revision to its curriculum in accordance with subregulation (2), and it fails to make such revision within thirty days of the direction given, its Approved Training Organisation Certificate may be suspended or revoked in accordance with section 39 of the Civil Aviation Act.

**TRAINING PROGRAMME CURRICULUM**

Training Programme Curriculum Requirements. [191/2006].

**18.** (1) An applicant under regulation 5, shall ensure that a curriculum submitted under his Training and Procedures Manual meets the applicable requirements and contains—

*(a)* a course outline for each proposed curriculum;

*(b)* minimum aircraft and flight training equipment requirements for each proposed curriculum as applicable;

*(c)* minimum authorised instructor and examiner qualifications for each proposed curriculum;

*(d)* a curriculum for initial training and continuing training of each authorised instructor or examiner employed to instruct in a proposed curriculum; and

*(e)* for each curriculum that provides for the issuance of a licence or rating in fewer than the minimum hours prescribed by the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulation— Sub. Leg.

(i) a means of demonstrating the ability to accomplish such training in the reduced number of hours; and

(ii) a means of tracking student performance.

**EVALUATION AND CHECKING**

Evaluation and checking. [191/2006].

**18A.** Where an Approved Training Organisation has been issued Training Specifications to conduct the testing required for the issue of a licence or rating, such testing shall be conducted by personnel authorised by the Authority or designated by the Approved Training Organisation in accordance with criteria approved by the Authority.

**SATELLITE APPROVED TRAINING ORGANISATION**

Satellite Approved Training Organisation. [191/2006].

**19.** (1) An Approved Training Organisation may conduct training in accordance with a curriculum approved by the Authority at a satellite Approved Training Organisation where—

*(a)* the facilities, equipment, personnel and course content of the Approved Training Organisation satellite meets the applicable requirements of these Regulations;

*(b)* the authorised instructors and examiners at the Approved Training Organisation satellite are under the direct supervision of management personnel of the principal Approved Training Organisation;

*(c)* the Approved Training Organisation notifies the Authority in writing at least sixty days prior to proposed commencement of operations of its Approved Training Organisation satellite; and

*(d)* the Training Specifications of the Approved Training Organisation reflect the name and

address of the satellite Approved Training Organisation and the approved courses offered at the satellite Approved Training Organisation.

(2) The Director-General shall recommend the Authority issue Training Specifications which prescribe the operations required and authorised at each satellite Approved Training Organisation.

**CHANGES TO AN APPROVED TRAINING ORGANISATION**

Changes requiring notice to the Authority. [191/2006].

**20.** (1) An Approved Training Organisation shall notify the Authority at least thirty days prior to—

*(a)* a new accountable manager being designated;

*(b)* the instructional and evaluation staff being changed; and

*(c)* the housing, training facilities and equipment, procedures, curricula, and work scope being varied or changed so as to potentially affect its Training Specifications.

(2) The Director-General may prescribe the conditions under which an Approved Training Organisation may operate during such changes unless the Authority determines that its Approved Training Organisation Certificate should be suspended.

(3) Failure to inform the Authority of the changes specified in subregulation (1), may result in the suspension or revocation of the Aviation Training Certificate of an Approved Training Organisation effective from the date the changes were implemented.

(4) An Approved Training Organisation with Aircraft Maintenance Training Specifications shall only conduct training, knowledge examinations and practical assessments away from the subregulation (2) locations in accordance with a control procedure acceptable to the Authority.

(5) A location under subregulation (3) is not required to be listed in the Training Procedures and Manual.

**INSPECTIONS BY THE DIRECTOR-GENERAL**

Inspections by the Director-General. [191/2006].

**21.** (1) The Director-General may conduct inspections to determine whether an Approved Training Organisation meets the requirements under which its Approved Training Organisation Certificate and applicable training specifications were issued to ensure continuing compliance with the approval requirements.

(2) Notwithstanding subregulation (1), the Director-General may, at any time, inspect the operations of an Approved Training Organisation to determine whether it complies with these Regulations.

(3) After an inspection is made under this regulation, the Approved Training Organisation concerned shall be notified by the Authority, in writing, of any deficiencies found during the inspection.

**RECORD KEEPING REQUIREMENTS**

Approved Training Organisation record keeping requirement. [191/2006].

**22.** (1) An Approved Training Organisation shall maintain a record of the following information in respect of each of its student:

*(a)* his name;

*(b)* a copy of his licence, if any, and medical certificate, if required;

*(c)* the name of the course and the make and model of flight training equipment used, if applicable;

*(d)* his prerequisite experience and course time completed;

*(e)* the date the student completed his course of training, terminated training, or transferred to another Approved Training Organisation;

*(f)* his performance on each lesson and the name of the authorised instructor providing instruction;

*(g)* a current progress record showing the practical projects or laboratory work completed or to be completed for each subject;

*(h)* the date and result of each knowledge test and end-of-course practical test and the name of the examiner conducting the test; and

*(i)* the number of hours of additional training that was accomplished after any unsatisfactory practical test.

(2) The logbook of a student shall not be considered as sufficient to meet the requirements of any record required by subregulation (1).

(3) An Approved Training Organisation shall maintain a record for each authorised instructor conducting training at the Approved Training Organisation and each authorised instructor designated by it as an examiner which contains—

*(a)* terms of reference;

*(b)* the qualifications;

*(c)* the experience;

*(d)* the training history,

of such authorised instructor or examiner.

(4) An Approved Training Organisation shall—

*(a)* maintain the records required by subregulation (1) for at least two years following the completion of training, testing or checking;

*(b)* maintain the qualification records required by subregulation (3) while the authorised instructor or examiner is in the employ of the Approved Training Organisation; and

*(c)* maintain the records required by subregulation (3), for at least two years.

(5) An Approved Training Organisation shall provide the records required by this regulation to the Authority upon request, within a reasonable time and shall store and maintain such records required by—

*(a)* subregulation (1) at the Approved Training Organisation, or satellite Approved Training Organisation where the training, testing or checking, where appropriate, occurred, or at another location acceptable to the Authority; and

*(b)* subregulation (3) at the Approved Training Organisation or satellite Approved Training Organisation where the authorised instructor or examiner is primarily employed, or at another location acceptable to the Authority.

(6) An Approved Training Organisation shall provide to its student, upon request and at a reasonable time, a copy of his training records.

(7) An Approved Training Organisation shall keep a current record of each student enrolled, showing, where applicable—

*(a)* the instructions credited; and

*(b)* the authenticated transcript of grades from the Approved Training Organisations previously attended.

**TRANSCRIPTS OF STUDENT GRADES**

Transcripts of grades of student. [191/2006].

**23.** (1) An Approved Training Organisation shall upon completion of a course of aviation training at its organisation by a student, issue to such student a Certificate of Completion.

(2) An Approved Training Organisation shall include in a Certificate of Completion issued it under subregulation (1)—

*(a)* the name and the certificate number of the Approved Training Organisation;

*(b)* the name of the student to whom it was issued;

*(c)* the title of the approved curriculum;

*(d)* the date of completion of the approved course;

*(e)* a statement that the student has satisfactorily completed each required stage of the approved course of training including the tests for those stages;

*(f)* an authentication by an official of the Approved Training Organisation; and

*(g)* a statement showing the cross-country flight training that the student received in the course of training, where applicable.

(3) An Approved Training Organisation shall not issue a Certificate of Completion to a student, or recommend a student for a licence or rating, unless such student has—

*(a)* completed the training specified in the approved course of training; and

*(b)* passed the required tests.

**REQUIREMENT TO PROVIDE TRANSCRIPTS ON REQUEST**

Requirement to provide transcripts on request. [191/2006].

**24.** (1) Upon request, an Approved Training Organisation shall provide a student who attended aviation training at its Approved Training Organisation, a transcript of his grades.

(2) An Approved Training Organisation shall include in the transcript required under subregulation (1)—

*(a)* the curriculum in which the student was enrolled;

*(b)* whether the student satisfactorily completed that curriculum;

*(c)* the final grades the student received; and

*(d)* an authentication by an official of the Approved Training Organisation.

**PART III**

## FLIGHT TRAINING SPECIFICATION

**APPLICABILITY**

Applicability of Part III. [191/2006].

**25.** This Part prescribes the requirements for an Approved Training Organisation for the training of flight crew.

**TRAINING SPECIFICATIONS FOR PILOT TRAINING**

Training specifications for pilot training. [191/2006].

**26.** Where the Director-General is satisfied that an applicant for an Approved Training Organisation with flight training specification meets the requirements of these Regulations, he may recommend the Authority issue an Approved Training Organisation Certificate with the following training specifications:

*(a)* Level 1 Flight Training Specifications; or

*(b)* Level 2 Flight Training Specifications.

**GENERAL PERSONNEL REQUIREMENTS FOR AN APPROVED TRAINING ORGANISATION WITH FLIGHT TRAINING SPECIFICATIONS**

Required staff for an Approved Training Organisation with flight Training Specifications. [191/2006].

**27.** (1) An applicant under regulation 5 for an Approved Training Organisation Certificate with Level 1 Flight Training Specifications or Level 2 Flight Training Specifications shall appoint and maintain a sufficient number of authorised instructors who are qualified in accordance with these Regulations to perform the duties to which they are assigned.

(2) An applicant under regulation 5 for an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall meet the applicable personnel requirements of these Regulations.

(3) An Approved Training Organisation with Level 1 Flight Training Specifications, shall appoint a sufficient number of examiners to provide the required checks and tests within seven days of training completion by a student of any curriculum leading to an airman licence, rating or both.

(4) An Approved Training Organisation shall—

*(a)* have and maintain, a sufficient number of management personnel who are qualified and competent to perform required duties; and

*(b)* ensure that its management representatives and its personnel who are designated to conduct training, are able to understand, read, write, and fluently speak the English language.

(5) The persons listed in this regulation may serve in more than one position in an Approved Training Organisation, provided such person is qualified for those positions.

**FLIGHT CREW TRAINING CURRICULA**

Curriculum for flight crew training. [191/2006].

**28.** (1) The Director-General may recommend that the Authority approve the following courses of instruction for an Approved Training Organisation with Level 1 Flight Training Specifications:

*(a)* licensing and rating courses—

(i) private pilot course;

(ii) instrument rating course;
(iii) commercial pilot licensing course;
(iv) airline transport pilot licensing course;
(v) flight instructor rating course;
(vi) flight instructor instrument rating course;
(vii) ground instructor authorisation course;
(viii) additional aircraft category or class rating course;
(ix) aircraft type rating course; and
(x) flight engineer course;

*(b)* special preparation courses—
(i) pilot refresher course;
(ii) flight authorised instructor refresher course;
(iii) ground authorised instructor refresher course;
(iv) flight engineer refresher course;
(v) agricultural aircraft operations course;
(vi) rotorcraft external-load operations course;
(vii) special operations course; and
(viii) test pilot course; and

*(c)* pilot ground school course.

(2) The minimum curriculum for the licensing and rating courses at subregulation (1)*(a)* is prescribed in the applicable Implementing Standard to this regulation under Schedule 3.

Schedule 3.

(3) The minimum curriculum for the special preparation courses under subregulation (1)*(b)* is prescribed in the applicable Implementing Standard to this regulation under Schedule 3.

Schedule 3.

(4) The minimum curriculum for the pilot ground training course at subregulation (1)*(c)* is prescribed in the applicable Implementing Standard to this regulation under Schedule 3.

Schedule 3.

(5) An Approved Training Organisation with a Level 2 Flight Training Specifications may, where it has the applicable simulation media required to conduct a course under subregulation (1)*(a)*, conduct such course.

(6) The Director-General may recommend that the Authority approve a course under subregulation (1)*(a)*, and a simulator medium in respect of such course.

**AIRCRAFT REQUIREMENTS**

Aircraft requirements. [191/2006].

**29.** (1) An applicant for an Approved Training Organisation Certificate with Level 1 Flight Training Specifications and an Approved Training Organisation with Level 1 Flight Training Specifications, shall ensure each aircraft used for flight instruction and solo flights—

*(a)* has a valid Airworthiness Certificate;

*(b)* is maintained and inspected in accordance with the requirements of the Act and Regulations made thereunder; and

*(c)* is equipped as required in the training specifications for the approved course for which it is used.

(2) Except as provided in subregulation (3), an applicant for an Approved Training Organisation Certificate with Level 1 Flight Training Specifications and an Approved Training Organisation with Level 1 Flight Training Specifications, shall ensure that each aircraft used for flight instruction has at least a two pilot stations with engine power and flight controls that are easily reached and that operate in a conventional manner from both pilot stations.

(3) An Approved Training Organisation may, with the approval of the Authority, use an aircraft with controls such as nose-wheel steering, switches, fuel selectors, and engine air flow controls that are not easily reached and operated in a conventional manner by both pilots for flight instruction, where the Approved Training Organisation determines that the flight instruction can be conducted in a safe manner considering the location of controls and their non-conventional operation, or both.

(4) An Approved Training Organisation shall ensure that each aircraft used in a course involving Instrument Flight Rules operations is equipped and maintained for Instrument Flight Rules operations.

**FLIGHT SIMULATOR AND FLIGHT TRAINING DEVICES**

Requirements for flight simulator and flight training devices in an Approved Training Organisation with Level 1 Flight Training Specifications or Level 2 Flight Training Specifications. [191/2006].

**30.** (1) An applicant for or the holder of an Approved Training Organisation Certificate with Level 1 Flight Training Specifications and Level 2 Flight Training Specifications shall show that each flight simulator and flight training device used for training, testing, and checking is approved or accepted by the Authority for—

*(a)* each manoeuvre and procedure for the make, model, and series of aircraft, set of aircraft, or aircraft type simulated, as applicable; and

*(b)* each curriculum or training course in which the flight simulator or flight training device is used, where that curriculum or course is used to satisfy any requirement of these Regulations.

(2) An applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Training Specifications shall show that each flight simulator and flight training device used by him—

*(a)* represents the aircraft for which the course is approved;

*(b)* is used only for training given by an authorised instructor; and

*(c)* is not used for more than twenty-five per cent of the total flight training hour requirements.

(3) An Approved Training Organisation with Level 1 Flight Training Specifications or Level 2 Flight Training Specifications, shall ensure that prior to use, the approval of the flight simulator or flight training device required under this regulation includes—

*(a)* the set of aircraft or type aircraft;

*(b)* where applicable, the particular variation within type for which the training, testing, or checking is being conducted; and

*(c)* the particular manoeuvre, procedure or crew member function to be performed.

(4) An Approved Training Organisation with Level 1 Flight Training Specifications or Level 2 Flight Training Specifications, shall ensure that each flight simulator or flight training device which it uses is—

*(a)* maintained to ensure the reliability of the performance, functions and all other characteristics required for its initial acceptance or approval;

*(b)* modified to conform with any modification to the aircraft being simulated if the modification results in changes to performance, function, or other characteristics required for approval;

*(c)* given a functional preflight check each day before being used; and

*(d)* provided with a discrepancy log in which the authorised instructor or examiner, at the end of each training session, enters each discrepancy.

(5) Unless otherwise authorised by the Authority, an Approved Training Organisation with Level 1 Flight Training Specifications shall ensure that each component of a flight simulator or flight training device which it uses is operative where the component is essential to, or involved in, the training, testing or checking of airmen.

**INSTRUCTOR REQUIREMENTS FOR APPROVED TRAINING ORGANISATION WITH LEVEL 2 FLIGHT TRAINING SPECIFICATIONS**

Training Specifications Instructor requirements for an Approved Training Organisation with Level 2 Flight Training. [191/2006].

**31.** An Approved Training Organisation with Level 2 Flight Training Specifications shall not employ a person as an authorised instructor in a flight training course that is subject to approval by the Authority unless such person—

*(a)* is eighteen years of age;

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*(b)* is able to read, write, speak, and understand the English language;

*(c)* holds a Flight Instructor Rating, where he conducts training in an aircraft in flight;

*(d)* satisfies the requirements of paragraph *(e)*, where he conducts training in a flight simulator; and

*(e)* meets at least one of the following requirements:

(i) the aeronautical experience requirements for a Commercial Pilot Licence, excluding the required hours of instruction in preparation for the skill test for the Commercial Pilot Licence;

(ii) the aeronautical experience requirements for Airline Transport Pilot Licence, where instructing in a flight simulator or flight training device that represents an aeroplane requiring a type rating or where conducting training in a curriculum leading to the issuance of an Airline Transport Pilot Licence; or

(iii) is employed as a Simulator Flight Instructor qualified to conduct training on flight training equipment;

*(f)* an Approved Training Organisation with Level 2 Flight Training Specifications shall appoint one or more authorised instructor in writing for each approved course prior to such authorised instructor instructing that course; and

*(g)* prior to initial appointment under paragraph *(f)*, a flight and simulator instructor shall meet the requirements of the applicable Implementing Standard to this regulation under Schedule 3.

Schedule 3.

**PRIVILEGES OF INSTRUCTORS AND EXAMINERS OF AN APPROVED TRAINING ORGANISATION WITH LEVEL 2 FLIGHT TRAINING SPECIFICATIONS**

Privileges and limitations of an authorised instructor or examiner for an Approved Training Organisation with Level 2 Flight Training Specifications. [191/2006].

**32.** (1) An authorised instructor appointed by an Approved Training Organisation with Level 2 Flight Training Specifications may conduct—

*(a)* instruction for each curriculum for which he is qualified; and

*(b)* testing and checking for which he is qualified.

(2) An examiner of an Approved Training Organisation with Level 2 Flight Training Specifications may conduct instruction, testing and checking required by these Regulations.

(3) An authorised instructor or examiner appointed by an Approved Training Organisation may give endorsements in accordance with the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, where he is authorised by the Authority to instruct or examine on a curriculum that requires such endorsements. Sub. Leg.

(4) An Approved Training Organisation shall not allow an authorised instructor to—

*(a)* conduct more than eight hours of instruction in any twenty-four consecutive hour period, or more than six days or forty hours in any seven day period excluding time spent on briefings and debriefings;

*(b)* provide flight training equipment instruction unless that authorised instructor meets the applicable requirements of regulation 33; or

*(c)* provide flight instruction in an aircraft unless that authorised instructor—

(i) meets the applicable requirements of regulation 33;

(ii) holds a Flight Instructor rating;

(iii) holds pilot licences and ratings applicable to the category, class, and type aircraft in which he is instructing;

(iv) where instructing or examining in an aircraft in flight while occupying a required crew member seat, holds at least a current Class 2 Medical Certificate; and

(v) meets the recency of experience requirements of the Civil Aviation [(No. 2) Operations] Regulations.

Sub. Leg.

**INSTRUCTOR TRAINING AND TESTING FOR AN APPROVED TRAINING ORGANISATION WITH LEVEL 2 FLIGHT TRAINING SPECIFICATIONS**

Authorised instructor training and testing requirements for an Approved Training Organisation with Level 2 Flight Training Specifications. [191/2006].

**33.** (1) An Approved Training Organisation shall ensure that except as provided in subregulation (3), prior to the initial appointment of an authorised instructor in its organisation and every twelve months beginning the first day of the month following initial appointment of an authorised instructor, such—

*(a)* authorised instructor satisfactorily completes an approved course of ground instruction in at least—

(i) the fundamental principles of the learning process;

(ii) elements of effective teaching, instruction methods, and techniques;

(iii) authorised instructor duties, privileges, responsibilities and limitations of his instructor rating;

(iv) training policies and procedures; and

(v) cockpit resource management and crew co-ordination; and

(vi) evaluation;

*(b)* authorised Flight Instructor or authorised Simulator Flight Instructor satisfactorily demonstrates to a designated examiner

knowledge of and proficiency in, instructing in a representative segment of each curriculum for which that authorised Flight Instructor or authorised Simulator Flight Instructor is designated to instruct under these Regulations;

*(c)* authorised instructor who instructs in a flight simulator or flight training device satisfactorily completes an approved course of training in the operation of the flight simulator and an approved course of ground instruction, applicable to the training courses the authorised instructor is designated to instruct, which shall include—

(i) proper operation of flight simulator and flight training device controls and systems;

(ii) proper operation of environmental and fault panels;

(iii) limitations of simulation; and

(iv) minimum equipment requirements for each curriculum;

*(d)* authorised flight instructor who provides training in an aircraft satisfactorily completes an approved course of ground instruction and flight training in an aircraft, flight simulator or flight training device, which shall include—

(i) performance and analysis of flight training procedures and manoeuvres applicable to the training courses that the authorised instructor is designated to instruct;

(ii) technical subjects covering aircraft subsystems and operating rules applicable to the training courses that the authorised instructor is designated to instruct;

(iii) emergency operations;

(iv) emergency situations likely to develop during training; and

(v) appropriate safety measures; and

*(e)* authorised instructor who instructs in flight training equipment passes a knowledge test and annual proficiency check—

(i) in the flight training equipment in which the authorised instructor will be instructing; and

(ii) on the subject matter and manoeuvres of a representative segment of each curriculum for which the authorised instructor will be instructing.

(2) In addition to the requirements of subregulation (1), an Approved Training Organisation shall ensure that an authorised instructor, appointed by it, who instructs in a flight simulator that the Authority has approved for all training and testing for an Airline Transport Pilot Licence, an aircraft type rating test, or both, has met the applicable requirements of the Implementing Standards to this regulation under Schedule 3.

Schedule 3.

(3) The Director-General in making a recommendation to the Authority in respect of the renewal of a Flight Instructor rating of an authorised instructor appointed by an Approved Training Organisation, shall take into consideration the completion of a curriculum required by subregulation (1), or (2) taken in the month before or after the month in which it is due, as taken in the month in which it was due for the purpose of computing when the next training is due.

(4) The Director-General in making a recommendation to the Authority in respect of the renewal of a Flight Instructor rating of an authorised instructor appointed by an Approved Training Organisation, may give credit in respect of subregulation (1) or (2), to a Flight Instructor who has satisfactorily completed an authorised instructor training course for an air operator, where the Authority finds such a course is equivalent to the requirements of subregulation (1) or (2).

**EXAMINER REQUIREMENTS FOR AN APPROVED TRAINING ORGANISATION WITH LEVEL 2 FLIGHT TRAINING SPECIFICATIONS**

Examiner requirements for an Approved Training Organisation with Level 2 Flight Training Specifications. [191/2006].

**34.** (1) Except as provided by regulation (33), an Approved Training Organisation with Level 2 Flight Training Specifications shall ensure that an examiner who it appoints—

*(a)* is approved by the Authority;

*(b)* is in compliance with regulations 31, 32 and 33;

*(c)* prior to his designation has satisfactorily completed a curriculum within a twelve month period that includes the following:

(i) examiner duties, functions and responsibilities;

(ii) methods, procedures, and techniques for conducting required tests and checks;

(iii) evaluation of pilot performance; and

(iv) management of unsatisfactory tests and subsequent corrective action; and

*(d)* where conducting an evaluation in flight training equipment, satisfactorily passes a knowledge test and annual proficiency check in a flight simulator or aircraft on which the examiner will be conducting a skill test.

(2) In making a recommendation in respect of the re-training requirement of an examiner, the Director-General shall take into consideration the fact that such examiner completed the curriculum required by subregulation (1)*(c)*, in the month before or the month after the month in which it was due.

(3) The Director-General may in making a recommendation to the Authority in respect of the re-training requirements for an examiner, give credit for the requirements of subregulation (1)*(c)* to an examiner who has satisfactorily completed an examiner training course for an air operator where the Authority finds such a course equivalent to the requirements of subregulation (1)*(c)*.

**PERSONNEL REQUIREMENTS FOR AN APPROVED TRAINING ORGANISATION WITH A LEVEL 1 FLIGHT TRAINING SPECIFICATIONS**

Personnel requirements for an Approved Training Organisation with Level 1 Flight Training Specifications. [191/2006].

**35.** (1) In addition to the requirements for personnel of an Approved Training Organisation with Flight Training Specifications set out in regulation 27, an applicant for, and the holder of an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall have—

*(a)* adequate flight and ground authorised instructors, with the relevant ratings and approvals;

*(b)* commercial pilots with a lighter-than-air rating, where applicable; and

*(c)* a Chief Flight Instructor, who is qualified and competent to perform the duties assigned in each approved training course.

(2) An authorised instructor for ground or flight training shall hold a flight instructor rating, ground instructor authorisation or Commercial Pilot Licence with a lighter-than-air rating, as appropriate, with ratings for the approved training course and any aircraft used in that course.

Chief Flight Instructor qualifications for an Approved Training Organisation with Level 1 Flight training specifications. [191/2006].

Schedule 3.

**36.** (1) An Approved Training Organisation with Level 1 Flight Training Specifications shall appoint a Flight Instructor in his organisation as the Chief Flight Instructor to perform supervisory functions over all other instructors for a particular set course.

(2) A Chief Flight Instructor under subregulation (1), shall meet one or more of the requirements of the Implementing Standards of this regulation under Schedule 3.

(3) A Chief Flight Instructor appointed in accordance with these Regulations and assigned to conduct a training course shall—

*(a)* complete at least once every twelve months, a ground training course or flight training in accordance with an approved syllabus; or

*(b)* complete an approved flight instructor refresher course.

**ASSISTANT CHIEF FLIGHT INSTRUCTOR QUALIFICATIONS**

Assistant Chief Flight Instructor qualifications for Approved Training Organisation with Level 1 Flight Training Specifications. [191/2006].

**37.** (1) An Approved Training Organisation with Level 1 Flight Training Specifications shall appoint an instructor in his organisation as an assistant Chief Flight Instructor.

(2) An assistant Chief Flight Instructor under subregulation (1) shall meet one or more of the requirements of the Implementing Standards to this regulation under Schedule 3.

Schedule 3.

(3) An assistant Chief Flight Instructor appointed in accordance with these Regulations and assigned to conduct a training course shall—

*(a)* complete at least once every twelve months, a ground training course or flight training in accordance with an approved syllabus; or

*(b)* complete an approved flight instructor refresher course.

**CHECK INSTRUCTOR QUALIFICATIONS**

Check Instructor qualifications for Approved Training Organisation with Level 1 Flight Training Specifications. [191/2006].

**38.** (1) An Approved Training Organisation shall designate an instructor in his organisation as a Check Instructor, to conduct student stage checks, end of course tests and instructor proficiency checks under these Regulations.

(2) A Check Instructor under subregulation (1), shall meet the requirements of the Implementing Standards to this regulation under Schedule 3.

Schedule 3.

Check Instructor qualifications for Approved Training Organisation with Level 1 Flight Training Specifications. [191/2006 202/2009].

**39.** (1) No person other than a Flight Instructor or Commercial Pilot with a lighter-than-air rating, where applicable, who has the ratings and the minimum qualifications specified for the approved training course may give a student flight training under an approved course of training.

(2) An Approved Training Organisation shall not authorise a student pilot to start a solo flight unless such flight has been approved by an authorised instructor who is present at the Approved Training Organisation.

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(3) A Flight Instructor or commercial pilot with a lighter-than-air rating who is assigned to conduct a flight training course shall—

*(a)* prior to receiving authorisation to train students in a flight training course, accomplish—

(i) a review of and a briefing on the objectives and standards of such training course; and

(ii) an initial proficiency check in each make and model of aircraft used in that training course in which he provides training;

*(b)* every twelve months after the month in which the person last complied with paragraph *(a)*, accomplish a proficiency check in one of the aircraft in which students train.

(4) The tasks set out in subregulation (3), shall be administered by the Chief Flight Instructor, assistant Chief Flight Instructor or Check Instructor of the Approved Training Organisation.

Instructor ground training for Approved Training Organisation with Level 1 Flight Training Specifications. [191/2006].

**40.** (1) Except as provided in subregulation (2), each authorised instructor who is assigned to a ground training course, shall hold a Ground Instructor Authorisation or a Flight Instructor rating or a Commercial Pilot Licence with a lighter-than-air rating with the appropriate rating for that course of training.

(2) A person who does not meet the requirements of subregulation (1) may be assigned ground training duties in a ground training course, if—

*(a)* the chief instructor who is assigned to that ground training course finds the person qualified to give that training; and

*(b)* the authorised instructor serves under the supervision of the Chief Flight Instructor or the assistant Chief Flight Instructor who is present at the facility when the training is given.

(3) An authorised instructor shall not be used in a ground training course until that authorised instructor has been briefed in regard to the objectives and standards of that course by the Chief Flight Instructor, assistant Chief Flight Instructor, or Check Instructor.

Chief Flight Instructor responsibility for Approved Training Organisation with Level 1 Flight Training Specifications. [191/2006].

**41.** An Approved Training Organisation with Level 1 Flight Training Specifications shall, during training ensure that the Chief Flight Instructor or an assistant Chief Flight Instructor is—

*(a)* available at such Approved Training Organisation; or

*(b)* contactable by telephone, radio or other electronic means.

Privileges of a certified Approved Training Organisation with Level 2 Flight Training Specifications. [191/2006].

**42.** (1) An Approved Training Organisation with Level 2 Flight Training Specifications may allow flight simulator authorised instructors and examiners to meet recency of experience requirements through the use of a flight simulator or flight training device where that flight simulator or flight training device is used in a course approved in accordance with these Regulations.

(2) An Approved Training Organisation with Level 1 Flight Training Specifications may credit towards the curriculum requirements of a course, previous training and pilot experience and knowledge, provided the student meets the requirements prescribed in the Implementing Standards to this regulation under Schedule 3.

Schedule 3.

**LIMITATIONS OF AN APPROVED TRAINING ORGANISATION CERTIFICATE**

Limitations of an Approved Training Organisation. [191/2006].

**43.** (1) An Approved Training Organisation with Level 1 Flight Training Specifications or Level 2 Flight Training Specifications shall—

*(a)* ensure that the freeze, slow motion or repositioning feature in a flight simulator or flight training device is not used during testing or checking; and

*(b)* ensure that a repositioning feature in a flight simulator or flight training device is used during line operational simulation for evaluation and line-oriented flight training only to advance along a flight route to the point where the descent and approach phase of the flight begins.

(2) When practical testing, flight checking, or line operational simulation is being conducted, an Approved Training Organisation with Level 2 Flight Training Specifications shall ensure that one of the following occupies each supporting crew member position:

*(a)* a crew member qualified as co-pilot in the aircraft category and class; and

*(b)* a student.

(3) Notwithstanding subregulation 2*(a)*, a flight instructor who is giving instruction may not occupy a crew member position where practical resting, flight checking or line operational simulation is being conducted.

(4) Notwithstanding subregulation 2*(b)*, a student may be used in a crew member position with any other student not on the same specific course where practical resting, flight checking or line operational simulation is being conducted.

**ITEMS TO BE CARRIED BY STUDENT PILOT ON TRAINING AND SOLO FLIGHT**

Limitations on student pilot enrolled in actual flight curricula.

**44.** A student pilot shall carry the following items on each aircraft he uses for flight training and solo flights:

*(a)* a pre-takeoff and pre-landing checklist; and

*(b)* the aircraft operating handbook or aircraft flight manual for the aircraft where one is furnished by the manufacturer.

**ENROLMENT DOCUMENTS**

Enrolment Document for Approved Training Organisation with Level 1 and Level 2 Flight Training Specifications. [191/2006 202/2009].

**45.** (1) An Approved Training Organisation with Level 1 and Level 2 Flight Training Specifications, shall furnish each student upon enrolment, a copy of—

*(a)* a certificate of enrolment containing—

(i) the name of the course in which the student is enrolled; and

(ii) the date of enrolment.

*(b)* the training syllabus of the student;

*(c)* the safety procedures and practices of the Approved Training Organisation for student pilots, which describe—

(i) the use of the facilities and the operation of the aircraft of the Approved Training Organisation;

(ii) the weather minimum required by the Approved Training Organisation for dual and solo flights;

Seal of Parachute Rigger.

(iii) the procedures for starting and taxiing aircraft on the ramp;

(iv) fire precautions and procedures;

(v) re-dispatch procedures after unprogrammed landings, on and off airports;

(vi) aircraft discrepancies and write-offs;

(vii) securing of aircraft when not in use;

(viii) fuel reserves necessary for local and cross-country flights;

(ix) avoidance of other aircraft in flight and on the ground;

(x) minimum altitude limitations and simulated emergency landing instructions; and

(xi) a description of and instructions regarding the use of assigned practice areas.

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(2) An applicant for an Approved Training Organisation with Level 1 or Level 2 Flight Training Specifications shall maintain a monthly listing of persons enrolled in each training course offered by the Approved Training Organisation.

(3) An applicant for an Approved Training Organisation with Level 1 or Level 2 Flight Training Specifications shall ensure that each training course for which it seeks approval meets the minimum curriculum requirements.

## PART IV

## AIRCRAFT MAINTENANCE TRAINING REQUIREMENTS

### APPLICABILITY

Applicability of Part IV. [191/2006].

**46.** This Part prescribes the requirements for issuing approvals to an Approved Training Organisation with Aircraft Maintenance Training Specifications to conduct the approved training course and examinations required by and for such organisations to issue certificates to students upon successful completion of such courses.

### APPROVAL TO CONDUCT TRAINING

Aircraft Maintenance Training. [191/2006 202/2009].

**47.** (1) An Aviation Training Organisation shall not conduct training of a person for an Aircraft Maintenance Engineer Licence category or rating unless the Aviation Training Organisation holds an Aviation Training Organisation Certificate with Aircraft Maintenance Training operating specifications issued under regulation 5.

(2) Notwithstanding subregulation (1), the holder of an—

*(a)* Aircraft Maintenance Engineer Licence;

*(b)* Air Operator Certificate; or

*(c)* Approved Maintenance Organisation,

may conduct training of a person for an Aircraft Maintenance Engineer Licence category or rating under a training programme approved by the Authority.

**APPLICATION FOR APPROVED TRAINING ORGANISATION CERTIFICATE WITH AIRCRAFT MAINTENANCE TRAINING SPECIFICATIONS**

Application and issue of Approved Training Organisation with Aircraft Maintenence Training Specifications. [191/2006].

**48.** (1) A person wishing to apply for an Approved Training Organisation Certificate with Aircraft Maintenance Training Specifications shall—

*(a)* apply in the manner set out in regulation 5;

*(b)* attach a copy of his Training and Procedures Manual.

(2) Where the Director-General is satisfied that an applicant under regulation 5, has met the relevant requirements of this Part he shall recommend the Authority issue to the applicant with an Approved Training Organisation Certificate with Aircraft Maintenance Training Specifications.

**AIRCRAFT MAINTENANCE ENGINEER TRAINING COURSES**

Director-General may recommend approval of certain courses of instruction. [202/2009].

**49.** The Director-General may where an applicant under regulation 48 meets the requirements of regulation 6, recommend the Authority approve the following courses of instruction:

*(a)* A—Airframe, fixed wing category;

*(b)* A—Airframe, rotary wing category;

*(c)* C—Engine, piston category;

*(d)* C—Engine, turbo-jet, turbo-prop and turbo-shaft category;

*(e)* E1—Avionics Systems category for Electrical, Instruments and Radio systems;

*(f)* E2—Avionics Systems category for Electrical, Instruments, Radio, Auto Flight and Flight Management systems;

*(g)* A—Airframe Type Rating;

*(h)* C—Engine Type Rating;

*(i)* E1—An Avionics Systems group rating for the electrical systems, radio systems and instrument systems, for an aeroplane of 5 700 kg or less, maximum certified take-off mass and helicopters of 2 730 kg or less, maximum certified take-off mass;

*(j)* E2—An Avionics Systems group rating for the electrical systems, radio systems, instrument systems, auto flight systems and flight management systems for an aeroplane of 5 700 kg or less, maximum certified take-off mass and helicopters of 2 730 kg or less, maximum certified take-off mass;

*(k)* E1—Avionics Systems type rating for an aeroplane type over 5 700 kg certified take-off mass or a helicopter type over 2 730 kg maximum certified take-off mass; and

*(l)* E2—Avionics Systems type rating for an aeroplane type over 5 700 kg certified take-off mass or a helicopter over 2 730 kg maximum certified take-off mass.

**GENERAL CURRICULUM REQUIREMENTS**

Curriculum requirements for Approved Training Organisation. [191/2006 202/2009].

**50.** (1) An Approved Training Organisation with Aircraft Maintenance Training Specifications shall have a curriculum that is designed to qualify its students to perform the duties of an Aircraft Maintenance Engineer for a particular category or rating.

(2) A curriculum under subregulation (1) shall—

*(a)* be approved by the Authority; and

*(b)* offer the number of hours specified in the applicable Implementing Standards to this regulation in Schedule 3.

(3) An instruction unit hour under subregulation (2)*(b)*, shall be not less than fifty minutes in length.

(4) A curriculum under this regulation shall cover the subjects and items prescribed in the applicable Implementing Standard to this regulation under Schedule 3.

Schedule 3.

(5) An Approved Training Organisation with Aircraft Maintenance Training Specifications, shall teach each subject to at least the indicated level of proficiency defined in the applicable Implementing Standard to this regulation under Schedule 3.

Schedule 3.

(6) An Approved Training Organisation with Aircraft Maintenance Training Specifications shall maintain a curriculum that shows—

*(a)* the required practical projects to be completed;

*(b)* the proportions of theory and other instruction to be given, for each subject; and

*(c)* a list of the minimum required tests to be given.

(7) An Approved Training Organisation with Aircraft Maintenance Training Specifications may issue a Certificate of Completion where a person successfully completes a course approved by the Authority.

**AIRCRAFT MAINTENANCE ENGINEER TRAINING PROGRAMME PROVIDERS**

Application for approval of Aircraft Maintenance Engineer Training Programme. [191/2006].

**51.** (1) The holder of a training organisation applicant may apply to the Authority for approval for an Aircraft Maintenance Engineer training programme.

(2) An air operator, an Aircraft Maintenance Organisation or an Approved Training Organisation may apply to the Authority for approval for an Aircraft Maintenance Engineer training programme that meets the requirements of this Part.

**INSTRUCTOR REQUIREMENTS**

Requirements for instructors of an Approved Training Organisation. [191/2006 202/2009].

**52.** (1) An Aviation Training Organisation with Aircraft Maintenance Training Specification shall ensure that an instructor for an Aircraft Maintenance Engineer Licence category or rating, holds an Aircraft Maintenance Engineer Licence category or rating appropriate to the training conducted.

(2) Notwithstanding subregulation (1), an Aviation Training Organisation with Aircraft Maintenance Training Specifications may provide a specialised instructor who does not hold an Aircraft Maintenance Engineer Licence to teach mathematics, basic electricity, basic hydraulics, basic pneumatics, drawings and similar subjects and civil aviation requirements, laws and regulations.

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(3) An Aviation Training Organization with Aircraft Maintenance Training Specification shall maintain a list of the names and qualifications of instructors referred to in subregulations (1) and (2) and upon request provide a copy of such list with a summary of the qualifications of each instructor to the Authority.

**53.** ***(Revoked by LN 202/2009).***

**APPROVED TRAINING ORGANISATION WITH AIRCRAFT MAINTENANCE TRAINING SPECIFICATIONS PRIVILEGES**

Privileges of the Approved Training Organisation with Aircraft Maintenance Training Specifications. [191/2006 202/2009].

**54.** An Aviation Training Organisation with Aircraft Maintenance Training Specification may carry out the following as permitted by, and in accordance with its approved Training and Procedures Manual:

*(a)* conduct approved Aircraft Maintenance Engineer Licence category courses or part thereof;

*(b)* conduct approved Aircraft Maintenance Engineer Licence type rating or task training courses; and

*(c)* issue a Certificate of Completion to students who successfully completed the courses specified in paragraphs *(a)* and *(b)*.

**PART V**

**TRAINING COURSES FOR AIRMEN OTHER THAN FLIGHT CREW AND MAINTENANCE ENGINEERS**

Applicability of Part V. Sub. Leg.

**55.** (1) This Part provides an alternative means to accomplish flight training required by the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, and Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations.

(2) Certification under this Part is not required for training that is—

*(a)* approved under the provisions of the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations; and

*(b)* conducted under the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations. Sub. Leg.

**FLIGHT OPERATIONS OFFICER TRAINING COURSE**

Flight Operations Officer training course requirements. [191/2006]. Sub. Leg.

**56.** (1) An applicant for or the holder of an Approved Training Organisation Certificate, proposing to conduct Flight Operations Officers training courses for the granting of a Flight Operations Officer Authorisation under Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, by the Authority, shall apply to the Authority for approval to conduct such course.

(2) An application under subregulation (1), shall include an outline of the major topics and sub-topics to be covered, and the number of hours proposed for each.

(3) A training course under subregulation (1) shall extend over a minimum of two hundred total course hours covering the knowledge and practical training in the topics and sub-topics under subregulation (2).

(4) Where the Director-General is satisfied that the proposed course meets the minimum requirements for the granting of a Flight Operations Officer Authorisation under Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, he may recommend the Authority grant approval to the Approved Training Organisation to conduct such course. Sub. Leg.

(5) An approval granted by the Authority to operate a Flight Operations Officer Training Course shall expire twenty-four months after the last day of the month of issuance of the approval.

(6) An Approved Training Organisation approved to conduct a Flight Operations Officer Training Course shall apply to the Authority for renewal within thirty days prior to the expiration date of his approval.

Personnel requirements for an Approved Training Organisation approved to conduct a Flight Operations Officer Training Course. [191/2006].

**57.** An Approved Training Organisation approved to conduct a Flight Operations Officer Training Course shall ensure that he maintains an adequate number of authorised instructors who maintain a twenty-four month student passing average of at least eighty per cent for the students taking the practical test on the first attempt.

**OTHER COURSES OF INSTRUCTION**

Other courses of instruction. [191/2006].

**58.** (1) Where an applicant for or the holder of an Approved Training Organisation Certificate meets the applicable requirements of regulation 5, the Director-General may recommend that the Authority approve the following courses of instruction for airmen other than flight crew and aircraft maintenance engineers:

*(a)* Air Traffic Services Training;

*(b)* Cabin Crew;

*(c)* Material Handlers;

*(d)* Ground servicing personnel;

*(e)* Security personnel; and

*(f)* Such other courses approved by the Authority.

(2) The Director-General may recommend that the Authority approve a course for where the applicant for or holder of an Approved Training Organisation Certificate shows that the course contains a curriculum that shall achieve a level of competency equal to, or greater than, that required by applicable parts of these Regulations.

**IMPLEMENTING STANDARDS**

Requirements to comply with minimum standards. [191/2006].

**59.** The holder of or applicant for an Approved Training Organisation Certificate under these Regulations in meeting the requirements of regulations 16, 28, 31, 33, 36, 37, 38, 42, 45 and 50, shall ensure that he complies with the minimum implementing standards set out in Schedule 3.

Schedule 3.

**DIRECTOR-GENERAL MAY AMEND SCHEDULES**

**60.** The Director-General may, by Order amend any of the Schedules.

Director-General to amend Schedules.

**TRANSITIONAL**

**61.** (1) The Approved Training Organisation requirements under these Regulations shall come into effect on 1st October 2009.

Transitional provision. [36/2005 229/2005 191/2006 290/2006 34/2008].

(2) A holder of an Approved Training Organisation Certificate who on the commencement of these Regulations continues to operate as an Approved Training Organisation under his existing Certificate shall apply to the Authority for re-certification under these Regulations and successfully complete his re-certification on or before 1st October 2009.

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## SCHEDULE 1

Regulation 5(2)*(b)*(i). [191/2006 290/2006].

## TRAINING AND PROCEDURES MANUAL

1. An Approved Training Organisation may provide a training and procedures manual for the use and guidance of personnel concerned and shall be issued in separate parts containing at least the following information:

*(a)* a general description of the scope of training authorised under the organisation's terms of approval;

*(b)* the content of the training programmes offered including the courseware and equipment to be used;

*(c)* a description of the organisation's quality assurance system in accordance with regulation 14A;

*(d)* a description of the organisations facilities;

*(e)* the name, duties and qualification of the person designated as responsible for compliance with the requirements of the approval in regulation 15(1);

*(f)* a description of the duties and qualification of the personnel designated as responsible for planning, performing and supervising the training in regulation 15(2);

*(g)* a description of the procedures used to establish and maintain the competence of instructional personnel as required by regulation 15(3);

*(h)* a description of the method used for the completion and retention of the training records required by regulation 22;

*(i)* a description, when applicable, of additional training needed to comply with an operator's procedures and requirements; and

*(j)* where an Approved Training Organisation is authorised to conduct the testing required for the issue of a licence or rating in accordance with regulation 18A, a description of the selection, role and duties of the authorised personnel, as well as the applicable requirements established by the Authority.

2. The Approved Training Organisation shall ensure that the Training and Procedures Manual is amended when necessary and shall keep the information contained in the Training and Procedures Manual up to date.

3. Copies of all amendments to the Training and Procedures Manual shall be furnished promptly to all organisations or persons to whom the manual has been issued.

## SCHEDULE 2

Regulation 16(15). [191/2006].

An applicant for, and holder of, an Approved Training Organisation Certificate shall have facilities the Authority determines are appropriate for the maximum number of students expected to be taught at any time, as follows:

*(a)* an enclosed classroom;

*(b)* suitable facilities arranged to assure proper separation from the working space, for parts, tools, materials, and similar articles;

*(c)* suitable area for application of finishing materials, including paint spraying;

*(d)* suitable areas equipped with washtank and degreasing equipment with air pressure or other adequate cleaning equipment;

*(e)* suitable facilities for running engines;

*(f)* suitable area with adequate equipment, including benches, tables, and test equipment, to disassemble, service, and inspect;

(i) ignition systems, electrical equipment, and appliances;

(ii) carburettors and fuel systems; and

(iii) hydraulic and vacuum systems for aircraft, aircraft engines, and their appliances;

*(g)* suitable space with adequate equipment, including tables, benches, stands, and jacks, for disassembling, inspecting, and rigging aircraft;

*(h)* suitable space with adequate equipment for disassembling, inspecting, assembling, troubleshooting, and timing engines.

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*L.R.O.*

[191/2006
290/2006
202/2009].

## SCHEDULE 3

## IMPLEMENTING STANDARDS

**Regulation 16(18): Airport Requirements**

An applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall show that the airport at which training flights originate has the following:

*(a)* at least one runway or take-off area that allows training aircraft to make a normal take-off and landing at the aircraft's maximum certified take-off gross weight under the following conditions:

(i) wind not more than 5 knots;

(ii) temperatures equal to the mean high temperature for the hottest month of the year in the operating area;

(iii) if applicable, with the power plant operation, and landing gear and flap operation recommended by the manufacturer; and

(iv) in the case of a take-off—

(A) with smooth transition from lift-off to the best rate of climb speed without exceptional piloting skills or techniques; and

(B) clearing all obstacles in the take-off flight path by at least 50 feet;

*(b)* a wind direction indicator that is visible from the end of each runway at ground level;

*(c)* a traffic direction indicator when—

(i) the airport does not have an operating control tower; and

(ii) traffic and wind advisories are not available;

*(d)* except as provided in subparagraph *(e)*, permanent runway lights if that airport is to be used for night training flights; and

*(e)* adequate non-permanent lighting or shoreline lighting for an airport or seaplane base for night training flights in seaplanes, if approved by the Authority.

**Regulation 28(1)*(a)*(i): Private Pilot Licensing Course**

The following curriculum meets the minimum curriculum standard for a private pilot licensing course:

(1) Ratings:

*(a)* aeroplane single-engine;

*(b)* aeroplane multi-engine;

*(c)* rotorcraft helicopter;

*(d)* rotorcraft gyroplane;

*(e)* powered-lift;

*(f)* glider;

*(g)* lighter-than-air airship; and

*(h)* lighter-than-air balloon.

(2) Eligibility for enrolment: A person shall hold a student pilot licence prior to enrolling in the flight portion of the private pilot licensing course.

(3) Aeronautical knowledge training:

*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training specifications shall ensure that each approved course includes at least the following hours of ground training on the following aeronautical knowledge areas, appropriate to the aircraft category and class rating:

(i) 35 hours for an aeroplane, rotorcraft, or powered-lift category rating;

(ii) 15 hours for a glider category rating;

(iii) 10 hours for a lighter-than-air category with a balloon class rating; and

(iv) 35 hours for a lighter-than-air category with an airship class rating; and

*(b)* ground training shall include the following aeronautical knowledge areas:

(i) applicable Trinidad and Tobago regulations for private pilot privileges, limitations, and flight operations;

(ii) accident reporting requirements of Trinidad and Tobago;

(iii) applicable subjects of the Authority provided aeronautical information publications;

(iv) aeronautical charts for visual flight rules navigation using pilotage, dead reckoning, and navigation systems;

(v) radio communication procedures;

(vi) recognition of critical weather situations from the ground and in flight, windshear avoidance, and the procurement and use of aeronautical weather reports and forecasts;

(vii) safe and efficient operation of aircraft, including collision avoidance, and recognition and avoidance of wake turbulence;

(viii) effects of density altitude on take-off and climb performance;

(ix) weight and balance computations;

(x) principles of aerodynamics, power plants, and aircraft systems;

(xi) if the training course is for an aeroplane category or glider category rating, stall awareness, spin entry, spins, and spin recovery techniques;

(xii) aeronautical decision making and judgment; and

(xiii) pre-flight action that includes—

(A) obtaining information on runway lengths, data on take-off and landing distances, weather reports and forecasts, and fuel requirements; and

(B) planning for alternatives if a planned flight cannot be completed or delays are encountered.

(4) Flight training:

*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with this training specification shall include at least the following hours of flight training on the areas of operation listed in subparagraph *(d)*, appropriate to the aircraft category and class rating:

(i) 35 hours for an aeroplane, rotorcraft, powered-lift, or airship rating;

(ii) 6 hours for a glider rating; and

(iii) 8 hours for a balloon rating;

*(b)* each applicant for, and holder of, an Approved Training Organisation Certificate with this training specification shall include at least the following hours of flight training in each course:

(i) for each category and class, unless otherwise noted, 20 hours from a flight instructor on the applicable areas of operation that includes at least—

(A) 3 hours of cross-country flight training in the category and class involved;

(B) 3 hours of night flight training in the category and class involved that includes—

(I) one cross-country flight of more than 100 nautical miles total distance; and

(II) 10 take-offs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern);

(C) 3 hours of instrument training in the category and class involved; and

(D) 3 hours in the category and class involved in preparation for the practical test within 60 days preceding the date of the test;

*(c)* specific training for other categories and classes as shown:

(i) for a rotorcraft helicopter and gyroplane course 3 hours of night flight training in a helicopter that includes one cross-country flight of more than 50 nautical miles total distance;

(ii) for a glider course: 4 hours from a flight instructor on the applicable areas of operation in subparagraphs *(d)* and *(e)* that includes at least—

(A) five training flights in a glider on launch/tow procedures approved for the course and in the applicable areas of operation listed in subparagraphs *(d)* and *(e)*; and

(B) three training flights in a glider in preparation for the practical test within 60 days preceding the date of the test;

(iii) for a lighter-than-air airship course: 20 hours from a commercial pilot with an airship rating on the applicable areas of operation in subparagraphs *(d)* and *(e)* that include at least—

(A) 3 hours cross-country training in an airship;

(B) 3 hours of night flight training in an airship that includes—

(I) one cross-country flight over 25 nautical miles total distance; and

(II) five take-offs and five landings to a full stop (with each landing involving a flight in the traffic pattern);

(iv) for a lighter-than-air balloon course: 8 hours, including at least five flights, from a commercial pilot with a balloon rating on the applicable areas of operation in subparagraphs *(d)* and *(e)*, that includes—

(A) if the training is being performed in a gas balloon—

(I) two flights of 1 hour each;

(II) one flight involving a controlled ascent to 3,000 feet above the launch site; and

(III) two flights in preparation for the practical test within sixty days preceding the date of the test;

(B) if the training is being performed in a balloon with an airborne heater—

(I) two flights of 30 minutes each;

(II) one flight involving a controlled ascent to 2,000 feet above the launch site; and

(III) two flights in preparation for the practical test within 60 days preceding the date of the test;

*(d)* each approved course shall include flight training in the following areas of operation that are applicable to the aircraft category and class rating:

(i) preflight preparation;

(ii) preflight procedures;

(iii) airport and seaplane base operations;

(iv) take-offs, landings, and go-arounds;

(v) performance manoeuvres;

(vi) ground reference manoeuvres;

(vii) navigation;

(viii) slow flight and stalls;

(ix) basic instrument manoeuvres;

(x) emergency operations;

(xi) night operations; and

(xii) postflight procedures;

*(e)* in addition, for the specific category and class of aircraft shown, each approved course shall include the applicable flight training in the following areas of operation:

(i) for a multi-engine aeroplane course, multi-engine operations;

(ii) for a rotorcraft helicopter course: hovering manoeuvres;

(iii) for a rotorcraft gyroplane course: flight at slow airspeeds;

(iv) for a powered-lift course: hovering manoeuvres;

(v) for a glider course—

(A) launches/tows, as appropriate, and landings;

(B) performance speeds; and

(C) soaring techniques;

(vi) for a lighter-than-air balloon course launches and landings.

(5) Solo flight training: Each approved course shall include at least the following solo flight training:

*(a)* for an aeroplane single-engine course: 5 hours of solo flight training in a single-engine aeroplane on the applicable areas of operation in paragraph (4)*(d)* that includes at least—

(i) one solo cross-country flight of at least 100 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles between the take-off and landing locations; and

(ii) three take-offs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower;

*(b)* for an aeroplane multi-engine course: 5 hours of flight training in a multi-engine aeroplane performing the functions of a pilot in command while under the supervision of a flight instructor, the training shall consist of the applicable areas of operation in paragraph (4)*(d)* and include at least—

(i) one cross-country flight of at least 100 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles between the take-off and landing locations; and

(ii) three take-offs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower;

*(c)* for a rotorcraft helicopter course: 5 hours of solo flight training in a helicopter on the applicable areas of operation in paragraph (4)(*d*) that includes at least—

(i) one solo cross-country flight of more than 50 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 25 nautical miles between the take-off and landing locations; and

(ii) three take-offs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower;

*(d)* for a rotorcraft gyroplane course: 5 hours of solo flight training in gyroplanes on the applicable areas of operation in paragraph (4)*(d)* that includes at least—

(i) one solo cross-country flight of more than 50 nautical miles with landings at a minimum of three points, and

one segment of the flight consisting of a straight-line distance of at least 25 nautical miles between the take-off and landing locations; and

(ii) three take-offs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower;

*(e)* for a powered-lift course: 5 hours of solo flight training in a powered-lift on the applicable areas of operation in paragraph (4)*(d)* that includes at least—

(i) one solo cross-country flight of at least 100 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles between the take-off and landing locations;

(ii) three take-offs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower; and

(iii) transition from hover to forward flight using wing lift;

*(f)* for a glider course: two solo flights in a glider on the applicable areas of operation in paragraph (4)*(d)* and the launch and tow procedures appropriate for the approved course;

*(g)* for a lighter-than-air airship course: 5 hours of flight training in the applicable areas of operation shown in paragraph (4)*(d)* in an airship performing the functions of pilot in command while under the supervision of a commercial pilot with an airship rating;

*(h)* for a lighter-than-air balloon course: training on the applicable areas of operation in paragraph (4)*(d)*, as applicable;

(i) two solo flights in a balloon with an airborne heater; or

(ii) at least two flights in a gas balloon performing the functions of pilot in command while under the supervision of a commercial pilot with a balloon rating.

(6) Stage checks and end-of-course tests:

*(a)* each student to graduate from a private pilot course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the applicable areas of operation listed in paragraph (4)*(d)* for the aircraft category and class rating; and

*(b)* each student shall demonstrate satisfactory proficiency prior to being endorsed to operate an aircraft in solo flight.

**Regulation 28(1)*(a)*(ii): Instrument Rating Course**

The following curriculum meets the minimum curriculum standard for an instrument rating course and additional instrument rating course:

(1) Ratings:

*(a)* instrument: aeroplane;

*(b)* instrument: helicopter; and

*(c)* instrument: powered-lift.

(2) Eligibility for enrolment. A person shall hold at least a private pilot licence with an aircraft category and class rating appropriate to the instrument rating for which the course applies prior to enrolling in that portion of the instrument rating course.

(3) Aeronautical knowledge training:

*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each approved course includes at least the following hours of ground training on the aeronautical knowledge areas appropriate to the instrument rating sought:

(i) 30 hours for an initial instrument rating; and

(ii) 20 hours for an additional instrument rating; and

*(b)* ground training shall include the following aeronautical knowledge areas:

(i) applicable Trinidad and Tobago regulations for IFR flight operations;

(ii) appropriate information in aeronautical information publications provided by the Authority;

(iii) air traffic control system and procedures for instrument flight operations;

(iv) IFR navigation and instrument approaches to an airport by use of navigation systems;

(v) use of IFR en route and instrument approach procedure charts;

(vi) procurement and use of aviation weather reports and forecasts, and the elements of forecasting weather trends on the basis of that information and personal observation of weather conditions;

(vii) safe and efficient operation of aircraft under IFR conditions;

(viii) recognition of critical weather situations and windshear avoidance;

(ix) aeronautical decision making and judgment; and

(x) crew resource management, to include crew communication and co-ordination.

(4) Flight training:

*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes at least the following hours of flight training on the applicable areas of operation listed in subparagraph *(c)*:

(i) 35 hours for an initial instrument rating; and

(ii) 15 hours for an additional instrument rating;

*(b)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes the following flight training:

(i) for an instrument aeroplane course: instrument training from a flight instructor with an instrument rating on the applicable areas of operation in subparagraph *(c)* including at least one cross-country flight that—

(A) is in the category and class of aeroplane that the course is approved for, and is performed under IFR;

(B) is a distance of at least 250 nautical miles with one segment of the flight consisting of at least a straight-line distance of 100 nautical miles between airports;

(C) involves an instrument approach at each airport; and

(D) involves three approaches with the use of different kinds of navigation systems;

(ii) for an instrument helicopter course: instrument training from a licensed flight instructor with an instrument rating on the applicable areas of operation in subparagraph *(c)* including at least one cross-country flight that—

(A) is performed in a helicopter under IFR;

(B) is a distance of at least 100 nautical miles with one segment of the flight consisting of at least

a straight-line distance of 50 nautical miles between airports;

(C) involves an instrument approach at each airport; and

(D) involves three approaches with the use of different kinds of navigation systems;

(iii) for an instrument powered-lift course: instrument training from a flight instructor with an instrument rating on the areas of operation in subparagraph *(c)* including at least one cross-country flight that—

(A) is in a powered-lift and is performed under IFR;

(B) involves transition from wing-borne to rotor-borne flight under IFR;

(C) is a distance of at least 250 nautical miles with one segment of the flight consisting of at least a straight-line distance of 100 nautical miles between airports;

(D) involves an instrument approach at each airport; and

(E) involves three different kinds of approaches with the use of navigation systems;

*(c)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes the flight training on the applicable areas of operation listed in this paragraph appropriate to the instrument aircraft category and class rating—

(i) preflight preparation;

(ii) preflight procedures;

(iii) air traffic control clearances and procedures;

(iv) flight by reference to instruments;

(v) navigation systems;

(vi) instrument approach procedures;

(vii) emergency operations; and

(viii) postflight procedures.

(5) Stage checks and end-of-course tests: Each student to graduate from an instrument rating course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the areas of operation listed in paragraph (4)(*c*) that are appropriate to the aircraft category and class rating.

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**Regulation 28(1)*(a)*(iii): Commercial Pilot Licensing Course**

The following curriculum meets the minimum curriculum standard for a commercial pilot licensing course:

(1) Ratings:

*(a)* aeroplane single-engine;

*(b)* aeroplane multi-engine;

*(c)* rotorcraft helicopter;

*(d)* rotorcraft gyroplane;

*(e)* powered-lift;

*(f)* glider;

*(g)* lighter-than-air airship; and

*(h)* lighter-than-air balloon.

(2) Eligibility for enrolment: A person shall hold the following prior to enrolling in the flight portion of the commercial pilot licensing course:

*(a)* at least a private pilot licence; and

*(b)* if the course is for a rating in an aeroplane or a powered-lift category—

(i) hold an instrument rating in the aircraft that is appropriate to the aircraft category rating for which the course applies; or

(ii) be enrolled concurrently in an instrument rating course that is appropriate to the aircraft category rating for which the course applies, and pass the required instrument rating practical test prior to completing the commercial pilot licensing course.

(3) Aeronautical knowledge training:

*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes at least the following ground training on the applicable aeronautical knowledge areas listed in subparagraph *(b)*:

(i) 65 hours for an aeroplane category rating, powered-lift category rating, or a lighter-than-air category with an airship class rating;

(ii) 30 hours for a rotorcraft category rating;

(iii) 20 hours for a glider category rating; and

(iv) 20 hours for a lighter-than-air category with a balloon class rating;

*(b)* ground training shall include the following aeronautical knowledge areas:

(i) Trinidad and Tobago regulations that apply to commercial pilot privileges, limitations, and flight operations;

(ii) accident reporting requirements of Trinidad and Tobago;

(iii) basic aerodynamics and the principles of flight;

(iv) meteorology, to include recognition of critical weather situations, windshear recognition and avoidance, and the use of aeronautical weather reports and forecasts;

(v) safe and efficient operation of aircraft;

(vi) weight and balance computations;

(vii) use of performance charts;

(viii) significance and effects of exceeding aircraft performance limitations;

(ix) use of aeronautical charts and a magnetic compass for pilotage and dead reckoning;

(x) use of air navigation facilities;

(xi) aeronautical decision making and judgment;

(xii) principles and functions of aircraft systems;

(xiii) manoeuvres, procedures, and emergency operations appropriate to the aircraft;

(xiv) night and high-altitude operations;

(xv) descriptions of and procedures for operating within the Trinidad and Tobago airspace system; and

(xvi) procedures for flight and ground training for lighter-than-air ratings.

(4) Flight training:

*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes at least the following flight training on the applicable areas of operation listed in subparagraph *(c)*—

(i) 155 hours for an aeroplane, powered-lift, or an airship rating;

(ii) 115 hours for a rotorcraft rating;

(iii) 6 hours for a glider rating;

(iv) 10 hours and 8 training flights for a balloon rating.

*(b)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training

Specifications shall ensure that each course includes at least the following flight training:

(i) for an aeroplane single-engine course: 55 hours of flight training from a licensed flight instructor on the areas of operation listed in subparagraph *(c)* that includes at least—

(A) 5 hours of instrument training in a single-engine aeroplane;

(B) 10 hours of training in a single-engine aeroplane that has retractable landing gear, flaps, and a controllable pitch propeller, or is turbine-powered;

(C) one cross-country flight in a single-engine aeroplane of at least a 2-hour duration, a total straight-line distance of more than 100 nautical miles from the original point of departure, and occurring in day visual flight rules conditions;

(D) one cross-country flight in a single-engine aeroplane of at least a 2-hour duration, a total straight-line distance of more than 100 nautical miles from the original point of departure, and occurring in night visual flight rules conditions; and

(E) 3 hours in a single-engine aeroplane in preparation for the practical test within 60 days preceding the date of the test;

(ii) for an aeroplane multi-engine course: the flight training shown in subparagraph *(c)*, accomplished in a multi-engine aeroplane;

(iii) for a rotorcraft helicopter and gyroplane course: the flight training shown in subparagraph *(c)*, accomplished in a helicopter; except 30 hours of flight training from a flight instructor on the areas of operation listed in subparagraphs *(c)* and *(d)* that includes at least—

(A) 5 hours of instrument training;

(B) one cross-country flight in a helicopter of at least a 2-hour duration, a total straight-line distance of more than 50 nautical miles from the original point of departure, and occurring in day visual flight rules conditions; and

(C) one cross-country flight in a helicopter of at least a 2-hour duration, a total straight-line distance of more than 50 nautical miles from the original point of departure, and occurring in night visual flight rules conditions;

(iv) for a powered-lift course: the applicable flight training shown in subparagraph *(c)*, flown in a powered-lift aircraft;

(v) for a glider course: 4 hours of flight training from a flight instructor on the areas of operation in subparagraphs *(c)* and *(d)*, that includes at least—

(A) five training flights in a glider on launch/tow procedures approved for the course and on the appropriate areas of operation listed in subparagraphs *(c)* and *(d)*; and

(B) three training flights in a glider in preparation for the practical test within the 60 days preceding the date of the test;

(vi) for a lighter-than-air airship course: 55 hours of training in airships from a commercial pilot with an airship rating on the areas of operation in subparagraphs *(c)* and *(d)* that includes at least—

(A) 3 hours of instrument training in an airship;

(B) one cross-country flight in an airship of at least a 1-hour duration, a total straight-line distance of more than 25 nautical miles from the original point of departure, and occurring in day visual flight rules conditions;

(C) one cross-country flight in an airship of at least a 1-hour duration, a total straight-line distance of more than 25 nautical miles from the original point of departure, and occurring in night visual flight rules conditions; and

(D) 3 hours in an airship, in preparation for the practical test within 60 days preceding the date of the test;

(vii) for a lighter-than-air balloon course: flight training from a commercial pilot with a balloon rating on the areas of operation in paragraph (5)*(h)* that includes at least—

(A) for a gas balloon—

(I) two flights of 1 hour each;

(II) one flight involving a controlled ascent to at least 5,000 feet above the launch site; and

(III) two flights in preparation for the practical test within 60 days preceding the date of the test;

(B) for a balloon with an airborne heater—

(I) two flights of 30 minutes each;

(II) one flight involving a controlled ascent to at least 3,000 feet above the launch site; and

(III) two flights in preparation for the practical test within 60 days preceding the date of the test;

*(c)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes the flight training on the following areas of operation, as applicable:

(i) for an aeroplane single-engine course—

(A) preflight preparation;

(B) preflight procedures;

(C) airport and seaplane base operations;

(D) take-offs, landings, and go-arounds;

(E) performance manoeuvres;

(F) navigation;

(G) slow flight and stalls;

(H) emergency operations;

(I) high-altitude operations; and

(J) postflight procedures;

*(d)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course for the following category and class ratings includes flight training on the applicable areas of operation:

(i) for an aeroplane multi-engine course: multi-engine operations;

(ii) for a rotorcraft helicopter course—

(A) hovering manoeuvres;

(B) transition to wing-borne flight;

(C) transition to hover; and

(D) special operations;

(iii) for a rotorcraft gyroplane course: flight at slow airspeeds;

(iv) for a powered-lift course—

(A) hovering manoeuvres; and

(B) special operations;

(v) for a glider course—
(A) launches or tows, as appropriate, and landings; and
(B) soaring techniques;
(vi) for a lighter-than-air airship course—
(A) fundamentals of instructing;
(B) technical subjects; and
(C) preflight lessons on a manoeuvre to be performed in flight;
(vii) for a lighter-than-air balloon course—
(A) fundamentals of instructing;
(B) technical subjects;
(C) preflight lesson on a manoeuvre to be performed in flight; and
(D) launches and landings.

(5) Solo flight training: Each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications, shall ensure that each approved course includes at least the following solo flight training:

*(a)* for an aeroplane single-engine course—10 hours of solo flight training in a single-engine aeroplane on the areas of operation in paragraph (4)*(c)*(i) that include at least—
(i) one cross-country flight, if the training is being performed on a small island, with landings at a minimum of three points, and one of the segments consisting of a straight-line distance of at least 150 nautical miles;
(ii) one cross-country flight, if the training is being performed on other than a small island, with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 250 nautical miles; and
(iii) 5 hours in night visual flight rules conditions with 10 take-offs and 10 landings with each landing involving a flight with a traffic pattern at an airport with an operating control tower;

*(b)* for an aeroplane multi-engine course: 10 hours of flight training in a multi-engine aeroplane performing the functions of pilot in command while under the supervision of a flight instructor, consisting of the areas of operation in paragraph (4)*(d)*(i) that include at least—
(i) one cross-country flight, if the training is being performed on a small island, with landings at a minimum

of three points, and one of the segments consisting of a straight-line distance of at least 150 nautical miles;

(ii) one cross-country flight, if the training is being performed on a small island, with landings at a minimum of three points and one segment of the flight consisting of a straight-line distance of at least 250 nautical miles; and

(iii) 5 hours in night visual flight rules conditions with 10 take-offs and 10 landings with each landing involving a flight with a traffic pattern at an airport with an operating control tower;

*(c)* for a rotorcraft helicopter course—10 hours of solo flight training in a helicopter on the areas of operation in paragraph (4)*(d)*(ii) that include at least—

(i) one cross-country flight with landings at a minimum of three points and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles from the original point of departure; and

(ii) 5 hours in night visual flight rules conditions with 10 take-offs and 10 landings with each landing involving a flight with a traffic pattern at an airport with an operating control tower;

*(d)* for a rotorcraft or gyroplane course—10 hours of solo flight training in a gyroplane on the areas of operation in paragraph (4)*(d)*(iii) that include at least—

(i) one cross-country flight with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles from the original point of departure; and

(ii) 5 hours in night visual flight rules conditions with 10 take-offs and 10 landings with each landing involving a flight with a traffic pattern at an airport with an operating control tower;

*(e)* for a powered-lift course—10 hours of solo flight training in a powered-lift on the areas of operation in paragraph (4)*(d)*(iv) that include at least—

(i) one cross-country flight, if the training is being performed on a small island, with landings at a minimum of three points, and one segment of the flight consisting a straight-line distance of at least 150 nautical miles;

(ii) one cross-country flight, if the training is being performed on a small island, with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 250 nautical miles; and

(iii) 5 hours in night visual flight rules conditions with 10 take-offs and 10 landings with each landing involving a flight with a traffic pattern at an airport with an operating control tower;

*(f)* for a glider course—5 solo flights in a glider on the areas of operation in paragraph (4)*(d)*(v);

*(g)* for a lighter-than-air airship course: 10 hours of flight training in an airship, while performing the functions of pilot in command under the supervision of a commercial pilot with an airship rating consisting of the areas of operation in paragraph (4)*(d)*(vi) that include at least—

(i) one cross-country flight with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 25 nautical miles from the original point of departure; and

(ii) 5 hours in night visual flight rules conditions with 10 take-offs and 10 landings with each landing involving a flight with a traffic pattern;

*(h)* for a lighter-than-air balloon course—

(i) training on the applicable areas of operation in paragraph (4)*(d)*(vii), while performing the duties of pilot in command under the supervision of a commercial pilot with a balloon rating;

(ii) two solo flights for a hot air balloon rating; and

(iii) at least two flights in a gas balloon for a gas balloon rating;

(6) Stage checks and end-of-course tests:

*(a)* each student to graduate from a commercial pilot course, shall satisfactorily accomplish the stage checks and end-of-course tests consisting of the applicable areas of operation listed in paragraph (4)*(d)*; and

*(b)* each student shall demonstrate satisfactory proficiency prior to being endorsed to operate an aircraft in solo flight.

*L.R.O.*

**Regulation 28(1)*(a)*(iv): Airline Transport Pilot Licensing Course**

The following curriculum meets the minimum curriculum standard for an Airline Transport Pilot Licensing Course:

(1) Rating:

*(a)* aeroplane single-engine;

*(b)* aeroplane multi-engine;

*(c)* rotorcraft helicopter;

*(d)* powered-lift.

(2) Eligibility for enrolment: Prior to enrolling in the flight portion of the airline transport pilot licensing course, a person shall—

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*(a)* meet the aeronautical experience requirements prescribed in Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, Part III for an Airline Transport Pilot Licence that is appropriate to the aircraft category and class rating for which the course applies;

*(b)* hold at least a commercial pilot licence and an instrument rating;

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*(c)* meet the military experience requirements under Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations to qualify for a Commercial Pilot Licence and an instrument rating, if the person is a rated military pilot or former rated military pilot of an armed force of Trinidad and Tobago; or

*(d)* hold a foreign Airline Transport Pilot Licence or foreign Commercial Pilot Licence and an instrument rating, issued by a contracting State to the convention on international civil aviation.

(3) Aeronautical knowledge areas:

*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes at least 40 hours of ground training on the applicable aeronautical knowledge areas listed in subparagraph *(b)*;

*(b)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that ground training includes the following aeronautical knowledge areas:

(i) applicable Trinidad and Tobago regulations that relate to airline transport pilot privileges, limitations, and flight operations;

(ii) meteorology, including knowledge of and effects of fronts, frontal characteristics, cloud formations, icing, and upper-air data;

(iii) general system of weather and notam collection, dissemination, interpretation, and use;

(iv) interpretation and use of weather charts, maps, forecasts, sequence reports, abbreviations, symbols;

(v) Trinidad and Tobago weather service functions as they pertain to operations in the Trinidad and Tobago airspace system;

(vi) windshear and microburst awareness, identification and avoidance;

(vii) principles of air navigation under instrument meteorological conditions in the Trinidad and Tobago airspace system;

(viii) air traffic control procedures and pilot responsibilities as they relate to en route operations, terminal area and radar operations, and instrument departure and approach procedures;

(ix) aircraft loading, weight and balance, use of charts, graphs, tables, formulas, and computations and the effects on aircraft performance;

(x) aerodynamics relating to an aircraft's flight characteristics and performance in normal and abnormal flight regimes;

(xi) human factors;

(xii) aeronautical decision making and judgment; and

(xiii) crew resource management to include crew communication and co-ordination.

(4) Flight training:

*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes at least 25 hours of flight training on the applicable areas of operation listed in subparagraph *(b)*, including at least 15 hours of instrument flight training; and

*(b)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes flight training on the following areas of operation, as applicable:

(i) preflight preparation;

(ii) preflight procedures;

(iii) take-off and departure phase;

(iv) in-flight manoeuvres;

(v) instrument procedures;

(vi) landings and approaches to landings;

(vii) normal and abnormal procedures;

(viii) emergency procedures; and

(ix) postflight procedures.

(5) Stage checks and end-of-course tests: Each student, to graduate from an airline transport pilot course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the areas of operation listed in paragraph (4)*(b)* that are appropriate to the aircraft category and class rating for which the course applies.

**Regulation 28(2)*(a)*(v): Flight Instructor Course**

The following curriculum meets the minimum curriculum standard for a flight instructor licensing course and an additional flight instructor rating course:

(1) Rating:

*(a)* aeroplane single-engine;

*(b)* aeroplane multi-engine;

*(c)* rotorcraft helicopter;

*(d)* rotorcraft gyroplane;

*(e)* powered-lift;

*(f)* glider category.

(2) Eligibility for enrolment: A person shall hold the following prior to enrolling in the flight portion of the flight instructor or additional flight instructor rating course:

*(a)* a commercial pilot licence or an airline transport pilot licence with an aircraft category and class rating appropriate to the flight instructor rating for which the course applies; and

*(b)* an instrument rating or privilege in an aircraft that is appropriate to the aircraft category and class rating for which the course applies, if the course is for a flight instructor aeroplane or powered-lift instrument rating.

(3) Aeronautical knowledge training:

*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes at least

the following ground training in the aeronautical knowledge areas listed in subparagraph *(b)*:

(i) 40 hours of training if the course is for an initial issuance of a flight instructor certificate; or

(ii) 20 hours of training if the course is for an additional flight instructor rating;

*(b)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that ground training includes the following aeronautical knowledge areas:

(i) the fundamentals of instructing, including—

(A) the learning process;

(B) elements of effective teaching;

(C) student evaluation and testing;

(D) course development;

(E) lesson planning; and

(F) classroom training techniques;

(ii) the aeronautical knowledge areas required for—

(A) a private and commercial pilot licence that is appropriate to the category and class rating sought; and

(B) an instrument rating that is appropriate to the aircraft category and class rating for which the course applies, if the course is for an aeroplane or powered-lift aircraft rating; and

*(c)* an Approved Training Organisation Certificate with Level 1 Flight Training Specifications may credit a student who satisfactorily completes 2 years of study on the principles of education at a college or university with no more than 20 hours of the training required in subparagraph *(a)*(i).

(4) Flight training:

*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes at least the following flight training on the applicable areas of operation of subparagraphs *(b)* and *(c)*:

(i) 25 hours for an aeroplane, rotorcraft, or powered-lift rating; and

(ii) 10 hours and 10 flights for a glider category rating;

*(b)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes flight training on the following areas of operation, as applicable for each category and class:

(i) fundamentals of instructing;

(ii) technical subject areas;

(iii) preflight preparation;

(iv) preflight lesson on a manoeuvre to be performed in flight;

(v) preflight procedures;

(vi) airport and seaplane base operations;

(vii) take-offs, landings, and go-arounds;

(viii) fundamentals of flight;

(ix) performance manoeuvres;

(x) ground reference manoeuvres;

(xi) slow flight, stalls, and spins;

(xii) basic instrument manoeuvres;

(xiii) emergency operations; and

(xiv) postflight procedures;

*(c)* for the category and class of aircraft shown below, each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes flight training in the following areas of operation, as applicable:

(i) for an aeroplane: multi-engine course, multi-engine operations;

(ii) for a rotorcraft: helicopter course—

(A) hovering manoeuvres; and

(B) special operations;

(iii) for a rotorcraft: gyroplane course flight at slow airspeeds;

(iv) for a powered-lift course—

(A) hovering manoeuvres;

(B) transition to wing-borne flight;

(C) transition to hover; and

(D) special operations; and

(v) for a glider course—

(A) launches, landings, and go-around;

(B) performance speeds; and

(C) soaring techniques.

(5) Stage checks and end-of-course tests:

*(a)* each student to graduate from a flight instructor course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the applicable areas of operation listed in paragraph (4);

*(b)* a student enrolled in a flight instructor-aeroplane rating or flight instructor-glider rating course shall have—

(i) received a logbook endorsement from a flight instructor certifying the student received ground and flight training on stall awareness, spin entry, spins, and spin recovery procedures in an aircraft that is certified for spins and that is appropriate to the rating sought; and

(ii) demonstrated instructional proficiency in stall awareness, spin entry, spins, and spin recovery procedures.

**Regulation 28(1)*(a)*(vi): Flight Instructor Instrument Rating Course**

This following curriculum meets the minimum curriculum standard for a flight instructor instrument licensing course:

(1) Ratings:

*(a)* flight instructor instrument: aeroplane;

*(b)* flight instructor instrument: helicopter; and

*(c)* flight instructor instrument: powered-lift aircraft.

(2) Eligibility for enrolment: A pilot shall hold, prior to enrolling in the flight portion of the course—

*(a)* a commercial pilot licence or airline transport pilot licence with a category and class rating appropriate to the rating sought; and

*(b)* for commercial pilot licence holders, an instrument rating that is appropriate to the rating sought.

(3) Aeronautical knowledge training:

*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes at least 15 hours of ground training on the applicable aeronautical knowledge areas listed in subparagraph *(b)*; and

*(b)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes ground training on the following aeronautical knowledge areas:

(i) the fundamentals of instructing including—

(A) learning process;

(B) elements of effective teaching;

(C) student evaluation and testing;

(D) course development;

(E) lesson planning; and

(F) classroom training techniques; and

(ii) the aeronautical knowledge areas required for the instrument rating that is appropriate to the category and class of aircraft.

(4) Flight training:

*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes at least 15 hours of flight training in the applicable areas of operation of subparagraph *(b)*;

*(b)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course for the flight instructor-instrument rating includes flight training on the following areas of operation:

(i) fundamentals of instructing;

(ii) technical subject areas;

(iii) preflight preparation;

(iv) preflight lesson on a manoeuvre to be performed in flight;

(v) air traffic control clearances and procedures;

(vi) flight by reference to instruments;

(vii) navigation systems;

(viii) instrument approach procedures;

(ix) emergency operations; and

(x) post-flight procedures.

(5) Stage checks and end-of-course tests: Each student to graduate from a flight instructor instrument course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the applicable areas of operation listed in paragraph (4)*(b)*.

**Regulation 28(1)*(a)*(vii): Ground Instructor Authorisation Course**

The following curriculum meets the minimum curriculum standard for a ground instructor licensing course and an additional ground instructor rating course, issued under the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations:

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(1) Ratings:

*(a)* ground instructor: basic;

*(b)* ground instructor: advanced; and

*(c)* ground instructor: instrument.

(2) Aeronautical knowledge training:

*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes at least the following ground training on the applicable knowledge areas listed in subparagraphs *(b), (c), (d)* and *(e)*:

(i) 20 hours of training for an initial issuance of a ground instructor certificate; or

(ii) 10 hours of training for an additional ground instructor rating;

*(b)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that ground training includes the following aeronautical knowledge areas:

(i) learning process;

(ii) elements of effective teaching;

(iii) student evaluation and testing;

(iv) course development;

(v) lesson planning; and

(vi) classroom training techniques;

*(c)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that ground training for a basic ground instructor licence includes the aeronautical knowledge areas applicable to a private pilot;

*(d)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that ground training for an advanced ground instructor rating includes the aeronautical knowledge areas applicable to a private, commercial, and airline transport pilot;

*(e)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that ground training for an instrument ground instructor rating includes the aeronautical knowledge areas applicable to an instrument rating; and

*(f)* an Approved Training Organisation Certificate with Level 1 Flight Training Specifications may credit a student who satisfactorily completed 2 years of study on the principles of education at a college or university with 10 hours of the training required in subparagraph *(a)*(i).

(3) Stage checks and end-of-course tests: Each student to graduate from a ground instructor course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the applicable knowledge areas of paragraph (2).

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**Regulation 28(1)*(a)*(viii): Additional Aircraft Category or Class Rating Course**

The following curriculum meets the minimum curriculum standard for an additional aircraft category rating course or an additional aircraft class rating course:

(1) Ratings:

*(a)* aeroplane single-engine;

*(b)* aeroplane multi-engine;

*(c)* rotorcraft helicopter;

*(d)* rotorcraft gyroplane;

*(e)* powered-lift;

*(f)* glider;

*(g)* lighter-than-air airship; and

*(h)* lighter-than-air balloon.

(2) Eligibility for enrolment: A person shall hold the level of pilot licence for the additional aircraft category and class rating for which the course applies prior to enrolling in the flight portion of an additional aircraft category or additional aircraft class rating course.

(3) Aeronautical knowledge training: Each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course for an additional category rating and additional class rating includes the total number of hours of training in all the aeronautical knowledge areas appropriate to the aircraft rating and pilot licence level sought.

(4) Flight training: Each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course for an additional aircraft category rating or additional aircraft class includes the total number of hours of flight training on all of the areas of operation of this paragraph appropriate to the aircraft rating and pilot licence level for which the course applies.

(5) Stage checks and end-of-course tests:

*(a)* each student, to graduate from an additional aircraft category rating course or an additional aircraft class rating course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the applicable areas of operation in paragraph (4);

*(b)* each student shall demonstrate satisfactory proficiency prior to being endorsed to operate an aircraft in solo flight.

**Regulation 28(1)*(a)*(ix): Aircraft Type Rating Course**

The following curriculum meets the minimum Level 1 Approved Training Organisation curriculum standard for an aircraft type rating course for:

(1) Ratings:

*(a)* a type rating in an aeroplane category: single-engine class;

*(b)* a type rating in an aeroplane category: multi-engine class;
*(c)* a type rating in a rotorcraft category: helicopter class;
*(d)* a type rating in a powered-lift category; and
*(e)* other aircraft type ratings specified by the Authority through the aircraft type certificate procedures.

(2) Eligibility for enrolment:
*(a)* prior to enrolling in the flight portion of an aircraft type rating course, a person shall hold at least a private pilot licence;
*(b)* an instrument rating in the category and class of aircraft that is appropriate to the aircraft type rating for which the course applies, provided the aircraft's type certificate does not have a visual flight rules limitation; or
*(c)* be concurrently enrolled in an instrument rating course in an aircraft of the type rating sought, and pass the required instrument rating practical test concurrently with the type rating practical test.

(3) Aeronautical knowledge training:
*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes at least 10 hours of ground training on the applicable aeronautical knowledge areas listed in subparagraph *(b)*;
*(b)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that ground training includes the following aeronautical areas:
(i) subjects requiring a practical knowledge of the aircraft type and its power plant, systems, components, operational, and performance factors;
(ii) the aircraft's normal, abnormal, and emergency procedures, and the operations and limitations relating thereto;
(iii) appropriate provisions of the approved aircraft's flight manual;
(iv) location of and purpose of inspecting each item on the aircraft's checklist that relate to the exterior and interior preflight; and
(v) use of the aircraft's prestart checklist, appropriate control system checks, starting procedures, radio and electronic equipment checks, and the selection of proper navigation and communication radio facilities and frequencies.

(4) Flight training:
*(a)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each course includes at least—
(i) flight training on the applicable areas of operation of subparagraph (*b*) in the aircraft type for which the course applies; and

(ii) at least 5 hours shall be instrument training in the aircraft for which the course applies;

*(b)* each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each type rating course includes the flight training on the following areas of ßoperation:

(i) preflight preparation;
(ii) preflight procedures;
(iii) take-off and departure phase;
(iv) in-flight manoeuvres;
(v) instrument procedures;
(vi) landings and approaches to landings;
(vii) normal and abnormal procedures;
(viii) emergency procedures; and
(ix) postflight procedures.

(5) Stage checks and end-of-course tests: Each student to graduate from an aircraft type rating course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the applicable areas of operation for the Airline Transport Pilot Licence.

**Regulation 28(1)*(a)*(x): Flight Engineer Course**

(1) Each flight engineer training course holder shall comply with the following:

*(a)* training course outline:

(i) format: An applicant shall prepare separate course outlines for each type of aeroplane;
(ii) ground course outline;
(iii) the Authority will accept any arrangement of subjects if all the subject material listed in Table A is included and at least the minimum programmed hours are assigned to each subject;
(iv) if any flight engineer training course holder desires to include additional subjects in the ground course curriculum, the hours allotted to these additional subjects may not be included in the minimum programmed classroom hours;
(v) all subjects, except theory of flight and aerodynamics and regulations, shall apply to the same type of aeroplane in which the flight engineer training course holder presents training;

**Table A**

| | Subject Area | Classroom Hours |
|---|---|---|
| Civil Aviation Regulations | | 10 |
| Theory of Flight and Aerodynamics | | 10 |
| Aeroplane Familiarisation, to include, as applicable | Specifications | 90 |
| Engine Familiarisation, to include, as applicable | Construction features<br>Flight controls<br>Hydraulic systems<br>Pneumatic systems<br>Electrical systems<br>Anti-icing and de-icing systems<br>Pressurisation and air-conditioning systems<br>Vacuum systems<br>Pilot static systems<br>Instrument systems<br>Fuel and oil systems<br>Emergency equipment | 45 |
| Normal Operations (Ground and Flight), to include, as appropriate | Servicing methods and procedures<br>Operation of all the aeroplane systems<br>Operation of all the engine systems<br>Loading and centre of gravity computations<br>Cruise control (normal, long range, maximum endurance)<br>Power and fuel computation<br>Meteorology as applicable to engine operation | 50 |
| Emergency Operations, to include | Landing gear, brakes, flaps, speed brakes and leading edge devices<br>Pressurisation and air-conditioning<br>Portable fire extinguishers<br>Fuselage fire and smoke control<br>Loss of electrical power<br>Engine fire control<br>Engine shut-down and restart<br>Oxygen | 80 |
| Total (exclusive of final tests) | | 285 |

*(b)* flight course outline;

(i) the flight training curriculum shall include at least 10 hours of flight instruction in an aeroplane. A student may not credit the flight time required for the practical test as part of the required flight instruction;

(ii) the flight engineer training course holder shall present all of the flight training in the same type aircraft;

(iii) as appropriate to the aircraft type, the flight engineer training course holder shall teach the following subjects in the flight training course provided in Table B hereunder:

**Table B**

| | Subject Area |
|---|---|
| Normal Duties, Procedures and Operations | To include as appropriate—<br>Aeroplane preflight<br>Engine starting, power checks, pre-take-off, post-landing and shut-down procedures<br>Power control<br>Temperature control<br>Engine operation analysis<br>Operation of all systems<br>Fuel management<br>Logbook entries<br>Pressurisation and air conditioning |

| | Subject Area |
|---|---|
| Recognition and Correction of In-Flight Malfunctions | Analysis of abnormal engine operation<br>Analysis of abnormal operation of all systems<br>Corrective action |
| Emergency Operations In Flight | Engine fire control<br>Fuselage fire control<br>Smoke control<br>Loss of power or pressure in each system<br>Engine overspeed<br>Fuel dumping<br>Landing gear, spoilers, speed brakes, and flap extension and retraction<br>Engine shut-down and restart<br>Use of oxygen |

(iv) the Authority may allow the school to teach the flight training time in a flight simulator;

(v) to obtain credit for flight training time in a flight simulator, the student shall occupy the flight engineer station and operate the controls.

(2) Revisions: Each flight engineer training course holder shall request revisions of the course outlines, facilities or equipment by following the procedures for original approval of the course.

(3) Ground school credits:

*(a)* a flight engineer training course holder may grant credit to a student in the ground school course for comparable previous training or experience that the student can show by written evidence;

*(b)* a flight engineer training course holder shall meet the quality of instruction described in this standard;

*(c)* before granting credit for previous training or experience, the flight engineer training course holder shall ensure that the student passes a test given by the flight engineer training course holder on the subject for which the credit is to be given;

*(d)* the flight engineer training course holder shall incorporate results of the test, the basis for credit allowance, and the hours credited as part of the student's records.

(4) Records and reports:

*(a)* the flight engineer training course holder shall maintain, for at least two years after a student graduates, fails, or drops from a course, a record of the student's training, including a chronological log of the subject course, attendance, examinations, and grades;

*(b)* except as provided in subparagraph *(c)*, the flight engineer training course holder shall submit to the Authority, not later than January 31 of each year, a report for the previous calendar year's training, to include—

(i) name, enrolment and graduation date of each student;

(ii) ground school hours and grades of each student;

(iii) flight and flight simulator hours, and grades of each student; and

(iv) names of students failed or dropped, together with their school grades and reasons for dropping;

*(c)* upon request, the Authority may waive the reporting requirements of subparagraph *(b)* of this paragraph for an approved flight engineer course that is part of an approved training course under Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations. Sub. Leg.

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(5) Quality of instruction:

*(a)* the Authority shall revoke approval of a flight engineer training course holder's ground course whenever less than 80 per cent of the students pass the Authority's knowledge test on the first attempt;

*(b)* the Authority shall revoke approval of a flight engineer training course holder's flight course whenever less than 80 per cent of the students pass the Authority's practical test on the first attempt;

*(c)* notwithstanding subparagraphs *(a)* and *(b)*, the Authority may allow continued approval of a ground or flight course when the Authority finds—

(i) that the failure rate was based on less than a representative number of students; or

(ii) that the flight engineer training course holder has taken satisfactory means to improve the effectiveness of the training.

(6) Time limitation: Each student shall apply for the written test and the flight test within 90 days after completing the ground school course.

(7) Statement of course completion:

*(a)* each flight engineer training course holder shall give to each student who successfully completes an approved flight engineer ground school training course, and passes the Authority's knowledge test, a statement of successful completion of the course that indicates the date of training, the type of aeroplane on which the ground course training was based, and the number of hours received in the ground school course;

*(b)* each flight engineer training course holder shall give each student who successfully completes an approved flight engineer flight course, and passed the Authority's practical test, a statement of successful completion of the flight course that indicates the dates of the training, the type of aeroplane used in the flight course, and the number of hours received in the flight course;

*(c)* a flight engineer training course holder who is approved to conduct both the ground course and the flight course may include both courses in a single statement of course completion if the provisions of subparagraphs *(a)* and *(b)* of this paragraph are included; and

*(d)* the requirements of this paragraph do not apply to a holder of an Air Operator Certificate with an approved training course under the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, providing the student receives a flight engineer licence upon completion of that course. Sub. Leg.

(8) Duration: Except for a course operated as part of an approved training course under the Civil Aviation [(No.3) Air Operator Certification and Administration] Regulations, the approval to operate a flight engineer ground course or flight course terminates 24 months after the last day of the month of issue. Sub. Leg.

**Regulation 28(1)*(b)*: Special Preparation Courses**

The following curriculum meets the minimum curriculum standard for the special preparation courses that are listed in regulation 28(1)*(b)*:

(1) Eligibility for enrolment: Prior to enrolling in the flight portion of a special preparation course, a person shall hold a pilot licence, flight instructor certificate, or ground instructor licence that is appropriate for the exercise of the operating privileges or authorisations sought.

(2) General requirements—

*(a)* to be approved, an applicant for a special preparation course shall present to the Authority a proposal that—

(i) meets the appropriate requirements of this standard;

(ii) prepares the graduate with the necessary skills, competency, and proficiency to exercise safely the privileges of the certificate, rating, or authorisation for which the course is established;

(iii) includes ground and flight training on the operating privileges or authorisation sought.

(3) Stage check and end-of-course tests: Each person to graduate from a special preparation course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the areas of operation that are appropriate to the operating privileges or authorisation sought, and for which the course applies.

(4) Agricultural aircraft operations course: A special preparation course for pilots in agricultural aircraft operations shall include at least the following:

*(a)* 25 hours of training on—

(i) agricultural aircraft operations;

(ii) safe piloting operating practices and procedures for handling, dispensing, and disposing of agricultural and industrial chemicals, including operating in and around congested areas; and

(iii) applicable provisions of the Act or Regulations made thereunder; and

*(b)* 15 hours of flight training on agricultural aircraft operations.

(5) Rotorcraft external-load operations course: A special preparation course for pilots of external-load operations shall include at least the following:

*(a)* 10 hours of training on—

(i) rotorcraft external-load operations;

(ii) safe piloting operating practices and procedures for external-load operations, including operating in and around congested areas; and

(iii) applicable provisions of the Act or Regulations made thereunder; and

*(b)* 15 hours of flight training on external-load operations.

(6) Test pilot course: Each applicant for, and holder of, a special preparation course for test pilot duties shall include at least the following:

*(a)* aeronautical knowledge training on—

(i) performing aircraft maintenance, quality assurance, and certification test flight operations; and

(ii) applicable parts of these Regulations that pertain to aircraft maintenance, quality assurance, and certification tests; and

*(b)* 15 hours of flight training.

(7) Special operations course:

*(a)* a special preparation course for pilots in special operations that are mission-specific for certain aircraft shall include at least the following:

(i) aeronautical knowledge training on—

(A) performing that special flight operation;

(B) safe piloting operating practices and procedures for performing that special flight operation;

(C) applicable parts of these Regulations that pertain to that special flight operation; and

(D) pilot in command duties and responsibilities for performing that special flight operation; and

(ii) flight training on that special flight operation.

(8) Pilot refresher course: Each applicant for, and holder of, a special preparation pilot refresher course for a pilot licence, aircraft category and class rating, or an instrument rating shall include at least the following:

*(a)* 4 hours of aeronautical knowledge training on—

(i) the aeronautical knowledge areas that are applicable to the level of pilot licence, category rating, class rating, or instrument rating sought;

(ii) safe piloting operating practices and procedures; and

(iii) applicable provisions of Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations and the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations; Sub. Leg.

*(b)* 6 hours of flight training on the areas of operation that are applicable to the level of pilot licence, aircraft category and class rating, or instrument rating, as appropriate, for performing pilot-in-command duties and responsibilities.

(9) Flight instructor refresher course: Each applicant for, and holder of, a special preparation flight instructor refresher course shall include at least a combined total of 16 hours of aeronautical knowledge training, flight training, or any combination of ground and flight training on the following:

*(a)* aeronautical knowledge training on—

(i) the aeronautical knowledge areas that apply to student, private, and commercial pilot licences and instrument ratings;

(ii) the aeronautical knowledge areas that apply to flight instructor certificates;

(iii) safe piloting operating practices and procedures, including airport operations and operating in the Trinidad and Tobago airspace system; and

(iv) applicable provisions of Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations and the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations and; Sub. Leg.

*(b)* flight training, to review—

(i) the areas of operations applicable to student, private, and commercial pilot licences and instrument ratings; and

(ii) the skills, competency, and proficiency for performing flight instructor duties and responsibilities.

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(10) Ground instructor refresher course: A special preparation ground instructor refresher course shall include at least 16 hours of aeronautical knowledge training on—

*(a)* the aeronautical knowledge areas that apply to student, private, and commercial pilots and instrument rated pilots and ground instructors;

*(b)* safe piloting operating practices and procedures, including airport operations and operating in the Trinidad and Tobago airspace system; and

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*(c)* applicable provisions of Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations and the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations.

**Regulation 28(1)*(c)*: Pilot Ground School Course**

The following curriculum meets the minimum curriculum standard for a pilot ground school course:

(1) General requirements: Each applicant for, and holder of, an approved training course for a pilot ground school shall include training on the aeronautical knowledge areas that are—

*(a)* needed to safely exercise the privileges of the certificate, rating, or Authority for which the course is established; and

*(b)* conducted to develop competency, proficiency, resourcefulness, self-confidence, and self-reliance in each student.

(2) Aeronautical knowledge training requirements: Each applicant for, and holder of, an approved pilot ground school course shall include—

*(a)* the aeronautical knowledge training that is appropriate to the aircraft rating and pilot licence level for which the course applies; and

*(b)* an adequate number of total aeronautical knowledge training hours appropriate to the aircraft rating and pilot licence level for which the course applies.

(3) Stage checks and end-of-course tests: Each person, to graduate from a pilot ground school course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the areas of operation that are appropriate to the operating privileges or authorisation that graduation from the course will permit.

**Regulation 33(2): Level 2 Approved Training Organisation Instructor Training and Testing Requirements**

(1) Prior to initial designation, each flight and simulator flight instructor shall complete the following requirements:

*(a)* complete at least 8 hours of ground training on the following subject matter:

(i) instruction methods and techniques;

(ii) training policies and procedures;

(iii) the fundamental principles of the learning process;

(iv) instructor duties, privileges, responsibilities, and limitations;

(v) proper operation of simulation controls and systems;

(vi) proper operation of environmental control and warning or caution panels;

(vii) limitations of simulation;

(viii) minimum equipment requirements for each curriculum;

(ix) revisions to the training courses; and

(x) cockpit resource management and crew co-ordination;

*(b)* satisfactorily complete a knowledge test—

(i) on the subjects specified in subparagraph *(a)*; and

(ii) that is accepted by the Authority as being of equivalent difficulty, complexity, and scope as the tests provided by the Authority for the flight instructor aeroplane and instrument flight instructor knowledge tests.

(2) Each certificate holder shall ensure that each instructor who instructs in a flight simulator that the Authority has approved for all training and all testing for the airline transport pilot licensing test, aircraft type rating test, or both, has met at least one of the following requirements:

*(a)* each instructor shall have performed 2 hours in flight, including three take-offs and three landings as the sole manipulator of the controls of an aircraft of the same category and class, and, if a type rating is required, of the same type replicated by the approved flight simulator in which that instructor is designated to instruct;

*(b)* each instructor shall have participated in an approved line-observation programme as specified in Civil Aviation [(No. 2) Operations] Regulations, and that— Sub. Leg.

(i) was accomplished in the same aeroplane type as the aeroplane represented by the flight simulator in which that instructor is designated to instruct; and

(ii) included line-oriented flight training of at least 1 hour of flight during which the instructor was the sole manipulator of the controls in a flight simulator that replicated the same type aircraft for which that instructor is designated to instruct.

**Regulation 36(2): Approved Training Organisation with Level 1 Flight Training Specification Chief Flight Instructor Qualification**

(1) Each Approved Training Organisation shall designate a supervisory instructor for a flight training course who shall meet one or more of the following requirements, as applicable:

*(a)* hold a commercial pilot licence or an airline transport pilot licence, and, except for a chief instructor for a training course solely for a lighter-than-air rating, a current flight instructor with appropriate aircraft category, class, and instrument ratings for the category and class of aircraft used in the course;

*(b)* meet the pilot in command recent flight experience requirements of the Civil Aviation [(No. 2) Operations] Regulations, as applicable; Sub. Leg.

*(c)* pass a knowledge test on—

(i) teaching methods;

(ii) applicable provisions of the Authority provided aeronautical information publications;

(iii) applicable provisions of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, the Civil Aviation [(No. 2) Operations] Regulations and the Civil Aviation [(No. 9) Approved Training Organisation] Regulations; and Sub. Leg.

(iv) the objectives and approved course completion standards of the course for which the person seeks to obtain designation; and

*(d)* pass a proficiency test on instructional skills and ability to train students on the flight procedures and manoeuvres appropriate to the course.

(2) Except for a training course for gliders, balloons, or airships, the chief instructor shall meet the applicable requirements in paragraphs (3), (4) and (5).

(3) For a training course for a private pilot licence or rating, a chief instructor shall have—

*(a)* at least 1,000 hours as pilot in command; and

*(b)* primary flight training experience as a flight instructor or an instructor in a military pilot flight training programme, or a combination thereof, consisting of at least 2 years and a total of 500 flight hours.

(4) For a training course for an instrument rating or a rating with instrument privileges, a chief instructor shall have—

*(a)* at least 100 hours of flight time under actual or simulated instrument conditions;

*(b)* at least 1,000 hours as pilot in command; and

*(c)* instrument flight instructor experience or an instructor in a military pilot flight training programme, or a combination thereof, consisting of at least—

(i) 2 years and a total of 250 flight hours; or

(ii) 400 flight hours of instrument flight instruction.

(5) For a training course for other than a private pilot licence or rating, or an instrument rating or a rating with instrument privileges, a chief instructor shall have—

*(a)* at least 2,000 hours as pilot in command; and

*(b)* flight training experience as a flight instructor or an instructor in a military pilot flight training programme, or a combination thereof, consisting of at least 3 years and a total of 1,000 flight hours.

(6) A chief instructor for a training course for gliders or balloons is required to have only 40 per cent of the hours required in paragraphs (3) and (5).

(7) A chief instructor for a training course for airships is required to have only 40 per cent of the hours required in paragraphs (3), (4), and (5).

(8) To be eligible as chief instructor for a ground school course, a person shall have one year of experience as a ground school instructor at a certified level 1 approved training organisation.

**Regulation 37(2): Approved Training Organisation with Level 1 Flight Training Specification—Assistant Chief Flight Instructor Qualification**

(1) To be eligible for designation as an assistant chief instructor, a person shall meet the following requirements:

*(a)* hold a Commercial Pilot Licence or an Airline Transport Pilot Licence and, except for the assistant chief instructor for a training course for a lighter-than-air rating, a current flight instructor licence with appropriate aircraft category, class, and instrument ratings for the category and class of aircraft used in the course;

*(b)* meet the pilot in command recent flight experience requirements of the Civil Aviation [(No. 2) Operations] Regulations as applicable; Sub. Leg.

*(c)* pass a knowledge test on—

(i) teaching methods;

(ii) applicable provisions of the Trinidad and Tobago-provided aeronautical information publications;

(iii) applicable provisions of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, the Civil Aviation [(No. 2) Operations] Regulations and the Civil Aviation [(No. 9) Approved Training Organisation] Regulations; and Sub. Leg.

(iv) the objectives and approved course completion standards of the course for which the person seeks to obtain designation;

*(d)* pass a proficiency test on the flight procedures and manoeuvres appropriate to that course;

*(e)* meet the applicable requirements in paragraphs (2), (3), and (4), except that an assistant chief instructor for a training course for gliders, balloons, or airships is required to have only 40 per cent of the hours required in paragraphs (2) and (3).

(2) For a training course for a private pilot licence or rating, an assistant chief instructor shall have—

*(a)* at least 500 hours as pilot in command; and

*(b)* flight training experience as a flight instructor or an instructor in a military pilot flight training programme, or a combination thereof, consisting of at least 1 year and a total of 250 flight hours.

(3) For a training course for an instrument rating or a rating with instrument privileges, an assistant chief flight instructor shall have—

*(a)* at least 50 hours of flight time under actual or simulated instrument conditions;

*(b)* at least 500 hours as pilot in command; and

*(c)* instrument flight instructor experience as a flight instructor or an instructor in a military pilot flight training programme, or a combination thereof, consisting of at least 1 year and a total of 125 flight hours.

(4) For a training course other than for a private pilot licence or rating, or an instrument rating or a rating with instrument privileges, an assistant chief instructor shall have—

*(a)* at least 1,000 hours as pilot in command; and

*(b)* flight training experience as a flight instructor or an instructor in a military pilot flight training programme, or a combination thereof, consisting of at least 1½ years and a total of 500 flight hours.

(5) To be eligible for designation as an assistant chief instructor for a ground school course, a person shall have 6 months of experience as a ground school instructor at a certified level 1 approved training organisation.

**Regulation 38(2): Approved Training Organisation with Level 1 Flight Training Specification—Check Instructor Qualifications**

(1) To be designated as a check instructor for conducting student stage checks, end-of-course tests, and instructor proficiency checks under this Part, a person shall meet the following requirements, as applicable:

*(a)* pass a test, given by the chief instructor, on;

(i) teaching methods;

(ii) applicable provisions of the Trinidad and Tobago-provided aeronautical information publications;

(iii) applicable provisions of Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, the Civil Aviation [(No. 2) Operations] Regulations and the Civil Aviation [(No. 9) Approved Training Organisation] Regulations; and Sub. Leg.

(iv) the objectives and course completion standards of the approved training course for the designation sought;

*(b)* for flight checks and tests—

(i) meet the requirements in paragraph (1)*(a)*;

(ii) hold a commercial pilot licence or an airline transport pilot licence and, except for a check instructor for a training course for a lighter-than-air rating, a current flight instructor licence, with appropriate aircraft category, class, and instrument ratings for the category and class of aircraft used in the course;

(iii) meet the pilot in command recent flight experience requirements of the Civil Aviation [(No. 2) Operations] Regulations, as applicable; and Sub. Leg.

(iv) pass a proficiency test, given by the chief instructor or assistant chief instructor, on the flight procedures and manoeuvres of the approved training course;

*(c)* for checks and tests that relate to ground training—

(i) meet the requirements in paragraph (1)*(a)*;

(ii) except for a training course for a lighter-than-air rating, hold a current flight instructor licence or ground instructor licence with ratings appropriate to the category and class of aircraft used in the course; and

(iii) for a training course for a lighter-than-air rating, hold a commercial pilot licence with a lighter-than-air category rating and the appropriate class rating.

(2) Before functioning as a check instructor, a person who meets the eligibility requirements in paragraph (1)*(a)* shall—

*(a)* be designated in writing by the chief instructor to conduct student stage checks, end-of-course tests, and instructor proficiency checks; and

*(b)* be approved by the Authority.

(3) A check instructor may not conduct a stage check or an end-of-course test of any student for whom the check instructor has—

*(a)* served as the principal instructor; or

*(b)* recommended for a stage check or end-of-course test.

**Regulation 42(2): Transfer Privileges**

(1) An Approved Training Organisation with Level 1 Flight Training Specifications receiving a student from another level 1 approved training organisation may credit that pilot's previous experience towards the curriculum requirements of a course subject to the following conditions:

**(a)* if the credit is based upon regulation 42 or regulation 53, the gaining Approved Training Organisation may credit that student not more than 50 per cent of the curriculum requirements;

**(b)* if the credit is not based upon regulation 42 or regulation 53, the gaining Approved Training Organisation may credit that student not more than 25 per cent of the curriculum requirements.

(2) The receiving Approved Training Organisation may grant credit for training specified in paragraph (1)*(a)* or paragraph (1)*(b)* only if the previous provider of the training has certified the kind and amount of training provided, and the result of each stage check and end-of-course test, if applicable, given to the student.

*Note: *The receiving Approved Training Organisation shall determine the amount of course credit to be credited under subparagraph (a) or subparagraph (b), based on a proficiency test or knowledge test, or both, of the student.*

(3) An AMT training course holder may evaluate and grant credit for an entrant's previous training provided—

*(a)* the AMT training course holder determines that the training is verifiable and comparable to portions of the training programme; and

*(b)* the individual requesting credit passes an examination given by the AMT training course holder, which is equivalent to those examinations given by the AMT training course holder for the same subject in the training programme.

**Regulation 45: Training Course: Contents**

(1) Each applicant for, and holder of, an Approved Training Organisation Certificate with Level 1 Flight Training Specifications shall ensure that each training course contains—

*(a)* a description of each flight simulator or flight training device used for training;

*(b)* a listing of the airports at which training flights originate and a description of the facilities, including pilot briefing areas that are available for use by the school's students and personnel at each of those airports;

*(c)* a description of the type of aircraft including any special equipment used for each phase of training;

*(d)* the minimum qualifications and ratings for each instructor assigned to ground or flight training; and

*(e)* a training syllabus that includes—

(i) the prerequisites for enrolling in the ground and flight portion of the course that include the pilot licence and rating (if required by this part), training, pilot experience, and pilot knowledge;

(ii) a detailed description of each lesson, including the lesson's objectives, standards, and planned time for completion;

(iii) course learning objectives;

(iv) stage learning objectives and standards; and

(v) a description of the checks and tests to be used to measure learning after each stage of training.

(2) An Approved Training Organisation with Level 2 Flight Training Specifications may—

*(a)* include training in a flight simulator or flight training device, provided it is representative of the aircraft for which the course is approved, meets the requirements of this paragraph, and the training is given by an authorised instructor; and

*(b)* permit a student to credit training in a flight simulator that meets the requirements of regulation 30 for a maximum of 25 per cent of the total flight training hour requirements of the approved course.

**Regulation 50(2)*(b)*, (4) and (5)**

1. The following Implementing Standards identify the subject matter, the time in which each topic and the level to which the topics are to be covered:

Level 1—denotes a basic understanding of a subject. Trainees should have a basic understanding of the subject but are not expected to be able to apply it in practice;

Level 2—denotes understanding of the subject and the ability, where applicable, to apply it in practice with the help of reference materials and instructions; and

Level 3—denotes a thorough understanding of the subject and the ability to apply it with speed, accuracy and judgement appropriate to the circumstances;

*(a)* Knowledge training areas for the Aircraft Maintenance Engineer Licence categories:

(i) A—Airframe, Fixed wing:

**Civil aviation requirements, laws and regulations**

| | | *Hours* | *Level* |
|---|---|---|---|
| 1 | International and State aviation law | 10 | 3 |
| 2 | Airworthiness requirements | 10 | 3 |
| 3 | Civil aviation operating regulations | 10 | 3 |
| 4 | Air transport operations | 10 | 3 |
| 5 | Organisation and management of the operator | 10 | 3 |
| 6 | Operator economics related to maintenance | 10 | 3 |
| 7 | Approved maintenance organisations (AMOs) | 30 | 3 |
| 8 | Aircraft maintenance licence requirements | 10 | 3 |
| 9 | The role of the State aviation regulatory body | 10 | 3 |
| 10 | Aircraft certification, documents and maintenance | 10 | 3 |

**Natural science and general principles of aircraft**

| | | | |
|---|---|---|---|
| 1 | Mathematics | 75 | 1 |
| 2 | Physics | 70 | 1 |

| | | *Hours* | *Level* |
|---|---|---|---|
| 3 | Technical Drawing | 70 | 1 |
| 4 | Chemistry | 30 | 1 |
| 5 | Fixed wing aerodynamics and flight control | 100 | 2 |
| | **Aircraft engineering and maintenance: Airframe** | | |
| 1 | Maintenance practices and materials: Airframe/ Power Plant | 200 | 3 |
| 2 | Aircraft systems and structures: Fixed wing | 250 | 3 |
| 3 | Airship systems and structures | 100 | 3 |
| | **Human performance and limitations**—Required knowledge, skills and attitudes | | |
| 1 | General programme overview | 3 | 3 |
| 2 | Human Factors knowledge | 3 | 3 |
| 3 | Communication skills | 3 | 3 |
| 4 | Teamwork skills | 3 | 3 |
| 5 | Performance management | 3 | 3 |
| 6 | Situation awareness | 3 | 3 |
| 7 | Human error | 3 | 3 |
| 8 | Reporting and investigating errors | 3 | 3 |
| 9 | Monitoring and auditing | 3 | 3 |
| 10 | Document design | 3 | 3 |
| | (ii) A—Airframe, Rotary wing: | | |
| | **Civil aviation requirements, laws and regulations** | | |
| 1 | International and State aviation law | 10 | 3 |
| 2 | Airworthiness requirements | 10 | 3 |
| 3 | Civil aviation operating regulations | 10 | 3 |
| 4 | Air transport operations | 10 | 3 |
| 5 | Organisation and management of the operator | 10 | 3 |
| 6 | Operator economics related to maintenance | 10 | 3 |
| 7 | Approved maintenance organisations (AMOs) | 30 | 3 |
| 8 | Aircraft maintenance licence requirements | 10 | 3 |
| 9 | The role of the State aviation regulatory body | 10 | 3 |
| 10 | Aircraft certification, documents and maintenance | 10 | 3 |

| | | *Hours* | *Level* |
|---|---|---|---|
| | **Natural science and general principles of aircraft** | | |
| 1 | Mathematics | 75 | 1 |
| 2 | Physics | 70 | 1 |
| 3 | Technical drawing | 70 | 1 |
| 4 | Chemistry | 30 | 2 |
| 5 | Rotary wing aerodynamics and flight control | 100 | 2 |
| | **Human performance and limitations—**Required knowledge, skills and attitudes | | |
| 1 | General programme overview | 3 | 3 |
| 2 | Human Factors knowledge | 3 | 3 |
| 3 | Communication skills | 3 | 3 |
| 4 | Teamwork skills | 3 | 3 |
| 5 | Performance management | 3 | 3 |
| 6 | Situation awareness | 3 | 3 |
| 7 | Human error | 3 | 3 |
| 8 | Reporting and investigating errors | 3 | 3 |
| 9 | Monitoring and auditing | 3 | 3 |
| 10 | Document design | 3 | 3 |
| | (iii) C—Engine, Piston: | | |
| | **Civil aviation requirements, laws and regulations** | | |
| 1 | International and State aviation law | 10 | 3 |
| 2 | Airworthiness requirements | 10 | 3 |
| 3 | Civil aviation operating regulations | 10 | 3 |
| 4 | Air transport operations | 10 | 3 |
| 5 | Organisation and management of the operator | 10 | 3 |
| 6 | Operator economics related to maintenance | 10 | 3 |
| 7 | Approved maintenance organisations (AMOs) | 30 | 3 |
| 8 | Aircraft maintenance licence requirements | 10 | 3 |
| 9 | The role of the State aviation regulatory body | 10 | 3 |
| 10 | Aircraft certification, documents and maintenance | 10 | 3 |

| | | *Hours* | *Level* |
|---|---|---|---|
| | **Natural science and general principles of aircraft** | | |
| 1 | Mathematics | 75 | 1 |
| 2 | Physics | 70 | 1 |
| 3 | Technical drawing | 70 | 1 |
| 4 | Chemistry | 30 | 1 |
| | **Aircraft engineering and maintenance: Engines/ Power Plants** | | |
| 1 | Piston engines | 250 | 3 |
| 2 | Propellers | 100 | 3 |
| 3 | Fuel systems | 100 | 3 |
| | **Human performance and limitations**—Required knowledge, skills and attitudes | | |
| 1 | General programme overview | 3 | 3 |
| 2 | Human Factors knowledge | 3 | 3 |
| 3 | Communication skills | 3 | 3 |
| 4 | Teamwork skills | 3 | 3 |
| 5 | Performance management | 3 | 3 |
| 6 | Situation awareness | 3 | 3 |
| 7 | Human error | 3 | 3 |
| 8 | Reporting and investigating errors | 3 | 3 |
| 9 | Monitoring and auditing | 3 | 3 |
| 10 | Document design | 3 | 3 |

(iv) C—Engine, Turbo-jet, Turbo-shaft and Turbo-propeller:

| | | | |
|---|---|---|---|
| | **Civil aviation requirements, laws and regulations** | | |
| 1 | International and State aviation law | 10 | 3 |
| 2 | Airworthiness requirements | 10 | 3 |
| 3 | Civil aviation operating regulations | 10 | 3 |
| 4 | Air transport operations | 10 | 3 |
| 5 | Organisation and management of the operator | 10 | 3 |
| 6 | Operator Economics related to maintenance | 10 | 3 |
| 7 | Approved maintenance organisations (AMOs) | 30 | 3 |

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(iv) C—Engine, Turbo-jet, Turbo-shaft and Turbo-propeller:—*Continued*

**Civil aviation requirements, laws and regulations**—*Continued*

| | | *Hours* | *Level* |
|---|---|---|---|
| 8 | Aircraft maintenance licence requirements | 10 | 3 |
| 9 | The role of the State aviation regulatory body | 10 | 3 |
| 10 | Aircraft certification, documents and maintenance | 10 | 3 |
| | **Natural science and general principles of aircraft** | | |
| 1 | Mathematics | 75 | 1 |
| 2 | Physics | 70 | 1 |
| 3 | Technical Drawing | 70 | 1 |
| 4 | Chemistry | 30 | 1 |
| | **Aircraft engineering and maintenance: Engines/ Power Plants** | | |
| 1 | Propellers | 100 | 3 |
| 2 | Gas turbine engines | 300 | 3 |
| 3 | Fuel systems | 100 | 3 |
| | **Human performance and limitations**—Required knowledge, skills and attitudes | | |
| 1 | General programme overview | 3 | 3 |
| 2 | Human Factors knowledge | 3 | 3 |
| 3 | Communication skills | 3 | 3 |
| 4 | Teamwork skills | 3 | 3 |
| 5 | Performance management | 3 | 3 |
| 6 | Situation awareness | 3 | 3 |
| 7 | Human error | 3 | 3 |
| 8 | Reporting and investigating errors | 3 | 3 |
| 9 | Monitoring and auditing | 3 | 3 |
| 10 | Document design | 3 | 3 |

(v) E—Avionics Systems, Electrical, Instruments and Radio Systems:

| | | | |
|---|---|---|---|
| | **Civil aviation requirements, laws and regulations** | | |
| 1 | International and State aviation law | 10 | 3 |
| 2 | Airworthiness requirements | 10 | 3 |
| 3 | Civil aviation operating regulations | 10 | 3 |

| | | *Hours* | *Level* |
|---|---|---|---|
| 4 | Air transport operations | 10 | 3 |
| 5 | Organisation and management of the operator | 10 | 3 |
| 6 | Operator economics related to maintenance | 10 | 3 |
| 7 | Approved maintenance organisations (AMOs) | 30 | 3 |
| 8 | Aircraft maintenance licence requirements | 10 | 3 |
| 9 | The role of the State aviation regulatory body | 10 | 3 |
| 10 | Aircraft certification, documents and maintenance | 10 | 3 |
| | **Natural science and general principles of aircraft** | | |
| 1 | Mathematics | 75 | 1 |
| 2 | Physics | 70 | 1 |
| 3 | Technical drawing | 70 | 1 |
| 4 | Chemistry | 30 | 1 |
| | **Aircraft engineering and maintenance: Avionics/ Electrical and Instrument** | | |
| 1 | Maintenance practices and materials | 200 | 3 |
| 2 | Electrical and electronic fundamentals | 450 | 2 |
| 3 | Digital techniques, computers and associated devices | 200 | 2 |
| 4 | Aircraft electrical systems | 250 | 3 |
| 5 | Aircraft instrument systems | 250 | 3 |
| | **Aircraft engineering and maintenance: Avionics— Navigation/Radio** | | |
| 1 | Aircraft inertial navigation systems (INS) | 60 | 3 |
| 2 | Aircraft radio and radio navigation systems | 450 | 3 |
| | **Human performance and limitations**—Required knowledge, skills and attitudes | | |
| 1 | General programme overview | 3 | 3 |
| 2 | Human Factors knowledge | 3 | 3 |
| 3 | Communication skills | 3 | 3 |
| 4 | Teamwork skills | 3 | 3 |
| 5 | Performance management | 3 | 3 |
| 6 | Situation awareness | 3 | 3 |
| 7 | Human error | 3 | 3 |

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**Human performance and limitations**—Required knowledge, skills and attitudes—*Continued*

| | | *Hours* | *Level* |
|---|---|---|---|
| 8 | Reporting and investigating errors | 3 | 3 |
| 9 | Monitoring and auditing | 3 | 3 |
| 10 | Document design | 3 | 3 |

(vi) E2—Avionics Systems, Electrical, Instruments, Auto-Flight, Flight Management and Radio Systems:

**Civil aviation requirements, laws and regulations**

| | | | |
|---|---|---|---|
| 1 | International and State aviation law | 10 | 3 |
| 2 | Airworthiness requirements | 10 | 3 |
| 3 | Civil aviation operating regulations | 10 | 3 |
| 4 | Air transport operations | 10 | 3 |
| 5 | Organisation and management of the operator | 10 | 3 |
| 6 | Operator economics related to maintenance | 10 | 3 |
| 7 | Approved maintenance organisations (AMOs) | 30 | 3 |
| 8 | Aircraft maintenance licence requirements | 10 | 3 |
| 9 | The role of the State aviation regulatory body | 10 | 3 |
| 10 | Aircraft certification, documents and maintenance | 10 | 3 |

**Natural science and general principles of aircraft**

| | | | |
|---|---|---|---|
| 1 | Mathematics | 75 | 1 |
| 2 | Physics | 70 | 1 |
| 3 | Technical drawing | 70 | 1 |
| 4 | Chemistry | 30 | 1 |

**Aircraft engineering and maintenance: Avionics/ Electrical and Instrument**

| | | | |
|---|---|---|---|
| 1 | Maintenance practices and materials | 200 | 3 |
| 2 | Electrical and electronic fundamentals | 450 | 2 |
| 3 | Digital techniques, computers and associated devices | 200 | 2 |
| 4 | Aircraft electrical systems | 250 | 3 |
| 5 | Aircraft instrument systems | 250 | 3 |

**Aircraft engineering and maintenance: Avionics— AFCS/Navigation/Radio**

| | | | |
|---|---|---|---|
| 1 | Automatic flight control systems (AFCS): Fixed wing | 200 | 3 |
| 2 | Automatic flight control systems (AFCS): Rotary wing | 75 | 3 |

| | | *Hours* | *Level* |
|---|---|---|---|
| 3 | Aircraft inertial navigation systems (INS) | 60 | 3 |
| 4 | Aircraft radio and radio navigation systems | 450 | 3 |

**Human performance and limitations**—Required knowledge, skills and attitudes

| | | | |
|---|---|---|---|
| 1 | General programme overview | 3 | 3 |
| 2 | Human Factors knowledge | 3 | 3 |
| 3 | Communication skills | 3 | 3 |
| 4 | Teamwork skills | 3 | 3 |
| 5 | Performance management | 3 | 3 |
| 6 | Situation awareness | 3 | 3 |
| 7 | Human error | 3 | 3 |
| 8 | Reporting and investigating errors | 3 | 3 |
| 9 | Monitoring and auditing | 3 | 3 |
| 10 | Document design | 3 | 3 |

*(b)* Skills training areas for the Aircraft Maintenance Engineer Licence categories:

(i) A—Airframe, Fixed Wing and Rotary Wing:

**Practical maintenance skills—Airframe**

| | | | |
|---|---|---|---|
| 1 | Basic workshop and maintenance practices—Airframe | 725 | 3 |
| 2 | Basic workshop and maintenance practices—Repair, maintenance and function testing of aircraft systems and components | 1000 | 3 |
| 3 | Job and task documentation and control practices | 100 | 3 |

(ii) C—Engine, Piston and Turbo-jet, Turbo-prop and Turbo-Shaft:

**Practical maintenance skills—Engine and Propeller**

| | | | |
|---|---|---|---|
| 1 | Basic workshop and maintenance practices—Engine and propeller | 450 | 3 |
| 2 | Basic workshop and maintenance practices—Engine, propeller systems, component and function testing | 450 | 3 |
| 3 | Job and task documentation and control practices | 100 | 3 |

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| | | *Hours* | *Level* |
|---|---|---|---|
| | (iii) E1—Avionics Systems: | | |
| | **Practical maintenance skills—Electrical, Instruments and Radio** | | |
| 1 | Basic workshop and maintenance practices—Avionics Electrical | 775 | 3 |
| 2 | Basic workshop and maintenance practices—Avionics Instruments | 1000 | 3 |
| 3 | Basic workshop and maintenance practices—Avionics Radio | 875 | 3 |
| 4 | Repair, maintenance and function testing of aircraft avionics systems and components | 100 | 3 |
| 5 | Job and task documentation and control practices | 100 | 3 |
| | (iv) E2—Avionics Systems: | | |
| | **Practical maintenance skills—Electrical, Instruments, Auto-flight and Radio** | | |
| 1 | Basic workshop and maintenance practices—Avionics Electrical | 775 | 3 |
| 2 | Basic workshop and maintenance practices—Avionics Instruments | 1000 | 3 |
| 3 | Basic workshop and maintenance practices—Avionics Auto Flight | 225 | 3 |
| 4 | Basic workshop and maintenance practices—Avionics Radio | 875 | 3 |
| 5 | Repair, maintenance and function testing of aircraft avionics systems and components | 100 | 3 |
| 6 | Job and task documentation and control practices | 100 | 3 |

*(c)* Training for a type rating shall be in accordance with the manufacturer's type rating course.

# CIVIL AVIATION [(NO. 10) FOREIGN OPERATOR] REGULATIONS

ARRANGEMENT OF REGULATIONS

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3. Applicability of Regulations.
3A. Prohibition of foreign registered aircraft to operate.

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5. General requirements.
6. Issue of Operations Specifications to foreign air operator.
7. Contents of Operations Specifications.
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9. Contents of Aircraft Technical Log of foreign air operator.
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# CIVIL AVIATION [(NO. 10) FOREIGN OPERATOR] REGULATIONS

109/2004.
[272/2004
37/2005
230/2005
291/2006
35/2008
203/2009].

*made under section 33*

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No. 10) Foreign Operator] Regulations.

Interpretation.

**2.** In these Regulations—

"foreign air operator" means an operator, not being a Trinidad and Tobago air operator, who undertakes, whether directly, indirectly, by lease or any other arrangement, to engage in commercial air transport operations within the airspace of Trinidad and Tobago whether on a scheduled or charter basis;

"foreign authority" means the Civil Aviation Authority that issued an Air Operator Certificate to a foreign air operator who does not hold an air operator certificate issued by the Authority;

"foreign operator" means an operator, not being a Trinidad and Tobago operator, who undertakes, whether directly, indirectly, by lease or any other arrangement, to engage in air transport operations within the airspace of Trinidad and Tobago.

## APPLICABILITY OF REGULATIONS

Applicability of Regulations. [291/2006].

**3.** (1) These Regulations apply to the operations of a civil aircraft to and from Trinidad and Tobago for—

*(a)* the purpose of commercial air transport operations by an air operator whose air operator certificate was issued by a foreign authority; and

*(b)* general aviation operations of a foreign operator.

(2) These Regulations shall not apply to operations of aircraft when used by the military, Customs and police services which are not used for compensation or hire.

*L.R.O.*

Prohibition of foreign registered aircraft to operate. [203/2009].

**3A.** An operator shall not operate a foreign registered aircraft to, from or within Trinidad and Tobago, unless the operation of such aircraft—

*(a)* was approved by the Director-General; and

*(b)* is conducted in accordance with the terms, conditions and limitations prescribed by the Director-General.

## PART I

## GENERAL REQUIREMENTS

### GENERAL APPLICABILITY OF PART I

General Applicability of Part I.

**4.** This Part prescribes the requirements for the application, issue and continued validity of a foreign air operator Operations Specifications.

### GENERAL REQUIREMENTS FOR APPLICATION FOR FOREIGN AIR OPERATOR OPERATIONS SPECIFICATIONS

General requirements. [291/2006].

**5.** (1) An air operator who does not hold an Air Operator Certificate issued by the Authority shall not operate an aircraft to and from Trinidad and Tobago unless he holds an Operations Specifications issued to him by the Authority.

(2) Where an air operator under subregulation (1), wishes to apply to operate to and from Trinidad and Tobago he shall—

*(a)* make such application to the Authority in the form and manner prescribed; and

*(b)* pay the prescribed fee.

(3) An application under subregulation (2), shall be accompanied by—

*(a)* a copy of a valid air operator certificate or equivalent document issued by the foreign authority;

*(b)* a copy of the licence or authorisation granted to the air operator by the appropriate authority of the State of the air operator to operate an air transport service to and from Trinidad and Tobago;

*(c)* a copy of a Company Operations Manual including the Cabin Attendant Manual where it is published as a separate document;

*(d)* a copy of the approval page for a Minimum Equipment List for each aircraft type intended to be operated by the air operator in Trinidad and Tobago;

*(e)* a copy of a valid Certificate of Airworthiness for each aircraft type intended to be operated by the foreign air operator in Trinidad and Tobago;

*(f)* a representative copy of a Certificate of Registration issued for the aircraft types proposed to be operated by the air operator in Trinidad and Tobago;

*(g)* a copy of a document identifying the maintenance checks that are required to be carried out for aircraft of the air operator while they are operated in Trinidad and Tobago;

*(h)* a copy of the maintenance contract between the air operator and the Approved Maintenance Organisation, where the maintenance under subparagraph *(g)*, is carried out by an Approved Maintenance Organisation approved by the foreign authority;

*(i)* a copy of the lease agreement for any aircraft operated by the air operator who does not hold an Air Operator Certificate issued by the Authority which is not registered by the foreign authority;

*(j)* a copy of any equivalent Operations Specifications issued by the foreign authority for any specialised flight operations specifications requested by the foreign air operator for operations in Trinidad and Tobago;

*(k)* a proposed Aircraft Operator Security Programme for the foreign air operator who does not hold an Air Operator Certificate issued by the Authority which meets the requirements of the Civil Aviation [(No. 8) Security] Regulations, for the acceptance and subsequent approval of the Authority; and Sub. Leg.

*(l)* any other document the Authority considers necessary to ensure that the intended operations will be conducted safely.

(4) An applicant under these Regulations shall apply for the initial issue of a foreign air operator Operations Specifications at least ninety days before the date of commencement of intended operation.

**CONDITIONS FOR ISSUE OF A FOREIGN AIR OPERATOR OPERATIONS SPECIFICATIONS**

Issue of Operations Specifications to foreign air operator. [291/2006].

**6.** (1) The Director-General may recommend that the Authority issue Operations Specifications to an air operator who does not hold an Air Operator Certificate issued by the Authority to conduct commercial air operations to and from Trinidad and Tobago where he is satisfied that such air operator—

*(a)* has a valid Air Operator Certificate issued by a foreign authority;

*(b)* has had his Aircraft Operator Security Programme approved under the Civil Aviation [(No. 8) Security] Regulations; Sub. Leg.

*(c)* meets the applicable requirements of the Civil Aviation [(No. 2) Operations] Regulations, the Civil Aviation [(No. 5) Airworthiness] Regulations, and the Civil Aviation [(No. 7) Instruments and Equipment] Regulations;

*(d)* meets the standards contained in Annex 6, Parts I and III and Annex 8 of the Chicago Convention;

*(e)* has sufficient financial resources to conduct safe operations; and

*(f)* meets the requirements of these Regulations.

(2) Where the Operations Specifications issued under this regulation to an air operator who does not hold an Air Operator Certificate issued by the Authority (hereinafter referred to as "a foreign air operator"), such foreign air operator may commence commercial air transport operations to and from Trinidad and Tobago.

**OPERATIONS SPECIFICATIONS**

Contents of Operations specifications.

**7.** (1) Operations Specifications issued under regulation 6 shall specify which specific operations are authorised, prohibited, limited or subject to certain conditions, in the interest of public safety.

(2) Operations Specifications issued under subregulation (1), shall contain details of the following:

*(a)* the purpose of issuance;
*(b)* application and duration;
*(c)* limitations to, or actions required by, the operator;
*(d)* general provisions;
*(e)* en route authorisation and limitations;
*(f)* aerodrome authorisations and limitations;
*(g)* maintenance;
*(h)* mass and balance;
*(i)* interchange of equipment operations; and
*(j)* aircraft leasing operations.

(3) The Operations Specification issued to a foreign air operator by the Authority shall be supplementary to these Regulations.

**CONTINUED VALIDITY OF OPERATIONS SPECIFICATIONS**

Conditions for continued validity. [291/2006 203/2009].

**8.** (1) A foreign air operator shall, when conducting operations to, from or within Trinidad and Tobago, ensure that he complies at all times with the requirements of—

*(a)* his operations specifications;
*(b)* his approved Aircraft Operator Security Programme;
*(c)* the security for aircraft operators under the Civil Aviation [(No. 8) Aviation Security] Regulations; and Sub. Leg.
*(d)* all applicable Trinidad and Tobago aviation laws, regulations and procedures.

(2) Where the Director-General identifies—

*(a)* a case of non-compliance or suspected

non-compliance by a foreign air operator with the requirements of subregulation (1); or

*(b)* any serious safety issue with the operations of a foreign air operator,

the Director-General shall immediately notify the foreign air operator and where circumstances warrant it inform—

(i) the State of the Operator; and

(ii) the State of Registry.

(3) The Director-General may, where circumstances as specified under subregulation (2) arise, engage in consultations with the State of the Operator and the State of Registry concerning the safety standards maintained by the foreign air operator.

**AIRCRAFT TECHNICAL LOG**

Contents of Aircraft Technical Log of foreign air operator. [291/2006].

**9.** A foreign air operator shall, when conducting operations to and from Trinidad and Tobago use an aircraft technical log containing the following in respect of each aircraft:

*(a)* information about each flight necessary to ensure continued flight safety;

*(b)* the current Certificate of Release to Service for the aircraft;

*(c)* the current maintenance statement giving the aircraft maintenance status of what scheduled and out of phase maintenance is next due, unless the Authority agrees to the maintenance statement being kept elsewhere;

*(d)* all outstanding deferred defects that affect the operation of the aircraft; and

*(e)* any necessary guidance instructions on maintenance support.

**FOREIGN AIR OPERATOR DOCUMENTS TO BE CARRIED**

Documents required to be carried by foreign air operator. [291/2006].

**10.** A foreign air operator shall ensure that the following are carried on each flight, when conducting operations to and from Trinidad and Tobago:

*(a)* the current parts of the Operations Manual relevant to the duties of the crew;

*(b)* those parts of the Operations Manual which are required for the conduct of a flight are easily accessible to the crew on board the aircraft;

*(c)* the current approved Aircraft Flight Manual for the aircraft being flown;

*(d)* the current certificate of registration, and airworthiness certificate in force in respect of that aircraft;

*(e)* the appropriate licences of the members of the flight crew;

*(f)* the mass and balance document for the aircraft certifying that the load carried is properly distributed and safely secured; and

*(g)* appropriate approval for radio operation.

**ADDITIONAL INFORMATION AND FORMS TO BE CARRIED**

**11.** (1) A foreign air operator shall ensure that, in addition to the documents and manuals required by regulations 9 and 10, the following information and forms, relevant to the type and area of operation, are carried on each flight conducted to and from Trinidad and Tobago:

Additional documents required to be carried by foreign air operator. [291/2006].

*(a)* an Operational Flight Plan;

*(b)* the aircraft technical log containing at least the information required in regulation 9;

*(c)* appropriate notices to airmen and aeronautical information services briefing documentation;

*(d)* appropriate meteorological information;

*(e)* copy of applicable operations specifications required under these Regulations;

*(f)* notification of special loads including any dangerous goods; and

*(g)* current maps and charts for the area of operation.

(2) The Director-General may recommend that the Authority authorise the information detailed under subregulation (1) or parts thereof, to be presented in a form other than on printed paper, provided the information is accessible for inspection.

**AUTHORITY TO INSPECT**

Inspection by Authority.

**12.** A foreign air operator shall ensure that any person authorised by the Authority, is permitted at any time, without prior notice, to board any of his aircraft operated for commercial air transportation in Trinidad and Tobago, inspect the documents and manuals required by regulations 9, 10 and 11, and inspections required by regulation 18, and such other inspections as are deemed necessary under the Chicago Convention.

**PRODUCTION OF DOCUMENTATION, MANUALS AND RECORDS**

Requirement to produce documentation, manuals and records when requested.

**13.** (1) A foreign air operator shall—

*(a)* give any person authorised by the Authority access to any documents, manuals and records which are related to flight operations and maintenance; and

*(b)* produce all such documents, manuals and records, when requested to do so by the Authority, within a reasonable period of time.

(2) The pilot in command of an aircraft of a foreign air operator shall, when requested to do so by a person authorised by the Authority, produce to such person the documentation, manuals and records required to be carried on board the aircraft.

**PRESERVATION OF FLIGHT RECORDER RECORDINGS**

Requirement to preserve flight data recorder recordings.

**14.** Following an accident or incident in Trinidad and Tobago involving an aircraft of a foreign air operator, or when the Authority so directs, the foreign air operator of an aircraft on which a flight recorder is carried shall preserve the original recorded data for a period of sixty days unless otherwise directed by the Authority.

**COMPUTATION OF PASSENGER AND BAGGAGE WEIGHTS**

Requirement to compute passenger and baggage weight. [291/2006].

**15.** (1) A foreign air operator conducting operations to and from Trinidad and Tobago shall compute the mass of passengers and checked baggage using—

*(a)* the actual mass of each person and the actual mass of baggage; or

*(b)* the standard mass values specified by the foreign authority.

(2) The Authority may require a foreign air operator conducting operations to and from Trinidad and Tobago to produce evidence validating any standard mass values used.

**SINGLE-ENGINE AIRCRAFT**

Restrictions on the operations of single-engine aircraft by a foreign air operator. [291/2006].

**16.** A foreign air operator conducting operations to and from Trinidad and Tobago shall not operate a single-engine aircraft—

*(a)* at night; or

*(b)* in Instrument Meteorological Conditions except under Special Visual Flight Rules.

**APPROACH AND LANDING CONDITIONS**

Required procedures for approach and landings.

**17.** Before initiating an approach to land in Trinidad or Tobago, the pilot in command of an aircraft of a foreign air operator, shall determine from the information available—

*(a)* if the weather at the aerodrome and the conditions of the runway are safe for the approach and landing; and

*(b)* in the case of missed approach, he will be able to meet the performance requirements contained in the Operations Manual.

**ACCESS TO AIRCRAFT AND ASSOCIATED FACILITIES**

Foreign air operator to give Authority access. [230/2005 291/2006].

**18.** A foreign air operator, when conducting operations to and from Trinidad and Tobago, shall—

*(a)* give any person authorised by the Authority access to his aircraft and associated facilities to inspect to determine compliance with these Regulations;

*(b)* satisfactorily respond to findings arising under paragraph *(a)*, prior to further flight in the case of findings prejudicing safe flight and for all the findings within reasonable time but no more than three days.

*L.R.O.*

## PART II

## SECURITY

Applicability of Part II. [291/2006].

**19.** This Part prescribes the security requirements for a foreign air operator operating to and from Trinidad and Tobago.

### PROHIBITION AGAINST CARRIAGE OF WEAPONS

Carriage of Weapons of War and Munitions of War. [291/2006].

**20.** A foreign air operator conducting commercial air transportation operations to and from Trinidad and Tobago shall—

*(a)* not transport weapons of war and munitions of war by air unless an approval to do so has been granted by the Authority;

*(b)* ensure that when approval under paragraph *(a)* is granted, weapons of war and munitions of war are—

(i) stowed in the aircraft in a place which is inaccessible to passengers during flight;

(ii) in the case of firearms, unloaded, unless, before the commencement of the flight, an approval has been granted by the Authority that such weapons of war and munitions of war may be carried in circumstances that differ in part or in total from those indicated in this subparagraph; and

(iii) paragraph (ii) does not apply to a foreign air operator that has been approved to transport an air marshal under an approved programme;

*(c)* ensure that the pilot in command is notified before the flight begins of the details and location on board the aircraft of any weapon of war and munition of war that are intended to be carried.

### SPORTING WEAPONS AND AMMUNITION

Carriage of sporting weapons and ammunition. [291/2006].

**21.** (1) The carriage of sporting weapons and ammunition by a foreign air operator conducting commercial air transportation shall be in accordance with the procedures and requirements of the approved dangerous goods programme approved by the foreign authority.

(2) A foreign air operator conducting commercial air transportation operations to and from Trinidad and Tobago shall take all measures necessary to ensure that where a sporting weapon is offered for transport by air, such transportation is reported to him.

(3) A foreign air operator accepting the transport of a sporting weapon shall ensure that such sporting weapon is—

*(a)* stowed in the aircraft, in which he conducts or intends to conduct operations, in a place which is inaccessible to passengers during flight unless the Authority has determined that compliance is impracticable and has approved other procedures; and

*(b)* in the case of a firearm or other weapon that can contain ammunition, unloaded.

(4) A foreign air operator may allow a passenger to carry ammunition for a sporting weapon in his checked baggage, as approved by the foreign authority.

**FIREARM IMPORT LICENCE**

Requirement to hold Firearm Import Licence by passenger.

**22.** A foreign air operator shall ensure that where a person submits a firearm for transport by air on his aircraft to Trinidad and Tobago, such person holds a Firearm Import Permit for such firearm issued in accordance with the Firearms Act. Ch. 16:01.

**SECURITY PROGRAMME FOR FOREIGN AIR OPERATOR**

Security Programme for foreign air operator.

**23.** A foreign air operator shall—

*(a)* ensure that all appropriate personnel are familiar and comply with the relevant requirements of the national security programmes of Trinidad and Tobago;

*(b)* establish, maintain and conduct approved training programmes which enable the personnel of the foreign air operator to take appropriate action to prevent acts of unlawful interference such as sabotage or unlawful seizure of aircraft and to minimise the consequences of such events should they occur;

*(c)* following an act of unlawful interference on board an aircraft the pilot in command or, in his absence a flight crew member of the foreign air operator, shall submit, without delay, a report of such an act to the designated local authority and the Authority of Trinidad and Tobago;

*(d)* ensure that all aircraft carry a checklist of the procedures to be followed for that aircraft type in searching for concealed weapons, explosives or other dangerous devices; and

*(e)* ensure that the flight crew compartment door of all aircraft, if installed and where such aircraft is operated for the purpose of carrying passengers is capable of being locked from within the compartment in order to prevent unauthorised access.

#### UNAUTHORISED CARRIAGE

Unauthorised carriage.

**24.** A foreign air operator shall take measures to ensure that no person conceals himself or cargo on board an aircraft.

### PART III

## DANGEROUS GOODS

#### APPLICABILITY OF PART III

Applicability of Part III.

**25.** This Part prescribes the requirements for the transport of dangerous goods by air, by a foreign air operator.

#### TRANSPORT OF DANGEROUS GOODS BY AIR

Offering dangerous goods for transport by air.

**26.** (1) A foreign air operator shall not accept dangerous goods for transport by air to and from Trinidad and Tobago unless he has—

*(a)* been authorised to do so by the foreign authority;

*(b)* conducted the required personnel training; and

*(c)* provided a copy of his approved dangerous goods programme to the Authority.

(2) A foreign air operator shall properly classify, document, certify, describe, package, mark, label and put in a fit condition for transport of, dangerous goods as required by the dangerous goods programme of the foreign air operator as approved by the foreign authority.

(3) The foreign air operator shall state in his Operations Specifications required in regulation 7 whether or not he has been authorised to accept dangerous goods by the foreign authority.

(4) Where the foreign operator has been granted authority to accept dangerous goods, and has an approved dangerous goods programme authorised by the foreign authority, the foreign operator shall provide a copy of such dangerous goods programme to the Authority.

**TRANSITIONAL PROVISIONS**

**27.** (1) The foreign air operator Operations Specifications requirements under these Regulations, shall come into effect ten months from the date of publication of these Regulations. Transitional provisions. [272/2004 37/2005 230/2005 291/2006 35/2008].

(2) Notwithstanding subregulation (1), on the commencement of these Regulations a foreign air operator who wishes to apply for Operations Specifications to operate to and from Trinidad and Tobago shall meet the requirements of these Regulations.

(3) Notwithstanding subregulation (1), a foreign air operator who on the commencement of these Regulations, holds a valid licence issued by the Air Transport Licensing Authority to operate in Trinidad and Tobago, may continue to operate under the conditions of his existing licence until 30th September 2009, and thereafter shall meet the requirements of these Regulations.

**DIRECTOR-GENERAL MAY AMEND SCHEDULES**

**28.** The Director-General may, by Order, amend any of the Schedules. Director-General to amend Schedules.

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*L.R.O.*

# CIVIL AVIATION [(NO. 11) AERIAL WORK] REGULATIONS

ARRANGEMENT OF REGULATIONS

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2. Interpretation and applicability.

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5. Requirements for issue of Agricultural Aircraft Operator Certificate.
6. Application for Agricultural Aircraft Operator Certificate.
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**REGULATION**

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**SCHEDULE 1.**
**SCHEDULE 2.**

110/2004.
[38/2005
231/2005
192/2006
292/2006]

# CIVIL AVIATION [(NO. 11) AERIAL WORK] REGULATIONS

*made under section 33*

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No. 11) Aerial Work] Regulations.

Interpretation and applicability.

**2.** (1) In these Regulations—

"aerial work" means operations in an aircraft used for specialised services such as agriculture, section photography, surveying, observation and patrol, search and rescue, aerial advertisement;

"aerobatic flight" means an intentional manoeuvre of an aircraft involving an abrupt change in the attitude of an aircraft, an abnormal attitude, or abnormal acceleration of an aircraft, not necessary for normal flight;

"agricultural aircraft operation" means aerial work in an aircraft for the purpose of—

*(a)* dispensing any economic poison;

*(b)* dispensing any other substance intended for plant nourishment, soil treatment, propagation of plant life or pest control; or

*(c)* engaging in dispensing activities directly affecting agriculture, horticulture, or forest preservation, but not including the dispensing of live insects;

"Airline Transport Pilot Licence" has the meaning assigned to it by the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations; Sub. Leg.

"air operator" has the meaning assigned to it by the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations;

"banner" means an advertising medium supported by a temporary framework attached externally to the aircraft and towed behind the aircraft;

"Commercial Pilot Licence" has the meaning assigned to it by the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations;

"economic poison" means a substance or mixture of substances intended for—

*(a)* preventing, destroying, repelling, or mitigating any insects, rodents, nematodes, fungi, weeds and other forms of plant or animal life or viruses, which the appropriate agency may declare to be a pest; and

*(b)* use as a plant regulator, defoliant or desiccant;

"movie" means any film, video and live broadcast in any format and the preparation and rehearsal for these operations;

"public aircraft" means an aircraft used only for the Trinidad and Tobago Government or owned and operated by a Government of a foreign State, but not conducting commercial operations; and

"rotorcraft load combinations" means configurations for external-loads carried by rotorcraft in the classes set out in Schedule 1. Schedule 1.

## PART I

## AGRICULTURAL AIRCRAFT OPERATIONS

### APPLICABILITY OF PART I

Applicability of Part I. [231/2005].

**3.** (1) This Part prescribes–

*(a)* the manner in which agricultural aircraft operations may be conducted within Trinidad and Tobago; and

*(b)* the issue of an Agricultural Aircraft Operator Certificate for those operations.

(2) These Regulations apply to commercial aircraft operation used for specialised services.

(3) A person conducting agricultural aircraft operations under this Part, may, in a public emergency, where necessary, deviate from the operating rules under this Part for relief and welfare activities that are approved by an appropriate national agency of Trinidad and Tobago.

(4) A person who, deviates from operating rules under this Part shall, within ten days after such deviation, submit to the Authority a complete report of the aircraft operation involved, including a description and the reasons for the deviation.

**AGRICULTURAL AIRCRAFT OPERATOR CERTIFICATE**

Requirement to hold an Agricultural Aircraft Operator Certificate.

**4.** (1) Except as provided in subregulation (3) a person shall not conduct agricultural aircraft operations without an Agricultural Aircraft Operator Certificate issued by the Authority.

(2) An operator may, where he complies with regulations 3 and 5 through 21, conduct agricultural aircraft operations with a rotorcraft with external dispensing equipment without a Rotorcraft External-Load Operator Certificate required by regulation 23.

(3) A person holding a Rotorcraft External-Load Operator Certificate under these Regulations may conduct an agricultural aircraft operation, involving the dispensing of water on forest fires by rotorcraft external-load means.

**AGRICULTURAL AIRCRAFT OPERATOR CERTIFICATE REQUIREMENTS**

Requirements for issue of Agricultural Aircraft Operator Certificate.

**5.** (1) An applicant for an Agricultural Aircraft Operator Certificate shall hold either a current—

*(a)* Private Pilot Licence;

*(b)* Commercial Pilot Licence; or

*(c)* Airline Transport Pilot Licence,

issued by the Authority, and be properly rated for the aircraft to be used in the operation.

(2) An applicant under subregulation (1), shall satisfactorily demonstrate to the Authority—

*(a)* that he meets the following knowledge requirements:

(i) the steps to be taken before starting operations, including a survey of the area to be worked;

(ii) the safe handling of economic poisons and the proper disposal of used containers for those poisons;

(iii) the general effects of economic poisons and agricultural chemicals on plants, animals, and persons, and the precautions to be observed in using economic poisons and chemicals;

(iv) the primary symptoms of poisoning of persons from economic poison, the appropriate emergency measures to be taken, and the location of poison control centres;

(v) the performance capabilities and operating limitations of the aircraft to be used; and

(vi) the safe flight and application procedures; and

*(b)* through a skill test that he can successfully perform the following manoeuvres, demonstrated at the aircraft's maximum certified take-off weight, or the maximum weight established for the special purpose load, whichever is greater:

(i) short-field and soft-field take-offs in respect of aeroplanes and gyroplanes;

(ii) approaches to the working area;

(iii) flare-outs;

(iv) swath runs;

(v) pull-ups and turnarounds; and

(vi) rapid deceleration in helicopters only.

**APPLICATION FOR AGRICULTURAL AIRCRAFT OPERATOR CERTIFICATE**

**6.** A person wishing to apply for an Agricultural Aircraft Operator Certificate under this Part shall— Application for Agricultural Aircraft Operator Certificate.

*(a)* apply to the Authority in the prescribed form; and

*(b)* pay the prescribed fees.

*L.R.O.*

**CERTIFICATION REQUIREMENTS**

General certification requirements for Agricultural Aircraft Operator Certificate.

**7.** (1) Except as provided under subregulation (2), where the Director-General is satisfied that an applicant for an Agricultural Aircraft Operator Certificate meets the requirements of this Part he may recommend the Authority issue an Agricultural Aircraft Operator Certificate.

(2) An applicant who applies for an Agricultural Aircraft Operator Certificate containing a prohibition against the dispensing of economic poisons shall be exempted from the requirement to demonstrate knowledge specific to economic poisons.

(3) An agricultural aircraft operator before conducting operations under these Regulations shall ensure that his aircraft is—

*(a)* issued with an Airworthiness Certificate under the Civil Aviation [(No. 5) Airworthiness] Regulations; and Sub. Leg.

*(b)* equipped for agricultural operation.

**DURATION OF AGRICULTURAL AIRCRAFT OPERATOR CERTIFICATE**

Duration of Agricultural Aircraft Operator Certificate.

**8.** An Agricultural Aircraft Operator Certificate issued by the Authority shall be valid for a period of twelve months from the date of issue unless otherwise surrendered, suspended, or revoked.

**AMENDMENT TO AN AGRICULTURAL AIRCRAFT OPERATOR CERTIFICATE**

Amendment of Agricultural Aircraft Operator Certificate.

**9.** (1) An Agricultural Aircraft Operator Certificate may be amended—

*(a)* by the Authority on its own initiative, pursuant to applicable laws and regulations; or

*(b)* upon the application by a person holding an Agricultural Aircraft Operator Certificate.

(2) An application to amend an Agricultural Aircraft Operator Certificate under subsection (1)*(b)* shall be—

*(a)* made in the form and manner prescribed by the Authority;

*(b)* filed at least fifteen days before the date the amendment is due to become effective unless the Authority specifies otherwise.

(3) The Director-General may recommend that the Authority grant a request to amend an Agricultural Aircraft Operator Certificate, where he is satisfied that safety in air commerce and the public interest is secured.

(4) Where an application to amend an Agricultural Aircraft Operator Certificate is refused the applicant may within thirty days thereafter petition the Authority to reconsider its decision.

**AGRICULTURAL AIRCRAFT OPERATOR CERTIFICATE TO BE CARRIED**

Requirement to carry Agricultural Aircraft Operator Certificate.

**10.** (1) A person holding an Agricultural Aircraft Operator Certificate shall keep such certificate at the base from which he conducts operation and shall make it available for inspection on the request of the Authority.

(2) A person shall not conduct agricultural aircraft operation in an aircraft unless he has a copy of the Agricultural Aircraft Operator Certificate on board such aircraft.

(3) An Aircraft Registration and an Airworthiness Certificate issued by the Authority may not be carried on board an aircraft that is involved in agricultural aircraft operations where such Registration and Airworthiness Certificates are available for inspection at the base from which operations are conducted.

**GENERAL OPERATING RULES**

General Operating Rules. [231/2005].

**11.** (1) Except as provided under subregulation (3), regulations 12 through 29 prescribe the rules that apply to persons and aircraft used in agricultural aircraft operations conducted under these Regulations.

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Sub. Leg.

(2) A person holding a current Agricultural Aircraft Operator Certificate may deviate from the provisions of the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, without a certificate of waiver when conducting operations related to agriculture, horticulture, or forest preservation in accordance with operating rules under this Part.

(3) Operating rules under regulations 11 through 20 apply to a person holding a Rotorcraft External-Load Certificate under Part II of these Regulations conducting agricultural aircraft operations involving only the dispensing of water on forest fires by rotorcraft external-load means.

**DISPENSING OF MATERIAL OR SUBSTANCE FROM AIRCRAFT**

Prohibition on dispensing of material or substance from aircraft.

**12.** A person shall not dispense or cause to be dispensed, any material or substance from an aircraft in any manner that would create a hazard to persons, animals or property on the ground.

**DISPENSING OF ECONOMIC POISON**

Restriction on dispensing of economic poison.

**13.** (1) A person shall not dispense or cause to be dispensed, any economic poison unless such economic poison is registered with the Authority.

(2) A person shall not dispense or cause to be dispensed, any economic poison that is registered with the appropriate Agency—

*(a)* for a use other than that for which it is registered;

*(b)* contrary to any safety instructions or use limitations on its label; or

*(c)* in violation of any written law.

(3) Notwithstanding subregulation (1) a person may dispense economic poisons registered or unregistered for experimental purposes under—

*(a)* the supervision of an agency in Trinidad and Tobago, authorised by law to conduct research in the field of economic poisons; or

*(b)* a permit issued by the Authority.

**QUALIFICATION OF PERSONNEL**

Qualification of personnel of the holder of an Agricultural Aircraft Operator Certificate.

**14.** (1) A person shall not conduct agricultural aircraft operations on an aircraft unless he informs all persons employed by him to conduct such agricultural aircraft operations of their respective duties and responsibilities.

(2) A person shall not supervise an agricultural aircraft operation unless he meets the knowledge and skill requirements under this Part.

(3) A person shall not act as pilot in command of an aircraft involved in agricultural aircraft operations under this Part unless he—

*(a)* holds a current certificate and rating prescribed under this Part as appropriate to the type of operation conducted; or

*(b)* demonstrates to the satisfaction of the person holding an Agricultural Aircraft Operator Certificate and conducting agricultural aircraft operations, or to a supervisor designated by such person, that he possesses the knowledge and skill requirements under regulation 5(2).

**CONTROLLED AIRSPACE DESIGNATED FOR AN AIRPORT OR UNDER VISUAL FLIGHT RULES**

Operations in controlled airspace designated for an airport or under Visual Flight Rules.

**15.** (1) A person shall not conduct agricultural operations on an aircraft—

*(a)* within the lateral boundaries of the surface area of Class D airspace designated for an airport except for flights to and from a dispensing area; and

*(b)* in weather conditions below Visual Flight Rules minima within the lateral boundaries of a Class E airspace area that extends upward from the surface,

without authorisation from the Air Traffic Control facility having jurisdiction over that area.

(2) A person holding an Agricultural Aircraft Operator Certificate may operate an aircraft under special Visual Flight Rules weather minimums without meeting the requirements prescribed in the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations.

Sub. Leg.

**GENERAL REQUIREMENTS FOR OPERATIONS OVER CONGESTED AREAS**

General requirements for operations over congested areas.

**16.** (1) A person may conduct agricultural aircraft operations or cause such operations to be conducted over a congested area at required altitudes if such agricultural aircraft operations are conducted—

*(a)* without jeopardising the safety of persons and property on the surface;

*(b)* after a plan for an agricultural aircraft operation is submitted and approved by the Authority; and

*(c)* in the manner prescribed by the Authority.

(2) A plan for an agricultural aircraft operation under subregulation (1)*(b)* shall include—

*(a)* obstructions to flight;

*(b)* emergency landing capabilities of the aircraft to be used; and

*(c)* any necessary co-ordination with Air Traffic Control facilities.

(3) The rules governing agricultural aircraft operations over congested areas in single-engine and multi-engine aircrafts are set out in Schedule 2.

Schedule 2.

**PILOT AND AIRCRAFT OPERATIONS OVER CONGESTED AREAS**

Pilot and aircraft operation requirements over congested areas.

**17.** A pilot shall not conduct agricultural aircraft operations over congested areas unless he has at least—

*(a)* twenty-five hours of pilot in command flight time in the make and basic model of aircraft, including at least ten hours within the preceding twelve months; and

*(b)* one hundred hours of flight experience as a pilot in command dispensing agricultural materials or chemicals.

**JETTISONING**

Jettisoning of agricultural material.

**18.** (1) All aircraft except for helicopters, shall be capable of jettisoning at least one-half of the maximum authorised load of agricultural material of the aircraft within forty-five seconds.

(2) Where an aircraft is equipped to release the tank or hopper as a unit, there shall be a means to prevent inadvertent release by the pilot or other crew member.

**RECORDS AND REPORTS**

Records and reports.

**19.** (1) A person holding an Agricultural Aircraft Operator Certificate shall maintain and keep current, at the home base where his operations are conducted the following records:

*(a)* the name and address of each person for whom agricultural aircraft services were provided;

*(b)* the date the services were provided;

*(c)* the name and quantity of the material dispensed for each operation conducted; and

*(d)* the name, address, and certificate number of each pilot employed in the agricultural aircraft operations and the date that pilot met the knowledge and skill requirements under this Part.

(2) The records requirement under this regulation shall be kept for at least twelve months.

**NEW ADDRESS OF AGRICULTURAL AIRCRAFT OPERATOR**

Change of address of the holder of an Agricultural Aircraft Operator Certificate.

**20.** A person holding an Agricultural Aircraft Operator Certificate shall notify the Authority in writing in advance of any change in the address of the home base where he conducts operations.

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## PART II

## HELICOPTER EXTERNAL-LOAD

### APPLICABILITY OF PART II

Applicability of Part II.

**21.** (1) This Part prescribes—

*(a)* certification and airworthiness requirements for rotorcraft used in external-load operations; and

*(b)* the operating and certification requirements governing the conduct of rotorcraft external-load operations in Trinidad and Tobago.

(2) The certification requirements under these Regulations shall not apply to—

*(a)* rotorcraft manufacturers when developing external-load attaching means;

*(b)* operations conducted by a person demonstrating compliance for the issuance of a certificate or authorisation under these Regulations;

*(c)* training flights conducted in preparation for the demonstration of compliance with these Regulations; or

*(d)* the conduct of operations by the Government of Trinidad and Tobago utilising a public aircraft.

(3) A person other than a crew member or a person who is essentially and directly connected with external-load operation shall be carried only in approved Class D rotorcraft-load combinations.

### ROTORCRAFT EXTERNAL-LOAD OPERATOR CERTIFICATE

Rotorcraft External-Load Operator Certificate required.

**22.** Subject to regulation 4(3), a person shall not conduct rotorcraft external-load operations without a Rotorcraft External-Load Operator Certificate or in violation of the terms of such Certificate or equivalent authorisation issued by the Authority.

**APPLICATION FOR AND RENEWAL OF ROTORCRAFT EXTERNAL-LOAD OPERATOR CERTIFICATE**

Application for issue or renewal of Rotorcraft External-Load Operator Certificate.

**23.** A person wishing to apply for a Rotorcraft External-Load Operator Certificate or a renewal of a Rotorcraft External-Load Operator Certificate under this Part shall—

*(a)* apply to the Authority in the prescribed form; and

*(b)* pay the prescribed fees.

**PERSONNEL OF THE HOLDER OF A ROTORCRAFT EXTERNAL-LOAD OPERATOR CERTIFICATE**

Personnel requirements for a Rotorcraft External-Load Operator Certificate.

**24.** (1) An applicant under regulation 23 for a Rotorcraft External-Load Operator Certificate shall hold, or have available the services of at least one person who holds a current—

*(a)* Commercial Pilot Licence; or

*(b)* Airline Transport Pilot Licence,

with a rating appropriate for the rotorcraft to be used.

(2) An applicant under regulation 24 shall designate one person or any other suitably qualified person for rotorcraft external-load operations.

(3) An applicant may designate suitably qualified pilots as assistant chief pilots to perform the functions of the chief pilot where the chief pilot is not readily available.

(4) A person selected as chief pilot and assistant chief pilot shall be acceptable to the Authority and shall hold a current—

*(a)* Commercial Pilot Licence; or

*(b)* Airline Transport Pilot Certificate,

with a rating appropriate for the rotorcraft to be used.

(5) A person holding a Rotorcraft External-Load Operator Certificate shall report any change in designation of the chief pilot or assistant chief pilot immediately to the Authority.

(6) An operator shall not continue to conduct operations under the Rotorcraft External-Load Operator Certificate unless

the chief pilot demonstrates compliance with the knowledge and skill requirements within thirty days of his designation, or where otherwise authorised by the Authority.

**ISSUE OF ROTORCRAFT EXTERNAL-LOAD OPERATOR CERTIFICATE**

Issuance of a Rotorcraft External-Load Operator Certificate.

**25.** Where the Director-General is satisfied that an applicant under regulation 24 meets the requirements under this Part, he may recommend the Authority issue a Rotorcraft External-Load Operator Certificate with an authorisation to operate specified rotorcraft with the classes of rotorcraft-load combinations for which the applicant or certificate holder qualifies under the applicable provisions of this Part.

**EXCLUSIVE USE OF A ROTORCRAFT**

Requirements for use of Rotorcraft.

**26.** An applicant under regulation 23 shall have the exclusive use of at least one rotorcraft that—

*(a)* was type certified under, and meets the requirements for rotorcraft external-load operations under the several parts of these Regulations which prescribe the requirements for rotorcraft external-load operations;

*(b)* complies with the certification provisions in this Part that apply to the rotorcraft-load combinations for which an Rotorcraft External-Load Operator Certificate is required; and

*(c)* has a valid Airworthiness Certificate.

**DURATION OF ROTORCRAFT EXTERNAL-LOAD OPERATOR CERTIFICATE**

Duration of Rotorcraft External-Load Operator Certificate.

**27.** A Rotorcraft External-Load Operator Certificate issued by the Authority shall be valid for a period of twelve months from the date of issue unless otherwise surrendered, suspended or revoked.

**AMENDMENT OF A ROTORCRAFT EXTERNAL-LOAD OPERATOR CERTIFICATE**

Amendment of Rotorcraft External-Load Operator Certificate.

**28.** (1) A person holding a Rotorcraft External-Load Operator Certificate may apply to the Authority to amend his Rotorcraft External-Load Certificate, by either adding or deleting a Rotorcraft-Load Combination Authorisation.

(2) An application under subregulation (1) shall be accompanied by a new list of rotorcraft, the registration number of the rotorcraft, the classes of rotorcraft-load combinations for which authorisation is sought.

**ROTORCRAFT EXTERNAL-LOAD OPERATOR CERTIFICATE TO BE KEPT OR RETURNED**

Rotorcraft External-Load Operator Certificate to be kept or returned.

**29.** (1) A person conducting rotorcraft external-load operation under this Part shall keep a copy of his Rotorcraft External-Load Operator Certificate in each rotorcraft used in his operation.

(2) Where a Rotorcraft External-Load Operator Certificate—

*(a)* is suspended or revoked by the Authority; or

*(b)* a certificate holder discontinues operations and does not resume operations within two years,

he shall return the Rotorcraft External-Load Operator Certificate to the Authority.

**ROTORCRAFT OPERATING RULES**

Rotorcraft Operating Rules.

**30.** (1) A person shall not conduct rotorcraft external-load operations without, or contrary to, the Rotorcraft-Load Combination Flight Manual prescribed in regulation 36.

(2) A person shall not conduct rotorcraft external-load operation unless—

*(a)* the rotorcraft complies with the requirements under regulation 26; and

*(b)* the rotorcraft and rotorcraft-load combination is authorised under the Rotorcraft External-Load Operator Certificate.

(3) A person shall not operate a rotorcraft with external-load configuration that differs substantially from that which he previously operated whether or not the rotorcraft-load combination is of the same class, unless that person conducts the following operational checks:

*(a)* a determination that the weight of the rotorcraft or load combination and the location of its centre of gravity are within approved limits;

*(b)* that the external-load is securely fastened;

*(c)* that the external-load does not interfere with devices provided for its emergency release;

*(d)* make an initial lift-off and verify that controllability is satisfactory;

*(e)* while hovering, verify that directional control is adequate;

*(f)* accelerate into forward flight to verify that no attitude whether of the rotorcraft or of the external-load is encountered in which the rotorcraft is uncontrollable or which is otherwise hazardous;

*(g)* in forward flight, check for hazardous oscillations of the external-load and where the external-load is not visible to the pilot, other crew members or ground personnel may assist in this check and signal the pilot; and

*(h)* increase the forward airspeed and determine an operational airspeed at which no hazardous oscillation or hazardous aerodynamic turbulence is encountered.

Sub. Leg.

(4) Notwithstanding the provisions of the Civil Aviation [(No. 2) Operations] Regulations, a person holding a Rotorcraft External-Load Operator Certificate may conduct rotorcraft external-load operations over congested areas if such

operations are conducted without jeopardising the safety of persons or property on the surface and comply with the following requirements:

*(a)* the operator shall develop a plan for each complete operation and obtain approval for such operation from the Authority which shall include—

(i) an agreement with the appropriate agency that he will exclude unauthorised persons from the area in which the operation will be conducted;

(ii) co-ordination of operations with Air Traffic Control; and

(iii) where necessary, a detailed chart depicting the flight routes and altitudes;

*(b)* a flight shall be conducted at an altitude, and on a route, that will allow jettisoning of external-load and landing of the rotorcraft, in an emergency without jeopardising the safety of persons or property on the surface.

(5) Notwithstanding the provisions of the Civil Aviation [(No. 2) Operations] Regulations, and except as provided in regulation 35(1)*(d)*, a person holding a Rotorcraft External-Load Operator Certificate may conduct external-load operations, including approaches, departures, and load positioning manoeuvres necessary for the operating, below five hundred feet above the surface and closer than five hundred feet to persons, vessels, vehicles, and structures, if the operations are conducted without jeopardising the safety of persons or property on the surface. Sub. Leg.

(6) A person shall not conduct rotorcraft external-load operations under Instrument Flight Rules unless approval is obtained from the Authority.

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**RESTRICTIONS ON THE CARRIAGE OF PERSONS**

Restrictions on the carriage of persons by the holder of a Rotorcraft External-Load Operator Certificate.

**31.** (1) A person holding a Rotorcraft External-Load Operator Certificate shall not allow any person to be carried on board a rotorcraft during external-load operations unless such person—

*(a)* is a flight crew member;

*(b)* is a flight crew member trainee;

*(c)* performs an essential function in connection with the rotorcraft external-load operation; or

*(d)* is necessary to accomplish any work activity directly associated with that operation.

(2) The pilot in command of an aircraft involved in external-load operations shall ensure that all persons are briefed before take-off on all important procedures to be followed including normal, abnormal, and emergency procedures and equipment to be used during the external-load operation.

**CREW MEMBER TRAINING, CURRENCY AND TESTING REQUIREMENTS**

Crew member training, currency and testing requirements for the holder of a Rotorcraft External-Load Operator Certificate.

**32.** (1) A person holding a Rotorcraft External-Load Operator Certificate shall not use or allow any other person to serve as a pilot in any helicopter external-load operations unless that person—

*(a)* has successfully demonstrated to the Authority the knowledge and skill requirements in relation to rotorcraft load combination; and

*(b)* has in his possession a letter of competency or an appropriate logbook entry indicating compliance with subregulation (1)*(a)*.

(2) A person holding a Rotorcraft External-Load Operator Certificate shall not use any other person to serve as a crew member or other operations personnel in Class D operations unless such person has within the preceding twelve months successfully completed either an approved initial or a recurrent training programme.

(3) Notwithstanding subregulation (2), a person who has performed a rotorcraft external-load operation of the same class and in an aircraft of the same type within the past twelve months may not be required to undergo an approved or recurrent training programme.

**FLIGHT CHARACTERISTICS REQUIREMENTS**

Flight characteristics requirements.

**33.** (1) An applicant for a Rotorcraft External-Load Operator Certificate shall successfully demonstrate to the Authority an operational flight check showing that the rotorcraft load combination has satisfactory flight characteristics except where such a flight check had been previously successfully demonstrated by the applicant.

(2) The external-load weight including the external-load attaching mechanism for which the applicant is required to demonstrate operational flight checks under subregulation (1) shall have the maximum weight for which authorisation is granted.

(3) For a Class A rotorcraft-load combination, the operational flight check shall include the following manoeuvres:

*(a)* take-off and landing;

*(b)* demonstration of adequate directional control while hovering;

*(c)* acceleration from a hover; and

*(d)* horizontal flight at airspeeds up to the maximum airspeed for which authorisation is requested.

(4) For Class B and Class D rotorcraft-load combinations the operational flight check shall include the following manoeuvres:

*(a)* pickup of the external-load;

*(b)* demonstration of adequate directional control while hovering;

*(c)* acceleration from a hover;

*(d)* horizontal flight at airspeeds up to the maximum airspeed for which authorisation is requested;

*(e)* demonstrating appropriate lifting device operation; and

*(f)* manoeuvring of the external-load into release position and its release, under probable flight operation conditions, by means of each of the quick-release controls installed on the rotorcraft.

(5) For a Class C rotorcraft-load combination, used in wire-stringing, cable-laying, or similar operations, the operational flight check shall consist of such relevant manoeuvres, as prescribed in subregulation (4).

**STRUCTURES AND DESIGN OF EXTERNAL-LOAD ATTACHING MEANS**

Approvals based on structures and design of external-load attaching means.

**34.** Where the Director-General is satisfied that the structure and design of the external-load attaching means of a rotorcraft meets the requirements under this Part he may recommend the Authority may approve—

*(a)* external-load attaching means;

*(b)* quick release device; and

*(c)* weight and centre of gravity for—

(i) the total weight of the rotorcraft-load combination which shall not exceed the total weight approved for the rotorcraft during its type certification;

(ii) the location of the centre of gravity shall, for all loading conditions, be within the range established for the rotorcraft during its type certification; and

(iii) Class C rotorcraft-load combinations, the magnitude and direction of the loading force must be established at those values for which the effective location of the centre of gravity remains within its established range.

**OPERATING LIMITATIONS**

Operating limitations for the holder of a Rotorcraft External-Load Operator Certificate. [192/2006].

**35.** (1) In addition to the operating limitations in the approved Rotorcraft Flight Manual required by regulation 36, and any other limitations the Director-General may prescribe, a person holding a Rotorcraft External-Load Operator Certificate shall establish and set out in the Rotorcraft-Load Combination Flight Manual for rotorcraft-load combination operations the following limitations requirements:

*(a)* the rotorcraft-load combination shall be operated only within the weight and centre of gravity limitations established in accordance with this Part;

*(b)* the rotorcraft-load combination shall not be operated with an external-load weight exceeding that used in showing compliance with this Part;

*(c)* the rotorcraft-load combination shall not be operated at airspeeds greater than those established in accordance with this Part; and

*(d)* external-load operation under this Part shall not conduct with a rotorcraft type certified in the restricted category over—

(i) a densely populated area;

(ii) in a congested airway; or

(iii) near a busy airport where passenger transport operations are conducted.

(2) The rotorcraft-load combination of Class D may be conducted only in accordance with the following guidelines:

*(a)* the rotorcraft to be used shall be type certified under transport Category A for the operating weight and provide hover capability with one engine inoperative at that operating weight and altitude;

*(b)* the rotorcraft shall be equipped to facilitate direct radio intercommunication among required crew members;

*(c)* the personnel-lifting device shall be approved by the Authority; and

*(d)* the lifting device shall have an emergency release requiring two distinct actions.

(2A) Notwithstanding the requirement of subregulation (2)*(a)*, in actual rescue operations or in emergency situations where there is a demonstrated urgent requirement for a winch-equipped helicopter, or where training or demonstrations for the purpose necessitates the actual lifting or lowering of persons, multi-engine or single-engine helicopters may be used.

(2B) Where a multi-engine helicopter is used in operations prescribed under subregulation (2A), the helicopter need not be capable of hovering out of ground effect with one engine inoperative.

**ROTORCRAFT-LOAD COMBINATION FLIGHT MANUAL**

Requirement for a Rotorcraft-Load Combination Flight Manual.

**36.** (1) An applicant for a Rotorcraft External-Load Operator Certificate shall prepare and submit a Rotorcraft-Load Combination Flight Manual for approval by the Authority which shall include—

*(a)* operating limitations, normal and emergency procedures, performance, and other information established under this Part;

*(b)* the class of rotorcraft-load combinations for which the airworthiness of the rotorcraft has been demonstrated in accordance with this Part;

*(c)* any peculiarities discovered when operating particular rotorcraft-load combinations;

*(d)* precautionary advice regarding static electricity discharges for Class B, Class C, and Class D rotorcraft-load combinations; and

*(e)* any other information essential for safe operation with external loads.

(2) A Rotorcraft Flight Manual under this regulation may not include the limitation on height or speed envelope data.

**REQUIREMENTS FOR MARKINGS AND PLACARDS**

Requirements for markings and placards.

**37.** (1) All markings and placards on a rotorcraft shall be conspicuous and shall be engraved in such a manner that it cannot be easily erased, disfigured, or obscured.

(2) The markings and placards under subregulation (1) shall include a placard—

*(a)* displayed in the cockpit or cabin, stating the class of rotorcraft-load combination and the occupancy limitation for which the rotorcraft has been approved; and

*(b)* with marking, or instruction displayed next to the external-load attaching means stating the maximum external-load approved.

**AIRWORTHINESS CERTIFICATION**

Holder of a Rotorcraft External-Load Operator Certificate to have an Airworthiness Certificate.

**38.** A Rotorcraft External-Load Operator Certificate is a current and valid Airworthiness Certificate for each rotorcraft type and listed by a registration number on a list attached to his Rotorcraft External-Load Operator Certificate, when the rotorcraft is being used in operations conducted under these Regulations.

**PART III**

## GLIDER TOWING

**APPLICABILITY OF PART III**

Applicability of Part III.

**39.** This Part applies to operations involving glider towing by aircraft.

**PRIVATE PILOT LICENCE WITH A CATEGORY RATING REQUIREMENT FOR TOW PILOT**

Tow pilot to have Private Pilot Licence with a category rating.

**40.** A person shall not act as a tow pilot for a glider unless he has at least a Private Pilot Licence with a category rating for towing aircraft.

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**REQUIREMENTS FOR AIRCRAFT INVOLVED IN TOWING**

Aircraft requirements for towing.

**41.** A person shall not operate an aircraft that is towing a glider unless such aircraft is equipped with a tow hook and release control system that meet the applicable airworthiness standards.

**REQUIREMENTS FOR EXPERIENCE AND TRAINING FOR TOW PILOT**

Experience and training requirements for tow pilot.

**42.** (1) A person shall not act as a tow pilot for a glider unless he has—

*(a)* logged at least one hundred hours of pilot in command time in same aircraft category, class, and type if applicable, as the tow aircraft;

*(b)* received training and instructor endorsement in—

(i) techniques and procedures essential to the safe towing of gliders, including airspeed limitations;

(ii) emergency procedures;

(iii) signals used; and

(iv) maximum angles of bank;

*(c)* except as provided in subregulation (2), completed and endorsed at least three flights as the sole manipulator of the controls of an aircraft towing a glider or simulating glider-towing flight procedures while accompanied by a pilot who meets the requirements of this regulation; and

*(d)* within the preceding twelve months has—

(i) made at least three actual glider tows; or

(ii) made at least three flights as pilot in command of a glider towed by an aircraft.

(2) A person who before the coming into operation of this regulation made and logged ten or more flights as pilot in command of an aircraft towing a glider in accordance with the authorisation of the Authority need not comply with subregulation (1)*(c)* and (1)*(d)*.

## PART IV

## BANNER TOWING

### APPLICABILITY OF PART IV

Applicability of Part IV.

**43.** This Part applies to operations involving towing of banners or other signs, lit or unlit by aircraft.

### BANNER TOWING CERTIFICATE OR AUTHORISATION

Requirement for Banner Towing Certificate or authorisation.

**44.** (1) A person shall not conduct operations under this Part unless he has a Banner Towing Certificate or equivalent authorisation issued by the Authority.

(2) A person wishing to apply for a Banner Towing Certificate shall—

*(a)* apply to the Authority in the prescribed form; and

*(b)* pay the prescribed fee.

(3) Where the Director-General is satisfied that an applicant satisfies the requirements under this Part, he may recommend the Authority issue that person with the relevant certificate or authorisation under subregulation (1).

(4) Notwithstanding subregulations (1) and (3) a person who operates a helicopter under Part II of these Regulations may tow a banner using an external-load attaching means without a Banner Towing Certificate where that person has at least a Class B authorisation on his operating certificate.

### BANNER TOWING REQUIREMENTS FOR AIRCRAFT

Aircraft requirements for banner towing.

**45.** (1) A person shall not operate an aircraft that is towing a banner unless that aircraft is equipped with a tow hook and release control system that meet the applicable airworthiness standards.

(2) A pilot shall not conduct banner towing operations in a helicopter unless such helicopter has a means to prevent the banner from becoming entangled in its tail rotor during all phases of flight, including autorotations.

**BANNER TOW OPERATIONS EXPERIENCE AND TRAINING REQUIREMENTS**

Experience and training requirements for conduct of banner tow operations.

**46.** (1) A pilot shall not conduct non-commercial banner tow operations unless that person has a valid Private Pilot Licence and a minimum of two hundred hours pilot in command flight time.

(2) A pilot shall not conduct banner tow operations for compensation or hire, without a Commercial Pilot Licence and at least a valid Class E medical certificate.

(3) A pilot engaged in banner tow operations shall demonstrate his competence to the Authority by performing at least one pickup and drop off, of the maximum number of letters or panels that can be used.

(4) A demonstration under subregulation (3) shall be observed from the ground to allow the inspector to evaluate the competence of any essential ground personnel as well as the flight operation.

**OPERATING RULES FOR BANNER TOW OPERATIONS**

Operating rules for banner tow operations.

**47.** (1) A banner tow operation shall be conducted—

*(a)* in Visual Flight Rules weather conditions; and

*(b)* between the hours of official sunrise and official sunset.

(2) A person shall not conduct banner tow operations—

*(a)* over congested areas or open air assemblies of persons lower than one thousand feet; and

*(b)* elsewhere lower than the minimum safe altitude requirements under the Civil Aviation [(No. 2) Operations] Regulations.

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(3) Notwithstanding subregulation (1), a helicopter may be used in banner tow operations lower than the minimum prescribed altitude where such operations are conducted without jeopardising the safety of persons or property on the surface.

(4) A person holding a certificate or equivalent authorisation under this Part shall not conduct banner towing operations, unless prior approval is obtained from the airport manager.

(5) When conducting banner tow operation at an airport—

*(a)* with a control tower, the operator shall notify the personnel at the control tower of the time of the banner tow operation;

*(b)* within close proximity to an uncontrolled airport, the operator shall notify the appropriate airport personnel of the banner towing operations.

(6) No person other than crew members directly involved in conducting banner tow operations shall be carried on board the aircraft involved in towing a banner.

(7) When conducting banner tow operations above congested areas, the pilot of the aircraft shall at all time exercise due care to minimise the risk of damage to persons or property on the surface in the event the emergency release of banner or tow rope becomes necessary.

(8) Where a banner tow operation is completed the tow-rope shall be dropped in a pre-designated area at least five hundred feet from persons, buildings, parked automobiles, and aircraft.

(9) Where a tow plane lands with the tow-rope attached, the pilot of the aircraft shall at all times exercise due care to avoid trailing the tow-rope and endangering other aircraft, persons or property.

(10) A pilot conducting banner tow operations shall have on board the aircraft a current copy of such Banner Towing Certificate or equivalent authorisation issued by the Authority.

## PART V

## TELEVISION AND MOVIE OPERATIONS

### APPLICABILITY OF PART V

Applicability of Part V.

**48.** This Part applies to operations involving movie filming, appearance in flight in movies, and airborne direction or production of such filming when those operations are conducted as part of a business enterprise or for compensation or hire.

### AERIAL TELEVISION AND MOVIE CERTIFICATE OR AUTHORISATION

Requirement for Aerial Television and Movie Certificate or authorisation.

**49.** (1) A person shall not conduct operations under this Part unless that person holds an Aerial Television and Movie Certificate or equivalent authorisation issued by the Authority.

(2) A person wishing to apply for an Aerial Television and Movie Certificate shall—

*(a)* apply to the Authority in the prescribed form; and

*(b)* pay the prescribed fee.

(3) Where the Director-General is satisfied that a person meets the requirement under this Part, he may recommend the Authority issue an Aerial Television and Movie Certificate or authorisation under this Part.

### AIRCRAFT REQUIREMENTS FOR AERIAL TELEVISION AND MOVIE CERTIFICATE OR AUTHORISATION

Aircraft requirements for Aerial Television and Movie Certificate or authorisation.

**50.** An aircraft shall not be used in motion picture and television filming operations, in the experimental category unless the aircraft has an Airworthiness Certificate issued for the purpose of exhibition.

**AERIAL TELEVISION AND MOVIE CERTIFICATE OR AUTHORISATION EXPERIENCE AND TRAINING REQUIREMENTS**

Experience and training requirements for Aerial Television and Movie Certificate or authorisation.

**51.** A pilot shall not conduct television and movie operations on an aircraft unless he has—

*(a)* a Commercial Pilot Licence with ratings appropriate to the category and class of aircraft to be used under the terms of the waiver;

*(b)* at least five hundred hours as pilot in command;

*(c)* a minimum of one hundred hours, in the category and class of aircraft to be used;

*(d)* a minimum of five hours in the make and model of aircraft to be used under the waiver;

*(e)* a statement of aerobatics competency for the operations to be performed if the pilot intends to perform aerobatics below 1,500 feet above ground level.

**WAIVER REQUIREMENTS**

Waiver requirements.

**52.** (1) An applicant under regulation 49 may apply for a waiver of the requirements of these Regulations where filming sequences require an aircraft to be flown—

*(a)* in aerobatic flight below 1,500 feet above ground level;

*(b)* over a congested area; or

*(c)* in controlled airspace.

(2) When conducting any filming operation requiring a waiver, the person holding the certificate shall ensure that all reasonable efforts are made to confine spectators to designated areas.

(3) Where reasonable efforts have been taken to prevent unauthorised access to the airspace where manoeuvres are being performed and unauthorised persons or vehicles enter the airspace where manoeuvres are being performed during the filming production event, reasonable efforts shall be made to remove such unauthorised persons or vehicles.

(4) A person holding an Aerial Television or Movie Certificate or waiver, shall before conducting filming operations, provide the Authority with a schedule of events that lists the—

*(a)* identification of the aircraft; and

*(b)* performers in the sequence of their appearance.

(5) Where manoeuvres are added or time changes are made to the schedule of events such additions and changes shall be approved by the Authority.

(6) A person holding an Aerial Television or Movie Certificate or waiver under this Part shall develop and have approved by the Authority a Motion Picture and Television Flight Operations Manual.

**MOTION PICTURE AND TELEVISION FLIGHT OPERATIONS MANUAL**

Contents of a Motion Picture and Television Flight Operations Manual.

**53.** A Motion Picture and Television Flight Operations Manual under regulation 52 shall contain—

*(a)* the business name of the company or organisation, address, and telephone number of applicant;

*(b)* a list of pilots to be employed during the filming operations including the number on the pilot licence, grade, and class and date of medical certificates;

*(c)* a list of the make and model of aircraft to be used in the filming operations;

*(d)* the distribution and revision procedures for the manual to ensure that all manuals are kept current;

*(e)* the procedures to ensure that no person, except those persons consenting to be involved and necessary for the filming production, are allowed within five hundred feet of the filming production area;

*(f)* the area of operation to be used during the term of the waiver;

*(g)* the procedures for the submission, within three days of scheduled filming, the written plan of activities to the Authority containing—

(i) the dates and times for all flights;

(ii) the name and telephone number of the person responsible for the filming production event;

(iii) the make and model of aircraft to be used and type of Airworthiness Certificate, including category;

(iv) the names of pilots involved in the filming production event;

(v) a statement that permission has been obtained from property owners or local officials to conduct the filming production operations;

(vi) the person in whose favour the waiver was granted or their personal representative; and

(vii) a general outline, or summary, of the production schedule, including maps or diagrams of the specific filming location, if necessary;

*(h)* the requirements and procedures that will be used to obtain permission from property owners or public authority such as Trinidad and Tobago Police Service, Trinidad and Tobago Fire Service as appropriate for the conduct of all filming operations when using the waiver;

*(i)* the method of security that will be used to exclude all persons not directly involved with the filming operation from the location;

*(j)* the mechanism that will be used to stop filming operations when unauthorised persons, vehicles, or aircraft enter the operations area, or for any other reason, in the interest of safety filming;

*(k)* the procedures to be used when briefing personnel of the risks involved, emergency procedures, and safeguards to be followed during the filming production operations;

*(l)* the procedures to ensure that the required inspections will be conducted;

*(m)* the procedures to provide communications capability with all participants during the actual operation and filming; and

*(n)* the procedures for notification and reporting of accidents.

## PART VI

## SIGHTSEEING FLIGHTS

### APPLICABILITY OF PART VI

Applicability of Part VI.

**54.** This Part shall apply to operations involving the carriage of persons for viewing natural formations or man made objects on the ground when filming operations are conducted as part of a business enterprise or for compensation or hire.

### SIGHTSEEING FLIGHT CERTIFICATE OR AUTHORISATION

Requirements for Sightseeing Flight Certificate or authorisation.

**55.** (1) A person shall not conduct operations under this Part unless that person has a Sightseeing Flight Certificate or equivalent authorisation issued by the Authority.

(2) A person wishing to apply for a Sightseeing Flight Certificate shall—

*(a)* apply to the Authority in the prescribed form; and

*(b)* pay the prescribed fee.

(3) Where the Director-General is satisfied that a person meets the requirements under this Part he may recommend the Authority issue the Sightseeing Certificate or equivalent qualification to each applicant who qualifies for it under the provisions of this Part.

(4) An air operator under this Part shall hold an Air Operator Certificate issued under the provisions of the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations. Sub Leg.

#### SIGHTSEEING FLIGHT CERTIFICATE OR AUTHORISATION EXPERIENCE AND TRAINING REQUIREMENTS

**56.** The experience and training requirements under the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, shall apply to all operations under this Part. Experience and training requirements for Sightseeing Flight Certificate or authorisation.

#### OPERATING RULES FOR SIGHTSEEING FLIGHT CERTIFICATE OR AUTHORISATION

**57.** The operating rules requirements under the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, shall apply to all operations under this Part. Operating rules for Sightseeing Flight Certificate or authorisation.

### PART VII

## FISH SPOTTING

#### APPLICABILITY OF PART VII

**58.** This Part shall apply to operations involving location, tracking, and reporting of fish and fish schools, when those operations are conducted as part of a business enterprise or for compensation or hire. Applicability of Part VII.

#### FISH SPOTTING CERTIFICATE OR AUTHORISATION

**59.** (1) A person shall not conduct operations under this Part unless that person has a Fish Spotting Certificate or equivalent authorisation issued by the Authority. Requirements for Fish Spotting Certificate or authorisation.

(2) A person wishing to apply for a Fish Spotting Certificate shall—

*(a)* apply to the Authority in the prescribed form; and

*(b)* pay the prescribed fee.

(3) Where the Authority is satisfied that a person meets the requirements under this Part he may recommend the Authority issue a Fish Spotting Certificate or equivalent authorisation to each applicant who qualifies for it under the provisions of this Part.

#### OPERATING RULES FOR FISH SPOTTING CERTIFICATE OR AUTHORISATION

Operating rules for Fish Spotting Certificate or authorisation.

**60.** (1) An operator under this Part shall not conduct operations to endanger persons or property on the surface nor aircraft in flight.

Sub. Leg.

(2) The minimum cloud clearance requirements and minimum altitude requirements under the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, shall not apply to such persons as the Director-General may recommend that the Authority approve different minima cloud clearance and altitude clearance as part of an authorisation under this Part.

### PART VIII

## TRAFFIC REPORTING

#### APPLICABILITY OF PART VIII

Applicability of Part VIII.

**61.** This Part shall apply to operations involving the observation of, and reporting on, of vehicular traffic conditions on the highways and streets when conducted by airmen in an aircraft in flight not designated as solely for public use.

#### VEHICULAR TRAFFIC REPORTING CERTIFICATE OR AUTHORISATION

Requirements for Vehicular Traffic Reporting Certificate or authorisation.

**62.** (1) A person conducting operations under this Part shall have a Vehicular Traffic Reporting Certificate or equivalent authorsation issued by the Authority.

(2) A person wishing to apply for a Vehicular Traffic Reporting Certificate shall—

*(a)* apply to the Authority in the prescribed form; and

*(b)* pay the prescribed fee.

(3) Where the Authority is satisfied that a person satisfies all the requirements under this Part he may recommend the Authority to issue a Vehicular Traffic Reporting Certificate or equivalent authorisation.

(4) An operator under this Part shall not conduct operations to endanger persons or property on the surface or aircraft in flight.

(5) The minimum cloud clearance requirements and minimum altitude requirements under the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, shall not apply to such persons as the Director-General may recommend that the Authority approve different minima cloud clearance and altitude clearance as part of an authorisation under this Part. Sub. Leg.

**COMMENCEMENT OF THESE REGULATIONS**

**63.** (1) The requirements of these Regulations shall come into effect twelve (12) months from the date of publication of these Regulations. Commencement. [38/2005 231/2005 292/2006].

(2) Notwithstanding the requirements of subregulation (1), a person exercising the privileges of an operator on the commencement of these Regulations, may continue to do so under the conditions of his existing approvals until 30th September 2007 and thereafter shall meet the requirements of these Regulations.

**DIRECTOR-GENERAL MAY AMEND SCHEDULES**

**64.** The Director-General may, by Order amend any of the Schedules. Director-General to amend Schedules.

*L.R.O.*

Regulation 2.

## SCHEDULE 1

Class A—external-load fixed to the rotorcraft, cannot be jettisoned, and does not extend below the landing gear used to transport cargo.

Class B—external-load suspended from the rotorcraft, which can be jettisoned, and is transported free of land or water during rotorcraft operations.

Class C—external-load suspended from the rotorcraft, which can be jettisoned, but remains in contact with land or water during rotocraft operation.

Class D—external-load suspended from the rotorcraft for the carriage of persons.

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Regulation 16.

## SCHEDULE 2

## OPERATION OVER CONGESTED AREAS: GENERAL

(1) A certificate holder shall ensure that all single engine aircraft while in a congested area operate—

*(a)* except for helicopters, during take-offs and turnarounds, with no load;

Sub. Leg.

*(b)* not below the altitudes prescribed in Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, except during the actual dispensing operation, including the approaches and departures necessary for that operation;

*(c)* during the actual dispensing operation, including the approaches and departures for that operation, not below the altitudes prescribed in Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, unless it is in an area and at such an altitude that the aircraft can make an emergency landing without endangering persons or property on the surface.

(2) A certificate holder shall ensure that all multi-engine aircraft while in a congested area operate—

*(a)* during take-off, under conditions that will allow the aeroplane to be brought to a safe stop within the effective length of the runway from any point on take-off up to the time of attaining, with all engines operating at normal take-off power, 105 per cent of the minimum control speed with the critical engine inoperative in the take-off configuration or 115 per cent of the power-off stall speed in the take-off configuration, whichever is greater;

Note: *Assume still-air conditions, and no correction for any uphill gradient of one per cent or less when the percentage is measured as the difference between elevation at the end points of the runway divided by the total length. For uphill gradients greater than one per cent, the effective take-off length of the runway is reduced 20 per cent for each one per cent grade.*

*(b)* at a weight greater than the weight that, with the critical engine inoperative, would permit a rate of climb of at least 50 feet per minute at an altitude of at least 1,000 feet above the elevation of the highest ground or obstruction within the area to be worked or at an altitude of 5,000 feet, whichever is higher. Assume that the propeller of the inoperative engine is in the minimum drag position; that the wing flaps and landing gear are in the most favourable positions; and that the remaining engine or engines are operating at the maximum continuous power available; and

*(c)* below the altitudes prescribed in Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, except during the actual dispensing operation, including the approaches, departures, and turnarounds necessary for that operation. Sub. Leg.

*L.R.O.*

# CIVIL AVIATION [(NO. 12) AERODROME LICENSING] REGULATIONS

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## CIVIL AVIATION [(NO. 12) AERODROME LICENSING] REGULATIONS

*made under section 33*

111/2004.
[39/2005
232/2005
293/2006
51/2007
36/2008].

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No. 12) Aerodrome Licensing] Regulations.

Interpretation.

**2.** In these Regulations—

"aerodrome" means any area of land or water designed or equipped, set apart or commonly used for affording facilities for landing and departure of aircraft and includes any area or space, whether on the ground, on the roof of a building or elsewhere which is designed, equipped or set apart for affording facilities for the landing and departure of aircraft, capable of descending and climbing vertically and also includes an airport which has the meaning given to it under the Airports Authority Act and licenced under regulation 6; Ch. 49:02.

"Aerodrome Licence" means a licence to operate an aerodrome issued by the Authority under regulation 6;

"Aerodrome Manual" means the manual that forms part of the application for an Aerodrome Licence pursuant to these Regulations, including any amendments thereto accepted or approved by the Authority;

"aerodrome operator" means the holder of an Aerodrome Licence;

"aerodrome reference point" means the designated geographic location of an aerodrome;

"aerodrome register" means the register established and maintained under regulation 16;

"airside" means the movement area of an aerodrome, adjacent terrain and buildings or portions thereof, access to which is controlled;

"Aeronautical Information Publication" means a publication issued by the Authority containing aeronautical information of a lasting character essential to air navigation;

"aerodrome reference code" means a code used for planning purposes in the Manual of Aerodrome Standards to classify

an aerodrome with respect to the critical aeroplane characteristics for which the aerodrome is intended;

"apron" means a defined area on a land aerodrome intended to accommodate aircraft for purposes of loading or unloading of passengers, mail or cargo, fuelling, parking or maintenance;

"Authority" means the Trinidad and Tobago Civil Aviation Authority as established by the Civil Aviation Act;

"automatic aerodrome information service" means the service that provides current, routine information for aircraft arriving at or departing from an aerodrome by means of repetitive broadcasts on a discrete frequency;

"licensed aerodrome" means an aerodrome whose operator has been granted an Aerodrome Licence;

"manoeuvring area" means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons;

"Manual of Aerodrome Standards" means the International Standards and Recommended Practices for Aerodromes contained in Annex 14 to the Chicago Convention, as amended from time to time;

"marker" means an object displayed above ground level in order to indicate an obstacle or delineate a boundary;

"marking" means a symbol or group of symbols displayed on the surface of the movement area in order to convey aeronautical information;

"maximum carrying capacity" means, in relation to an aircraft, the maximum passenger-seating capacity or the maximum payload, permitted under the certificate of type approval of the aircraft;

"maximum passenger-seating capacity" means, in relation to an aircraft, the maximum number of seats for passengers permitted under the certificate of type approval of the aircraft;

"movement area" means that part of the aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron;

"non-controlled aerodrome" means an aerodrome at which an Air Traffic Control service is not operating;

"obstacle" means a temporary or permanently fixed and mobile object or part thereof, that is located on an area intended for the surface movement of aircraft or that extends above a defined surface intended to protect aircraft in flight;

"obstacle limitation surfaces" means a series of surfaces that define the volume of airspace at and around an aerodrome to be kept free of obstacles in order to permit the intended aeroplane operations to be conducted safely and to prevent the aerodrome from becoming unusable by the growth of obstacles around the aerodrome;

"runway strip" means a defined area including the runway and stopway, where provided which is intended to—

*(a)* reduce the risk of damage to aircraft running off a runway; and

*(b)* protect aircraft flying over it during take-off or landing operations;

"safety management system" means a system for the management of safety at aerodromes including the organisational structure, responsibilities, procedures, processes and provisions for the implementation of aerodrome safety policies by an aerodrome operator, which provides for the control of safety at and the safe use of, the aerodrome;

"taxiway strip" means an area including a taxiway intended to protect an aircraft operating on a taxiway and to reduce the risk of damage to an aircraft accidentally running off the taxiway;

"time-limited works" means aerodrome works carried out where normal aircraft operations are not disrupted and the movement area can be restored to normal safety standards and any obstacles created by those works can be removed in not more than thirty minutes;

"unserviceable area" means a part of the movement area that is unfit and unavailable for use by aircraft; and

"works area" means a part of an aerodrome in which maintenance or construction works are in progress.

*L.R.O.*

## PART I

## GENERAL

### APPLICABILITY OF THESE REGULATIONS

Applicability of these Regulations. [51/2007].

**3.** (1) These Regulations prescribe the requirements for—

*(a)* the operation of aerodromes;

*(b)* licensing of aerodromes and the requirements that apply to operators of licenced aerodromes;

*(c)* safety inspections of aerodromes;

*(d)* obstacles and hazards at aerodromes; and

*(e)* the obligations of an aerodrome operator in relation to compliance with the Manual of Aerodrome Standards.

Sub. Leg.

(2) The provisions of Part I of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations with respect to the surrender, suspension or revocation of aviation documents apply to licences issued under these Regulations.

(3) The applicable standards contained in the Manual of Aerodrome Standards provides the minimum standards for the operation of aerodromes in Trinidad and Tobago.

### AERODROMES TO BE LICENSED

Requirement to licence aerodrome.

**4.** A person shall not operate an aerodrome in Trinidad and Tobago unless such aerodrome is issued an Aerodrome Licence by the Authority.

## PART II

## LICENSED AERODROMES

### APPLICATION FOR AERODROME LICENCE

Application for an Aerodrome Licence.

**5.** (1) A person who wishes to apply for an Aerodrome Licence to operate an aerodrome shall—

*(a)* apply to the Authority in the prescribed form;

*(b)* pay the prescribed fee; and

*(c)* meet the requirements of these Regulations and Civil Aviation [(No. 8) Aviation Security] Regulations.

Sub. Leg.

(2) An application under subregulation (1), shall be accompanied by an Aerodrome Manual applicable to the aerodrome for which the application is made.

**GRANT OF AERODROME LICENCE**

Issue of Aerodrome Licence. [51/2007].

**6.** (1) The Director-General may recommend that the Authority issue an Aerodrome Licence to an applicant under regulation 5 where he is satisfied that—

*(a)* the facilities, services and equipment of the aerodrome are in accordance with the applicable standards specified in the Manual of Aerodrome Standards;

*(b)* the operating procedures of the aerodrome make satisfactory provision for the safety of aircraft and air navigation;

*(c)* the aerodrome is properly and adequately equipped for safe operations in commercial air transport;

*(d)* the aerodrome is properly and adequately equipped for its maintenance;

*(e)* the applicant has sufficient financial resources to conduct safe operations;

*(f)* an Aerodrome Manual, in accordance with Part III, has been prepared for the aerodrome and contains all the relevant information;

*(g)* the applicant and personnel to be employed at the aerodrome would have the necessary competence and experience to properly operate and maintain the aerodrome, should an Aerodrome Licence be granted; and

*(h)* an acceptable safety management system that complies with the standards specified in the Manual of Aerodrome Standards shall be in place at the aerodrome by 24th November 2005.

(2) An Aerodrome Licence under subregulation (1), shall be signed by the Authority and contain—

*(a)* licence number specifically assigned to the aerodrome by the Authority;

*(b)* name and reference points of the aerodrome;

*(c)* date of issue; and

*(d)* terms of the approval.

**CONDITIONS FOR ISSUE OF AERODROME LICENCE**

Conditions for issue of Aerodrome Licence.

**7.** (1) The Director-General shall not recommend the issue of an Aerodrome Licence under these Regulations—

*(a)* where the applicant—

(i) does not meet the requirements of these Regulations;

(ii) has provided incomplete, inaccurate, fraudulent or false information in applying for the Aerodrome Licence;

(iii) employs or proposes to employ a person in a management or supervisory capacity who—

(A) held an aviation document issued by the Authority that was suspended or revoked within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such applicant; or

(B) contributed materially to the suspension or revocation of an aviation document issued by the Authority; or

*(b)* where a person having substantial ownership or interest in the operations of the aerodrome—

(i) held an aviation document issued by the Authority that was suspended or revoked within the previous five years by reason of criminal, fraudulent, improper action or insanity on the part of such a person; or

(ii) contributed materially to the suspension or revocation of an aviation document issued by the Authority.

**NOTICE OF REFUSAL TO ISSUE AERODROME LICENCE**

Refusal to issue Aerodrome Licence.

**8.** Where the Authority refuses to issue an Aerodrome Licence to an applicant, the applicant shall be given written notice of the refusal and the reasons for such refusal, no later than fourteen days after the Authority refuses to issue the licence.

**AERODROME LICENCE MAY BE SUBJECT TO CONDITIONS**

Conditions of licence.

**9.** (1) The Authority may grant an Aerodrome Licence subject to any condition that the Authority considers necessary in the interests of the safety of aircraft and air navigation.

(2) Where the Authority grants an Aerodrome Licence subject to a condition, the applicant shall be given written notice of the reasons for the decision.

(3) A condition under subregulation (2) shall be set out on the Aerodrome Licence or in the notice given to the applicant under that subregulation.

(4) An aerodrome operator shall not contravene a condition contained in his Aerodrome Licence.

(5) It shall be a condition of an Aerodrome Licence that—

*(a)* an aerodrome operator shall comply with any directive given by the Director-General in respect of aerodrome operations;

*(b)* the Director-General shall have access at any place and time to conduct tests or inspections of aerodrome facilities, equipment or operating procedures at the aerodrome for the purpose of ensuring the safety of aircraft.

(6) The Director-General under subregulation (5) shall—

*(a)* give reasonable notice to the aerodrome operator of any tests to be conducted; and

*(b)* carry out the tests referred to in paragraph *(a)*, at a reasonable time.

**DURATION OF AERODROME LICENCE**

Duration of Aerodrome Licence.

**10.** An Aerodrome Licence issued under these Regulations shall be valid for twelve months from the date of issue unless it is surrendered, suspended, or revoked.

**INTERIM AERODROME CERTIFICATE**

Interim Aerodrome Certificate. [51/2007].

**10A.** (1) The Director-General may recommend that the Authority issue an interim aerodrome certificate to an applicant referred to in regulation 6, authorising the applicant to operate an aerodrome where the Director-General is satisfied that—

*(a)* an Aerodrome Licence will be granted to the applicant as soon as the application procedure for the grant of the Aerodrome Licence has been completed; and

*(b)* the issue of the interim aerodrome certificate is in the public interest and is not detrimental to safety.

(2) An interim aerodrome certificate issued to an applicant under subregulation (1) becomes invalid—

*(a)* when the applicant is granted an Aerodrome Licence; or

*(b)* on the date of expiration specified in the interim aerodrome certificate.

(3) These Regulations shall apply to the holder of an interim aerodrome certificate in the same manner as they apply to the holder of an Aerodrome Licence.

**SUSPENSION OR REVOCATION BY THE AUTHORITY**

Suspension or revocation of an Aerodrome Licence. Sub. Leg.

**11.** (1) In addition to the provisions set out in Part I of the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations, the Director-General may recommend that the Authority give written notice to the holder of an Aerodrome Licence (hereinafter referred to as an "aerodrome operator"), of the suspension or revocation of his Aerodrome Licence where he believes there are reasonable grounds for believing that—

*(a)* a condition to which the licence is subject has been breached;

*(b)* the aerodrome facilities, equipment, operations or maintenance are not of the standard required in the interests of the safety of air navigation; or

*(c)* the holder has failed to comply with regulation 9(5).

(2) In making a recommendation under subregulation (1), the Director-General shall set out the facts and circumstances that he determines justify the suspension or revocation of an Aerodrome Licence.

(3) Before suspending or revoking an Aerodrome Licence under subregulation (1) such aerodrome operator shall be given a notice which—

*(a)* sets out the facts and circumstances that justify the suspension or revocation of that Aerodrome Licence; and

*(b)* invites the aerodrome operator to show cause, in writing, within a reasonable period stated in the notice, as to why that certificate should not be suspended or revoked.

(4) The reasons given by the aerodrome operator under subregulation (3)*(a)* shall be taken into consideration when making a decision to suspend or revoke his Aerodrome Licence.

(5) A suspension or revocation of an Aerodrome Licence shall take effect from the date specified in the notice of suspension or revocation.

**SURRENDER OF AERODROME LICENCE**

**12.** Where an aerodrome operator wishes to surrender his Aerodrome Licence he shall give the Authority not less than thirty days written notice of the date on which he wishes to surrender his Aerodrome Licence.

Surrender of Aerodrome Licence by aerodrome operator.

**AERODROME LICENCE NOT TRANSFERABLE**

**13.** An Aerodrome Licence shall not be transferable, and any purported transfer of any Aerodrome Licence shall be void.

Non-transferability of an Aerodrome Licence.

**TEMPORARY AERODROME LICENCE**

Issue of Temporary Aerodrome Licence.

**14.** (1) The Director-General may recommend that the Authority grant a temporary Aerodrome Licence to an applicant under regulation 5 where—

*(a)* the application of the applicant is for an Aerodrome Licence to operate an aerodrome for which an existing Aerodrome Licence is in force;

*(b)* the holder of the existing Aerodrome Licence has given the Authority notice under regulation 12 for the Aerodrome Licence to surrender such licence;

*(c)* the cancellation of the existing Aerodrome Licence will have effect before the Authority can fully consider the application of the applicant; and

*(d)* he is satisfied that the applicant will be able to properly operate and maintain the aerodrome for the duration of the temporary Aerodrome Licence.

(2) A temporary Aerodrome Licence issued in accordance with subregulation (1) shall not be granted for a period greater than sixty days.

**AMENDMENT OF AN AERODROME LICENCE**

Amendment of an Aerodrome Licence.

**15.** The Director-General may recommend that the Authority amend an Aerodrome Licence where the requirements of these Regulations have been met and—

*(a)* the holder of the Aerodrome Licence requests an amendment;

*(b)* there is a change in the ownership or management of the aerodrome;

*(c)* there is a change in the use or operation of the aerodrome; or

*(d)* there is a change in the boundaries of the aerodrome.

**AERODROME REGISTER**

**16.** The Director-General shall cause a register to be known as the "Aerodrome Register", to be kept which shall contain the names of all aerodromes licenced in accordance with these Regulations, their aerodrome reference points, the dates of issue of such licences, the aerodrome reference code and the name and principal place of business of the relevant aerodrome operator. Aerodrome Register.

**ACCEPTANCE OR APPROVAL OF THE AERODROME MANUAL**

**16A.** An Aerodrome Manual and any amendments thereto shall be submitted to the Authority for approval or acceptance. Acceptance or approval of the Aerodrome Manual. [51/2007].

**PART III**

## AERODROME MANUAL

**PREPARATION AND LOCATION OF AERODROME MANUAL**

**17.** (1) An aerodrome operator shall have an Aerodrome Manual in a form set out at regulation 19. Requirement to have an Aerodrome Manual.

(2) The aerodrome operator shall give the Authority a printed copy of his Aerodrome Manual and keep a printed copy of his Aerodrome Manual at his principal place of business and at the aerodrome.

(3) The aerodrome operator shall make the copy of the Aerodrome Manual kept at his principal place of business and at the aerodrome available to authorised persons during normal business hours.

**INFORMATION TO BE INCLUDED IN AERODROME MANUAL**

**18.** (1) An Aerodrome Manual under regulation 17 shall include the following information applicable to the aerodrome: Contents of Aerodrome Manual.

*(a)* a general section;

*(b)* the particulars of the aerodrome—

(i) site;

(ii) required to be reported to the Authority;

(iii) operating procedures and safety measures; and

Schedule 1.

(iv) administration and safety management system as prescribed in Schedule 1; and

*(c)* any other matter which the Authority deems necessary in the interest of safety.

(2) Where particular information referred to in subregulation (1), is not included in the manual because it is not applicable to the aerodrome, an Aerodrome Manual shall contain—

*(a)* a statement to the effect that the information is not applicable; and

*(b)* the reasons why it is not applicable.

(3) Where an exemption has been granted by the Authority, under regulation 60, in relation to the aerodrome, an Aerodrome Manual shall contain—

*(a)* any identifying number given to the exemption by the Authority;

*(b)* the date on which the exemption came into effect; and

*(c)* any condition subject to which the exemption is granted.

**FORM OF AERODROME MANUAL**

Required form for Aerodrome Manual. [51/2007].

**19.** (1) An Aerodrome Manual under this Part shall—

*(a)* be typewritten or printed and signed by the aerodrome operator;

*(b)* include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;

*(c)* be in a form that is easy to revise and contain a system which allows personnel to determine the current revision status of each manual;

*(d)* have a date of the last revision on each page concerned;

*(e)* not be contrary to these Regulations; and

*(f)* include a reference, where applicable, to the appropriate Civil Aviation Regulation.

(2) In addition to the matters set out in subregulation (1), the Aerodrome Manual referred to in subregulation (1), may be produced either—

*(a)* in a series of parts;

*(b)* as a series of volumes; or

*(c)* as a single document.

**AMENDMENTS OF AERODROME MANUAL**

**20.** (1) To maintain the accuracy of the Aerodrome Manual, an aerodrome operator shall amend the Aerodrome Manual for his aerodrome— Amendment to Aerodrome Manual.

*(a)* whenever it is necessary to do so; and

*(b)* upon the written directions of the Authority, requiring him to amend his Aerodrome Manual.

(2) An aerodrome operator shall comply with any direction given to him under subregulation (1)*(b)*.

(3) Where an aerodrome operator wishes to make an amendment to his Aerodrome Manual under subregulation (1) he shall submit the proposed amendment, in writing, to the Authority for its approval.

(4) Where the Director-General is satisfied that the amendment to an Aerodrome Manual submitted under subregulation (3), will not establish procedures or equipment which will endanger aircraft, persons or the aerodrome he may recommend the Authority approve the amendment.

**AERODROME OPERATION AND MAINTENANCE**

**21.** (1) An aerodrome operator shall— Aerodrome operation and maintenance. [51/2007].

*(a)* ensure that his aerodrome is operated and maintained with a reasonable degree of care and diligence;

*(b)* ensure proper and efficient maintenance of the aerodrome facilities; and

*(c)* co-ordinate with air traffic units in order to be satisfied that appropriate air traffic services are available to ensure the safety of aircraft in the airspace associated with the aerodrome.

(2) The co-ordination referred to in subregulation (1)*(c)* shall include other areas related to safety such as aeronautical information services, air traffic services, designated meteorological authorities and security.

(3) Subject to any directives which the Director-General may issue from time to time, an aerodrome operator shall operate and maintain the aerodrome in accordance with the procedures set out in the Aerodrome Manual.

(4) The Director-General may issue written directives to an aerodrome operator to amend the procedures set out in the Aerodrome Manual, to ensure the safety of aircraft.

#### COMPETENCE OF OPERATION AND MAINTENANCE PERSONNEL

Competence of operation and maintenance personnel. [51/2007].

**21A.** (1) An aerodrome operator shall employ an adequate number of qualified and skilled personnel to perform all critical activities for aerodrome operation and maintenance.

(2) An aerodrome operator shall implement a programme to upgrade the competency of personnel referred to in subregulation (1).

## PART IV

## OPERATION AND MAINTENANCE OF AN AERODROME

#### CARE AND DILIGENCE IN OPERATION AND MAINTENANCE

Duty of aerodrome operator to ensure aerodrome is maintained.

**22.** An aerodrome operator shall ensure that his aerodrome is operated and maintained with a reasonable degree of care and diligence.

**PERSONS RESPONSIBLE FOR REPORTING CHANGES IN AERODROME CONDITION**

Appointment and duties of a person to be responsible for reporting changes in aerodrome condition.

**23.** (1) An aerodrome operator shall assign one or more persons in his organisation to—

*(a)* monitor the serviceability of the aerodrome; and

*(b)* report to the Authority and Air Traffic Control any changes in conditions, or any other occurrences, at the aerodrome that shall be reported under subregulation 30(1).

(2) An aerodrome operator shall not appoint a person under subregulation (1), to be responsible for reporting changes in aerodrome conditions unless such person has been trained to perform the functions in accordance with his Aerodrome Manual.

**WORKS SAFETY OFFICER FOR AERODROME WORK**

Appointment and duties of works safety officer.

**24.** (1) Where aerodrome works are being carried out at a certified aerodrome, an aerodrome operator shall appoint one or more persons as a works safety officer for the aerodrome works.

(2) A works safety officer referred to in subregulation (1) shall ensure aerodrome safety while aerodrome works are being carried out.

(3) An aerodrome operator shall not appoint a person as a works safety officer for the aerodrome works where such person has not been trained in accordance with his Aerodrome Manual, to perform the functions of a works safety officer.

**WORKS SAFETY OFFICER FOR TIME-LIMITED WORKS**

Requirement to have a works safety officer for time-limited work.

**25.** Where time-limited works are being carried out at a certified aerodrome, an aerodrome operator shall ensure that a person who has been trained, in accordance with the Aerodrome Manual to perform the function of a works safety officer performs that function for those works.

**TRAINING OF AERODROME PERSONNEL**

Required training for aerodrome personnel.

**26.** An aerodrome operator shall ensure that all persons performing duties or providing services at his aerodrome are trained in accordance with the standards for training aerodrome personnel set out in his Aerodrome Manual.

**AERODROME MANUAL PROCEDURES**

Aerodrome operator to conduct operations in accordance with Aerodrome Manual.

**27.** (1) Subject to any directions issued under subregulation (2), an aerodrome operator shall operate and maintain an aerodrome in accordance with the procedures set out in the Aerodrome Manual for the aerodrome.

(2) The Director-General may recommend that the Authority direct an aerodrome operator to change the procedures set out in the Aerodrome Manual, where he considers it necessary in the interests of the safety of aircraft and air navigation.

(3) An aerodrome operator shall comply with a direction given to him under subregulation (2).

**DEVIATION FROM AERODROME MANUAL PROCEDURES**

Deviation from Aerodrome Manual procedures.

**28.** (1) Where an aerodrome operator wishes to deviate from the procedures contained in his Aerodrome Manual he may apply to the Authority, for approval before the implementation of such procedures.

(2) Where the Director-General is satisfied after taking into consideration such aeronautical studies as he thinks fit, that the deviation applied for under subregulation (1) would attain the level of safety required by or equivalent to the standards prescribed by these Regulations, he may recommend the Authority approve the deviation.

**AERODROME DATA**

Requirements for aerodrome data.

**29.** An aerodrome operator shall ensure that aerodrome data appropriate to his Aerodrome Licence for his aerodrome are in accordance with the Manual of Aerodrome Standards.

### NOTICE OF CHANGES IN PHYSICAL CONDITION OF AERODROME

Aerodrome operator to notify the Authority of circumstances which may affect safety of aircraft.

**30.** (1) An aerodrome operator shall, in accordance with the Manual of Aerodrome Standards, give notice to the Authority of—

*(a)* any temporary or permanent change in the physical condition of the aerodrome that may affect the safety of aircraft; and

*(b)* any other occurrence relating to the operation or maintenance of the aerodrome that may affect the safety of aircraft.

(2) Where the aerodrome is a controlled aerodrome, the notice shall also be given to Air Traffic Control.

(3) In this regulation "controlled aerodrome" means an aerodrome at which an Air Traffic Control Service is operating.

### NOTICE OF CHANGES IN INFORMATION PUBLISHED IN AERONAUTICAL INFORMATION PUBLICATION

Notice of changes in Aeronautical Information Publication.

**31.** To maintain the accuracy of information published in the Aeronautical Information Publication in relation to an Aerodrome Licence issued by the Authority, an aerodrome operator shall inform the Authority, in writing, as soon as practicable of any change required to that information, other than a change that is published in the Notices to airmen.

### PHYSICAL CHARACTERISTICS OF MOVEMENT AREA

Movement area to comply with standards.

**32.** An aerodrome operator shall ensure that the physical characteristics of the movement area appropriate to his Aerodrome Licence comply with the standards set out in the Manual of Aerodrome Standards.

### AERODROME MARKINGS

Aerodrome operator required to have aerodrome markings.

**33.** (1) An aerodrome operator shall mark the following areas of the aerodrome in accordance with the standards set out in the Manual of Aerodrome Standards:

*(a)* the movement area;

*(b)* an unserviceable area;

*(c)* a work area on or near the movement area.

(2) An aerodrome operator shall ensure that all aerodrome markings are maintained in accordance with the standards set out in the Manual of Aerodrome Standards.

**SIGNAL AREA**

Requirement to have signal area.

**34.** (1) An aerodrome operator who does not have a continuous air traffic service provided by Air Traffic Control during the day shall provide a signal area in accordance with the standards set out in the Manual of Aerodrome Standards.

(2) An aerodrome operator shall display the appropriate signal in the signal area in any circumstances set out in the Manual of Aerodrome Standards that require such a signal to be displayed.

(3) An aerodrome operator shall ensure that the signal area and any signal displayed in it are clearly visible to any aircraft intending to use the aerodrome.

**WIND DIRECTION INDICATORS**

Aerodrome operator to have a wind direction indicator at aerodrome.

**35.** (1) An aerodrome operator shall, in accordance with the standards for wind direction indicators set out in the Manual of Aerodrome Standards, install and maintain at least one wind direction indicator at the aerodrome.

(2) An aerodrome operator under subregulation (1), shall ensure that there is a wind direction indicator installed near the end of the runway.

(3) The Director-General may recommend that the Authority exempt an aerodrome operator under these Regulations from compliance with subregulation (1), only if he is satisfied that surface wind information is passed to the pilots of aircraft approaching the runway by—

*(a)* an automatic weather observing system that:

(i) is compatible with the weather observing system of the Piarco Meteorology Office; and

(ii) provides surface wind information through an aerodrome weather information broadcast; or

*(b)* an approved observer having a communication link with pilots through which timely information about surface wind can be clearly passed to pilots; or

*(c)* any other approved means of providing surface wind information.

**VISUAL AIDS FOR NAVIGATION**

Requirements for visual aids for navigation.

**36.** (1) An aerodrome operator shall ensure that visual aids for navigation, appropriate to the aerodrome licence he holds, are in compliance with the Manual of Aerodrome Standards.

(2) An aerodrome operator shall ensure that visual aids for denoting restricted areas appropriate to the aerodrome licence he holds comply with the Manual of Aerodrome Standards.

**VISUAL APPROACH SLOPE INDICATOR SYSTEM**

Aerodrome operator to have visual approach indicator system installed at aerodrome.

**37.** (1) An aerodrome operator shall, in accordance with the standards for visual approach slope indicator systems set out in the Manual of Aerodrome Standards, provide an approved visual approach slope indicator system for the end of a runway at the aerodrome where that end of the runway is regularly used as the approach end for jet-propelled aircraft conducting regular public transport operations or charter operations.

(2) The Director-General may recommend that the Authority direct the aerodrome operator to provide an approved visual approach slope indicator system for the approach end or ends of a runway to which subregulation (1) does not apply, where he considers it necessary in the interests of the safety of aircraft and air navigation.

(3) The aerodrome operator shall comply with a direction given to him under subregulation (2).

**SIGNS**

Aerodrome operator to have signs installed.

**38.** (1) An aerodrome operator shall ensure that signs are provided to convey either a mandatory instruction on a specific location or destination on a movement area or to provide other information to meet the requirements of the Manual of Aerodrome Standards.

(2) Signs under subregulation (1) may be either fixed message signs or variable message signs and shall meet the requirements set out in the Manual of Aerodrome Standards.

**MARKERS**

Requirements for markers.

**39.** (1) An aerodrome operator shall ensure that markers are frangible and those located near a runway or taxiway shall be sufficiently low to preserve clearance of propellers and for engine pods of jet aircraft.

(2) Markers under subregulation (1) shall meet the requirements set out in the Manual of Aerodrome Standards.

**LIGHTING OF MOVEMENT AREA**

Aerodrome operator to have movement area of aerodrome lit.

**40.** (1) Where an aerodrome is available for an aircraft to land or take-off at night, or in less than Visual Meteorological Conditions during the day, an aerodrome operator shall provide and maintain a lighting system for the movement area of the aerodrome that is in accordance with subregulations (2) and (3).

(2) A lighting system under subregulation (1) shall include:

*(a)* lighting of runways, taxiways and aprons intended for use at night or in less than Visual Meteorological Conditions during the day;

*(b)* lighting of at least one wind direction indicator;

*(c)* lighting of obstacles within the movement area; and

*(d)* where the aerodrome has a runway intended to serve Category I, Category II or Category III precision approach, operations, approach, runway and taxiway lighting for the runway and taxiway.

(3) A lighting system under this regulation shall—

*(a)* where the lighting system is of a kind for which standards are specified in the Manual of Aerodrome Standards, meet those standards; or

*(b)* in any other case be of a kind, approved by the Authority.

**CHECKING OF LIGHTING SYSTEMS**

Requirement to check lighting system.

**41.** (1) An aerodrome operator shall not put a new lighting system of a kind mentioned in subregulation (3) into service at an aerodrome unless the following requirements are met:

*(a)* a pilot approved by the Authority has conducted a flight check of the system; and

*(b)* an electrical engineer or a licensed electrician has checked the system for compliance with any applicable electrical specifications and technical standards set out in the Manual of Aerodrome Standards.

(2) Where checking compliance with a specification requires the use of survey instruments, the aerodrome operator shall ensure that the checking is done by—

*(a)* a person with a degree, diploma or certificate in surveying or civil engineering; or

*(b)* a person with experience and competence in surveying that is acceptable to the Authority.

(3) For subregulation (1), the kinds of lighting systems are as follows:

*(a)* an approach lighting system;

*(b)* a runway lighting system for instrument approach runways;

*(c)* a visual approach slope indicator system for jet-propelled aircraft, other than a system

intended for use on a temporary basis for a period not longer than thirty days; and

*(d)* a pilot-activated lighting system.

**EQUIPMENT AND INSTALLATIONS**

Required equipment and installations.

**42.** An aerodrome operator shall ensure that all equipment and installations at his aerodrome appropriate to the Aerodrome Licence he holds are in compliance with the Manual of Aerodrome Standards.

**AERODROME EMERGENCY COMMITTEE**

Aerodrome operator to establish Aerodrome Emergency Committee.

**43.** (1) An aerodrome operator shall establish an aerodrome emergency committee.

(2) The aerodrome emergency committee under subregulation (1) shall include a representative from the Fire, Police or other emergency service that, having regard to the location of the aerodrome, would be likely to be asked to assist in the event of an emergency at the aerodrome.

**EMERGENCY AND OTHER SERVICES**

Requirements of emergency and other services at an aerodrome.

**44.** (1) An aerodrome operator shall ensure that he complies with the requirements for emergency and other services provided for in the Manual of Aerodrome Standards.

(2) An aerodrome operator shall ensure that rescue and firefighting services are provided at his aerodrome.

(3) Notwithstanding the generality of subsection (2) an aerodrome operator shall ensure that—

*(a)* where an aerodrome is located close to water or swampy areas or difficult terrain; or

*(b)* where a significant portion of approach or departure operations take place over areas listed in paragraph *(a)*,

specialist rescue and firefighting equipment appropriate to the hazards and risks are available.

**AERODROME EMERGENCY PLAN**

Aerodrome to have aerodrome emergency plan.

**45.** (1) An aerodrome emergency committee under regulation 43 shall prepare an aerodrome emergency plan for that aerodrome that shall include—

*(a)* procedures for co-ordinating the responses of all emergency service organisations referred to in the plan; and

*(b)* any other matters that are required to be included in the emergency plan as prescribed in the Manual of Aerodrome Standards.

(2) An aerodrome emergency committee shall review an aerodrome emergency plan under subregulation (1), at least once every twelve months and make any changes to the plan that are necessary to ensure that such aerodrome emergency plan operates properly.

(3) A review under subregulation (2), shall be carried out in consultation with the emergency service agencies referred to in the emergency plan.

(4) As soon as practicable after an emergency exercise has been carried out at the aerodrome, or if an emergency has occurred at the aerodrome, as soon as practicable after such emergency, an aerodrome operator shall arrange for the aerodrome emergency committee to—

*(a)* review the effectiveness of the responses to the exercise or the emergency;

*(b)* assess the adequacy of the emergency plan to deal with emergencies at the aerodrome; and

*(c)* take such corrective action as may be necessary to ensure that the plan operates properly.

(5) An aerodrome operator shall ensure that—

*(a)* records of each review of the emergency plan carried out under this regulation are kept; and

*(b)* each record is retained for at least three years after the review to which the record relates was carried out.

**TESTING OF AERODROME EMERGENCY PLAN**

Aerodrome operator to test aerodrome emergency plan.

**46.** (1) An aerodrome operator shall, subject to subregulations (2), (3) and (4), conduct an emergency exercise at least once every twenty-four months to test—

*(a)* the co-ordination of the emergency service agencies referred to in the aerodrome emergency plan; and

*(b)* the adequacy of the procedures and facilities provided for in the aerodrome emergency plan.

(2) Where a real emergency occurs at an aerodrome within six months before an emergency exercise is to be conducted, the aerodrome operator may ask the Authority to extend the period within which the next emergency exercise shall be conducted.

(3) The Director-General may recommend that the Authority grant the request under subregulation (2), where he is satisfied that—

*(a)* all emergency service agencies referred to in the plan responded to the real emergency; and

*(b)* the real emergency adequately tested the plan.

(4) In granting a request under subregulation (3), the Authority may extend the period until the end of twenty-four months after the real emergency occurred.

**AERODROME SERVICEABILITY INSPECTIONS**

Requirement to conduct aerodrome serviceability inspections.

**47.** (1) An aerodrome operator shall conduct an aerodrome serviceability inspection to ensure that it is safe for aircraft operations—

*(a)* after a gale, storm or other severe weather;

*(b)* as soon as practicable after any aircraft accident or incident;

*(c)* during any period of construction or repair of the aerodrome facilities or equipment critical to safety of aircraft operations;

*(d)* at any time that Air Traffic Control or the Authority requires the inspection; and

*(e)* at any other time when there are conditions at the aerodrome which could affect safety.

(2) An aerodrome serviceability inspection under subregulation (1), shall include the following:

*(a)* an inspection of the movement area to check its surface condition, including check for the presence of foreign objects;

*(b)* an inspection of aerodrome markings, lighting, signs, wind direction indicators and ground signals;

*(c)* an inspection for any obstacles infringing the take-off, approach and transitional surfaces;

*(d)* an inspection for any birds or animals on or near the movement area;

*(e)* an inspection of any measures, including aerodrome fencing, to control the inadvertent entry of persons or animals into the movement area;

*(f)* an empirical assessment of the bearing strength of unrated runway pavements;

*(g)* an empirical assessment of the runway strip or each runway strip where the runway concerned is not marked and the whole runway strip may be used for aircraft operations; and

*(h)* a check of the accuracy and currency of notices to airmen for the aerodrome.

(3) The inspections under subregulation (2), shall comply with all applicable standards for aerodrome serviceability inspections set out in the Manual of Aerodrome Standards.

**AERODROME TECHNICAL INSPECTIONS**

Requirement to conduct aerodrome technical inspections.

**48.** (1) An aerodrome operator shall conduct aerodrome technical inspection for his aerodrome to ensure that any deterioration that could make a facility unsafe for aircraft operations is detected.

(2) An aerodrome technical inspection shall include the following:

*(a)* an instrument survey of the approach, take-off and transitional surfaces;

*(b)* an inspection and testing of the aerodrome lighting and electrical reticulation systems, including the visual approach slope indicator;

*(c)* an electrical testing of any earthing points at the aerodrome;

*(d)* an inspection and assessment of the movement area, pavements and drainage;

*(e)* an inspection of signs on the movement area;

*(f)* an inspection of facilities at the aerodrome used for any of the following:

(i) aerodrome emergencies;

(ii) the handling of hazardous materials;

(iii) bird and animal hazard management;

(iv) stand-by and emergency aerodrome lighting;

*(g)* an inspection of airside vehicle control arrangements; and

*(h)* a check of the currency and accuracy of—

(i) aerodrome information published in the Aeronautical Information Publication; and

(ii) aerodrome operating procedures specified in the aerodrome manual for the aerodrome.

(3) The inspection under subregulation (2), shall comply with all applicable standards for aerodrome technical inspections set out in the Manual of Aerodrome Standards.

**WHEN AERODROME TECHNICAL INSPECTIONS SHALL BE CONDUCTED**

Time frame for the conduct of technical inspections.

**49.** (1) An aerodrome operator shall ensure that—

*(a)* an aerodrome technical inspection is conducted at intervals of not more than twelve months; or

*(b)* where the operator has elected to have a part or parts of the aerodrome technical inspection conducted at different times under subregulation (2), each facility for the aerodrome to be inspected is inspected at intervals of not more than twelve months.

(2) An aerodrome operator may elect to have a part or parts of an aerodrome technical inspection conducted at different times from the other parts.

(3) Where it appears from an aerodrome serviceability inspection that a particular facility at the aerodrome requires an aerodrome technical inspection, the aerodrome operator shall ensure that the necessary technical inspection of the facility is conducted as soon as practicable.

(4) An aerodrome operator—

*(a)* shall, where the aerodrome operator has elected to have a part or parts of an aerodrome technical inspection conducted at different times under subregulation (2)—

(i) keep records of each part of each inspection; and

(ii) retain each record for at least three years after the part of the inspection to which the record relates was conducted; or

*(b)* shall, in any other case—

(i) keep records of each inspection; and

(ii) retain each record for at least three years after the inspection to which the record relates was conducted.

**WHO MAY CONDUCT AERODROME TECHNICAL INSPECTIONS**

**50.** (1) An aerodrome operator shall ensure that an aerodrome technical inspection is conducted by a person or persons with appropriate technical qualifications and experience. Requirements for the conduct of technical inspections.

(2) Notwithstanding the generality of subregulation (1), an aerodrome operator shall ensure that—

*(a)* the movement area, other pavements and drainage are inspected by a person who has a recognised degree, diploma or certificate in civil engineering or appropriate technical experience;

*(b)* the lighting and electrical facilities are inspected by an electrical engineer or a licenced electrician; and

*(c)* the obstacle limitation surfaces are inspected by a person who—

(i) is technically qualified or experienced in surveying; and

(ii) has a sound knowledge and understanding of the standards and survey procedures for obstacle limitation surfaces.

**PLANNING AND EXECUTION OF AERODROME WORKS**

Requirements for the planning and execution of aerodrome works.

**51.** (1) An aerodrome operator shall ensure that any aerodrome works carried out at the aerodrome are carried out in a way that does not create a hazard to aircraft, or confusion to pilots.

(2) The aerodrome operator shall comply with the standards set out in the Manual of Aerodrome Standards in relation to planning and notice requirements that shall be satisfied before aerodrome works may be carried out.

**SAFETY MANAGEMENT SYSTEM**

Establishment of safety programme. [51/2007].

**52.** (1) The Director-General shall establish a safety programme in order to achieve an acceptable level of safety in aerodrome operations.

(2) The acceptable level of safety referred to in subregulation (1) shall be established by the Director-General.

(3) An aerodrome operator of an aerodrome presently used by aircraft engaged in international operations or any other

aerodrome after 1st January 2007, shall ensure that the aerodrome has a safety management system that complies with the standards set out in the Manual of Aerodrome Standards.

(4) The safety management system referred to in subregulation (3) shall be acceptable to the Authority and as a minimum—

*(a)* identify safety hazards;

*(b)* ensure that remedial action necessary to maintain an acceptable level of safety is implemented;

*(c)* provide for continuous monitoring and regular assessment of the safety level achieved; and

*(d)* aim to make continuous improvement to the overall level of safety.

(5) The safety management system shall clearly define lines of safety accountability throughout the organisation of the licensed aerodrome operator, including a direct accountability for safety on the part of executive management.

**AERODROME OPERATORS TO COLLECT STATISTICS IF DIRECTED**

Aerodrome operator to collect statistics.

**53.** Where the Director-General considers it necessary in the interests of the safety of air navigation, he may recommend the Authority give directions in writing to an aerodrome operator to collect—

*(a)* statistics about—

(i) the types of aircraft using the aerodrome; and

(ii) the times of aircraft movements at the aerodrome; and

*(b)* other information specified by the Authority in the directive, that is relevant to deciding what radio communication services or air traffic services should be provided at the aerodrome.

## PART V

## OBSTACLES AND HAZARDS

### VISUAL AIDS DENOTING OBSTACLES

Visual aids denoting obstacles to comply with standards.

**54.** An aerodrome operator shall ensure that visual aids for denoting obstacles, appropriate to the Aerodrome Licence he holds, comply with the standards set out in the Manual of Aerodrome Standards.

### MONITORING OF AIRSPACE

Aerodrome operator to monitor airspace around aerodrome.

**55.** An aerodrome operator shall monitor the airspace around the aerodrome for infringement of the obstacle limitation surfaces by—

*(a)* any object, building or structure; or

*(b)* any gaseous efflux having a velocity exceeding 4.3 metres per second.

### ESTABLISHMENT OF OBSTACLE LIMITATION SURFACES

Aerodrome operator to establish obstacle limitation surface for aerodrome.

**56.** An aerodrome operator shall ensure that obstacle limitation surfaces are established for the aerodrome in accordance with the standards set out in the Manual of Aerodrome Standards.

### NOTICE OF OBSTACLES

Requirements in respect of obstacles at aerodrome.

**57.** (1) An aerodrome operator shall take all reasonable measures to ensure that obstacles at, or within the vicinity of, the aerodrome are detected as quickly as possible.

(2) If the aerodrome operator becomes aware of the presence of an obstacle, he shall—

*(a)* inform the Authority immediately; and

*(b)* give the Authority details of—

(i) the height and location of the obstacle; and

(ii) amended declared distances and gradients, if applicable.

(3) Where the aerodrome operator becomes aware of any development or proposed construction near the aerodrome that is likely to create an obstacle, he shall—

*(a)* inform the Authority as soon as practicable; and

*(b)* give to the Authority details of the likely obstacle.

**STRUCTURES 110 METRES OR MORE ABOVE GROUND LEVEL**

Requirement to notify of construction of building or structure over 110 metres.

**58.** A person who proposes to construct a building or structure the top of which will be 110 metres or more above ground level shall inform the Authority of that intention and the proposed height and location of the building or structure.

**HAZARDOUS OBJECTS**

Requirements where hazardous objects exist at aerodrome.

**59.** (1) The Director-General may determine, in writing, that—

*(a)* an obstacle, or any proposed development or other proposed construction that is likely to create an obstacle; or

*(b)* a building or structure the top of which is 110 metres or more above ground level; or

*(c)* a proposed building or structure the top of which will be 110 metres or more above ground level,

is or will be, a hazardous object because of its location, height or lack of marking or lighting.

(2) The Director-General may determine, in writing, that a gaseous efflux having a velocity exceeding 4.3 metres per second is, or will be, a hazard to aircraft operations because of the velocity or location of the efflux.

(3) Where the Director-General makes a determination under subregulation (1) or (2), he shall—

*(a)* publish in Aeronautical Information Publication or notice to airmen particulars of the hazardous object or gaseous efflux to which the determination relates; and

*(b)* give written notice of the determination in accordance with subregulation (4).

(4) The Director-General shall give a copy of the notice—

*(a)* in the case of a hazardous object that is a proposed building or structure to the Authority or, if applicable, one or more of the agencies whose approval is required for the construction; and

*(b)* in any other case other than that set out in paragraph *(a)*, to an identifiable person who—

(i) is the owner or occupier;

(ii) has control of the hazardous object;

(iii) is in control of the installation that produces a gaseous efflux.

## PART VI

## MISCELLANEOUS

### EXEMPTIONS

Exemptions. [51/2007].

**60.** (1) The Authority may exempt in writing an aerodrome operator from complying with specific provisions of these Regulations.

(2) An exemption granted by the Authority under subregulation (1) shall be subject to any condition or procedures specified by the Authority in the relevant Aerodrome Licence as being necessary in the interest of safety.

(3) An exemption under this Part shall be subject to the aerodrome operator complying with the conditions and procedures specified under subregulation (2).

(4) Where an aerodrome operator does not meet the requirement of any applicable standard prescribed in the Manual of Aerodrome Standards, the Director-General may determine, after carrying out aeronautical studies where permitted by the Manual of Aerodrome Standards, the conditions and procedures necessary to ensure an equivalent level of safety is established by the applicable standard.

(5) Where an aerodrome operator deviated from any standard or the conditions and procedures referred to in subregulation (4), the deviation shall be sent out as an endorsement in his Aerodrome Licence.

**DIRECTOR-GENERAL MAY AMEND SCHEDULES**

**61.** The Director-General may, by Order amend any of the Schedules.

Director-General may amend Schedules.

**COMMENCEMENT**

**62.** The requirements of these Regulations shall come into effect on 1st October 2009.

Commencement. [39/2005 232/2005 293/2006 36/2008].

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## SCHEDULE

Regulation 18(1)*(b)*(iv).

## CONTENTS OF AERODROME MANUAL

**PART 1**

*General*

General information, including the following:

*(a)* purpose and scope of the Aerodrome Manual;

*(b)* the legal requirement for an aerodrome certificate and an Aerodrome Manual as prescribed in the national regulations;

*(c)* conditions for use of the aerodrome—a statement to indicate that the aerodrome shall at all times, when it is available for the take-off and landing of aircraft, be so available to all persons on equal terms and conditions;

*(d)* the available aeronautical information system and procedures for its promulgation;

*(e)* the system for recording aircraft movements; and

*(f)* obligations of the aerodrome operator.

**PART 2**

**PARTICULARS OF THE AERODROME SITE**

General information, including the following:

*(a)* a plan of the aerodrome showing the main aerodrome facilities for the operation of the aerodrome including, particularly, the location of each wind direction indicator;

*(b)* a plan of the aerodrome showing the aerodrome boundaries;

*(c)* a plan showing the distance of the aerodrome from the nearest city, town or other populous area, and the location of any aerodrome facilities and equipment outside the boundaries of the aerodrome; and

*(d)* particulars of the title of the aerodrome site. If the boundaries of the aerodrome are not defined in the title documents particulars of the title to, or interest in, the property on which the aerodrome is located and a plan showing the boundaries and position of the aerodrome.

**PART 3**

**PARTICULARS OF THE AERODROME REQUIRED TO BE REPORTED TO THE AERONAUTICAL INFORMATION SERVICE OF THE AUTHORITY**

3.1 *General Information*

General information, including the following:

*(a)* the name of the aerodrome;

*(b)* the location of the aerodrome;

*(c)* the geographical co-ordinates of the aerodrome reference point determined in terms of the World Geodetic System—1984 (WGS–84) reference General datum;

*(d)* the aerodrome elevation and geoid undulation;

*(e)* the elevation of each threshold and geoid undulation, the elevation of the runway end and any significant high and low points along the runway, and the highest elevation of the touchdown zone of a precision approach runway;

*(f)* the aerodrome reference temperature;

*(g)* details of the aerodrome beacon; and

*(h)* the name of the aerodrome operator and the address and telephone numbers at which the aerodrome operator may be contacted at all times.

3.2 *Aerodrome Dimensions and Related Information*

General information, including the following:

*(a)* runway—true bearing, designation number, length, width, displaced threshold location, slope, surface type, type of runway and, for a precision approach runway, the existence of an obstacle free zone;

*(b)* length, width and surface type of strip, runway end safety areas, stopways;

*(c)* length, width and surface type of taxiways;

*(d)* apron surface type and aircraft stands;

*(e)* clearway length and ground profile;

*(f)* visual aids for approach procedures, *viz*., approach lighting type and visual approach slope indicator system (PAPI/APAPI and T-VASIS/AT-VASIS); marking and lighting of runways, taxiways, and aprons; other visual guidance and control aids on taxiways (including runway holding positions, intermediate holding positions and stop bars) and aprons, location and type of visual docking guidance system; availability of standby power for lighting;

*(g)* the location and radio frequency of VOR aerodrome checkpoints;

*(h)* the location and designation of standard taxi routes;

*(i)* the geographical co-ordinates of each threshold;

*(j)* the geographical co-ordinates of appropriate taxiway centre line points;

*(k)* the geographical co-ordinates of each aircraft stand;

*(l)* the geographical co-ordinates and the top elevation of significant obstacles in the approach and take-off areas, in the circling area and in the vicinity of the aerodrome. (This information may best be shown in the form of charts such as those required for the preparation of aeronautical information publications, as specified in Annexes 4 and 15 to the Convention);

*(m)* pavement surface type and bearing strength using the Aircraft Classification Number—Pavement Classification Number (ACN-PCN) method;

*(n)* one or more pre-flight altimeter check locations established on an apron and their elevation;

*(o)* declared distances: take-off run available (TORA), take-off distance available (TODA), accelerate-stop distance available (ASDA), landing distance available (LDA);

*(p)* disabled aircraft removal plan: the telephone/telex/facsimile numbers and e-mail address of the aerodrome co-ordinator for the removal of a disabled aircraft on or adjacent to the movement area, information on the capability to remove a disabled aircraft, expressed in terms of the largest type of aircraft which the aerodrome is equipped to remove; and

*(q)* rescue and firefighting: the level of protection provided, expressed in terms of the category of the rescue and firefighting services, which should be in accordance with the longest aeroplane normally using the aerodrome and the type and amounts of extinguishing agents normally available at the aerodrome.

Note: *The accuracy of the information in Part 3 is critical to aircraft safety. Information requiring engineering survey and assessment should be gathered or verified by qualified technical persons.*

## PART 4

## PARTICULARS OF THE AERODROME OPERATING PROCEDURES AND SAFETY MEASURES

### 4.1 *Aerodrome Reporting*

Particulars of the procedures for reporting any changes to the aerodrome information set out in the AIP and procedures for requesting the issue of NOTAMs, including the following:

*(a)* arrangements for reporting any changes to the Authority and recording the reporting of changes during and outside the normal hours of aerodrome operations;

*(b)* the names and roles of persons responsible for notifying the changes, and their telephone numbers during and outside the normal hours of aerodrome operations; and

*(c)* the address and telephone numbers, as provided by the Authority, of the place where changes are to be reported to the Authority.

### 4.2 *Access to the Aerodrome Movement Area*

Particulars of the procedures that have been developed and are to be followed in co-ordination with the agency responsible for preventing unlawful interference in civil aviation at the aerodrome and for preventing unauthorised

entry of persons, vehicles, equipment, animals or other things into the movement area, including the following:

*(a)* the role of the aerodrome operator, the aircraft operator, aerodrome fixed-base operators, the aerodrome security entity, the Authority and other government departments, as applicable; and

*(b)* the names and roles of the personnel responsible for controlling access to the aerodrome, and the telephone numbers for contacting them during and after working hours.

4.3 *Aerodrome Emergency Plan*

Particulars of the aerodrome emergency plan, including the following:

*(a)* plans for dealing with emergencies occurring at the aerodrome or in its vicinity, including the malfunction of aircraft in flight; structural fires; sabotage, including bomb threats (aircraft or structure); unlawful seizure of aircraft; and incidents on the airport covering "during the emergency" and "after the emergency" considerations;

*(b)* details of tests for aerodrome facilities and equipment to be used in emergencies, including the frequency of those tests;

*(c)* details of exercises to test emergency plans, including the frequency of those exercises;

*(d)* a list of organisations, agencies and persons of authority, both on and off-airport, for site roles; their telephone and facsimile numbers, e-mail and SITA addresses and the radio frequencies of their offices;

*(e)* the establishment of an aerodrome emergency committee to organise training and other preparations for dealing with emergencies; and

*(f)* the appointment of an on-scene commander for the overall emergency operation.

4.4 *Rescue and Firefighting*

Particulars of the facilities, equipment, personnel and procedures for meeting the rescue and firefighting requirements, including the names and roles of the persons responsible for dealing with the rescue and firefighting services at the aerodrome.

Note *This subject should also be covered in appropriate detail in the aerodrome emergency plan.*

4.5 *Inspection of the Aerodrome Movement Area and Obstacle Limitation Surface by the Aerodrome Operator*

Particulars of the procedures for the inspection of the aerodrome movement area and obstacle limitation surfaces, including the following:

*(a)* arrangements for carrying out inspections, including runways and taxiways, during and outside the runway friction and water-depth measurements on normal hours of aerodrome operations;

*(b)* arrangements and means of communicating with Air Traffic Control during an inspection;

*(c)* arrangements for keeping an inspection logbook, and the location of the logbook;

*(d)* details of inspection intervals and times;

*(e)* inspection checklist;

*(f)* arrangements for reporting the results of inspections and for taking prompt follow-up actions to ensure correction of unsafe conditions; and

*(g)* the names and roles of persons responsible for carrying out inspections, and their telephone numbers during and after working hours.

4.6 *Visual Aids and Aerodrome Electrical Systems*

Particulars of the procedures for the inspection and maintenance of aeronautical lights (including obstacle lighting), signs, markers and aerodrome electrical systems, including the following:

*(a)* arrangements for carrying out inspections during and outside the normal hours of aerodrome operation, and the checklist for such inspections;

*(b)* arrangements for recording the result of inspections and for taking follow-up action to correct deficiencies;

*(c)* arrangements for carrying out routine maintenance and emergency maintenance;

*(d)* arrangements for secondary power supplies, if any, and, if applicable, the particulars of any other method of dealing with partial or total system failure; and

*(e)* the names and roles of the persons responsible for the inspection and maintenance of the lighting, and the telephone numbers for contacting those persons during and after working hours.

4.7 *Maintenance of the Movement Area*

Particulars of the facilities and procedures for the maintenance of the movement area, including:

*(a)* arrangements for maintaining the paved areas;

*(b)* arrangements for maintaining the unpaved runways, taxiways;

*(c)* arrangements for maintaining the runway and taxiway strips; and

*(d)* arrangements for the maintenance of aerodrome drainage.

4.8 *Aerodrome Works—Safety*

Particulars of the procedures for planning and carrying out construction and maintenance work safely (including work that may have to be carried out at short notice) on or in the vicinity of the movement area which may extend above an obstacle limitation surface, including the following:

*(a)* arrangements for communicating with Air Traffic Control during the progress of such work;

*(b)* the names, telephone numbers and roles of the persons and organisations responsible for planning and carrying out the work, and arrangements for contacting those persons and organisations at all times;

*(c)* the names and telephone numbers, during and after working hours, of the aerodrome fixed-base operators, ground handling agents and aircraft operators who are to be notified of the work; and

*(d)* a distribution list for work plans, if required.

4.9 *Apron Management*

Particulars of the apron management procedures, including the following:

*(a)* arrangements between Air Traffic Control and the apron management unit;

*(b)* arrangements for allocating aircraft parking positions;

*(c)* arrangements for initiating engine start and ensuring clearance of aircraft push-back;

*(d)* marshalling service; and

*(e)* leader (van) service.

4.10 *Apron Safety Management*

Procedures to ensure apron safety, including:

*(a)* protection from jet blasts;

*(b)* enforcement of safety precautions during aircraft refuelling operations;

*(c)* apron sweeping;

*(d)* apron cleaning;

*(e)* arrangements for reporting incidents and accidents on an apron; and

*(f)* arrangements for auditing the safety compliance of all personnel working on the apron.

4.11 *Airside Safety Control*

Particulars of the procedure for the control of surface vehicles operating on or in the vicinity of the movement area, including the following:

*(a)* details of the applicable traffic rules (including speed limits and the means of enforcing the rules); and

*(b)* the method of issuing driving permits for operating vehicles in the movement area.

4.12 *Wildlife Hazard Management*

Particulars of the procedures to deal with the danger posed to aircraft operations by the presence of birds or mammals in the aerodrome flight pattern or movement area, including following:

*(a)* arrangements for assessing wildlife hazards;

*(b)* arrangements for implementing wildlife control programmes; and

*(c)* the names and roles of the persons responsible for dealing with wildlife hazards, and their telephone numbers during and after working hours.

4.13 *Obstacle Control*

Particulars setting out the procedures for:

*(a)* monitoring the obstacle limitation surfaces and Type A Chart for obstacles in the take-off surface;

*(b)* controlling obstacles within the authority of the operator;

*(c)* monitoring the height of buildings or structures within the boundaries of the obstacle limitation surfaces;

*(d)* controlling new developments in the vicinity of aerodromes; and

*(e)* notifying the Authority of the nature and location of obstacles and any subsequent addition or removal of obstacles for action as necessary, including amendment of the AIS publications.

4.14 *Removal of Disabled Aircraft*

Particulars of the procedures for removing a disabled aircraft on or adjacent to the movement area, including the following:

*(a)* the roles of the aerodrome operator and the holder of the aircraft certificate of registration;

*(b)* arrangements for notifying the holder of the certificate of registration;

*(c)* arrangements for liaising with the Air Traffic Control unit;

*(d)* arrangements for obtaining equipment and personnel to remove the disabled aircraft; and

*(e)* the names, role and telephone numbers of persons responsible for arranging for the removal of disabled aircraft.

4.15 *Handling of Hazardous Materials*

Particulars of the procedures for the safe handling and storage of hazardous materials on the aerodrome, including the following:

*(a)* arrangements for special areas on the aerodrome to be set up for the storage of inflammable liquids (including aviation fuels) and any other hazardous materials; and

*(b)* the method to be followed for the delivery, storage, dispensing and handling of hazardous materials.

Note *Hazardous materials include inflammable liquids and solids, corrosive liquids, compressed gases and magnetised or radioactive materials. Arrangements for dealing with the accidental spillage of hazardous materials should be included in the aerodrome emergency plan.*

4.16 *Low-Visibility Operations*

Particulars of procedures to be introduced for low-visibility operations, including the measurement and reporting of runway visual range as and when required, and the names and telephone numbers, during and after working hours, of the persons responsible for measuring the runway visual range.

4.17 *Protection of Sites for Radar and Navigational Aids*

Particulars of the procedures for the protection of sites for radar and radio navigational aids located on the aerodrome, ensure that their performance will not be degraded, including the following:

*(a)* arrangements for the control of activities in the vicinity of radar and navaids installations;

*(b)* arrangements for ground maintenance in the vicinity of these installations; and

*(c)* arrangements for the supply and installation of signs warning of hazardous microwave radiation.

**PART 5**

**AERODROME ADMINISTRATION AND SAFETY MANAGEMENT SYSTEM**

*Aerodrome Administration*

Particulars of the aerodrome administration, including the following:

*(a)* an aerodrome organisational chart showing the names and positions of key personnel, including their responsibilities;

*(b)* the name, position and telephone number of the person who has overall responsibility for aerodrome safety; and

*(c)* airport committees.

*Safety Management System (SMS)*

Particulars of the safety management system established for ensuring compliance with all safety requirements and achieving continuous improvement in safety performance, the essential features being:

*(a)* the safety policy, insofar as applicable, on the safety management process and its relation to the operational and maintenance process;

*(b)* the structure or organisation of the SMS, including staffing and the assignment of individual and group responsibilities for safety issues;

*(c)* SMS strategy and planning, such as setting safety performance targets, allocating priorities for implementing safety initiatives and providing a framework for controlling the risks to as low a level as is reasonably practicable keeping always in view the requirements of the Standards and Recommended Practices in Volume I of Annex 14 to the Convention on International Civil Aviation, and the national regulations, standards, rules or orders;

*(d)* SMS implementation, including facilities, methods and procedures for the effective communication of safety messages and the enforcement of safety requirements;

*(e)* a system for the implementation of, and action on, critical safety areas which require a higher level of safety management integrity (safety measures programme);

*(f)* measures for safety promotion and accident prevention and a system for risk control involving analysis and handling of accidents, incidents, complaints, defects, faults, discrepancies and failures, and continuing safety monitoring;

*(g)* the internal safety audit and review system detailing the systems and programmes for quality control of safety;

*(h)* the system for documenting all safety-related airport facilities as well as airport operational and maintenance records, including information on the design and construction of aircraft pavements and aerodrome lighting. The system should enable easy retrieval of records including charts;

*(i)* staff training and competency, including the review and evaluation of the adequacy of training provided to staff on safety-related duties and of the certification system for testing their competency; and

*(j)* the incorporation and enforcement of safety-related clauses in the contracts for construction work at the aerodrome.

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**[Subsidiary]**

# CIVIL AVIATION [(NO. 13) CHARGES FOR AIR NAVIGATION SERVICES] REGULATIONS

ARRANGEMENT OF REGULATIONS

**REGULATION**

1. Citation.
2. Interpretation.
3. Applicability of Regulations.
4. Imposition of charges for air navigation services.
5. Liability for payment.
6. Detention of aircraft.
7. Director may amend Schedules.

**FIRST SCHEDULE.**
**SECOND SCHEDULE.**

## CIVIL AVIATION [(NO. 13) CHARGES FOR AIR NAVIGATION SERVICES] REGULATIONS

239/2005.

*made under section 48*

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No. 13) Charges for Air Navigation Services] Regulations.

Interpretation.

**2.** In these Regulations—

"Act" means the Civil Aviation Act;

"aeronautical information services" means services necessary to meet those requirements of Annexes 4 and 15 of the Chicago Convention that relate to aeronautical information;

"air navigation services" means—

*(a)* aerodrome control services at international aerodrome;

*(b)* approach control services;

*(c)* area control services;

*(d)* flight information services;

*(e)* air navigation facilities; and

*(f)* aeronautical information services;

"Director-General" means the Director-General of Civil Aviation of Trinidad and Tobago; and

"flight information services" means a service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.

Applicability of Regulations.

**3.** (1) These Regulations apply to aircraft operating in Trinidad and Tobago airspace or any other airspace for which Trinidad and Tobago has responsibility for the provision of air navigation services.

(2) Subregulation (1) applies whether or not—

*(a)* the aircraft is registered in Trinidad and Tobago;

*(b)* the aircraft is in or over Trinidad and Tobago at the time when the service is provided; or

*(c)* such services are provided from a place in Trinidad and Tobago.

Imposition of charges for air navigation services.

**4.** (1) Prior to commencing flight operations the owner or operator of an aircraft operating in the airspace in which the provision of air navigation services is the responsibility of the Authority, shall submit to the Authority such records of movement of such aircraft and such other particulars relating to the aircraft as set out in the First Schedule.

First Schedule.

(2) The owner or operator of an aircraft under subregulation (1), shall pay to the Authority on a monthly basis, the charges set out in the Second Schedule on the basis of the information submitted under subregulation (1), for services provided by the Authority for the previous month.

Second Schedule.

(3) Notwithstanding subregulations (1) and (2), the Director-General may exempt certain owners or operators of aircraft under subregulation (4) operating in the airspace in which the provision of air navigation services is the responsibility of the Authority, from charges for air navigation services set out in the Second Schedule.

(4) Charges payable under this regulation shall be recoverable in Trinidad and Tobago, wherever they are payable without prejudice to the right of recovery elsewhere.

(5) Liability for charges owed to the Authority may be imposed upon an operator of any aircraft whether or not—

*(a)* such aircraft is registered in Trinidad and Tobago;

*(b)* such aircraft is in or over Trinidad and Tobago, at the time when the services to which the charges relate are provided; and

*(c)* such services are provided from a place in Trinidad and Tobago.

Liability for payment.

**5.** The owner or operator of an aircraft are jointly or severally liable for the payment of any charge for air navigation services imposed by the Authority in respect of an aircraft.

Detention for aircraft.

**6.** (1) Without prejudice to any other power conferred by the Act to detain an aircraft, the Director-General may apply to the High Court for an Order, issued on such terms as the Court

considers appropriate, authorising the detention, pending payment, of any aircraft in respect of which a charge was incurred and not paid or any other aircraft of which the person in default is the operator at the time the detention begins.

(2) An application for an Order under subregulation (1), may be made *ex parte* if the Director-General has reasons to believe that the person liable to pay the charges is about to leave Trinidad and Tobago or take from Trinidad and Tobago any aircraft owned or operated by the person.

(3) The Director-General shall release an aircraft detained under this regulation where—

*(a)* the amount in respect of which the detention was made, is paid;

*(b)* a bond or other form of security satisfactory to the Director-General for the amount in respect of which the detention is made, is deposited with the Authority; or

*(c)* an Order if the Court so directs.

**7.** The Director-General may, by Order, amend the Schedules. Director may amend Schedules.

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## FIRST SCHEDULE

Regulation 4(1).

## INFORMATION TO BE SUBMITTED FOR ASSESSMENT OF AIR NAVIGATION CHARGES

The following shall be submitted to the Authority prior to commencing flight operations in the airspace in which the provisions of air navigation services is the responsibility of the Authority:

*(a)* a copy of the Air Traffic Control Flight Plan as required by regulation 78(1) of the Civil Aviation [(No. 2) Operations] Regulations; Sub. Leg.

*(b)* information as to the Maximum Take-Off Weight (MTOW) of the aircraft, expressed in tonnes as set out in the Certificate of Airworthiness for the aircraft.

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*L.R.O.*

Regulation 4(2).

## SECOND SCHEDULE

## AIR NAVIGATION SERVICES CHARGES

The following are the Air Navigation Services Charges for aircraft operating in airspace in which the provision of air navigation services is the responsibility of the Civil Aviation Authority:

Basis: Maximum Take-Off Weight (MTOW) of the aircraft expressed in tonnes and the distance flown.

$$R = N \times U$$

Where: R = the charge for the flight
N = the number of service units relating to that flight
U = the unit rate

The number of service units ("N") shall be calculated according to the following formula: N = d x p

Where: "d" is the distance factor for the flight, and
"p" is the weight factor for the aircraft

The distance factor shall be the number of kilometres flown by the aircraft, minus 20 kilometres for each take-off and landing outside of a TMA, then divided by 100 and expressed in two decimal places, i.e.,

"d"= [distance flown (km)—No. of landings and take-offs x 20 km]/100

The weight factor shall be equal to the square root of the quotient obtained by dividing the number of tonnes of the MTOW of the aircraft by 50 and expressed to two decimal places, i.e.,

"p"= Square Root of (MTOW/50)
"U" = USD 33.28

# CIVIL AVIATION [(NO. 14) AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION] REGULATIONS

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*L.R.O.*

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**SCHEDULE 2.**
**SCHEDULE 3.**
**SCHEDULE 4.**
**SCHEDULE 5.**

306/2006.

# CIVIL AVIATION [(NO. 14) AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION] REGULATIONS

*made under section 62*

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No. 14) Aircraft Accident and Incident Investigation] Regulations.

## PART I

## GENERAL

Interpretation.

**2.** In these Regulations—

"accident" means an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as those persons have disembarked that aircraft, in which—

*(a)* a person is fatally or seriously injured as a result of—

(i) being in the aircraft;

(ii) direct contact with any part of the aircraft, including parts which have become detached from the aircraft; or

(iii) direct exposure to jet blast,

except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

*(b)* the aircraft sustains damage or structural failure which—

(i) adversely affects the structural strength, performance or flight characteristics of the aircraft; and

(ii) would normally require major repair or replacement of the affected component,

except for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tires, brakes, fairings, small dents or puncture holes in the aircraft skin; or

*(c)* the aircraft is missing or is completely inaccessible;

"accredited representative" means a person designated by a Contracting State, on the basis of his qualifications, for the purpose of participating in an investigation conducted by another Contracting State;

"Act" means the Civil Aviation Act;

"adviser" means a person appointed by a Contracting State, on the basis of his qualifications, for the purpose of assisting its accredited representative in an investigation;

"aircraft" means a machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the surface of the earth;

"cause" means an action, an omission, an event, a condition, or a combination thereof, which led to an accident or incident;

"Final Report" means a document prepared under Part V;

"flight recorder" means any type of recorder installed in the aircraft for the purpose of complementing accident and incident investigation;

"foreign aircraft" means a civil aircraft registered in a State other than Trinidad and Tobago;

"incident" means an occurrence, other than an accident, associated with the operation of an aircraft that affects or could affect the safety of operations and may include a serious incident;

"investigation" means a process conducted for the purpose of accident prevention, which includes the gathering and

analysis of information, the drawing of conclusions, such as the determination of the causes of an accident or incident and, when appropriate, the making of safety recommendations;

"investigator-in-charge" means the person designated the responsibility to organise, conduct and control an investigation;

"maximum mass" means the maximum certified take-off mass;

"missing" when used in respect of an aircraft means that the official search has been terminated and the wreckage has not been located;

"national air operator" means a person who has been issued a Trinidad and Tobago Air Operator Certificate under the Act or Regulations made thereunder;

"preliminary report" means a document for the prompt dissemination of data obtained during the early stages of an investigation;

"*pro tem* investigator" means a person designated under regulation 17 to assist the investigator in charge in the initial investigation of an accident, serious incident or incident;

"safety recommendation" means a proposal of the accident investigation authority of the State conducting the investigation, based on information derived from the investigation, made with the intention of preventing accidents or incidents;

"serious incident" means an incident involving circumstances indicating that an accident nearly occurred;

"serious injury" means damage that is sustained by a person in an accident and which—

*(a)* requires hospitalisation for more than forty-eight hours, commencing within seven days from the date the injury was received;

*(b)* results in a fracture of any bone except simple fractures of fingers, toes or nose;

*(c)* involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage;

*(d)* involves injury to any internal organ;

*(e)* involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or

*(f)* involves verified exposure to infectious substances or injurious radiation;

"State" means a Contracting and Non-Contracting State to the Chicago Convention;

"State of Design" means the Contracting State having jurisdiction over the organisation responsible for the type design;

"State of Manufacture" means the Contracting State having jurisdiction over the organisation responsible for the final assembly of the aircraft;

"State of Occurrence" means the Contracting State in the territory of which an accident, serious incident or incident occurs;

"State of the Operator" means the State in which the principal place of business of the operator is located or, if there is no such place of business, the permanent residence of the operator;

"State of Registry" means the Contracting State on whose register the aircraft is entered; and

"Trinidad and Tobago aircraft" means a civil aircraft registered in Trinidad and Tobago under the Act or Regulations made thereunder.

**APPLICABILITY OF REGULATIONS**

Applicability of Regulations.

**3.** These Regulations shall apply to—

*(a)* the reporting and investigation of accidents, serious incidents and incidents of—

(i) civil aircraft within the territory of Trinidad and Tobago;

(ii) Trinidad and Tobago aircraft, wherever the accident or incident occurs; and

(iii) civil aircraft, in which Trinidad and Tobago has a safety-related or legal obligation, wherever the accident or incident occur; and

*(b)* measures to prevent aircraft accidents and incidents.

**RESPONSIBILITY TO INVESTIGATE AIRCRAFT ACCIDENT AND INCIDENTS**

Director-General responsible to investigate.

**4.** (1) The Director-General shall be responsible for the investigation under Part III of any accident or incident, arising out of, or in the course of air navigation and occurring—

*(a)* in or over Trinidad and Tobago; or

*(b)* in a Non-Contracting State to—

(i) a foreign aircraft operated by a national air operator where the State of Registry does not intend to conduct the investigation in accordance with International Civil Aviation Organisation, Annex 13 to the Chicago Convention; or

(ii) a Trinidad and Tobago aircraft where the Non-Contracting State does not intend to conduct the investigation in accordance with International Civil Aviation Organisation, Annex 13 to the Chicago Convention.

(2) The Director-General may, as he considers necessary, designate in writing, any number of persons in such positions as necessary to carry out the requirements of these Regulations.

(3) No personal liability shall attach to the Director-General or any person designated by him under subregulation (2), in respect of any act done, permitted to be done or omitted in good faith, for the purpose of carrying out the requirements of these Regulations.

**OBJECTIVE OF AN INVESTIGATION**

Objective of an investigation.

**5.** The Director-General shall ensure that the prevention of accidents and incidents is the sole objective of the investigation of an accident, serious incident or incident under these Regulations.

**MEASURES TO PROTECT EVIDENCE**

Measures to protect evidence.

**6.** (1) Where an accident or incident has occurred in respect of an aircraft in Trinidad and Tobago, the Director-General shall take all reasonable measures to protect the evidence and to maintain safe custody of the aircraft and its contents for such period as may be necessary for the purpose of an investigation.

(2) For the purpose of this regulation—

"measures to protect the evidence" shall include the preservation, by photographic or other means of any evidence that may be removed, effaced, lost or destroyed; and

"safe custody" shall include protection against—

*(a)* further damage;

*(b)* access by unauthorised persons;

*(c)* pilfering; and

*(d)* deterioration.

(3) The Director-General shall ensure that in an accident or incident, the recovery and handling of a flight recorder and its recordings are assigned only to qualified personnel to ensure the protection of the flight recorder evidence.

(4) Where an accident or incident has occurred in respect of an aircraft in Trinidad and Tobago and a request is received from—

*(a)* the State of Registry;

*(b)* the State of the Operator;

*(c)* the State of Design; or

*(d)* the State of Manufacture,

that the aircraft, its contents, and any other evidence remain undisturbed pending inspection by an accredited representative of the requesting State, the Director-General shall take all

necessary steps to comply with such request, so far as this is reasonably practicable and compatible with the proper conduct of the investigation.

(5) Notwithstanding subregulation (4), the aircraft involved in an accident or incident may be moved—

*(a)* to the extent necessary to extricate persons, animals, mail and valuables;

*(b)* to prevent destruction by fire or other causes; or

*(c)* to eliminate any danger or obstruction to air navigation, to other transport or to the public; and

*(d)* provided that the removal of the aircraft does not result in undue delay in returning it to service, where this is practicable.

**RELEASE OF AIRCRAFT, ITS CONTENTS OR ANY PART FROM CUSTODY**

Release of aircraft.

**7.** (1) Subject to the requirements of regulations 5 and 6, the Director-General shall release custody of an aircraft, its contents or any part thereof as soon as the aircraft, its contents or part is no longer required in the investigation, to any person duly designated by the State of Registry or the State of the Operator, as applicable.

(2) For the purpose of subregulation (1), the Director-General shall facilitate access to the aircraft, its contents or any part thereof.

(3) Where an aircraft, its contents or any part thereof lie in an area within which the Director-General finds it impracticable to grant access, he shall effect removal of the aircraft, its contents or parts to a point where access can be given.

(4) Where an accident or serious incident involving a Trinidad and Tobago registered aircraft or an aircraft operated by a national operator occurs in another State, the Director-General may request that State to have the aircraft, its contents and

any other evidence remain undisturbed pending inspection by an accredited representative of Trinidad and Tobago.

(5) The Director-General shall designate a person or persons to take possession of the aircraft, its contents or any part thereof when the State of Occurrence releases custody of such aircraft, its contents or any part thereof.

## PART II

## NOTIFICATION

### RESPONSIBILITY FOR REPORTING ACCIDENTS AND INCIDENTS

Reporting accidents or incidents.

**8.** (1) The pilot in command of an aircraft involved in an accident or serious incident in Trinidad and Tobago, or if he has died or is incapacitated, a flight crew member, or if there are no surviving flight crew members or if they are incapacitated, the operator of the aircraft, as the case may be, shall, as soon as possible, notify—

*(a)* the Director-General; or

*(b)* an air traffic control unit; and

*(c)* the aerodrome manager, where the accident or serious incident occurred at an aerodrome,

of such accident or serious incident.

(2) Where the Director-General receives information under subregulation (1) or institutes an investigation under Part III, he shall cause a notification to be forwarded with minimum delay and by the most suitable and quickest means available to—

*(a)* the State of Registry, for a foreign registered aircraft;

*(b)* the State of the Operator, for a foreign operated aircraft;

*(c)* the State of Design;

*(d)* the State of Manufacture; and

*(e)* the International Civil Aviation Organisation, when the aircraft involved is of a maximum mass of over 2 250 kg.

(3) The pilot in command of a Trinidad and Tobago aircraft or a foreign aircraft operated by a national air operator, involved in an accident or serious incident outside the territory of Trinidad and Tobago, or where he has died or is incapacitated, a flight crew member, or where there are no surviving flight crew members, or where they are incapacitated, the operator or owner, as the case may be, shall, as soon as possible, notify—

*(a)* the appropriate authority in the territory where the accident or serious incident occurred, directly or through any air traffic control unit; and

*(b)* the Director-General,

of the accident or serious incident.

(4) Where the Director-General receives information under subregulation (3), he shall cause a notification to be forwarded with the minimum of delay and by the most suitable and quickest means available to—

*(a)* the State of Occurrence, where such State is not aware of the occurrence;

*(b)* the State of the Operator, for a Trinidad and Tobago registered aircraft operated by another State;

*(c)* the State of Registry, for a foreign aircraft operated by a national operator;

*(d)* the State of Design;

*(e)* the State of Manufacture; and

*(f)* the International Civil Aviation Organisation, when the aircraft involved is of a maximum mass of over 2 250 kg.

(5) Where the Director-General has been informed that an aircraft in which Trinidad and Tobago has a legal obligation,

has been involved in an accident or serious incident in another State that is not aware of the accident or serious incident, he shall forward a notification by the most suitable and quickest means available, of such occurrence to—

*(a)* the State of Registry, for a foreign registered aircraft;

*(b)* the State of the Operator; for a foreign operated aircraft;

*(c)* the State of Design;

*(d)* the State of Manufacture; and

*(e)* the State of Occurrence.

(6) The dispatch of the notification under this regulation shall not be delayed due to lack of complete information.

(7) Where the particulars of a notification under this regulation was issued with omissions, the Director-General shall, as soon as possible after the information becomes available, cause the details omitted from the notification as well as other relevant information to be dispatched to the recipient of the earlier notification which contained an omission.

(8) Where the Director-General is in receipt of notification that a Trinidad and Tobago aircraft or an aircraft operated by a national air operator is involved in an accident or serious incident, he shall with a minimum of delay and by the most suitable and quickest means available provide the State of Occurrence with—

*(a)* any relevant information available to him regarding the aircraft and the flight crew involved in the accident or serious incident; and

*(b)* details of any dangerous goods on board the aircraft.

(9) For the purpose of this regulation "the most suitable and quickest means available" includes telephone, facsimile, e-mail or the Aeronautical Fixed Telecommunication Network (AFTN).

**FORMAT AND CONTENT OF NOTIFICATION**

Format and content of Notification. Schedule 1.

**9.** The notification required by this Part, shall be in plain language and contain the information set out in Schedule 1 and shall, as far as practicable, be in one of the working languages of ICAO, taking into account the language of the recipient, whenever it is possible to do so without causing undue delay.

**ACKNOWLEDGEMENT OF RECEIPT OF NOTIFICATION**

Acknowledgement of receipt of Notification.

**10.** The Director-General shall acknowledge receipt of a notification from a State of Occurrence, of an accident or serious incident of a Trinidad and Tobago aircraft or a foreign aircraft operated by a national air operator.

**PART III**

## INVESTIGATION

**RESPONSIBILITY FOR INSTITUTING AND CONDUCTING AN INVESTIGATION OF ACCIDENT OR INCIDENT OCCURRING IN TRINIDAD AND TOBAGO**

Investigation of accident or incident occurring in Trinidad and Tobago.

**11.** (1) Where an accident or serious incident occurs in Trinidad and Tobago, the Director-General shall institute and—

*(a)* conduct an investigation into the circumstances of the accident or serious incident and shall be responsible for the conduct of the investigation; or

*(b)* make mutual arrangements for the conduct of the entire investigation or part of the investigation to another State.

(2) The Director-General shall, where he retains responsibility for the conduct of an investigation under subregulation (1)*(a)*, designate an investigator in charge in accordance with regulation 14, to conduct the investigation under subregulation (1).

(3) Where the Director-General designates a part of the investigation to another State in accordance with subregulation (1)*(b)*, he shall retain responsibility for the investigation.

(4) Where the Director-General designates the whole investigation to another State under subregulation (3), he shall notify that State that it will be responsible for the conduct of the investigation, including the Final Report and the Accident/Incident Data Report specified in regulations 28 to 30 inclusive.

(5) The Director-General shall use every means available to facilitate the investigation required by subregulation (1).

(6) The investigation in subregulation (1) shall be conducted in accordance with the standards specified in Schedule 2.

Schedule 2.

**INVESTIGATION OF AN ACCIDENT OR SERIOUS INCIDENT OF A TRINIDAD AND TOBAGO AIRCRAFT OR A FOREIGN AIRCRAFT OPERATED BY A NATIONAL AIR OPERATOR WHICH OCCURRED IN A NON-CONTRACTING STATE**

Investigation of an accident or serious incident which occurred in a Non-Contracting State.

**12.** (1) Where a Trinidad and Tobago aircraft or a foreign aircraft operated by a national air operator is involved in an accident or serious incident in the territory of a Non-Contracting State which does not intend to conduct an investigation in accordance with ICAO Annex 13, the Director-General shall endeavour to—

*(a)* institute or conduct; or

*(b)* make mutual arrangements with a State to conduct an investigation in co-operation with the State of Occurrence.

(2) Where the Director-General receives no co-operation from the State of Occurrence under subregulation (1)*(b)* or is unable to make mutual arrangements with a State to conduct an investigation, he shall conduct an investigation using such information that is available to him.

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**INVESTIGATION OF AN ACCIDENT OR SERIOUS INCIDENT OF A TRINIDAD AND TOBAGO AIRCRAFT OR A FOREIGN AIRCRAFT OPERATED BY A NATIONAL AIR OPERATOR WHICH OCCURRED OUTSIDE THE TERRITORY OF ANY STATE**

Investigation of accident or serious incident outside the territory of any State.

**13.** (1) Where a Trinidad and Tobago aircraft is involved in an accident or serious incident in a location that cannot definitely be established as being in the territory of any State, the Director-General shall—

*(a)* institute or conduct; or

*(b)* make mutual arrangements with a State to conduct, an investigation, where necessary, of the accident or serious incident.

(2) Where a foreign aircraft operated by a national air operator is involved in an accident or serious incident in a location that cannot definitely be established as being in the territory of any State and where the State of Registry of the aircraft is a Non-Contracting State which does not intend to institute and conduct an investigation into the accident or serious incident in accordance with ICAO Annex 13, the Director-General shall—

*(a)* institute or conduct; or

*(b)* make mutual arrangements with a State to conduct an investigation, where necessary, of the accident or serious incident.

(3) Where the Director-General designates a part of the investigation to another State in accordance with subregulation (3), he shall retain responsibility for the conduct of the investigation.

(4) Where the Director-General designates the whole investigation to another State in accordance with subregulation (3), such a State is expected to be responsible for the conduct of the investigation, including the Final Report and the Accident/Incident Date report specified in regulations 28 to 30 inclusive.

(5) In meeting the requirements of subregulations (1) and (2), the Director-General may request such assistance from

States located nearest to the scene of the accident or serious incident in international waters, as they are able to provide.

(6) Where a foreign aircraft is involved in an accident or serious incident in international waters just outside the territory of Trinidad and Tobago, the Director-General shall provide such assistance, as he is able to provide and respond to requests for assistance from the State of Registry.

**INVESTIGATOR-IN-CHARGE**

Investigator-in-charge.

**14.** (1) The Director-General may designate a person to be an investigator-in-charge to investigate an accident or serious incident in accordance with these Regulations and to, where possible, visit the scene of the accident or serious incident, examine wreckage and take statements from witnesses.

(2) An investigator-in-charge under subregulation (1) shall, subject to the provisions of these Regulations—

*(a)* have unhampered access to and unrestricted control of an aircraft which has been involved in an accident or incident, the wreckage, the place where the aircraft or the wreckage is located and the places where marks resulting from the accident or incident which may be of assistance in an investigation, are located;

*(b)* preserve an aircraft which has been involved in an accident or serious incident or the wreckage and any marks resulting from the accident or incident which may be of assistance in the investigation, by any means available, including photographic means;

*(c)* examine an aircraft involved in an accident or incident, the wreckage, any part or component thereof or anything transported therein or any marks resulting from the accident or incident which may be of assistance in the investigation, and to remove any such aircraft, wreckage, or

any part or component thereof or anything transported therein for the purpose of the investigation;

*(d)* compile reports required by these Regulations in connection with the investigation;

*(e)* have unhampered access to all documents, books, notes, photographs, recordings and transcripts which the investigator in charge may consider necessary for the investigation, which documents, books, notes, photographs, recordings and transcripts shall be produced without delay by the possessor thereof when so requested; and

*(f)* obtain information from any person that may be necessary for the investigation.

(3) The Director-General shall sign and issue to an investigator-in-charge designated in subregulation (1), a document which shall contain his full name and a statement indicating that the investigator-in-charge—

*(a)* has been designated in accordance with subregulation (1); and

*(b)* is empowered to exercise any power entrusted to him in accordance with these Regulations.

(4) The investigator-in-charge shall co-ordinate with the relevant authorities in the investigation of an aircraft accident or incident with particular attention given to evidence that requires prompt recording and analysis, such as the examination and identification of victims and the read-out of flight recorder recordings.

**INVESTIGATORS**

Investigators.

**15.** (1) The Director-General may designate such numbers of persons to be investigators for the purpose of assisting an investigator-in-charge in the investigation of an accident or incident.

(2) An investigator may exercise all the powers granted to and imposed on an investigator-in-charge, which are assigned to such investigator by the investigator-in-charge.

(3) The Director-General shall sign and issue to each investigator designated under subregulation (1), a document which shall contain his full name and a statement indicating that the investigator—

*(a)* has been designated in accordance with subregulation (1); and

*(b)* is empowered to exercise any power entrusted to him in accordance with these Regulations.

**DESIGNATION OF ADVISERS**

Designation of advisers.

**16.** The Director-General may designate any number of persons proposed by the operator of the aircraft to be advisers for the purpose of advising the investigator-in-charge under regulation 14 on matters relating to the investigation of an accident or incident.

**DESIGNATION OF *PRO TEM* INVESTIGATOR**

Designation of *pro tem* investigator.

**17.** (1) The Director-General may designate a person to be a *pro tem* investigator for the purpose of assisting the investigator-in-charge in the initial investigation of an accident or incident where the designated investigator-in-charge is physically unable to reach the location of an accident or incident promptly.

(2) A *pro tem* investigator may exercise all the powers granted to and imposed on an investigator-in-charge in regulation 14(2), which are assigned to such *pro tem* investigator by the Director-General.

(3) A *pro tem* investigator shall, as soon as practicable after the arrival of the investigator-in-charge on the scene of an accident or incident, report on his initial investigation to such investigator-in-charge.

(4) The Director-General shall sign and issue to a *pro tem* investigator designated under subregulation (1), a document which shall state his full name and a statement indicating that such *pro tem* investigator—

*(a)* has been designated in terms of subregulation (1); and

*(b)* is empowered to exercise any power entrusted to him in accordance with these Regulations.

**EFFECTIVE USE OF FLIGHT RECORDERS**

Effective use of flight recorders.

**18.** (1) The investigator-in-charge shall make effective use of flight recorders in the investigation of an accident or incident by arranging to have a flight recorders read-out produced without delay.

(2) Where adequate facilities to read-out the flight recorders are not available in Trinidad and Tobago, the investigator-in-charge under regulation 14 may use the facilities made available by a Contracting State giving consideration to the following:

*(a)* the capabilities of the read-out facilities;

*(b)* the timeliness of the read-out; and

*(c)* the location of the read-out facility.

**ARRANGEMENT FOR AUTOPSY EXAMINATION OF FATALLY INJURED CREW AND PASSENGERS**

Autopsy examination of fatally injured crew and passengers.

**19.** Where a fatal accident involving an aircraft occurs in Trinidad and Tobago, the Director-General shall arrange for the expeditious and complete autopsy examination of fatally injured flight crew and subject to the particular circumstances, of fatally injured passengers and cabin attendants, by a pathologist, preferably experienced in accident investigation.

**ARRANGEMENT FOR MEDICAL EXAMINATION OF CREW AND PASSENGERS**

Medical Examination of Crew and Passengers.

**20.** The Director-General shall, where appropriate, arrange for the expeditious conduct of medical examination of the crew, passengers and involved aviation personnel, by a medical

practitioner registered under the Medical Board Act and preferably experienced in accident investigation. Ch. 29:50.

**NOTIFICATION OF THE AUTHORITY WHERE SUSPECTED UNLAWFUL INTERFERENCE WAS INVOLVED**

Notification where suspected unlawful interference was involved.

**21.** Where during the course of an investigation the investigator-in-charge under regulation 14, becomes aware of, or suspects that an act of unlawful interference was involved, the investigator-in-charge shall ensure that the Authority is immediately informed of the unlawful interference or its suspicion thereof.

**SECURITY OF ACCIDENT AND INCIDENT INVESTIGATION DOCUMENTS, REPORTS AND RECORDS**

Security of documents, reports and records.

**22.** (1) When conducting an investigation, the Director-General shall ensure that the following records which are not already published or released are not made available for purposes other than accident and incident investigation:

*(a)* all statements taken from persons by the investigator-in-charge in the course of the investigation;

*(b)* all communications between persons having been involved in the operation of the aircraft;

*(c)* medical and private information regarding persons involved in the accident or incident;

*(d)* cockpit voice recording and transcripts from such recordings;

*(e)* recording and transcriptions of recordings from air traffic control units; and

*(f)* opinions expressed in the analysis of information including flight recorder information.

(2) Notwithstanding the requirements of subregulation (1) the Director-General shall disclose the reports specified in subregulation (1)—

*(a)* on Order of the Court;

*(b)* on the request of the Tribunal appointed by the Minister under the Act for the purpose of investigating an accident or incident.

**PROVISION OF RELEVANT INFORMATION OF AIRCRAFT INVOLVED IN AN ACCIDENT OR INCIDENT TO STATE OF OCCURRENCE**

Provision of information to State of Occurrence.

**23.** (1) The Director-General shall, upon request from a Contracting or Non-Contracting State conducting an investigation of an accident or incident, provide that State with the relevant information available to him.

(2) The Director-General shall ensure that where facilities or services in Trinidad and Tobago have been used or would normally have been used by an aircraft prior to an accident or serious incident involving that aircraft, such information and any other information pertinent to the investigation is provided to the Contracting or Non-Contracting State conducting the investigation.

**PROVISION OF FLIGHT RECORDER INFORMATION TO A STATE CONDUCTING INVESTIGATION INTO AN ACCIDENT OR INCIDENT INVOLVING AN AIRCRAFT OPERATED BY A NATIONAL OPERATOR**

Provision of flight recorder information to State conducting investigation.

**24.** Where a Trinidad and Tobago aircraft or an aircraft operated by a national air operator involved in an accident or serious incident lands in a Contracting or Non-Contracting State other than the State of Occurrence, the Director-General, upon request from the State of Occurrence shall furnish or arrange to have that State furnished with the flight recorder records and where necessary, the associated flight recorders.

**PROVISION OF INFORMATION TO A STATE CONDUCTING AN INVESTIGATION OF AN ACCIDENT OR INCIDENT ON AN ORGANISATION IN TRINIDAD AND TOBAGO**

Provision of information to a State conducting an investigation.

**25.** The Director-General shall, on request from a Contracting or Non-Contracting State conducting an investigation of an accident or serious incident, provide pertinent information on any organisation in Trinidad and Tobago whose

activities may have directly or indirectly influenced the operation of the aircraft involved in an accident or serious incident.

**ACCREDITED REPRESENTATIVES AND ADVISERS WHERE ACCIDENT OCCURS OUTSIDE OF TRINIDAD AND TOBAGO**

Accredited representatives and advisers where accident occurs outside of Trinidad and Tobago.

**26.** (1) The Director-General may designate an accredited representative to participate in the investigation of an accident or serious incident of a Trinidad and Tobago aircraft or a foreign aircraft operated by a national air operator occurring in the territory of another Contracting or Non-Contracting State.

(2) The Director-General shall appoint one or more advisers, proposed by the operator to assist the accredited representative appointed under subregulation (1).

(3) When the Director-General designates an accredited representative and advisers under subregulations (1) and (2), he shall inform the State of Occurrence of their names and contact details, as well as the expected date of their arrival to the State of Occurrence if the accredited representative will travel to the State of Occurrence.

(4) Accredited representatives and their advisers participating in an investigation of an accident or incident shall—

*(a)* provide the State conducting the investigation with all relevant information available to them; and

*(b)* not divulge information on the progress and the findings of the investigation without the express consent of the State conducting the investigation.

(5) The Director-General shall, where another State institutes and conducts an investigation of an accident which involves fatalities or serious injuries to citizens of Trinidad and Tobago, request permission from that State to appoint an expert to represent the special interest of Trinidad and Tobago to—

*(a)* visit the scene of the accident;

*(b)* have access to the relevant factual information;

*(c)* participate in the identification of the victims;

*(d)* assist in questioning surviving passengers who are citizens of the State of the expert; and

*(e)* receive a copy of the Final Report.

(6) An accredited representative designated in accordance with subregulation (1) may participate in the investigation of the accident or incident under the control of the investigator-in-charge.

(7) An accredited representative designated in subregulation (1) may, under the control of the investigator-in-charge—

*(a)* visit the scene of the accident;

*(b)* examine the wreckage;

*(c)* obtain witness information and suggest areas of questioning;

*(d)* have access to all relevant evidence;

*(e)* receive copies of all relevant documents, books, notes, photographs, recordings and transcripts;

*(f)* participate in read-outs of recorded media;

*(g)* participate in component examinations, technical briefings, tests and simulations and other investigative activities;

*(h)* participate in deliberations on the analysis, findings, or causes and safety recommendations; and

*(i)* make submissions in respect of the various elements of the investigation.

**ACCREDITED REPRESENTATIVES AND ADVISERS REQUESTED FOR AN ACCIDENT OCCURRING IN TRINIDAD AND TOBAGO**

Accredited representatives and advisers requested for an accident occurring in Trinidad and Tobago.

**27.** (1) Where the Director-General institutes the conduct of an investigation of an accident or incident in or over Trinidad and Tobago of an aircraft—

*(a)* of a maximum mass of over 2 250 kg, the Director-General shall specifically request participation of the—

(i) State of Registry;

(ii) State of the Operator;

(iii) State of Design; and

(iv) State of Manufacture;

*(b)* he shall accept the appointment of accredited representatives from—

(i) the State of Design;

(ii) the State of Manufacture of the aircraft, power plant or major components of the aircraft;

(iii) the State of the Operator of a Trinidad and Tobago aircraft;

(iv) any State which on request by the Director-General provides information, facilities or experts; and

(v) any State that provides an operational base for field investigation, or is involved in search and rescue or wreckage recovery operations, or is involved as a State of a code-share or alliance partner of the operator;

*(c)* and neither the State of Registry, nor the State of the Operator appoints an accredited representative, the Director-General may invite the operator of the aircraft to participate in the investigation of the accident or incident, subject to the requirements of these Regulations;

*(d)* and neither the State of Design, nor the State of Manufacture appoints an accredited representative, the Director-General may invite the organisations for the type design and the final assembly of the aircraft, to participate subject to the requirements of these Regulations.

(2) The Director-General shall accept the appointment of one or more advisers to assist their accredited representatives appointed under subregulation (1).

(3) Advisers specified in subregulation (2), shall be permitted, under the supervision of the accredited representatives, to participate in the investigation to the extent necessary to enable the accredited representatives to make their participation effective.

(4) Where the Director-General invites—

*(a)* the State of the Operator;

*(b)* the State of Design; and

*(c)* the State of Manufacture,

under this regulation to appoint accredited representatives and advisers he shall also request the submission of their names and contact details, as well as the expected date of their arrival, if they will travel to the State of Occurrence for the purpose of participating in the investigation of an accident or serious incident of an aircraft.

(5) Participation in the investigation of an accident or serious incident, under this regulation shall confer entitlement to participate in all aspects of the investigation under the control of the investigator-in-charge, in particular to—

*(a)* visit the scene of the accident;

*(b)* examine the wreckage;

*(c)* obtain witness information and suggest areas of questioning;

*(d)* have full access to all relevant evidence as soon as possible;

*(e)* receive copies of all pertinent documents;

*(f)* participate in read-out of recorded media;

*(g)* participate in off-scene investigative activities such as component examinations, technical briefing, tests and simulations;

*(h)* participate in investigation progress meetings including deliberations related to analysis, findings, causes and safety recommendations; and

*(i)* make submissions in respect to the various elements of the investigation.

(6) Notwithstanding the requirement of subregulation (1)*(d)*, the Director-General may limit the participation of accredited representatives appointed under subregulation (1)*(b)*, to those matters which entitled such States to participate.

(7) Notwithstanding subregulation (6), accredited representatives and their advisers may report to their respective States in order to facilitate appropriate safety actions.

(8) Where the Director-General institutes and conducts an investigation of an accident, he shall, upon receiving a request, permit a State which has a special interest in that accident by virtue of fatalities or serious injuries to its citizens, to appoint an expert to—

*(a)* visit the scene of the accident;

*(b)* have access to the relevant factual information;

*(c)* participate in the identification of the victims;

*(d)* assist in questioning surviving passengers who are citizens of the expert's State; and

*(e)* receive a copy of the Final Report.

## PART IV

## PRELIMINARY REPORT AND ACCIDENT/INCIDENT DATA REPORT

### PRELIMINARY REPORT

Preliminary report.

**28.** (1) Where the Director-General institutes and conducts an investigation into an accident or incident, he shall prepare a preliminary report in accordance with Schedule 3.

Schedule 3.

(2) The Director-General shall send the preliminary report referred to in subregulation (1) to—

*(a)* for aircraft of a maximum mass of 2 250 kg or less—

(i) the State of Registry or the State of Occurrence, as appropriate;

(ii) the State of the Operator;

(iii) the State of Design;

(iv) the State of Manufacture;

(v) any State that provided relevant information, significant facilities or experts; and

*(b)* for aircraft of a maximum mass of over 2 250 kg—

(i) the States specified under subregulation (2)*(a)*; and

(ii) the International Civil Aviation Organisation.

(3) The Director-General shall ensure that the preliminary report referred to in subregulation (1), is in the English Language and sent by facsimile, e-mail or airmail within thirty days of the accident.

(4) Notwithstanding subregulation (3), when matters directly affecting safety are involved, the preliminary report referred to in subregulation (1) shall be sent as soon as the information is available and by the most suitable and quickest means available.

**ACCIDENT/INCIDENT DATA REPORT**

Accident/ Incident Data Report.

**29.** (1) Where the Director-General institutes and conducts an investigation into—

*(a)* an accident of an aircraft of a maximum mass of over 2 250 kg; or

*(b)* an incident of an aircraft of a maximum mass of over 5 700 kg,

he shall prepare and send, as soon as practicable after the investigation, in the English Language, an Accident Data Report to the International Civil Aviation Organisation in accordance with Schedule 4.

Schedule 4.

(2) The Director-General may, upon request, provide other States with pertinent information additional to that made available in the Accident/Incident Data Report.

**PART V**

**FINAL REPORT**

Final Report.

**30.** (1) The Director-General shall ensure that the requirements of this Part are satisfied with respect to the Final Report of an investigation of an accident or incident that he is responsible for under regulation 4.

(2) A Final Report under subregulation (1) shall be in the format set out in Schedule 5 with such necessary adaptations as the investigator in charge determines necessary having regard to the circumstances of the accident or incident.

(3) An investigator-in-charge who conducts an investigation of an accident or serious incident instituted by the Director-General shall prepare a draft of the Final Report and submit it to the Director-General.

(4) On receipt of the draft of the Final Report, the Director-General under subregulation (3), shall forward that report to—

*(a)* all the States that participated in the investigation;

*(b)* the operator of the aircraft, through the State of the Operator;

*(c)* the organisations responsible for the type design and the final assembly of the aircraft, the State of Design and the State of Manufacture, respectively,

inviting their significant and substantiated comments on that draft Final Report to be submitted within sixty days.

(5) The Director-General, when sending copies of the draft Final Report under subregulation (4) shall send such report under confidential cover forbidding the recipients from circulating or publishing the draft Final Report or any part thereof.

(6) On receipt of any comments under subregulation (4) the Director-General shall forward the comments to the investigator-in-charge to—

*(a)* amend the draft Final Report to include the substance of the comments received; or

*(b)* append the comments to the Final Report, where it is desired by the State that made the comments.

(7) Where the investigator-in-charge makes an amendment or appends the comments under subregulation (6) he shall forward the amended draft of the Final Report to the Director-General who shall release it as the Final Report.

(8) The Director-General, where he is in receipt of a draft Final Report from another State, shall not circulate or publish the draft Final Report or any part thereof, or any document obtained during the investigation of the accident or incident without the express consent of the State that conducted the investigation.

(9) The Director-General shall, with a minimum of delay and in the interest of accident prevention, release the Final Report of an accident or incident to the States that appointed accredited representatives, advisers and experts in the investigation of the accident or incident, including—

*(a)* the State of the Operator;

*(b)* the State of Design;

*(c)* the State of Manufacture;

*(d)* any State having fatalities or serious injuries to its citizens; and

*(e)* any State that provided relevant information, significant facilities or experts.

(10) Where it is not possible to release a Final Report under subregulation (9), within twelve months of the date of

occurrence, the Director-General shall release an interim report on each anniversary of the occurrence, detailing the progress of the investigation and any safety issues raised.

(11) The Director-General shall, in releasing a Final Report under subregulation (9) for an aircraft of a maximum mass of over 5 700kg, send a copy of that Final Report to the International Civil Aviation Organisation.

(12) The Director-General shall, where during the investigation of an accident or incident considers it necessary for certain prompt preventive actions to be taken to enhance aviation safety, issue such recommendations to the appropriate authorities including those authorities in other States.

(13) The Director-General shall address, when appropriate, any safety recommendations arising out of his investigations to the accident investigation authorities of other State(s) concerned and, to ICAO when ICAO documents are involved.

(14) Where the Director-General is in receipt of safety recommendations arising out of an accident or incident investigation from a Contracting State, he shall inform the Contracting State of the preventive action taken or under consideration, or reasons why no action will be taken.

(15) The investigator-in-charge shall include only the relevant parts of the records referred to in subregulation (1) in the final report or its appendices, only when pertinent to the analysis of the accident or incident.

**MEASURES TO RE-OPEN AN INVESTIGATION**

Measures to re-open an investigation.

**31.** Where new and significant evidence becomes available after the investigation into an accident or incident constituted and conducted by the Director-General has been closed, the Director-General shall take measures to re-open that investigation.

## PART VI

## ACCIDENT PREVENTION MEASURES

### ESTABLISHMENT OF A MANDATORY INCIDENT REPORTING SYSTEM

Mandatory incident reporting system.

**32.** The Director-General shall establish a mandatory incident reporting system to facilitate collection of information on actual or potential safety deficiencies.

### ESTABLISHMENT OF A VOLUNTARY INCIDENT REPORTING SYSTEM

Voluntary incident reporting system.

**33.** (1) The Director-General shall establish a voluntary incident reporting system to facilitate the collection of information that may not be captured by a mandatory incident reporting system.

(2) The Director-General shall, in establishing the voluntary incident reporting system referred to in subregulation (1), ensure that the system is non-punitive and affords protection to the sources of the information.

(3) A person observing any hazard or discrepancies that may affect aviation safety, may notify the Director-General of such hazard or discrepancy under the voluntary incident reporting system.

### ESTABLISHMENT OF AN ACCIDENT AND INCIDENT DATABASE

Accident and incident database.

**34.** (1) The Director-General may establish an accident and incident database to facilitate the effective analysis of information obtained, including that from its mandatory and voluntary incident reporting systems under regulations 32 and 33 respectively.

(2) The Director-General shall ensure that the accident and incident database referred to in subregulation (1), use standardised formats to facilitate data exchange.

### ANALYSIS OF INFORMATION IN THE ACCIDENT AND INCIDENT DATABASE

Analysis of information in the accident and incident database.

**35.** (1) The Director-General shall analyse the information contained in the accident/incident reports and the database established in regulation 34, to determine any preventive actions required.

(2) Where the Director-General identifies safety matters considered to be of interest to other States—

*(a)* in the analysis of the information contained in the database referred to in regulation 34; or

*(b)* which were received from diverse sources, including safety studies,

he may forward such safety information to the States as soon as possible.

**ESTABLISHMENT OF SAFETY INFORMATION SHARING NETWORK**

Safety information sharing network.

**36.** The Director-General may establish a system to promote the establishment of safety information sharing networks among all users of the aviation system and may facilitate the free exchange of information on actual and potential safety deficiencies.

**PROCEDURES MANUAL**

Procedures Manual.

**37.** The Director-General shall ensure that a Procedures Manual for the implementation of these Regulations is developed and maintained, and distributed to all personnel who are required to know and participate in aircraft accident and incident investigations.

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## SCHEDULE 1

Regulation 9.

*(a)* for accidents the identifying abbreviation ACCID, for serious incidents INCID;

*(b)* manufacturer, model, nationality and registration marks, and serial number of the aircraft;

*(c)* name of owner, operator and hirer, if any, of the aircraft;

*(d)* name of the pilot in command, and nationality of crew and passengers;

*(e)* date and time (local time or UTC) of the accident or serious incident;

*(f)* last point of departure and point of intended landing of the aircraft;

*(g)* position of the aircraft with reference to some easily defined geographical point and latitude and longitude;

*(h)* number of crew and passengers on board and the number who have been killed or seriously injured;

*(i)* number of persons killed and seriously injured;

*(j)* description of the accident or serious incident and the extent of damage to the aircraft so far as is known;

*(k)* an indication to what extent the investigation will be conducted or is proposed to be delegated by the State of Occurrence;

*(l)* physical characteristics of the accident or serious incident area, as well as an indication of access difficulties or special requirements to reach the site;

*(m)* identification of—

(i) the Authority;

(ii) and the means to contact at any time—

(A) the investigator-in-charge;

(B) the accident investigation authority or body of the State of Occurrence; and

*(n)* presence and description of any dangerous goods on board the aircraft.

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Regulation 11.

## SCHEDULE 2

The investigator-in-charge shall use the standards set out in ICAO Document No. 6920 for the conduct of an investigation of an aircraft accident or serious incident.

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Regulation 35.

## SCHEDULE 3

The format of the Accident/Incident Data Report shall be in the manner set out in ICAO Document 9156. An example of a completed Preliminary Report is provided in Appendix 8 of ICAO Document 9156.

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Regulation 34.

## SCHEDULE 4

The format of the Preliminary Report shall be in the manner set out in ICAO Document 9156. An example of a completed Preliminary Report is provided in Appendix 8 of ICAO Document 9156.

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Regulation 32.

## SCHEDULE 5

The investigator-in-charge shall use the standards set out in ICAO Document No. 6920, Part IV, Chapter 4 when preparing the Final Report.

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308/2006. [100/2009 204/2009].

# CIVIL AVIATION [(NO. 15) AIR NAVIGATION SERVICES] REGULATIONS

*made under section 33*

## PART I

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No. 15) Air Navigation Services] Regulations.

Interpretation. [100/2009 204/2009].

**2.** (1) In these Regulations—

"Act" means the Civil Aviation Act;

"accepting unit" means an air traffic control unit next to take control of an aircraft;

"accident" means an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which—

*(a)* a person is fatally or seriously injured as a result of—

(i) being in the aircraft; or

(ii) direct contact with any part of the aircraft, including parts which have become detached from the aircraft; or

(iii) direct exposure to jet blast,

except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

*(b)* the aircraft sustains damage or structural failure which—

(i) adversely affects the structural strength, performance or flight characteristics of the aircraft; and

(ii) would normally require major repair or replacement of the affected component, except for engine failure or damage,

when the damage is limited to the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tyres, brakes, fairings, small dents or puncture holes in the aircraft skin; or

*(c)* the aircraft is missing or is completely inaccessible;

"accuracy" means a degree of conformance between the estimated or measured value and the true value;

"ADS" means a surveillance technique in which aircraft automatically provide, via a data link, data derived from on-board navigation and position-fixing systems, including aircraft identification, four-dimensional position and additional data, as appropriate;

"ADS-C" is a means by which the terms of an ADS-C agreement will be exchanged between the ground system and the aircraft, via a data link, specifying under what conditions ADS-C reports would be initiated, and what data would be contained in the reports;

Note: *The abbreviated term "ADS contract" is commonly used to refer to ADS event contract, ADS demand contract, ADS periodic contract or an emergency mode.*

"ADS-C agreement" means a reporting plan which establishes the conditions of ADS-C data reporting such that data required by the air traffic services unit and frequency of ADS-C reports which have to be agreed to prior to using ADS-C in the provision of air traffic services;

Note: *The terms of the agreement will be exchanged between the ground system and the aircraft by means of a contract, or a series of contracts.*

"ADS-B" is a means by which aircraft, aerodrome vehicles and other objects can automatically transmit and/or receive data such as identification, position and additional data, as appropriate, in a broadcast mode via a data link;

"advisory airspace" means an airspace of defined dimensions, or designated route, within which air traffic advisory service is available;

"advisory route" means a designated route along which air traffic advisory service is available;

"aerodrome" means a defined area on land or water including any buildings, installations and equipment intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft;

"aerodrome control service" means the provision of air traffic control service for those parts of controlled flights associated with arrival or departure;

"aerodrome control tower" means a unit established to provide air traffic control service to aerodrome traffic;

"aerodrome elevation" means the elevation of the highest point of the landing area;

"aerodrome operating minima" means the limits of usability of an aerodrome for—

*(a)* take-off, expressed in terms of runway visual range or visibility and, if necessary, cloud conditions;

*(b)* landing in precision approach and landing operations, expressed in terms of visibility or runway visual range and decision altitude or height as appropriate to the category of the operation;

*(c)* landing in approach and landing operations with vertical guidance, expressed in terms of visibility or runway visual range and decision altitude or height; and

*(d)* landing in non-precision approach and landing operations, expressed in terms of visibility or runway visual range, minimum descent altitude or height and, if necessary, cloud conditions;

"aerodrome reference point" means the designated geographical location of an aerodrome;

"aerodrome traffic" means all traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome;

"aeronautical chart" means a representation of a portion of the Earth, its culture and relief, specifically designated to meet the requirements of air navigation;

"aeronautical data" means a representation of aeronautical facts, concepts or instructions in a formalised manner suitable for communication, interpretation or processing;

"aeronautical fixed service" means a telecommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air services;

"aeronautical information" means information resulting from the assembly, analysis and formatting of aeronautical data;

"Aeronautical Information Circular" means a notice containing information that does not qualify for the origination of a NOTAM or for inclusion in the AIP, but which relates to flight safety, air navigation, technical, administrative or legislative matters;

"Aeronautical Information Publication" means a publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation;

"aeronautical information publication amendment" means permanent changes to the information contained in the AIP;

"aeronautical information regulation and control" means a system aimed at advance notification based on common effective dates, of circumstances that necessitate significant changes in operating practices;

"Aeronautical Information Service" means a service established within the defined area of coverage responsible for the provision of aeronautical information or data necessary for the safety, regularity and efficiency of air navigation;

"aeronautical information service product" means aeronautical information provided in the form of the elements of the Integrated Aeronautical Information Package except NOTAM and pre-flight information bulletin PIB, including aeronautical charts, or in the form of suitable electronic media;

"aeronautical mobile service" means a mobile communication service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations

may participate; emergency position-indicating radio beacon stations may also participate in this service on designated distress and emergency frequencies;

"aeronautical telecommunication station" means a station in the aeronautical telecommunication service;

"aircraft stand" means a designated area on an apron intended to be used for parking an aircraft;

"AIP Supplement" means temporary changes to the information contained in the AIP which are published by means of special pages;

"air defence identification zone" means special designated airspace of defined dimensions within which aircraft are required to comply with special identification or reporting procedures additional to those related to the provision of ATS;

"airborne collision avoidance system" means an aircraft system based on SSR transponder signals which operates independently of ground-based equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR transponders;

"aircraft" means any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface;

"air-ground communication" means two-way communication between aircraft and stations or locations on the surface of the earth;

"AIRMET information" means information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en route weather phenomena which may affect the safety of low-level aircraft operations and which was not already included in the forecast issued for low-level flights in the flight information region concerned or sub-area thereof;

"air-taxiing" means movement of a helicopter VTOL above the surface of an aerodrome, normally in ground effect and at a ground speed normally less than thirty-seven kilometres per hour or twenty knots;

"air taxiway" means a defined path on the surface established for the air taxiing of helicopters;

"air traffic" means all aircraft in flight or operating on the manoeuvring area of an aerodrome;

"air traffic advisory service" means a service provided within advisory airspace to ensure separation, in so far as practical, between aircraft which are operating on IFR flight plans;

"air traffic control clearance" means authorisation for an aircraft to proceed under conditions specified by an air traffic control unit;

"air traffic control service" means a service provided for the purpose of—

*(a)* preventing collisions;

*(b)* between aircraft;

(i) on the manoeuvring area between aircraft and obstructions; and

(ii) expediting and maintaining an orderly flow of air traffic;

"air traffic control unit" means a generic term meaning variously, area control centre, approach control unit or aerodrome control tower;

"air traffic flow management" means a service established with the objective of contributing to a safe, orderly and expeditious flow of air traffic by ensuring that ATC capacity is utilised to the maximum extent possible and that the traffic volume is compatible with the capacities declared by the appropriate ATS authority;

"air traffic service" means a generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service which may include area control service, approach control service or aerodrome control service;

"air traffic services airspaces" means airspaces of defined dimensions, alphabetically designated, within which specific types of flights may operate and for which ATS and rules of operation are specified;

"air traffic services reporting office" means a unit established for the purpose of receiving reports concerning ATS and flight plans submitted before departure;

"air traffic service route" means a specified route designed for channelling the flow of traffic as necessary for the provision of ATS;

"air traffic services unit" means a generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office;

"air transit route" means a defined path on the surface established for the air transitting of helicopters;

"airway" means a control area or portion thereof established in the form of a corridor;

"ALERFA" means the code word used to designate an alert phase;

"alerting service" means a service provided to notify appropriate organisations regarding aircraft in need of search and rescue aid, and assist such organisations as required;

"alert phase" means a situation wherein apprehension exists as to the safety of an aircraft and its occupants;

"alternate aerodrome" means an aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing which includes the following:

*(a)* "take-off alternate" means an alternate aerodrome at which an aircraft can land should this become necessary shortly after take-off and it is not possible to use the aerodrome of departure;

*(b)* "en route alternate" means an aerodrome at which an aircraft would be able to land after experiencing an abnormal or emergency condition while en route;

*(c)* "ETOPS en route alternate" means a suitable and appropriate alternate aerodrome at which an aeroplane would be able to land after experiencing an engine shut down or other abnormal or emergency condition while en route in an ETOPS operation; and

*(d)* "destination alternate" means an alternate aerodrome to which an aircraft may proceed should it become either impossible or inadvisable to land at the aerodrome of intended landing;

"altitude" means the vertical distance of a level, a point or an object considered as a point, measured from mean sea level;

"AMA" means the minimum altitude to be used under instrument meteorological conditions IMC, that provides a minimum obstacle clearance within a specified area, normally formed by parallels and meridians;

"application" means the manipulation and processing of data in support of user requirements;

"approach control service" means air traffic control service for arriving or departing controlled flights;

"approach control unit" means a unit established to provide air traffic control service to controlled flights arriving at, or departing from, one or more aerodromes;

"appropriate air traffic services authority" means the relevant authority designated by the State responsible for providing ATS in the airspace concerned;

"apron" means a defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance;

"apron management service" means a service provided to regulate the activities and the movement of aircraft and vehicles on an apron;

"area control centre" means a unit established to provide air traffic control service to controlled flights in control areas under its jurisdiction;

"area control service" means air traffic control service for controlled flights in control areas;

"area minimum altitude" means the lowest altitude to be used under IMC that will provide a minimum vertical clearance of three thousand metres or one thousand feet or in designated mountainous terrain six hundred metres or two thousand feet above all obstacles located in the area specified, rounded up to the nearest next higher thirty metres or one hundred feet;

"area navigation" means a method of navigation which permits aircraft operation on any desired flight path within the coverage of ground-or space-based navigation aids or

within the limits of the capability of self-contained aids, or a combination of these;

"area navigation route" means an ATS established for the use of aircraft capable of employing area navigation;

"arrival routes" means routes identified in an instrument approach procedure by which aircraft may proceed from the en route phase of flight to an initial approach fix;

"ASHTAM" means a special series NOTAM notifying by means of a specific format change in activity of a volcano, a volcanic eruption or volcanic ash cloud that is of significance to aircraft operations;

"assemble" means a process of merging data from multiple sources into a database and establishing a baseline for subsequent processing;

"ATS surveillance service" means the service provided directly by means of an ATS surveillance system;

"ATS surveillance system" means a generic term meaning variously, ADS-B, PSR, SSR or any comparable ground-based system that enables the identification of aircraft;

Note: *A comparable ground-based system is one that has been demonstrated, by comparative assessment or other methodology, to have a level of safety and performance equal to or better than mono-pulse SSR.*

"Authority" means the Trinidad and Tobago Civil Aviation Authority established under the Act;

"automatic terminal information service" means the automatic provision of current, routine information to arriving and departing aircraft throughout 24 hours or a specified portion thereof;

"data link-automatic terminal information service" means the provision of ATIS via data link;

"bare earth" means a surface of the earth including bodies of water and permanent ice and snow, and excluding vegetation and man-made objects;

"base turn" means a turn executed by the aircraft during the initial approach between the end of the outbound track and the beginning of the intermediate or final approach track where the tracks are not reciprocal;

"calendar" means a discrete temporal reference system that provides the basis for defining temporal position to a resolution of one day (ISO 19108*);

"canopy" means bare earth supplemented by vegetation height;

"change-over point" means the point at which an aircraft navigating on an ATS route segment defined by reference to VOR is expected to transfer its primary navigational reference from the facility behind the aircraft to the next facility ahead of the aircraft;

"Chicago Convention" means the Chicago Convention on International Civil Aviation concluded at Chicago on 7th December 1944 and includes any Protocol amending the Convention and any Annex to the Convention relating to international standards and recommended practices, being an Annex adopted in aerodrome with that Convention;

"clearance limit" means the point to which an aircraft is granted an air traffic control clearance;

"clearway" means a defined rectangular area on the ground or water under the control of the appropriate authority selected or prepared as a suitable area over which an aeroplane may make a portion of its initial climb to a specified height;

"conference communications" means communication facilities whereby direct speech conversation may be conducted between three or more locations simultaneously;

"contour line" means a line on a map or chart connecting points of equal elevation;

"control area" means a controlled airspace extending upwards from a specified limit above the earth;

"controlled aerodrome" means an aerodrome at which air traffic control service is provided to aerodrome traffic;

"controlled airspace" means an airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification;

"controlled flight" means any flight which is subject to an air traffic control clearance;

"controller pilot data link communications" means a means of communication between controller and pilot, using data link for ATC communications;

"control zone" means a controlled airspace extending upwards from the surface of the earth to a specified upper limit;

"cruising level" means a level maintained during a significant portion of a flight;

"culture" means all man-made features constructed on the surface of the Earth, such as cities, railways and canals;

"cyclic redundancy check" means a mathematical algorithm applied to the digital expression of data that provides a level of assurance against loss or alteration of data;

"danger area" means an airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times;

"database" means one or more files of data so structured that appropriate applications may draw from the files and update them;

"data link communications" means a form of communication intended for the exchange of messages via a data link;

"data link-VOLMET" means the provision of current aerodrome routine meteorological reports METAR and aerodrome special meteorological reports SPECI, aerodrome forecasts TAF, SIGMET, special air-reports not covered by a SIGMET and, where available, AIRMET via data link;

"data product" means data set or data set series that conforms to a data product specification;

"data product specification" means a detailed description of a data set or data set series together with additional information that will enable it to be created, supplied to and used by another party;

Note: *A data product specification provides a description of the universe of discourse and a specification for mapping the universe of discourse to a data set. It may be used for production, sales, end-use or other purpose.*

"data quality" means a degree or level of confidence that the data provided meets the requirements of the data user in terms of accuracy, resolution and integrity;

"data set" means an identifiable collection of data;

"data set series" means a collection of data sets sharing the same product specification;

"datum" means any quantity or set of quantities that may serve as a reference or basis for the calculation of other quantities;

"declared capacity" means a measure of the ability of the ATC system or any of its subsystems or operating positions to provide service to aircraft during normal activities and it is expressed as the number of aircraft entering a specified portion of airspace in a given period of time, taking due account of weather, ATC unit configuration, staff and equipment available, and any other factors that may affect the workload of the controller responsible for the airspace;

"DEM" means the representation of terrain surface by continuous elevation values at all intersections of a defined grid, referenced to common datum;

Note: *DTM is sometimes referred to as DEM.*

"feature attribute" means the characteristic of a feature;

Note: *A feature attribute has a name, a data type and a value domain association with it.*

"DETRESFA" means the code word used to designate a distress phase;

"Digital Elevation Model" means the representation of terrain surface by continuous elevation values at all intersections of a defined grid, referenced to common datum;

"direct transit arrangements" means special arrangements approved by the public authorities concerned by which traffic which is pausing briefly in its passage through the Contracting State may remain under their direct control;

"displaced threshold" means a threshold not located at the extremity of a runway;

"distress phase" means a situation wherein there is reasonable certainty that an aircraft and its occupants are threatened by grave and imminent danger or require immediate assistance;

"downstream clearance" means a clearance issued to an aircraft by an air traffic control unit that is not the current controlling authority of that aircraft;

"electronic aeronautical chart display" means an electronic device by which flight crews are enabled to execute, in a convenient and timely manner, route planning, route monitoring and navigation by displaying required information;

"elevation" means the vertical distance of a point or a level, on or affixed to the surface of the earth, measured from mean sea level;

"ellipsoid height or Geodetic height" means the height related to the reference ellipsoid, measured along the ellipsoidal outer normal through the point in question;

"emergency phase" means a generic term meaning, as the case may be, uncertainty phase, alert phase or distress phase;

"feature" means abstraction of real world phenomena;

"feature attribute" means characteristic of a feature;

"feature operation" means operation that every instance of a feature type may perform;

"feature relationship" means relationship that links instances of one feature type with instances of the same or a different feature type;

"feature type" means class of real world phenomena with common properties;

"final approach" means that part of an instrument approach procedure which commences at the specified final approach fix or point, or where such a fix or point is not specified—

*(a)* at the end of the last procedure turn, base turn or inbound turn of a racetrack procedure, if specified; or

*(b)* at the point of interception of the last track specified in the approach procedure; and ends at a point in the vicinity of an aerodrome from which—

(i) a landing can be made; or

(ii) a missed approach procedure is initiated;

"final approach and take-off area" means a defined area over which the final phase of the approach manoeuvre to hover or landing is completed and from which the take-off manoeuvre is commenced. Where the FATO is to be used by performance Class 1 helicopters, the defined area includes the rejected take-off area available;

"final approach fix or point" means that fix or point of an instrument approach procedure where the final approach segment commences;

"final approach segment" means that segment of an instrument approach procedure in which alignment and descent for landing are accomplished;

"flight crew member" means a licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period;

"flight information centre" means a unit established to provide flight information service and alerting service;

"flight information region" means an airspace of defined dimensions within which flight information service and alerting service are provided;

"flight information service" means a service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights;

"flight level" means a surface of constant atmospheric pressure which is related to a specific pressure datum, 10 13.2 hectopascals, and is separated from other such surfaces by specific pressure intervals;

"flight plan" means specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft;

"fly-by waypoint" means a waypoint which requires turn anticipation to allow tangential interception of the next segment of a route or procedure;

"flyover waypoint" means a waypoint at which a turn is initiated in order to join the next segment of a route or procedure;

"forecast" means a statement of expected meteorological conditions for a specified time or period, and for a specified area or portion of airspace;

"geodetic datum" means a minimum set of parameters required to define location and orientation of the local reference system with respect to the global reference system or frame;

"geodesic distance" means the shortest distance between any two points on a mathematically defined ellipsoidal surface;

"geographical position" means a set of latitude and longitude co-ordinates referenced to the mathematical reference ellipsoid which define the position of a point on the surface of the Earth;

"geoid" means the equipotential surface in the gravity field of the Earth which coincides with the undisturbed MSL extended continuously through the continents;

"geoid undulation" means the distance of the geoid above or below the mathematical reference ellipsoid;

"glide path" means a descent profile determined for vertical guidance during a final approach;

"gregorian calendar" means calendar in general use; first introduced in 1582 to define a year that more closely approximates the tropical year than the Julian calendar;

"height" means the vertical distance of a level, a point or an object considered as a point, measured from a specified datum;

"helicopter stand" means an aircraft stand which provides for parking a helicopter and, where air taxiing operations are contemplated, the helicopter touchdown and lift-off;

"heliport" means an aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters;

"holding procedure" means a predetermined manoeuvre which keeps an aircraft within a specified airspace while awaiting further clearance;

"hot spot" means a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots or drivers is necessary;

"human factors principles" means principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance;

"human performance" means human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations;

"hypsometric tints" means a succession of shades or colour gradations used to depict ranges of elevation;

"Instrument Flight Rules flight" means a flight conducted in accordance with the instrument flight rules;

"INCERFA" means the code word used to designate an uncertainty phase;

"incident" means an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation;

"instrument approach procedure" means a series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en route obstacle clearance criteria apply;

"initial approach segment" means that segment of an instrument approach procedure between the initial approach fix and the intermediate approach fix or, where applicable, the final approach fix or point;

"instrument meteorological conditions" means meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions;

"integrated aeronautical information package" means a package which consists of the following elements:

*(a)* AIP, including amendment service;

*(b)* supplements to the AIP;

*(c)* NOTAM and PIB;

*(d)* AIC; and

*(e)* checklists and lists of valid NOTAM;

"integrity of aeronautical data" means a degree of assurance that an aeronautical data and its value has not been lost nor altered since the data origination or authorised amendment;

"intermediate approach segment" means that segment of an instrument approach procedure between either the intermediate approach fix and the final approach fix or point, or between the end of a reversal, racetrack or dead reckoning track procedure and the final approach fix or point, as appropriate;

"intermediate holding position" means a designated position intended for traffic control at which taxiing aircraft and vehicles shall stop and hold until further cleared to proceed, when so instructed by the aerodrome control tower;

"international airport" means any airport designated by the Contracting State in whose territory it is situated as an airport of entry and departure for international air traffic, where the formalities incident to Customs, immigration, public health, animal and plant quarantine and similar procedures are carried out;

"international NOTAM office" means an office designated by a State for the exchange of NOTAM internationally;

"isogonal" means a line on a map or chart on which all points have the same magnetic variation for a specified epoch;

"isogriv" means a line on a map or chart which joins points of equal angular difference between the North of the navigation grid and Magnetic North;

"landing area" means that part of a movement area intended for the landing or take-off of aircraft;

"landing direction indicator" means a device to indicate visually the direction currently designated for landing and for take-off;

"level" means a generic term relating to the vertical position of an aircraft in flight and meaning variously, height, altitude or flight level;

"logon address" means a specified code used for data link logon to an ATS unit;

"magnetic variation" means the angular difference between True North and Magnetic North;

"manoeuvring area" means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons;

"marking" means a symbol or group of symbols displayed on the surface of the movement area in order to convey aeronautical information;

"MEA" means the altitude for an en route segment that provides adequate reception of relevant navigation facilities and ATS communications, complies with the airspace structure and provides the required obstacle clearance;

"metadata" means data about data;

"meteorological office" means an office designated to provide meteorological service for international air navigation;

"minimum sector altitude" means the lowest altitude which may be used which will provide a minimum clearance of three hundred metres or one thousand feet above all objects located in an area contained within a sector of a circle of forty-five kilometers or twenty-five nautical miles radius centred on a radio aid to navigation;

"missed approach point" means that point in an instrument approach procedure at or before which the prescribed missed approach procedure must be initiated in order to ensure that the minimum obstacle clearance is not infringed;

"missed approach procedure" means the procedure to be followed where the approach cannot be continued;

"MOCA" means the minimum altitude for a defined segment of flight that provides the required obstacle clearance;

"movement area" means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron;

"navigation specification" means a set of aircraft and flight crew requirements needed to support performance-based navigation operations within a defined airspace such as RNP specification and RNAV specification;

"neat line" means a border line commonly drawn around the extent of a map or chart and separates the data from the rest of the surround area;

"NOTAM" means a notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations;

"obstacle" means all temporary or permanent fixed and mobile objects, or parts thereof, that are located on an area intended for the surface movement of aircraft or that extend above a defined surface intended to protect aircraft in flight;

"obstacle clearance altitude or obstacle clearance height" means the lowest altitude or the lowest height above the elevation of the relevant runway threshold or the aerodrome elevation as applicable, used in establishing compliance with appropriate obstacle clearance criteria;

"obstacle free zone" means the airspace above the inner approach surface, inner transitional surfaces, and balked landing surface and that portion of the strip bounded by these surfaces, which is not penetrated by any fixed obstacle other than a low-mass and frangibly mounted one required for air navigation purposes;

"operator" means a person, organisation or enterprise engaged in or offering to engage in an aircraft operation;

"orthometric height" means height of a point related to the geoid, generally presented as a MSL elevation;

"performance-based navigation" means area navigation based on performance requirements for aircraft operating along an

ATS route on an instrument approach procedure or in a designated airspace;

"pilot in command" means the pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight;

"point light" means a luminous signal appearing without perceptible length;

"portrayal" means presentation of information to humans;

"post spacing" means angular or linear distance between two adjacent elevation points;

"procedure turn" means a manoeuvre in which a turn is made away from a designated track followed by a turn in the opposite direction to permit the aircraft to intercept and proceed along the reciprocal of the designated track;

"precision" means the smallest difference that can be reliably distinguished by a measurement process;

"precision approach procedure" means an instrument approach procedure utilising azimuth and glide path information provided by ILS or PAR;

"pre-flight information bulletin" means a presentation of current NOTAM information of operational significance, prepared prior to flight;

"printed communications" means communications which automatically provide a permanent printed record at each terminal of a circuit of all messages which pass over such circuit;

"procedure altitude or height" means a specified altitude or height flown operationally at or above the minimum altitude or height and established to accommodate a stabilised descent at a prescribed descent gradient or angle in the intermediate or final approach segment;

"prohibited area" means an airspace of defined dimensions, above the land areas or territorial waters of a State, in which the flight of aircraft is prohibited;

"quality" means the degree to which a set of inherent characteristics fulfils requirements;

Note 1: *The term "quality" can be used with adjectives such as poor, good or excellent.*

Note 2: *"Inherent", as opposed to "assigned", means existing in something, especially as a permanent characteristic.*

"quality assurance" means the part of quality management focused on providing confidence that quality requirements will be fulfilled;

"quality control" means the part of quality management focused on fulfilling quality requirements;

"quality management" means the co-ordinated activities to direct and control an organisation with regard to quality;

"radar vectoring" means provision of navigational guidance to aircraft in the form of specific headings, based on the use of radar;

"radio navigation service" means a service providing information or position data for the efficient and safe operation of aircraft supported by one or more navigation aids;

"radiotelephony" means a form of radiocommunication primarily intended for the exchange of information in the form of speech;

"RCP" means a statement of the performance requirements for operational communication in support of specific ATM functions;

"RCP type" is a label such as RCP 240 that represents the values assigned to RCP parameters for communication transaction time, continuity, availability and integrity;

"relief" means the inequalities in elevation of the surface of the Earth represented on aeronautical charts by contours, hypsometric tints, shading or spot elevations;

"reporting point" means a specified geographical location in relation to which the position of an aircraft can be reported;

"requirement" means the need or expectation that is stated, generally implied or obligatory;

Note 1: *"Generally implied" means that it is custom or common practice for the organisation, its customers and other interested parties, that the need or expectation under consideration is implied.*

Note 2: *A qualifier can be used to denote a specific type of requirement, e.g., product requirement, quality management requirement, customer requirement.*

Note 3: *A specified requirement is one which is stated, for example, in a document.*

Note 4: *Requirement can be generated by different interested parties.*

"rescue co-ordination centre" means a unit responsible for promoting efficient organisation of search and rescue services and for co-ordinating the conduct of search and rescue operations within a search and rescue region;

"resolution" means a number of units or digits to which a measured or calculated value is expressed and used;

"restricted area" means an airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions;

"reversal procedure" means a procedure designed to enable aircraft to reverse direction during the initial approach segment of an instrument approach procedure and the sequence may include procedure turns or base turns;

"RNAV specification" means a navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV such as RNAV 5 and RNAV 1;

"RNP specification" means a navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP such as RNP 4 and RNP APCH;

"route stage" means a route or portion of a route flown without an intermediate landing;

"runway" means a defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft;

"runway-holding position" means a designated position intended to protect a runway, an obstacle limitation surface, or an ILS

or MLS critical and sensitive area at which taxiing aircraft and vehicles shall stop and hold, unless otherwise authorised by the aerodrome control tower;

Note: *In radiotelephony phraseologies, the expression "holding point" is used to designate the runway-holding position.*

"runway strip" means a defined area including the runway and stopway, if provided, intended—

*(a)* to reduce the risk of damage to aircraft running off a runway; and

*(b)* to protect aircraft flying over it during take-off or landing operations;

"runway visual range" means the range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line;

"shoulder" means an area adjacent to the edge of a pavement so prepared as to provide a transition between the pavement and the adjacent surface;

"SIGMET information" means information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en route weather phenomena which may affect the safety of aircraft operations;

"SNOWTAM" means a special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format;

"special Visual Flight Rules flight" means a flight cleared by air traffic control to operate within a control zone in meteorological conditions below VMC;

"station declination" means an alignment variation between the zero degree radial of a VOR and true north, determined at the time the VOR station is calibrated;

"stopway" means a defined rectangular area on the ground at the end of take-off run available prepared as a suitable area in which an aircraft can be stopped in the case of an abandoned take-off;

"taxiing" means movement of an aircraft on the surface of an aerodrome under its own power, excluding take-off and landing;

"taxiway" means a defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another, including—

*(a)* aircraft stand taxilane which is a portion of an apron designated as a taxiway and intended to provide access to aircraft stands only;

*(b)* apron taxiway which is a portion of a taxiway system located on an apron and intended to provide a through taxi route across the apron;

*(c)* rapid exit taxiway which is a taxiway connected to a runway at an acute angle and designed to allow landing aeroplanes to turn off at higher speeds than are achieved on other exit taxiways thereby minimising runway occupancy times;

"terminal arrival altitude" means the lowest altitude that will provide a minimum clearance of three hundred metres or one thousand feet above all objects located in an arc of a circle defined by a forty-six kilometres or twenty-five nautical metres radius centred on the IAF, or where there is no IAF on the IF, delimited by straight lines joining the extremity of the arc to the IF. The combined TAAs associated with an approach procedure shall account for an area of three hundred and sixty degrees around the IF;

"terminal control area" means a control area normally established at the confluence of ATS routes in the vicinity of one or more major aerodromes;

"terrain" means the surface of the Earth containing naturally occurring features such as mountains, hills, ridges, valleys, bodies of water, permanent ice and snow, and excluding obstacles;

"threshold" means the beginning of that portion of the runway usable for landing;

"touchdown and lift-off area" means a load bearing area on which a helicopter may touch down or lift off;

"touchdown zone" means the portion of a runway, beyond the threshold, where it is intended landing aeroplanes first contact the runway;

"traceability" means the ability to trace the history, application or location of that which is under consideration;

Note: *When considering product, traceability can relate to—the origin of materials and parts; the processing history; and the distribution and location of the product after delivery.*

"track" means the projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from True North, Magnetic North or Grid North;

"traffic avoidance advice" means advice provided by an air traffic services unit specifying manoeuvres to assist a pilot to avoid a collision;

"traffic information" means information issued by an air traffic services unit to alert a pilot to other known or observed air traffic which may be in proximity to the position or intended route of flight and to help the pilot avoid a collision;

"transfer of control point" means a defined point located along the flight path of an aircraft, at which the responsibility for providing air traffic control service to the aircraft is transferred from one control unit or control position to the next;

"transferring unit" means air traffic control unit in the process of transferring the responsibility for providing air traffic control service to an aircraft to the next air traffic control unit along the route of flight;

"transition altitude" means the altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes;

"uncertainty phase" means a situation wherein uncertainty exists as to the safety of an aircraft and its occupants;

"validation" means confirmation through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled;

"vectoring" means the provision of navigational guidance to aircraft in the form of specific headings, based on the use of an ATS surveillance system;

"verification" means confirmation through the provision of objective evidence, that specified requirements have been fulfilled;

Note 1: *The term "verified" is used to designate the corresponding status.*

Note 2: *Confirmation can comprise activities such as—performing alternative calculations;*

*comparing a new design specification with a similar proven design specification;*

*undertaking tests and demonstrations; and reviewing documents prior to issue.*

"visual flight rules flight" means a flight conducted in accordance with the visual flight rules;

"visual approach procedure" means a series of predetermined manoeuvres by visual reference, from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, where a landing is not completed, a go-around procedure can be carried out;

"visual meteorological conditions" means meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima;

"voice-automatic terminal information service" means the provision of ATIS by means of continuous and repetitive voice broadcasts;

"VOLMET broadcast" means the provision, as appropriate, of current METAR, SPECI, TAF and SIGMET by means of continuous and repetitive voice broadcasts;

"waypoint" means a specified geographic location used to define an area navigation route or the flight path of an aircraft employing area navigation and is identified either as—

*(a)* fly-by waypoint; or

*(b)* flyover waypoint;

(2) For the purposes of these Regulations—

"ACAS" means Airborne Collision Avoidance System;

"ADS" means Automatic Department Surveillance;

"ADS-B" means Automatic Dependent Surveillance—Broadcast;

"ADS-C" means Automatic Dependent Surveillance—Contract;

"ADIZ" means Air Defence Identified Zone;

"AFS" means Aeronautical Fixed Service;

"AFTN" means Aeronautical Fixed Telecommunication Network;

"AGA" means Aerodrome, Air Routes and Ground Aids;

"AIC" means Aeronautical Information Circular;

"AIP" means Aeronautical Information Publication;

"AIRAC" means Aeronautical Information Regulation and Control;

"AIRMET" means . . . .

"AIS" means Aeronautical Information Services;

"AME" means Area Minimum Altitude;

"ATFM" means Air Traffic Flow Management;

"ATIS" means Automatic Terminal Information Service;

"ATM" means Air Traffic Management;

"ATS" means Air Traffic Services;

"COM" means Communications;

"CPDLC" means Controller-Pilot Data Link Communications;

"CRC" means Cyclic Redundancy Check;

"D-ATIS" means Data Link-Automatic Terminal Information Service;

"DEM" means Digital Elevation Model;

"DME/P" means Precision Distance Measuring Equipment;

"DTM" means Digital Terrain Model;

"D-VOLMET" means Data Link-VOLMET;

"EGM" means Earth Gravitational Model;

"EGNOS" means European Geostationary Navigation Overlay Service;

"ELT" means Emergency Location Transmitter;

"FATO" means Final Approach and Take-Off Area;

"FIR" means Flight Information Region;

"FL" means Flight Level;

"GBAS" means Ground Based Augmentation System;

"GLONASS" means Global Orbiting Navigation Satellite System;

"GNSS" means Global Navigation Satellite System;

"GPS" means Global Positioning System;

"H24" means Continuous day and night service;

"ICAO" means International Civil Aviation Organisation;

"IFR" means Instrument Flight Rules;

"ILS" means Instrument Landing System;

"IMC" means Instrument Meteorological Conditions;

"INS" means Inertial Navigation System;

"ISO" means International Organisation for Standardisation;

"MEA" means Minimum En Route Altitude;

"MET" means Meteorology;

"METAR" means Aerodrome Routine Meteorological Reports;

"MLS" means Microwave Landing System;

"MOCA" means Minimum Obstacle Clearance Altitude;

"MSAS" means Multi-functional Transport Satellite-based Augmentation System;

"MSL" means Mean Sea Level;

"NM" means Nautical Miles;

"NOTAM" means Notices to Airmen;

"NDB" means Non-Directional Radio Beacon;

"OIS" means Obstacle Identified Surface;

"PAN-OPS" means Procedures for Air Navigation Services Operations;

"PAR" means Precision Approach Radar;

"PIB" means Pre-flight Information Bulletin;

"PCN" means Pavement Classification Number;

"PSR" means Primary Surveillance Radar;

"RCP" means Required Communication Performance;

"RNAV" means Area Navigation;

"RNP" means Required Navigation Performance;

"RVR" means Runway Visual Range;

"SAR" means Search and Rescue;

"SARPS means Standards and Recommended Practices;

"SBAS" means Satellite-Based Augmentation System;

"SIGMET" means information concerning en route weather phenomena which may affect the safety of aircraft operations;

"SNOWTAM" means Special Series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format;

"SPECT" means Aerodrome Special Meteorological Reports;

"SRE" means Surveillance Radar Element of Precision Approach Radar System;

"SSR" means Secondary Surveillance Radar;

"SUPPS" means Regional Supplementary Procedures;

"TAF" means Aerodrome Meteorological Forecasts;

"TLOF" means Touchdown and Lift Off Area;

"TMA" means Terminal Control Area;

"UIR" means Upper Flight Information Region;

"UTC" means Coordinated Universal Time;

"VFR" means Visual Flight Rules;

"VHF" means Very High Frequency;

"Voice-ATIS" means Voice-automatic Terminal Information Service;

"VOLMET" means Meteorological Information for Aircraft In Flight;

"VOR" means VHF Omni Range;

"WAC" means World Aeronautical Chart–ICAO;

"WAAS" means Wide Area Augmentation System;

"WDI" means Wind Direction Indicator;

"WGS" means World Geodetic System.

## PART II

## AIR TRAFFIC SERVICES

### APPLICABILITY

Applicability.

**3.** This Part is applicable to the requirements for air traffic services including organisation, flight information services and alerting services with respect to ATS operations in Trinidad and Tobago.

### ESTABLISHMENT OF ATS

Establishment of ATS. Part A. Schedule 1.

**4.** (1) The Director-General shall determine, in accordance with standards prescribed in Part A of Schedule 1 and for the territories over which the Authority has jurisdiction, those positions of the airspace and those aerodromes where air traffic service will be provided.

Schedule 1.

(2) The Director-General shall make the necessary arrangements for ATS to be established and provided in accordance with Schedule 1, except by mutual agreement, the Authority may delegate to another State the responsibility for establishing and providing ATS in flight information regions, control areas or control zones extending over the territories for which the Authority has control.

(3) Those portions of airspace over the high seas or in airspace of undetermined sovereignty where ATS will be provided, shall be determined on the basis of regional navigation agreements.

(4) Where ATS are established, information shall be published as necessary to permit the utilisation of the ATS.

**ORGANISATION, CONTROL RESPONSIBILITY AND SERVICE**

Organisation, control responsibility and service.

**5.** The Director-General shall—

*(a)* implement a safety management programme to achieve an acceptable level of safety in the provision of ATS;

*(b)* establish an acceptable level of safety to be achieved in the provision of ATS; and

*(c)* ensure that the organisation and designation of airspace and ATS safety management programmes in Trinidad and Tobago are in accordance with the applicable standards by mutual agreement of the associated signatory States to regional air navigation agreement prescribed in Part A of Schedule 1.

Part A. Schedule 1.

**CONTINGENCY PLANS FOR DISTRIBUTION OR POTENTIAL DISTRIBUTION FOR ATS ROUTES**

Contingency plans for distribution or potential distribution for ATS routes.

**6.** (1) The Director-General shall develop and disseminate contingency plans for implementation in the event of disruption or potential disruption of ATS and related supporting services in the airspace for which the Authority is responsible.

(2) The contingency plans under subregulation (1) shall be developed in close coordination with operators affected or likely to be affected, with the assistance of ICAO as necessary.

**PROVISION OF ATS**

Provision of ATS.

**7.** The Director-General shall provide air traffic control services to all—

*(a)* IFR flights in airspace Classes A, B, C, D and E as applicable;

*(b)* VFR flights in airspace Classes B, C and D as applicable;

*(c)* special VFR flights; and

*(d)* Aerodrome traffic at controlled aerodromes.

**RESTRICTION ON THE PROVISION OF ATS**

Restriction on the provision of ATS.

**8.** (1) A person shall not issue an air traffic control clearance or an air traffic control instruction, in the case of international

airspace in respect of which Trinidad and Tobago has accepted, by means of a regional air navigation agreement, the responsibility of providing air navigation services, except in accordance with the standards prescribed in Part B of Schedule 1.

Part B. Schedule 1.

(2) Air traffic control services, control responsibilities and control clearances shall be in accordance with the standards prescribed in Part B of Schedule 1.

**PROHIBITION ON THE PERFORMANCE OF DUTY ON AIR TRAFFIC CONTROLLERS**

Prohibition on the performance of duty on air traffic controllers.

**9.** A person shall not perform any duty as an air traffic controller—

*(a)* within eight hours after consumption of alcohol;

*(b)* while under the influence of alcohol; or

*(c)* while under the influence of any drug or other substances that would impair his ability to perform his duties and thereby jeopardise aviation safety.

**PERFORMANCE-BASED NAVIGATION (PBN) OPERATIONS**

PBN for en route operations. [204/2009].

**10.** (1) The Director-General shall prescribe navigation specification for performance-based navigation (PBN) operations which may be limited by navigational infrastructure constraints or specific navigation functionality requirements.

(2) Where applicable, navigation specification for designated areas, tracks or ATS Routes shall be prescribed on the basis of regional air navigation agreements.

(3) The navigation specification prescribed under subregulation (1), shall be appropriate to the level of communications, navigation and ATS provided in the airspace concerned.

**CONTROL OF PERSONS AND VEHICULAR TRAFFIC AT AERODROMES**

Control of persons and vehicular traffic at aerodromes.

**11.** The Director-General shall ensure that the movement of persons and vehicular traffic at aerodromes is controlled in accordance with the standards prescribed in Part B of Schedule 1.

**PROVISION OF FLIGHT INFORMATION SERVICE**

Provision of flight information service.

**12.** (1) Flight information service shall be provided to all aircraft which are likely to be affected by the flight information and which are—

*(a)* provided with air traffic control service; or

*(b)* otherwise known to the relevant ATS units.

(2) Where ATS units provide both flight information and air traffic control service, the provision of air traffic control service shall have precedence over the provision of flight information service where the provision of air traffic control service so requires.

**FLIGHT INFORMATION SERVICE TO AIRCRAFT**

Flight information service to aircraft. Part C. Schedule 1.

**13.** The Director-General shall ensure that the following flight information services are provided in accordance with the applicable standards prescribed in Part C of Schedule 1:

*(a)* voice-automatic terminal information service (voice-ATIS broadcast);

*(b)* data link automatic terminal information service (D-ATIS);

*(c)* automatic terminal information service (voice and/or data link);

*(d)* ATIS for arriving and departing aircraft; and

*(e)* ATIS for arriving aircraft.

**ALERTING SERVICE**

Alerting service.

**14.** The Director-General shall ensure that—

*(a)* alerting service is provided—

(i) for all aircraft provided with an air traffic service;

(ii) where practicable, to all other aircraft having filed a flight plan or otherwise known to the air traffic services; and

(iii) to any aircraft known or believed to be the subject to an act of unlawful interference;

*(b)* the following alerting services are provided in

accordance with the standards prescribed in Part D of Schedule 1:

Part D. Schedule 1.

(i) the notification of rescue coordinating centres;

(ii) the plotting of an aircraft in a state of emergency;

(iii) the use of communication facilities;

(iv) information to an operator; and

(v) information to aircraft operating in the vicinity of an aircraft in a state of emergency.

**COMMUNICATIONS REQUIREMENTS FOR AIR TRAFFIC SERVICE**

**15.** (1) The Director-General shall ensure communications for the following are provided in accordance with the standards prescribed in Part E of Schedule 1:

Communication requirement for Air Traffic Service. Part E. Schedule 1.

*(a)* aeronautical mobile service (air-ground communications);

*(b)* aeronautical fixed service (ground-ground communications);

*(c)* surface movement control service; and

*(d)* aeronautical radio navigation service.

(2) Where air-ground voice communication channels are used for area control service and are worked by air-ground communicators, suitable arrangements shall be made by the Director-General to permit direct pilot-controller voice communications, when required.

(3) Where conditions warrant the provision of aerodrome control service, the Authority shall ensure that separate communication channels are provided for the control of traffic operating on the manoeuvring area.

**INFORMATION REQUIREMENT FOR AIR TRAFFIC SERVICE**

**16.** The Director-General shall ensure that air traffic service requirements for information are in accordance with the standards prescribed in Part F of Schedule 1.

Information requirement for Air Traffic Service. Part F. Schedule 1.

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## PART III

## AERONAUTICAL INFORMATION SERVICES

### DEFINITIONS OF AERONAUTICAL INFORMATION SERVICE

Definitions of Aeronautical Information Service. Schedule 2.

**17.** (1) In this Part "aeronautical information services" means the services necessary to meet the standards prescribed in Schedule 2.

### PROVISION OF AERONAUTICAL INFORMATION SERVICES

Provision of Aeronautical Information Service.

**18.** (1) The Director-General shall be responsible for providing aeronautical information service.

(2) The Director-General shall take all necessary steps to ensure that—

*(a)* the provision, supply, quality assurance, application and usage of aeronautical information services are in accordance with mutual agreement with signatory States to the air navigation regional agreement and in accordance with the standards prescribed in Part A of Schedule 2;

Part A. Schedule 2.

*(b)* the aeronautical information and aeronautical data it provides relating to Trinidad and Tobago as well as areas in which the Authority is responsible for providing services outside the territory of Trinidad and Tobago, is adequate, of the required quality and timely;

*(c)* the necessary arrangements are made for the timely receipt of the required information and aeronautical data to the aeronautical information services from other services associated with aircraft operation;

*(d)* arrangements are made to obtain aeronautical information and aeronautical data from the aeronautical information services of other States or from other sources that may be available to the Authority to provide pre-flight information service and to meet the need for in-flight information;

*(e)* aeronautical information published for and on behalf of a Contracting State by the Authority clearly indicates that it is published under the authority of that Contracting State; and

*(f)* aeronautical information and aeronautical data obtained from other sources that may be available are verified before distribution and if not verified shall when distributed be clearly identified as not being verified.

(3) A person shall not provide aeronautical information services except in accordance with the standards prescribed in Schedule 2 and Schedule 3. Schedule 2, 3.

**ESTABLISHMENT OF A QUALITY MANAGEMENT SYSTEM**

**19.** (1) The Director-General shall take all the necessary measures to introduce a properly organised quality management system containing procedures, processes and resources necessary to implement quality management at each function stage as specified in Part A, clause 2(3) of Schedule 2. Establishment of a Quality Management System.

(2) The execution of quality management under subregulation (1), shall be made demonstrable for each function stage, where required.

(3) In a quality management system, the skills and knowledge required for each function shall be identified and the personnel assigned to perform those functions shall be appropriately trained.

(4) The Director-General shall ensure that—

*(a)* personnel possess the skills and competencies required to perform specific assigned functions;

*(b)* appropriate records are maintained so that the qualification of personnel can be confirmed;

*(c)* initial and periodic assessments shall be established that require personnel to demonstrate the required skills and competencies;

*(d)* periodic assessments of personnel shall be used as a means to dictate and correct short falls; and

*(e)* procedures are established in order that aeronautical data at any moment is traceable to its

origin so as to allow any data anomalies or errors, detected during the production and maintenance phases or in operational use, to be corrected.

**FORM, CONTENTS, SPECIFICATION AND DISTRIBUTION OF AIP**

Form, contents, specification and distribution of AIP.

**20.** The Director-General shall ensure that the form, contents, specifications and distribution of aeronautical information publications for the publication and exchange of aeronautical information essential to air navigation, are in accordance with the standards prescribed in Part B of Schedule 2.

Part B. Schedule 2.

**ORIGINATION, GENERAL SPECIFICATION AND DISTRIBUTION OF NOTAM**

Origination, general specification and distribution of NOTAM. Part C. Schedule 2.

**21.** The Director-General shall ensure that the origination, general specifications and distribution of NOTAM are in accordance with the standards specified in Part C of Schedule 2.

**GENERAL SPECIFICATIONS, FORM OF PUBLICATION, DISTRIBUTION AND CONTROL OF AIRAC**

General Specifications, form of publication, distribution and control of AIRAC. Part D. Schedule 2.

**22.** The Director-General shall ensure that the general specifications, form of publication, distribution and control of aeronautical information regulation and control are in accordance with the standards prescribed in Part D of Schedule 2.

**GENERAL SPECIFICATIONS, ORIGINATION AND DISTRIBUTION OF AIC**

General specifications, origination and distribution of AIC.

**23.** The Director-General shall—

*(a)* ensure that the general specifications, origination and distribution of aeronautical information circulars are in accordance with the standards prescribed in Part E of Schedule 2; and

Part E. Schedule 2.

*(b)* select the AIC that is to be given international distribution, and give it the same distribution as for AIP.

**PRE-FLIGHT AND POST-FLIGHT INFORMATION AND DATA**

Pre-flight and post-flight information and data.

**24.** The Director-General shall—

*(a)* ensure that pre-flight and post-flight information and the application of automated aeronautical information systems are in accordance with the standards prescribed in Part F of Schedule 2; and

Part F. Schedule 2.

*(b)* make available to flight operations personnel, including flight areas and services responsible for pre-flight information, aeronautical information essential for safety, regularity and efficiency of air navigation and relative to the route stages originating at an aerodrome or heliport normality used for international air operations; and

*(c)* ensure that arrangements are made to receive at aerodromes and heliports information concerning—

(i) the state and operation of air navigation facilities noted by flight crew; and

(ii) the presence of birds observed by flight crew,

and shall ensure that such information is made available to the aeronautical service for distribution as the circumstances necessitate.

**TELECOMMUNICATION REQUIREMENTS**

Telecommunication requirements.

**25.** The Director-General shall ensure that the telecommunication requirements applicable to aeronautical information services are in accordance with the standards prescribed in Part G of Schedule 2.

Part G. Schedule 2.

**ELECTRONIC TERRAIN AND OBSTACLE DATA**

Electronic terrain and obstacle data.

**26.** The Director-General shall ensure that the electronic terrain and obstacle data related to the area of responsibility for Trinidad and Tobago by mutual agreement with signatory States

to the regional air navigation agreement are in accordance with the standards prescribed in Part H of Schedule 2.

Part H. Schedule 2.

## PART IV

## AERONAUTICAL CHARTS

### AVAILABILITY AND GENERAL SPECIFICATIONS OF AERONAUTICAL CHARTS

Availability and general specifications of aeronautical charts.

**27.** (1) The Director-General shall ensure that the general specification, applicability and availability of aeronautical charts for use in air navigation in the area of responsibility for Trinidad and Tobago are in accordance with the standards prescribed in Part A of Schedule 3.

Part A. Schedule 3.

(2) The Director-General shall, where so specified, ensure the availability of charts for a particular chart or single sheet of a chart series—

*(a)* entirely contained within Trinidad and Tobago or areas for which the Authority is responsible under the regional arrangement by—

(i) producing the chart or sheet itself;

(ii) arranging for production by another Contracting State or by an agency; or

(iii) providing another Contracting State that is prepared to accept an obligation to produce the chart or sheet with the data necessary for its production; and

*(b)* which includes the territory of two or more Contracting States of which the Director-General has jurisdiction and under regional air navigation agreements, the Director-General shall determine the manner in which the chart or sheet will be made available.

(3) The Director-General shall take all reasonable measures to ensure that the information it provides and the aeronautical charts made available are adequate and accurate and that the information and aeronautical charts are maintained up to date by an adequate revision service.

(4) The aeronautical charts under this Part shall be the types recommended by ICAO.

**DIRECTOR-GENERAL'S RESPONSIBILITY TO PROVIDE INFORMATION TO OTHER CONTRACTING STATES**

Director-General's responsibility to provide information to other Contracting States.

**28.** The Director-General shall on request by another Contracting State, provide all information relating to Trinidad and Tobago that is necessary to enable the standards of Schedule 3 to be met.

**QUALITY SYSTEM FOR AERONAUTICAL DATA**

Quality system for aeronautical data. [100/2009].

**29.** The Director-General shall—

*(a)* take all necessary measurements to introduce a properly organised quality system that contains procedures, processes and resources necessary to implement quality management at each function stage as outlined in Part A of Schedule 2, for the receipt, origination, collation, assembly, editing, formatting, publication, storage and distribution of aeronautical data for Trinidad and Tobago and other areas of responsibility for air traffic services outside Trinidad and Tobago;

*(b)* ensure that the established procedures exist in order that aeronautical data at any moment is traceable to its origin so as to allow any data anomalies or errors, detailed through the production and maintenance phases or in the operational use, to be corrected;

*(c)* ensure that the order of chart resolution of aeronautical data shall be as specified for a particular chart as presented in a tabular form in Appendix 3 to Part A of Schedule 3; and

*(d)* ensure that integrity of aeronautical data is maintained through the data process from survey or origin to the next intended user.

**THE DIRECTOR-GENERAL TO MAKE AVAILABLE AERODROME OBSTACLE CHART— ICAO TYPE A**

The Director-General to make available Aerodrome Obstacle Chart—ICAO Type A. [100/2009].

**30.** (1) The Director-General shall ensure that Aerodrome Obstacle Charts—ICAO Type A (Operating Limitations) are made available in the manner prescribed in regulation 27 for all aerodromes regularly used for international aviation except for those aerodromes where there are no obstacles in the take-off flight path areas or where the Aerodrome Terrain and Obstacle Chart—ICAO (Electronic) is provided in accordance with regulation 37B.

(2) Notwithstanding subregulation (1), an aerodrome obstacle chart, shall not be required where no obstacles exist in the take-off flight path area and a notification to that effect shall be published in the AIP.

Part B. Schedule 3.

(3) An aeronautical obstacle chart under subregulation (1), shall meet the standards prescribed in Part B of Schedule 3.

**THE DIRECTOR-GENERAL TO MAKE AVAILABLE EN ROUTE CHART—ICAO**

The Director-General to make available En Route Chart—ICAO.

**31.** (1) The Director-General shall ensure that En Route Charts—ICAO—

*(a)* are made available in the manner prescribed in regulation 27 for the Piarco Flight Information Region to provide flight crew with information to facilitate navigation along ATS routes; and

Part C. Schedule 3.

*(b)* meet the requirements of the standards prescribed in Part C of Schedule 3.

(2) The Director-General shall provide separate En Route Charts—ICAO where different ATS routes, position reporting requirement or lateral limit of flight information regions or controlled areas exist in different layers and cannot be shown with sufficient clarity on one chart.

**THE DIRECTOR-GENERAL TO MAKE AVAILABLE AREA CHART—ICAO**

The Director-General to make available Area Chart—ICAO.

**32.** The Director-General shall ensure—

*(a)* where air traffic services routes or position reporting requirements are complex and cannot

be adequately shown on an En Route Chart—ICAO an Area Chart—ICAO is made available in the manner prescribed in regulation 27;

*(b)* that Area Charts—ICAO required to provide flight crew with the required information to facilitate the following phases of instrument flight:

(i) the transition between the en route phase and approach to an aerodrome;

(ii) the transition between take-off and missed approach and en route phase of flight; and

(iii) flight through areas of complex ATS routes or airspace structure,

meet the requirements prescribed in Part D of Schedule 3; and

Part D. Schedule 3.

*(c)* where ATS routes or position reporting requirements are different for arrivals and departures and cannot be shown with sufficient clarity on one chart, separate charts are provided.

**THE DIRECTOR-GENERAL TO MAKE AVAILABLE STANDARDS DEPARTURE CHART—INSTRUMENT (SID)—ICAO**

The Director-General to make available Standards Departure Chart—Instrument (SID)—ICAO.

**33.** (1) The Director-General shall ensure that the standard departure charts Instrument (SID)—ICAO—

*(a)* required to provide flight crew with information to enable compliance with the designated standard departure route instrument from take-off phase to the en route phase, meet the standards prescribed in Part E of Schedule 3; and

Part E. Schedule 3.

*(b)* are made available where a standard departure route-instrument is established and cannot be shown with sufficient clarity on the Area Chart—ICAO.

**THE DIRECTOR-GENERAL TO MAKE AVAILABLE STANDARD ARRIVAL CHART— INSTRUMENT (STAR)—ICAO**

The Director-General to make available Standard Arrival Chart—Instrument (STAR)—ICAO.

**34.** The Director-General shall ensure that the Standard Arrival Chart Instrument (STAR)—ICAO—

*(a)* required to provide flight crew with information to

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enable compliance with the designated standard arrival route instrument from the en route phase to the approach phase, meet the standards prescribed in Part F of Schedule 3; and

*(b)* are made available where a standard arrival route-instrument has been established and cannot be shown with sufficient clarity on the area chart.

**THE DIRECTOR-GENERAL TO MAKE AVAILABLE INSTRUMENT APPROACH CHART—ICAO**

The Director-General to make available Instrument Approach Chart — ICAO.

**35.** (1) The Director-General shall ensure that Instrument Approach Charts—ICAO—

*(a)* required to provide flight crew with information to enable them to perform an approved instrument procedure to the runway of intended landing including the missed approach procedure and where applicable, associated holding patterns, meet the standards prescribed in Part G of Schedule 3; and

*(b)* are made available for all aerodromes used for international civil aviation where instrument approach procedures have been established by the Authority.

(2) The Director-General shall—

*(a)* provide a separate Instrument Approach Chart—ICAO for each precision and non-precision approach procedure established by the Authority;

*(b)* provide more than one Instrument Approach Chart—ICAO where the values for track, time or altitude differ between categories of aircraft on other than final approach segment of the instrument approach procedures and the listing of those differences on a single chart could cause clutter or confusion; and

*(c)* ensure that Instrument Approach Chart—ICAO are revised where information essential to safe operation becomes out of date.

**THE DIRECTOR-GENERAL TO MAKE AVAILABLE VISUAL APPROACH CHART—ICAO**

The Director-General to make available Visual Approach Chart — ICAO.

**36.** The Director-General shall ensure that Visual Approach Charts—ICAO—

*(a)* required to provide flight crew with information to enable them to transit from the en route and descent to approach phases of flight to the runway of intended landing by means of visual reference, meet the standards prescribed in Part H of Schedule 3; and

Part H. Schedule 3.

*(b)* are made available in the manner prescribed in regulation 27 for all aerodromes used for international civil aviation where—

(i) only limited navigation facilities are available;

(ii) no adequate aeronautical charts at the aerodrome and its surroundings at 1:500 000 or greater scale are available; or

(iii) visual approach in procedures have been established.

**THE DIRECTOR-GENERAL TO MAKE AVAILABLE AERODROME OR HELICOPTER CHART**

The Director-General to make available Aerodrome or Helicopter Chart — ICAO.

**37.** The Director-General shall ensure that Aerodrome or Heliport Chart—ICAO required to provide flight crew with essential operational information—

*(a)* to facilitate ground movement of aircraft—

(i) from the aircraft stand to the runway; and

(ii) from the runway to the aircraft stand,

meet the standards prescribed in Part I of Schedule 3; and

Part I. Schedule 3.

*(b)* to facilitate helicopter movement—

(i) from the helicopter stand to the touchdown and lift-off area and to the final approach and take-off area;

(ii) from the final approach and take-off area to the touchdown and lift-off area and to the helicopter stand; and

(iii) along air transit routes,

Part I. Schedule 3.

meet the standards prescribed in Part I of Schedule 3;

*(c)* are made available in the manner prescribed in regulation 27 for all aerodromes or heliports regularly used for international civil aviation.

**THE DIRECTOR-GENERAL TO MAKE AVAILABLE AERONAUTICAL CHART—ICAO 1:500 000**

The Director-General to make available Aeronautical Chart—ICAO 1:500 000. [100/2009].

**37A.** The Director-General shall ensure that Aeronautical Chart—ICAO 1:500 000—

*(a)* is made available in the manner prescribed in regulation 27 for Trinidad and Tobago; and

*(b)* provides the necessary information to satisfy the requirements of visual air navigation for low speed, short or medium-range operations at low and intermediate altitudes and meet the standards prescribed in Part J of Schedule 3.

Part J. Schedule 3.

**THE DIRECTOR-GENERAL TO MAKE AVAILABLE AERODROME TERRAIN AND OBSTACLE CHART—ICAO (ELECTRONIC)**

The Director-General to make available Aerodrome Terrain and Obstacle Chart—ICAO (Electronic). [100/2009].

**37B.** The Director-General shall ensure that Aerodrome Terrain and Obstacle Chart—ICAO (Electronic)—

*(a)* is made available in the manner prescribed in regulation 27 for all aerodromes regularly used by international civil aviation from 18th November 2010; and

*(b)* portrays the terrain and obstacle data in combination with aeronautical data and meet the standards prescribed in Part K of Schedule 3.

Part K. Schedule 3.

**PART V**

## STANDARDS FOR AERONAUTICAL TELECOMMUNICATION

Standards for Aeronautical Telecommunication.

**38.** The standards required to be met for aeronautical telecommunication in respect of—

*(a)* radio navigation aids;

*(b)* communication procedures including those with PANS stations;

*(c)* digital data communication systems;

*(d)* voice communications systems;

*(e)* surveillance radar and collision avoidance system; and

*(f)* aeronautical radio frequency spectrum,

which are in use or are intended for use by the Authority which are those set out in Annex 10 of the Chicago Convention.

**PART VI**

## STANDARDS FOR METEOROLOGICAL SERVICE

Standards for meteorological service.

**39.** The standards required to be met for meteorological service for international air navigation are those set out in Annex 3 of the Chicago Convention.

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## SCHEDULE 1

**PART A**

Regulation 4. [100/2009 204/2009].

## GENERAL

The following are the standards required to be met by the Authority in respect of the organisation, designation of airspace and air traffic service safety management programmes:

**OBJECTIVES OF THE AIR TRAFFIC SERVICES**

1. The objectives of the ATS shall be to—

*(a)* prevent collisions between aircraft;

*(b)* prevent collisions between aircraft on the manoeuvring area and obstructions on that area;

*(c)* expedite and maintain an orderly flow of air traffic;

*(d)* provide advice and information useful for the safe and efficient conduct of flights; and

*(e)* notify appropriate organisations regarding aircraft in need of search and rescue aid, and assist such organisations as required.

**DIVISIONS OF THE AIR TRAFFIC SERVICES**

2. Air traffic services shall comprise three services identified as follows:

*(a)* an air traffic control service: to accomplish the objectives required at paragraphs 1*(a)*, *(b)* and *(c)* divided in three parts as follows:

(i) Area control service: the provision of air traffic control service for controlled flights, except for those parts of such flights described in subparagraphs (ii) and (iii), in order to accomplish the objectives in paragraph 1*(a)* and *(c)*;

(ii) Approach control service: the provision of air traffic control service for those parts of controlled flights associated with arrival or departure, in order to accomplish the objectives in paragraphs 1*(a)* and *(c)*;

(iii) Aerodrome control service: the provision of air traffic control service for aerodrome traffic, except for those parts of flights described in paragraph 2, in order to accomplish the objectives in paragraphs 1*(a)*, *(b)*, and *(c)*;

*(b)* a flight information service: to accomplish the objective in paragraph 1*(d)*;

*(c)* an alerting service: to accomplish objective in paragraph 1*(e)*.

**DETERMINATION OF THE NEED FOR AIR TRAFFIC SERVICES**

3. (1) The need for the provision of ATS shall be determined by considering the following requirements:

*(a)* the types of air traffic involved;

*(b)* the density of air traffic;

*(c)* the meteorological conditions; and

*(d)* such other factors as may be relevant.

(2) The carriage of ACAS by aircraft in a given area shall not be a factor in determining the need for ATS in that area.

**DESIGNATION OF THE PORTIONS OF THE AIRSPACE AND CONTROLLED AERODROMES WHERE AIR TRAFFIC SERVICES WILL BE PROVIDED**

4. (1) Where it has been determined that ATS will be provided in a particular portion of an airspace or at a particular aerodrome, then that portion of the airspace or that aerodrome shall be designated in relation to the ATS that are to be provided.

(2) The designation of a particular portion of an airspace or a particular aerodrome shall be as follows:

*(a)* flight information regions: those portions of the airspace

where it is determined that flight information service and alerting service will be provided shall be designated as flight information regions;

*(b)* control areas and control zones:

(i) that portions of an airspace where it is determined that air traffic control service will be provided to IFR flights shall be designated as control areas or control zones;

(ii) that portions of controlled airspace where it is determined that air traffic control service will also be provided to VFR flights shall be designated as Classes B, C, or D airspace;

(iii) where designated within a flight information region, control areas and control zones shall form part of that flight information region.

Note: *The distinction between control areas and control zones is made in clause 8.*

*(c)* controlled aerodromes: those aerodromes where it is determined that air traffic control services will be provided to aerodrome traffic shall be designated as controlled aerodromes.

**CLASSIFICATION OF AIRSPACES**

5. (1) ATS airspaces shall be classified and designated as appropriate to the needs of Trinidad and Tobago and the airspace for which the Authority is responsible in accordance with the following as applicable:

*(a)* Class A: only IFR flights are permitted, and all flights are provided with air traffic control service and are separated from each other;

*(b)* Class B: IFR and VFR flights are permitted, and all flights are provided with air traffic control service and are separated from each other;

*(c)* Class C: (i) IFR and VFR flights are permitted, and all flights are provided with air traffic control service;

(ii) IFR flights are separated from other IFR flights and from VFR flights;

(iii) VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights;

*(d)* Class D: (i) IFR and VFR flights are permitted and all flights are provided with air traffic control service;

(ii) IFR flights are separated from other IFR flights and receive traffic information in respect of VFR flights;

(iii) VFR flights receive traffic information in respect of all other flights;

*(e)* Class E: (i) Class E shall not be used for control zones;

(ii) IFR and VFR flights are permitted and IFR flights are provided with air traffic control service and are separated from other IFR flights;

(iii) all flights receive traffic information as far as is practical;

*(f)* Class F: (i) IFR and VFR flights are permitted and all participating IFR flights receive an air traffic advisory service;

(ii) all flights receive flight information service if requested;

*(g)* Class G: IFR and VFR flights are permitted and receive flight information service if requested;

*(h)* the requirements for flights within each class of airspace shall be as shown in the Table in Appendix 4.

Note: *When the ATS airspaces adjoin vertically, one above the other, flights at a common level would comply with requirements of, and be given services applicable to, the less restrictive class of airspace. In applying these criteria, Class B airspace is therefore considered less restrictive than Class A airspace and Class C airspace less restrictive than Class B airspace and so on.*

**REQUIRED COMMUNICATION PERFORMANCE**

5A. (1) Required communication performance shall be prescribed by the Authority on the basis of regional air navigation agreements.

(2) The required communication performance type prescribed by the Authority shall be appropriate to the ATS provided in the airspace concerned.

Note*:* *Applicable RCP types and associated procedures are published in the Manual of Required Communication Performance.*

**ESTABLISHMENT AND DESIGNATION OF THE UNITS PROVIDING AIR TRAFFIC SERVICES**

6. Units shall be established and designated to provide air traffic services as follows:

*(a)* flight information centres to provide flight information service and alerting service within flight information regions, unless the responsibility of providing such services within a flight information region is assigned to an air traffic control unit having adequate facilities for the discharge of such responsibility; and

*(b)* air traffic control units to provide air traffic control service, flight information service and alerting service within control areas, control zones and at controlled aerodromes.

**SPECIFICATIONS FOR FLIGHT INFORMATION REGIONS, CONTROL AREAS AND CONTROL ZONES**

7. (1) Specification for flight information regions shall be as follows:

*(a)* flight information regions shall be delineated to cover the whole of the air route structure to be served by such regions;

*(b)* a flight information region shall include all airspace within its lateral limits, except as limited by an upper flight information region;

*(c)* where a flight information region is limited by an upper flight information region, the lower limit specified for the upper flight information region shall constitute the upper vertical limit of the flight information region and coincide with a VFR cruising level provided in the Tables in Schedule 7 of Civil Aviation [(No. 2) Operations] Regulation. Sub. Leg.

(2) Specification for control areas shall be as follows:

*(a)* control areas including airways and terminal control areas shall be delineated so as to encompass sufficient airspace to contain the flight paths of IFR flights or portions thereof to which it is desired to provide the applicable parts of the air traffic control service, taking into account the capabilities of the navigation aids normally used in that area;

*(b)* a lower limit of a control area shall be established at a height above the ground or water of not less than 200 metres or 700 feet;

*(c)* an upper limit of a control area shall be established where either—

(i) air traffic control service will not be provided above such upper limit; or

(ii) the control area is situated below an upper control area, in which case the upper limit shall coincide with the lower limit of the upper control area;

*(d)* the upper limit at subparagraph *(c)*(ii), shall coincide with a VFR cruising level provided in the Tables in Schedule 7 of Civil Aviation [(No. 2) Operations] Regulations; Sub. Leg.

(3) Specification for control zones shall be as follows:

*(a)* lateral limits of control zones shall encompass at least those portions of the airspace which are not within control areas containing the paths of IFR flights arriving at and departing from aerodromes to be used under IMC;

*(b)* lateral limits of a control zone shall extend to at least 9.3 kilometres or 5 nautical miles from the centre of the aerodrome concerned in the directions from which approaches may be made;

*(c)* where a control zone is located within the lateral limits of a control area, the control shall extend upwards from the surface of the earth to at least the lower limit of the control zone area.

**ESTABLISHMENT AND IDENTIFICATION OF AIR TRAFFIC SERVICES ROUTES**

8. (1) Where ATS routes are established, a protected airspace along each air traffic services route and a safe spacing between adjacent air traffic services routes shall be provided.

(2) ATS routes shall be identified by designators.

(3) Designators for ATS routes other than standard departure and arrival routes shall be selected in accordance with the principles prescribed in Appendix 1.

(4) Standard departure and arrival routes and associated procedures shall be identified in accordance with the principles prescribed in Appendix 3.

**ESTABLISHMENT AND IDENTIFICATION OF SIGNIFICANT POINTS**

9. (1) Significant points shall be established for the purpose of defining an ATS route and in relation to the requirements of ATS for information regarding the progress of aircraft in flight.

(2) Significant points shall be identified by designators.

(3) Significant points shall be established and identified in accordance with the principles prescribed in Appendix 2.

**CO-ORDINATION BETWEEN THE OPERATOR AND AIR TRAFFIC SERVICES**

10. (1) ATS units, in carrying out their objectives, shall have due regard to the requirements of the operators consequent on their obligations as prescribed in Civil Aviation [(No. 2) Operations] Regulations and the Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, and where required by the operators, make available to them or their designated representatives such information as may be available to enable the operators or their designated representatives to carry out their responsibilities.

Sub. Leg.

(2) Where so requested by an operator, messages including position reports received by ATS units and relating to the operation of an aircraft for which operational control service is provided by that operator shall, so far as practicable, be made available immediately to the operator or a designated representative in accordance with agreed procedures.

**CO-ORDINATION BETWEEN MILITARY AUTHORITIES AND AIR TRAFFIC SERVICES**

11. (1) ATS authorities shall establish and maintain close co-operation with military authorities responsible for activities that may affect flights of civil aircraft.

(2) Co-ordination of activities potentially hazardous to civil aircraft shall be effected in accordance with clause 13.

(3) Arrangements shall be made to permit information relevant to the safe and expeditious conduct of flights of civil aircraft to be promptly exchanged between ATS units and appropriate military units.

(4) ATS units shall, either routinely or on request, in accordance with agreed procedures, provide appropriate military units with pertinent flight plan and other data concerning flights of civil aircraft.

(5) In order to eliminate or reduce the need for interceptions, ATS authorities shall designate any areas or routes where the requirements of Civil Aviation [(No. 2) Operations] Regulations, concerning flight plans, two-way communications and position reporting apply to all flights to ensure that all pertinent data is available in appropriate ATS units specifically for the purpose of facilitating identification of civil aircraft. Sub. Leg.

(6) Special procedures shall be established in order to ensure that—

*(a)* ATS units are notified where a military unit observes that an aircraft which is or might be a civil aircraft is approaching, or has entered any area in which interception might become necessary; and

*(b)* all possible efforts are made to confirm the identity of the aircraft and to provide it with the navigational guidance necessary to avoid the need for interception.

**CO-ORDINATION OF ACTIVITIES POTENTIALLY HAZARDOUS TO CIVIL AIRCRAFT**

12. (1) The arrangements for activities potentially hazardous to civil aircraft, whether over the territory of Trinidad and Tobago or over the high seas, shall be co-ordinated with the appropriate ATS authorities.

(2) The co-ordination of activities under subclause (1), shall be effected early enough to permit timely promulgation of information regarding the activities in accordance with the standards prescribed in Schedule 2. Schedule 2.

(3) The objective of the co-ordination shall be to achieve the best arrangements which will avoid hazards to civil aircraft and minimise interference with the normal operations of such aircraft.

(4) The appropriate air traffic services authorities shall be responsible for initiating the promulgation of information regarding co-ordination of activities.

(5) Adequate steps shall be taken to prevent emission of laser beams from adversely affecting flight operations.

**AERONAUTICAL DATA**

13. (1) Determination and reporting of ATS related aeronautical data shall be in accordance with the accuracy and integrity requirements prescribed in Tables 1 to 5 in Appendix 5 while taking into account the established quality system procedures.

(2) Accuracy requirements for aeronautical data are based upon a 95 per cent confidence level, and in that respect three types of positional data shall be identified as follows:

*(a)* surveyed points such as navigation aids positions;

*(b)* calculated points such as mathematical calculations from the known surveyed points of points in space or fixes; and

*(c)* declared points such as flight information region boundary points;

(3) The Authority shall ensure that integrity of aeronautical data is maintained throughout the data process from survey and origin to the next intended user.

(4) Aeronautical data integrity requirements shall be based upon the potential risk resulting from corruption of data and upon the use to which the data item is put, consequently, the following classifications and data integrity levels shall apply:

*(a)* critical data, integrity level $1 \times 10^{-8}$ in which there is a high probability when using corrupted critical data;

*(b)* essential data, integrity level $1 \times 10^{-5}$ in which there is a low probability when using corrupted essential data; and

*(c)* routine data, integrity level $1 \times 10^{-3}$ in which there is a very low probability when using corrupted routine data,

that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe.

(5) Protection of electronic aeronautical data while stored or in transit shall be totally monitored by the CRC check.

(6) To achieve protection of the integrity level of critical and essential aeronautical data as classified in paragraphs (4)*(a)* and *(b)*, a 32-bit or 24-bit cyclic redundancy check algorithm shall apply respectively.

(7) Geographical coordinates indicating latitude and longitude shall be determined and reported to the aeronautical information services in terms

of the WGS-1984 (WGS-84) geodetic reference datum, identifying those geographical coordinates which have been transformed into WGS-84 coordinates by mathematical means where the whole accuracy of original field work does not meet the requirements in Table 1 of Appendix 5.

(8) The order of accuracy of the field work and determinations and calculations derived shall be such that the resulting operational navigation data for the phases of flight will be within the maximum deviations for an appropriate reference frame, as indicated in the Tables contained in Appendix 5.

**CO-ORDINATION BETWEEN METEOROLOGICAL AND AIR TRAFFIC SERVICES AUTHORITIES**

14. (1) To ensure that aircraft receive the most up-to-date meteorological information for aircraft operations, arrangements shall be made, where necessary, between meteorological and ATS authorities for ATS personnel—

*(a)* in addition to using indicating instruments, to report, if observed by ATS personnel or communicated by aircraft, such other meteorological elements as may be agreed upon;

*(b)* to report as soon as possible to the associated meteorological office, meteorological phenomena of operational significance, if observed by ATS personnel or communicated by aircraft, which have not been included in the aerodrome meteorological report;

*(c)* to report as soon as possible to the associated meteorological office—

(i) pertinent information concerning pre-eruption volcanic activity;

(ii) volcanic eruptions; and

(iii) information concerning volcanic ash cloud; and

*(d)* area control centres and flight information centres shall report the information to the associated meteorological watch office and volcanic ash advisory centres.

(2) Close co-ordination shall be maintained among—

(*a*) area control centres;

*(b)* flight information centres; and

*(c)* associated meteorological watch offices,

to ensure that information on volcanic ash included in NOTAM and SIGMET messages is consistent.

**CO-ORDINATION BETWEEN AERONAUTICAL INFORMATION SERVICES AND AIR TRAFFIC SERVICES**

15. (1) To ensure that the aeronautical information service unit provides up-to-date pre-flight information and to meet the need for in-flight information, the ATS units shall report the following to the aeronautical information service unit with a minimum of delay:

*(a)* information on aerodrome conditions;

*(b)* the operational status of associated facilities, services and navigation aids within the units' respective area of responsibility;

*(c)* the occurrence of volcanic activity observed by ATS personnel or reported by aircraft; and

*(d)* any other information considered to be of operational significance.

(2) Before introducing changes to the air navigation system the ATS units responsible for such changes shall take into account the time needed by the aeronautical information service for the preparation, production and issue of relevant material for promulgation.

(3) When submitting the raw information or data to aeronautical information services the ATS shall—

*(a)* observe the predetermined, internationally agreed AIRAC system effective dates in addition to fourteen days postage time;

*(b)* take into account accuracy and integrity requirements for aeronautical data as prescribed to this Schedule.

Note: *To ensure timely provision of the information to the aeronautical information service, close co-ordination between those services concerned is required.*

Note: *Of particular importance are changes to aeronautical information that affect charts and computer-based navigation systems which qualify to be notified by the AIRAC system, as prescribed in Appendix 4 of Part D of Schedule 2.*

**MINIMUM FLIGHT ALTITUDES**

16. The minimum flight altitudes shall be determined and promulgated for each ATS route and control area and in the airspace over Trinidad and Tobago and shall provide a minimum clearance above the controlling obstacle.

**SERVICE TO AIRCRAFT WHERE THERE IS AN EMERGENCY**

17. (1) An aircraft known or believed to be in a state of emergency, including being subjected to an act of unlawful interference, shall be given maximum consideration, assistance and priority over other aircraft as may be necessitated by the circumstances.

Note: *To indicate that an aircraft is in a state of emergency, an aircraft equipped with an appropriate data link capability or an SSR transponder might operate as follows:*

*(a)* on Mode A, Code 7700; or

*(b)* on Mode A, Code 7500 to indicate specifically that it is being subjected to an act of unlawful interference;

*(c)* activate the appropriate emergency or urgency capability of ADS-B or ADS-C;

*(d)* transmit the appropriate emergency message via CPDLC.

(2) When an occurrence of an act of unlawful interference with an aircraft occurs or is suspected, ATS units shall attend promptly to requests made by the aircraft.

(3) Information pertinent to the safe conduct of the flight of an aircraft subjected to an act of unlawful interference, shall continue to be transmitted and appropriate action taken to expedite the conduct of all phases of the flight, especially the safe landing of the aircraft.

(4) When an occurrence of unlawful interference with an aircraft takes place or is suspected, ATS units shall, in accordance with locally agreed procedures, immediately inform the appropriate authority designated by the State and exchange necessary information with the operator or its designated representative.

Note 1*: A strayed or unidentified aircraft may be suspected as being the subject of unlawful interference.*

Note 2*: Procedures relating to the handling of strayed or unidentified aircraft are contained in clause 18.*

Note 3*: PANS-ATM (Doc. 4444), Chap. 15, 15.1.3 contains more specific procedures related to unlawful interference.*

**IN-FLIGHT CONTINGENCIES FOR STRAYED, UNIDENTIFIED AND INTERCEPTED AIRCRAFT**

18. (1) As soon as an ATS unit becomes aware of a strayed aircraft, the ATS unit shall—

*(a)* where the aircraft position is not known, take all the necessary steps to assist the aircraft and to safeguard its flight as follows:

(i) attempt to establish two-way communication with the aircraft, unless such communication already exists;

(ii) use all available means to determine its position;

(iii) inform other ATS units into whose area the aircraft may have strayed or may stray, taking into account all the factors which may have affected the navigation of the aircraft in the circumstances;

(iv) inform, in accordance with locally agreed procedures, appropriate military units and provide them with pertinent flight plan and other data concerning strayed aircraft; and

(v) request from the units referred to in (iii) and (iv) and from other aircraft in flight every assistance in establishing communication with the aircraft and determining its position;

*(b)* when the position of the aircraft is established take all the necessary steps as follows:

(i) advise the aircraft of its position and corrective action to be taken; and

(ii) provide, as necessary, other ATS units and appropriate military units with relevant information concerning the strayed aircraft and any advice given to that aircraft.

(2) As soon as an ATS unit becomes aware of an unidentified aircraft in its area, the ATS unit shall—

*(a)* endeavour to establish the identity of the aircraft where this is necessary for the provision of ATS or required by the appropriate military authorities in accordance with locally agreed procedures;

*(b)* take such of the following steps as appropriate to establish the identity of the aircraft:

(i) attempt to establish two-way communication with the aircraft;

(ii) inquire of other ATS units within the flight information region about the flight and request their assistance in establishing two-way communication with the aircraft;

(iii) inquire of ATS units serving the adjacent flight information regions about the flight and request their assistance in establishing two-way communication with the aircraft; and

(iv) attempt to obtain information from other aircraft in the area; and

*(c)* immediately inform the appropriate military unit when the identity of the aircraft has been established.

(2B) An ATS unit that considers that a strayed or unidentified aircraft may be the subject of unlawful interference, shall immediately inform the appropriate authority designated by the Authority, in accordance with locally agreed procedures.

(3) As soon as an ATS unit becomes aware that an aircraft is being intercepted—

*(a)* in its area of responsibility, the ATS shall take such of the following steps as are appropriate:

(i) attempt to establish two-way communication with the intercepted aircraft via any means available, including the emergency radio frequency 121.5 MHz, unless such communication already exists;

(ii) inform the pilot of the intercepted aircraft of the interception;

(iii) establish contact with the intercept control unit maintaining two-way communication with the intercepting aircraft and provide intercept control unit with available information concerning the aircraft;

(iv) relay messages between the intercepting aircraft or the intercept control unit and the intercepted aircraft, as necessary;

(v) in close co-ordination with the intercept control unit take all necessary steps to ensure the safety of the intercepted aircraft; and

(vi) inform air traffic services units serving adjacent flight information regions if it appears that the aircraft has strayed from an adjacent flight information regions.

*(b)* outside its area of responsibility, the ATS shall take such of the following steps as are appropriate:

(i) provide the ATS unit serving the airspace in which the interception is taking place, with available information that will assist in identifying the aircraft and request that action be taken in accordance with paragraph (3)*(a)*; and

(ii) relay messages between the intercepted aircraft and the appropriate ATS unit, the intercept control unit or the intercepting aircraft.

**TIME STANDARDS REQUIREMENTS IN AIR TRAFFIC SERVICES**

19. (1) ATS units shall use time in UTC and shall express the time in hours and minutes and, when required, seconds of the 24-hour day beginning at midnight.

(2) ATS units shall be equipped with clocks clearly visible from each operating position in the unit concerned indicating the time in hours, minutes and seconds.

(3) ATS unit clocks and other time recording devices shall be adjusted as necessary to maintain correct time within plus or minus 30 seconds of UTC.

(4) Where data link communications are utilised by an ATS unit, clocks and other time-recording devices shall be adjusted as necessary to maintain correct time to within one second of UTC.

(5) UTC time shall be obtained from a standard time station or, where this is not possible, from another unit which has obtained UTC time from such station.

(6) Aerodrome control towers shall, prior to an aircraft taxiing for take-off, provide the pilot with the correct time, unless arrangements have been made for the pilot to obtain the correct time from other sources;

(7) ATS units shall—

*(a)* provide aircraft with the correct time on request; and

*(b)* give time checks to the nearest half minute.

**REQUIREMENTS FOR CARRIAGE AND OPERATION OF PRESSURE-ALTITUDE REPORTING TRANSPONDERS**

20. Requirements for carriage and operation of pressure-altitude reporting transponders within defined portions of airspace shall be established as prescribed in the Civil Aviation [(No. 7) Instruments and Equipment] Regulations.

Sub. Leg.

**AIR TRAFFIC SERVICES SAFETY MANAGEMENT**

21. (1) The ATS safety management programme shall include:

*(a)* identification of safety hazards;

*(b)* ensuring that remedial action necessary to maintain an acceptable level of safety is implemented;

*(c)* providing for continuous monitoring and regular assessment of the safety level achieved; and

*(d)* aiming to make continuous improvement to the overall level of safety.

(2) A safety management system shall clearly define lines of safety accountability throughout the Authority including a direct accountability for safety on the part of senior management.

(3) Any significant safety-related change to the ATS system, including the implementation of a reduced separation minimum or a new procedure, shall only be effected after a safety assessment has demonstrated that an acceptable level of safety will be met and users have been consulted.

(4) Where appropriate, the Director-General shall ensure that adequate provision is made for post-implementation monitoring to verify that the defined level of safety continues to be met.

**COMMON REFERENCE SYSTEMS**

22. (1) The standard for horizontal reference system shall be the WGS-84—

*(a)* for air navigation; and

*(b)* for reporting aeronautical geographical co-ordinates indicating latitude and longitude.

(2) The standard for vertical reference system for air navigation shall be the mean sea level datum, which gives the relationship of gravity-related height or elevation to a surface known as the geoid.

Note: *The geoid globally must closely approximate MSL. It is defined as the equipotential surface in the gravity field of the earth which coincides with the undisturbed MSL extended continuously through the continents.*

(3) The standard for temporal reference system for air navigation shall be the Gregorian calendar and UTC.

(4) Where a different temporal reference system is used, this shall be indicated in the AIP as prescribed in Schedule 2.

**LANGUAGE PROFICIENCY**

23. Air traffic controllers shall speak and understand the English Language as prescribed for radiotelephony communications as prescribed in the Civil Aviation [(No. 1) General Application and Personnel Licensing] Regulations. Sub. Leg.

## APPENDIX 1

Part A Paragraphs 6, 7 and 9. [204/2009].

## PRINCIPLES GOVERNING THE IDENTIFICATION OF NAVIGATION SPECIFICATIONS AND THE IDENTIFICATION OF ATS ROUTES OTHER THAN STANDARD DEPARTURE AND ARRIVAL ROUTES

Note: *See Appendix 3 concerning the identification of standard departure and arrival routes and associated procedures. Guidance material on the establishment of these routes and procedures is contained in the Air Traffic Services Planning Manual (Doc 9426).*

**DESIGNATORS FOR ATS ROUTES AND NAVIGATION SPECIFICATIONS**

1. (1) The purpose of a system of route designators and navigation specification applicable to specified ATS route segment, route or area is to allow both pilots and ATS, taking into account automation requirements—

*(a)* to make unambiguous reference to any ATS route without the need to resort to the use of geographical co-ordinates or other means in order to describe it;

*(b)* to relate an ATS route to a specific vertical structure of the airspace, as applicable;

*(c)* to indicate a required level of navigation performance accuracy when operating along an ATS route or within a specified area; and

*(d)* to indicate that a route is used primarily or exclusively by certain types of aircraft.

Note 1: *Specifications governing the publication of navigation specification are given in Part C of Schedule 3, and the Appendix to Part B of Schedule 2.*

Note 2: *In relation to this Appendix and for flight planning purposes, a prescribed navigation specification is not considered an integral part of the ATS route designator.*

(2) In order to satisfy the requirements under subclause (1), the designation system shall—

*(a)* permit the identification of any ATS route in a simple and unique manner;

*(b)* avoid redundancy;

*(c)* be usable by both ground and airborne automation systems;

*(d)* permit utmost brevity in operational use; and

*(e)* provide sufficient possibility of extension to cater for any future requirements without the need for fundamental changes.

**COMPOSITION, ASSIGNMENT AND USE OF DESIGNATORS**

2. Controlled, advisory and uncontrolled ATS routes, with the exception of standard arrival and departure routes, shall be as specified in paragraphs 3, 4 and 5.

**COMPOSITION OF DESIGNATOR**

3. (1) An ATS route designator shall consist of a basic designator supplemented, where necessary, by—

*(a)* one prefix as prescribed in subclause (6); and

*(b)* one additional letter as prescribed in subclause (7).

(2) The number of characters required to compose the designator shall not exceed six characters.

(3) The number of characters required to compose the designator should, where possible, be kept to a maximum of five characters.

(4) The basic designator shall consist of one letter of the alphabet followed by a number from 1 to 999.

(5) Selection of a letter referred to in subclause (4) shall be made from the following list of letters as applicable:

*(a)* A, B, G and R for routes that form part of the regional networks of ATS routes and are not area navigation routes;

*(b)* L, M, N and P for area navigation routes that form part of the regional networks of ATS routes;

*(c)* H, J, V and W for routes that do not form part of the regional networks of ATS routes and are not area navigation routes; and

*(d)* Q, T, Y and Z for area navigation routes that do not form part of the regional networks of ATS routes.

(6) Where applicable, one supplementary letter shall be added as a prefix to the basic designator in accordance with the following standards:

*(a)* K to indicate a low-level route established for use primarily by helicopters;

*(b)* U to indicate that the route or portion thereof is established in the upper airspace; and

*(c)* S to indicate a route established exclusively for use by supersonic aircraft during acceleration, deceleration and while in supersonic flight.

(7) When prescribed by the appropriate ATS authority or on the basis of regional air navigation agreements, a supplementary letter may be added after the basic designator of the ATS route in question in order to indicate the type of service provided in accordance with the following standards:

*(a)* the letter F to indicate that on the route or portion of the route, advisory service only is provided; and

*(b)* the letter G to indicate that on the route or portion of the route, flight information service only is provided.

Note 1: *Due to limitations in the display equipment on board an aircraft, the supplementary letters "F" or "G" may not be displayed to the pilot.*

Note 2: *Implementation of a route or a portion thereof as a controlled route, advisory route or flight information route is indicated in aeronautical charts and aeronautical information publications in accordance with the requirements in Schedules 2 and 3.*

**ASSIGNMENT OF BASIC DESIGNATORS**

4. Basic ATS route designators shall be assigned in accordance with the following principles:

*(a)* the same basic designator shall be assigned to a main trunk route throughout the entire length of the route, irrespective of terminal control areas, States or regions traversed;

Note: *The principle under paragraph (a) is of particular importance where automated ATS data processing and computerised airborne navigation equipment is used.*

*(b)* where two or more trunk routes have a common segment, the segment in question shall be assigned to each of the designators of the routes concerned, except where this would present difficulties in the provision of ATS, in which case, by common agreement, one designator only shall be assigned;

*(c)* a basic designator assigned to one route shall not be assigned to any other route; and

*(d)* the Authority shall notify the Regional Offices of ICAO for co-ordination of its requirements for designators.

**USE OF DESIGNATORS IN COMMUNICATIONS**

5. (1) In printed communications, the designator shall be expressed at all times by not less than two and not more than six characters.

(2) In voice communications, the basic letter of a designator shall be spoken in accordance with the ICAO spelling alphabet.

(3) Where the prefixes K, U or S specified in subclause 3(6), are used, the prefixes, shall, in voice communications, be spoken as follows:

*(a)* K—KOPTER; (The word "KOPTER" shall be pronounced as in the word "helicopter")

*(b)* U—UPPER; and

*(c)* S—SUPERSONIC.

(4) Where the letters F or G specified in subclause 3(7) are used, the flight crew should not be required to use these letters in voice communications.

Part A
Paragraph 1*(c)*.
[100/2009].

## APPENDIX 2

## PRINCIPLES GOVERNING THE ESTABLISHMENT AND IDENTIFICATION OF SIGNIFICANT POINTS

1. (1) Significant points should, where possible, be established with reference to ground-based radio navigation aids, preferably VHF or higher frequency aids.

(2) Where ground-based radio navigation aids do not exist, significant points shall be established at locations that can be determined by self-contained airborne navigation aids, or, where navigation by visual reference to the ground is to be effected, by visual observation.

(3) Specific points may be designated as "transfer of control" points by agreement between adjacent air traffic control units or control positions concerned.

## DESIGNATORS FOR SIGNIFICANT POINTS MARKED BY THE SITE OF A RADIO NAVIGATION AID

2. (1) Whenever practicable, a significant point marked by the site of a radio navigation aid shall be named with reference to an identifiable and preferably prominent geographical location.

(2) In selecting a name for the significant point under subclause (1), care shall be taken to ensure that the following conditions are met:

*(a)* the name shall not create difficulties in pronunciation for pilots or ATS personnel when speaking in the language used in ATS communications;

*(b)* where the name of a geographical location in the national language selected for designating a significant point gives rise to difficulties in pronunciation, an abbreviated or contracted version of this name, which retains as much of its geographical significance as possible, shall be selected, for example: FUERSTENFELDBRUCK = FURSTY;

*(c)* the name shall be easily recognisable in voice communications and shall be free of ambiguity with those of other significant points in the same general area and shall not create confusion with respect to other communications exchanged between air traffic services and pilots;

*(d)* the name should, where possible, consist of at least six letters and form two syllables and preferably not more than three;

*(e)* the selected name shall be the same for both the significant point and the radio navigation aid marking the significant point.

(3) Composition of coded designators for significant points marked by the site of a radio navigation aid shall be the same as the radio identification of the radio navigation aid and shall be so composed, where possible, as to facilitate association with the name of the point in plain language.

(4) Coded designators for significant points marked by the site of a radio navigation aid, shall not be duplicated within 1 100 km or 600 NM of the location of the radio navigation aid concerned, except where two radio navigation aids operating in different bands of the frequency spectrum are situated at the same location, the radio identification of the two radio navigation aids are normally the same.

(5) The Authority shall notify the Regional Offices of ICAO for co-ordination, of its requirements for coded designators.

## DESIGNATORS FOR SIGNIFICANT POINTS NOT MARKED BY THE SITE OF A RADIO NAVIGATION AID

3. (1) Where a significant point is required at a position not marked by the site of a radio navigation aid, the significant point shall be designated by a unique five-letter pronounceable name-code which will then serve as the name as well as the coded designator of the significant point.

(2) The name-code designator under subclause (1), shall be selected so as to avoid any difficulties in pronunciation by pilots or ATS personnel when speaking in the language used in ATS communications, for example, ADOLA and KODAP.

*L.R.O.*

(3) The name-code designator shall be easily recognisable in voice communications and shall be free of ambiguity with those used for other significant points in the same general area.

(4) The name-code designator assigned to a significant point shall not be assigned to any other significant point.

(5) The Authority shall notify the Regional Offices of ICAO for co-ordination, of its requirements for name-code designators.

(6) In areas where no system of fixed routes is established or where the routes followed by aircraft vary depending on operational considerations, significant points shall be determined and reported in terms of WGS-84 geographical co-ordinates, except that permanently established significant points serving as exit or entry points into such areas shall be designated in accordance with the applicable provisions in paragraph 2 or 3.

(7) Where there is a need to relocate a significant point, a new name-code designator shall be chosen.

(8) Where the Authority wishes to keep the allocation of specific name-codes for re-use at a different location, such name-codes shall not be used until after a period of at least six months.

## USE OF DESIGNATORS IN COMMUNICATIONS

4. (1) The name selected in accordance with paragraph 2 or 3 shall be used to refer to the significant point in voice communications.

(2) Where the coded designator is used in voice communications, it shall be spoken in accordance with the ICAO spelling alphabet.

(3) Only the coded designator or the selected name-code shall be used to refer to a significant point in printed and coded communications.

## SIGNIFICANT POINTS USED FOR REPORTING PURPOSES

5. (1) In order to permit ATS to obtain information regarding the progress of aircraft in flight, selected significant points may need to be designated as reporting points.

(2) In establishing selected significant points as reporting points, consideration shall be given to the following factors:

*(a)* the type of ATS provided;

*(b)* the amount of traffic normally encountered;

*(c)* the accuracy with which aircraft are capable of adhering to the current flight plan;

*(d)* the speed of the aircraft;

*(e)* the separation minima applied;

*(f)* the complexity of the airspace structure;

*(g)* the control method employed;

*(h)* the start or end of significant phases of a flight such as climb, descent and change of direction;

*(i)* transfer of control procedures;

*(j)* safety aspects;

*(k)* search and rescue aspects; and

*(l)* the cockpit and air-ground communication workload.

(3) Reporting points shall be established as either "compulsory" or "on-request".

(4) In establishing compulsory reporting points the following principles shall apply:

*(a)* compulsory reporting points shall be limited to the minimum necessary for the routine provision of information to ATS units on the progress of aircraft in flight, bearing in mind the need to keep cockpit and controller workload and air-ground communications load to a minimum;

*(b)* the availability of a radio navigation aid at a location should not necessarily determine its designation as a compulsory reporting point; and

*(c)* compulsory reporting points should not necessarily be established at flight information region or control area boundaries.

(5) On request reporting points may be established in relation to the requirements of ATS for additional position reports where traffic conditions so demand.

(6) The designation of "compulsory" and "on request" reporting points shall be reviewed regularly to keep the requirements for routine position reporting to the minimum necessary to ensure efficient ATS.

(7) Routine reporting over compulsory reporting points should not systematically be made mandatory for all flights in all circumstances and in applying this principle, particular attention shall be given to the following:

*(a)* high-speed, high-flying aircraft should not be required to make routine position reports over all reporting points established as compulsory for low-speed, low-flying aircraft; and

*(b)* aircraft transiting through a terminal control area should not be required to make routine position reports as frequently as arriving and departing aircraft.

(8) In areas where the principles regarding the establishment of reporting points would not be practicable, a reporting system with reference to meridians of longitude or parallels of latitude expressed in whole degrees may be established.

Part A
Paragraph 10.

## APPENDIX 3

## PRINCIPLES GOVERNING THE IDENTIFICATION OF STANDARD DEPARTURE AND ARRIVAL ROUTES AND ASSOCIATED PROCEDURES

### DESIGNATORS FOR STANDARD DEPARTURE AND ARRIVAL ROUTES AND ASSOCIATED PROCEDURES

1. In clause 2 "route" means route and associated procedures.

2. (1) The system of designators shall—

*(a)* permit the identification of each route in a simple and unambiguous manner;

*(b)* make a clear distinction between—

(i) departure routes and arrival routes;

(ii) departure or arrival routes and other ATS routes; and

(iii) routes requiring navigation by reference to ground-based radio aids or self-contained airborne aids, and routes requiring navigation by visual reference to the ground;

*(c)* be compatible with ATS and aircraft data processing and display requirements;

*(d)* be of utmost brevity in its operational application;

*(e)* avoid redundancy; and

*(f)* provide sufficient possibility for extension to cater for any future requirements without the need for fundamental changes.

(2) Each route shall be identified by a plain language designator and a corresponding coded designator.

(3) The designators shall, in voice communications, be easily recognisable as relating to a standard departure or arrival route and shall not create any difficulties in pronunciation for pilots and ATS personnel.

**COMPOSITION OF DESIGNATORS**

3. (1) The plain language designator of a standard departure or arrival route shall consist of the following in the order listed:

*(a)* a basic indicator;

*(b)* a validity indicator;

*(c)* a route indicator, where required;

*(d)* the word "departure" or "arrival"; and

*(e)* the word "visual", where the route has been established for use by aircraft operating in accordance with the VFR.

(2) The basic indicator shall be the name or name-code of the significant point where a standard departure route terminates or a standard arrival route begins.

(3) The validity indicator shall be a number from 1 to 9.

(4) The route indicator shall be designated one letter of the alphabet, excluding the use of the letters "I" and "O".

4. The coded designator of a standard departure or arrival route, instrument or visual, shall consist of the following in the order listed:

*(a)* the coded designator or name-code of the significant point described in paragraph 3(1)*(a)*;

*(b)* the validity indicator specified under paragraph 3(1)*(b)*; and

*(c)* the route indicator specified in paragraph 3(1)*(c)* where required.

Note: *Limitations in the display equipment on board an aircraft may require shortening of the basic indicator, where the indicator is a five-letter name-code, for example, KODAP. The manner in which such an indicator is shortened is left to the discretion of operators.*

**ASSIGNMENT OF DESIGNATORS**

5. (1) Each route shall be assigned a separate designator.

(2) To distinguish between two or more routes which relate to the same significant point and therefore are assigned the same basic indicator, a separate route indicator as required under clause 3(4), shall be assigned to each route.

**ASSIGNMENT OF VALIDITY INDICATORS**

6. (1) A validity indicator shall be assigned to each route to identify the route which is in effect.

(2) The first validity indicator to be assigned shall be the number "1".

(3) Where a route is amended, a new validity indicator, consisting of the next higher number, shall be assigned.

(4) Where the validity indicator "9" has been assigned the next new validity indicator shall be the number "1".

*L.R.O.*

**EXAMPLES OF PLAIN LANGUAGE AND CODED DESIGNATORS**

7. (1) Example 1: Standard departure route—instrument:

| | | |
|---|---|---|
| *(a)* | Plain language designator: | BRECON ONE DEPARTURE |
| *(b)* | Coded designator: | BCN 1 |

Meaning: The designator identifies a standard instrument departure route which terminates at the significant point BRECON which is the basic indicator. BRECON is a radio navigation facility with the identification BCN which is the basic indicator of the coded designator. The validity indicator ONE which is (1) in the coded designator, signifies either that the original version of the route is still in effect or that a change has been made from the previous version NINE (9) to the now effective version ONE (1) as provided in subclause 6(3). The absence of a route indicator as provided in clauses 3(4) and 5(2), signifies that only one route, in this case a departure route, has been established with reference to BRECON.

(2) Example 2: Standard arrival route—instrument:

| | | |
|---|---|---|
| *(a)* | Plain language designator: | KODAP TWO ALPHA ARRIVAL |
| *(b)* | Coded designator: | KODAP 2 A |

Meaning: This designator identifies a standard instrument arrival route which begins at the significant point KODAP which is the basic indicator. KODAP is a significant point not marked by the site of a radio navigation facility and is therefore assigned a five-letter name-code in accordance with Appendix 2. The validity indicator TWO (2) signifies that a change has been made from the previous version ONE (1) to the now effective version TWO (2). The route indicator ALPHA (A) identifies one of several routes established with reference to KODAP and is a specific character assigned to this route.

(3) Example 3: Standard departure route—visual:

| | | |
|---|---|---|
| *(a)* | Plain language designator: | ADOLA FIVE BRAVO DEPARTURE VISUAL |
| *(b)* | Coded designator: | ADOLA 5 B |

Meaning: This designator identifies a standard departure route for controlled VFR flights which terminates at ADOLA, a significant point not marked by the site of a radio navigation facility. The validity indicator FIVE (5) signifies that a change has been made from the previous version FOUR (4) to the now effective version FIVE (5). The route indicator BRAVO (B) identifies one of several routes established with reference to ADOLA.

**COMPOSITION OF DESIGNATORS FOR MLS WITH RNAV APPROACH PROCEDURES**

8. (1) The plain language designator of an MLS with RNAV approach procedure shall consist of the following in the order listed:

*(a)* MLS;

*(b)* a basic indicator;

*(c)* a validity indicator;

*(d)* a route indicator;

*(e)* the word "approach"; and

*(f)* the designator of the runway for which the procedure is designed.

(2) The basic indicator shall be the name or name-code of the significant point where the approach procedure begins.

(3) The validity indicator shall be a number from 1 to 9.

(4) The route indicator shall be designated one letter of the alphabet excluding the use of the letters "I" and "O".

(5) The designator of the runway shall be in accordance with Volume 1, 5.2.2 of Annex 14 of the Chicago Convention.

9. (1) The coded designator of an MLS with RNAV approach procedure shall consist of the following in the order listed:

*(a)* MLS;

*(b)* the coded designator or name-code of the significant point described in paragraph 7(1)*(b)*;

*(c)* the validity indicator in paragraph 8(1)*(c)*;

*(d)* the route indicator in paragraph 8(1)*(d)*; and

*(e)* the runway designator in paragraph 8(1)*(f)*.

10. (1) The assignment of designators for MLS with RNAV approach procedures shall be in accordance with clause 5.

(2) Procedures having identical tracks but different flight profiles shall be assigned separate route indicators.

(3) The route indicator letter for MLS with RNAV approach procedures shall be assigned uniquely to all approaches at an airport until all the letters have been used and only then shall the route indicator letter be repeated.

(4) The use of the same route indicator for two routes using the same MLS ground facility shall not be permitted.

(5) The assignment of validity indicator for approach procedures shall be in accordance with clause 6.

11. (1) Example of plain language and coded designators:

| | | |
|---|---|---|
| *(a)* | Plain language designator: | MLS HAPPY ONE ALPHA APPROACH RUNWAY ONE EIGHT LEFT |
| *(b)* | Coded designator: | MLS HAPPY 1 A 18L |

Meaning: The designator identifies an MLS with RNAV approach procedure which begins at the significant point HAPPY which is basic indicator. HAPPY is a significant point not marked by the site of a radio navigation facility and therefore assigned a five-letter name-code in accordance with Appendix 2. The validity indicator ONE (1) signifies that either the original version of the route is still in effect or a change has been made from the previous version NINE (9) to the now effective version ONE (1). The route indicator ALPHA (A) identifies one of several routes established with reference to HAPPY and is a specific character assigned to this route.

## USE OF DESIGNATORS IN COMMUNICATIONS

12. (1) In voice communications, only the plain language designator shall be used.

Note: *For the purpose of identification of routes, the words "departure", "arrival" and "visual" described in paragraphs 3(1)(d)(e) are considered to be an integral element of the plain language designator.*

(2) In printed or coded communications, only the coded designator shall be used.

## DISPLAY OF ROUTES AND PROCEDURES TO AIR TRAFFIC CONTROL

13. (1) A detailed description of each currently effective standard departure or arrival route and approach procedure, including the plain language designator and the coded designator, shall be displayed at the working positions at which the routes procedures are assigned to aircraft as part of an ATC clearance, or are otherwise of relevance in the provision of ATS.

(2) Whenever possible, a graphic portrayal of the routes and procedures shall also be displayed.

Note: *Material relating to the establishment of standard departure and arrival routes and associated procedures is contained in the Air Traffic Services Planning Manual, Doc 9426.*

# APPENDIX 4

Part A
Paragraph 6.

## ATS AIRSPACE CLASSES-SERVICES PROVIDED AND FLIGHT REQUIREMENTS

| Class | Type of flight | Separation provided | Service provided | Speed limitation* | Radio communication requirement | Subject to an ATC clearance |
|---|---|---|---|---|---|---|
| A | IFR only | All aircraft | Air traffic control service | Not applicable | Continuous two way | Yes |
| | IFR | All aircraft | Air traffic control service | Not applicable | Continuous two way | Yes |
| B | VFR | All aircraft | Air traffic control service | Not applicable | Continuous two way | Yes |
| | IFR | IFR from IFR IFR from VFR | Air traffic control service | Not applicable | Continuous two way | Yes |
| C | VFR | VFR from IFR | 1) Air traffic service for separation from IFR: 2) VFR /VFR traffic information (and traffic avoidance advice on request) | 250 kt IAS below 3050m (10,000 ft) AMSL | Continuous two way | Yes |
| D | IFR | IFR from IFR | Air traffic control service, traffic information about VFR flights (and traffic avoidance advice on request) | 250 kt IAS below 3050m (10,000 ft) AMSL | Continuous two way | Yes |
| | VFR | nil | Air traffic control service, and as far as practicable traffic information about VFR flights | 250 kt IAS below 3050m (10,000 ft) AMSL | Continuous two way | Yes |
| E | IFR | IFR from IFR | Traffic information as far as practicable | 250 kt IAS below 3050m (10,000 ft) AMSL | Continuous two way | Yes |
| | VFR | nil | Air traffic advisory service, flight information service | 250 kt IAS below 3050m (10,000 ft) AMSL | No | No |
| F | IFR | IFR from IFR as far as practicable | Flight information service | 250 kt IAS below 3050m (10,000 ft) AMSL | Continuous two way | No |
| | VFR | nil | Flight information service | 250 kt IAS below 3050m (10,000 ft) AMSL | No | No |
| G | IFR | nil | Flight information service | 250 kt IAS below 3050m (10,000 ft) AMSL | Continuous two way | No |
| | VFR | nil | Flight information service | 250 kt IAS below 3050m (10,000 ft) AMSL | No | No |

*When the height of the transition altitude is lower than 3 050 m (10, 000 ft) AMSL, FL 100 should be used in lieu of 10, 000 ft.

*L.R.O.*

Part A
Paragraph 14.

# APPENDIX 5

## AERONAUTICAL DATA QUALITY REQUIREMENTS

### TABLE 1

## LATITUDE AND LONGITUDE

| Latitude and Longitude | Accuracy data type | Integrity classification |
|---|---|---|
| Treshold crossing height, | 2 km<br>declared | $1x10^{-3}$<br>routine |
| P, R, D area boundary points<br>(outside CTA/CTZ boundaries) | 2 km<br>declared | $1x10^{-3}$<br>routine |
| P, R, D area boundary points<br>(inside CTA/CTZ boundaries) | 100 m<br>calculated | $1x10^{-5}$<br>essential |
| CTA/CTZ boundary points | 100 m<br>calculated | $1x10^{-5}$<br>essential |
| En route navaids and fixes, holding,<br>STAR/SID points | 100 m<br>surveyed/calculated | $1x10^{-5}$<br>essential |
| Obstacles in Area 1 (the entire State<br>territory) | 50 m<br>surveyed | $1x10^{-3}$<br>routine |
| Obstacles in Area 2 (the Part outside<br>the Aerodrome/heliport boundary) | 50 m<br>surveyed | $1x10^{-5}$<br>essential |
| Final approach fixes/points and other<br>essential fixes/points comprising the<br>instrument approach procedure | 3 m<br>surveyed/calculated | $1x10^{-5}$<br>essential |

Note 1: *See the Appendix to Part H of Schedule 2 for graphical Illustration of obstacles data collection surfaces and criteria used to identify obstacles in the defined area.*

Note 2: *In those portion of area 2 where flight operations are prohibited due to very high terrain or other local restrictions or regulations, obstacle data are to be collected in accordance with the Area 1 numerical requirements specified in the Appendix to Part H of Schedule 2.*

Note 3: *Implementation of Schedule 2 provisions concerning the availability, as of 20th November 2008 and 18th November, 2010, of obstacle data according to Area 1 and Area 2 specifications, respectively, would be facilitated by appropriate advance planning for the collection and processing of such data.*

**TABLE 2**

## ELEVATION, ALTITUDE AND HEIGHT

| Elevation/Altitude/Height | Accuracy Data Type | Integrity Classification |
|---|---|---|
| Treshold crossing height, precision approaches | 0.5m calculated | $1x10^{-8}$ critical |
| Obstacle clearance altitude/height (OCA/H) | As specified in PANS-OPS (Doc 8168) | $1x10^{-5}$ essential |
| Obstacles in Area 1 (the entire state territory), elevations | 13m surveyed | $1x10^{-3}$ routine |
| Obstacles in Area 2 (the part outside the surveyed aerodrome/heliport boundary) | 3m | $1x10^{-5}$ essential |
| Distance measuring equipment (DME) elevation | 30 m (100 ft) surveyed | $1x10^{-5}$ essential |
| Instrument approach procedures altitude | As specified in PANS-OPS (Doc 8168) | $1x10^{-5}$ essential |
| Minimum altitudes | 50 m calculated | $1x10^{-3}$ routine |

Note 1: *See the Appendix to Part H of Schedule 2 for graphical illustrations of obstacles data collection surfaces and criteria used to identify obstacles in the defined area.*

Note 2: *In those portion of area 2 where flight operations are prohibited due to very high terrain or other local restrictions or regulations, obstacle data are to be collected in accordance with the Area 1 numerical requirements specified in the Appendix to Part H of Schedule 2.*

Note 3: *Implementation of Schedule 2 provisions concerning the availability, as of 20th November 2008 and 18th November, 2010, of obstacle data according to Area 1 and Area 2 specifications, respectively, would be facilitated by appropriate advance planning for the collection and processing of such data.*

*L.R.O.*

**TABLE 3**

## DECLINATION AND MAGNETIC VARIATION

| Declination/Variation | Accuracy Data Type | Integrity Classification |
|---|---|---|
| VHF NAVAID station declination used for technical line-up | 1 degree surveyed | $1x\ 10^{-5}$ essential |
| NDB NAVAID magnetic variation | 1 degree surveyed | $1x\ 10^{-3}$ routine |

**TABLE 4**

## BEARING

| Bearing | Accuracy Data Type | Integrity Classification |
|---|---|---|
| Airway segments | 1/10 degree calculated | $1x\ 10^{-3}$ routine |
| En route and terminal fix formations | 1/10 degree calculated | $1x\ 10^{-3}$ routine |
| Terminal arrival/departure route segments | 1/10 degree calculated | $1x\ 10^{-3}$ routine |
| Instrument approach procedure fix formations | 1/100 degree calculated | $1 x\ 10^{-5}$ essential |

**TABLE 5**

## LENGTH, DISTANCE AND DIMENSION

| Length, Distance and Dimension | Accuracy Data Type | Integrity Classification |
|---|---|---|
| Airway segments length | 1/10 km calculated | $1x\ 10^{-5}$ routine |
| En route fix formations distance | 1/10 km calculated | $1x\ 10^{-3}$ routine |
| Terminal arrival/departure route segments length | 1/100 km calculated | $1x\ 10^{-5}$ essential |
| Terminal and Instrument approach procedure fix formations distance | 1/100 km calculated | $1 x\ 10^{-5}$ essential |

**PART B**

Regulation 4(2) and (5). [100/2009].

## AIR TRAFFIC CONTROL SERVICE

The standards required to be met for air traffic control services are as follows:

### PROVISION OF AIR TRAFFIC CONTROL SERVICE

1. The parts of air traffic control service described in paragraph 2*(a)* of Part A shall be provided by the applicable units as follows:

*(a)* area control service:

(i) by an area control centre; or

(ii) by the unit providing approach control service in a control zone or in a control area of limited extent which is designated primarily for the provision of approach control service and where no area control centre is established;

*(b)* approach control service:

(i) by an aerodrome control tower or area control centre when it is necessary or desirable to combine under the responsibility of one unit the functions of the approach control service with those of the aerodrome control service or the area control service; or

(ii) by an approach control unit when it is necessary or desirable to establish a separate unit;

*(c)* aerodrome control service: by an aerodrome control tower.

### OPERATION OF AIR TRAFFIC CONTROL SERVICE

2. (1) To provide air traffic control service, an air traffic control unit shall—

*(a)* be provided with information—

(i) on the intended movement of each aircraft, or variations of information on the intended movement; and

(ii) current information on the actual progress of each aircraft;

*(b)* determine from the information received, the positions of known aircraft relative to each other;

*(c)* issue clearances and information for the purpose of preventing collision between aircraft under its control and of expediting and maintaining an orderly flow of traffic; and

*(d)* co-ordinate clearances as necessary with other ATC units—

(i) whenever an aircraft might otherwise conflict with traffic operated under the control of such other units; and

(ii) before transferring control of an aircraft to other ATC units.

(2) Information on aircraft movements, together with a record of ATC clearances issued to those aircraft, shall be displayed in a manner that will permit ready analysis in order to maintain an efficient flow of air traffic with adequate separation between aircraft.

(3) Clearances issued by ATC units shall provide separation between—

*(a)* all flights in airspace Classes A and B;

*(b)* IFR flights in airspace Classes C, D and E;

*(c)* IFR flights and VFR flights in airspace Class C;

*(d)* IFR flights and special VFR flights; and

*(e)* special VFR flights when so prescribed by the appropriate ATS authority,

except when requested by an aircraft and prescribed by the appropriate ATS authority for the cases listed under paragraph (3)*(b)* in airspace Classes D and E, a flight may be cleared without separation being so provided in respect of a specific portion of the flight conducted in visual meteorological conditions.

(4) Separation by an ATC unit shall be obtained by at least one of the following:

*(a)* vertical separation, obtained by assigning different levels selected from—

(i) the appropriate Table of cruising levels in Schedule 7 of the Civil Aviation [(No. 2) Operations] Regulations; or Sub. Leg.

(ii) a modified Table of cruising levels, when so prescribed in accordance with Schedule 7 of the Civil Aviation [(No. 2) Operations] Regulations, for flight above FL 410,

except that the correlation of levels to track as prescribed in subparagraphs (i) and (ii) shall not apply where otherwise indicated in appropriate aeronautical information publications or air traffic control clearances;

*(b)* horizontal separation, obtained by providing—

(i) longitudinal separation, by maintaining an interval between aircraft operating along the same converging or reciprocal tracks expressed in time or distance; or

(ii) lateral separation, by maintaining aircraft on different routes or in different geographical areas;

*(c)* composite separation applied only on the basis of regional air navigation agreements, consisting of a combination of vertical separation and one of the other forms of separation contained in paragraph 4*(b)*, using minima for each which

may be lower than, but not less than half of, those used for each of the combined elements when applied individually.

(5) For all airspace where a reduced vertical separation minimum of 300 metres or 1000 feet is applied between FL 290 and FL 410 inclusive, a programme shall be instituted, on a regional basis, for monitoring the height-keeping performance of aircraft operating at these levels, in order to ensure that the implementation and continued application of this vertical separation minimum meets the safety objectives.

(6) The coverage of the height-monitoring facilities provided under the programme under subclause (5), shall be adequate to permit monitoring of the relevant aircraft types of all operators that operate in RVSM airspace.

Note: *The number of separate monitoring programmes should be restricted to the minimum necessary to effectively provide the required services for the region.*

(7) Arrangements shall be made for the sharing of data from monitoring programmes through inter-regional agreement.

**SEPARATION MINIMA**

3. (1) The selection of separation minima for application within a given portion of airspace shall be as follows:

*(a)* the separation minima shall be selected from those prescribed by the provisions of the PANS-ATM (Doc. 4444) and the Regional Supplementary Procedures (Doc. 7030) as applicable under the prevailing circumstances except that, where types of aids are used or circumstances prevail which are not covered by current provisions of the Chicago Convention, other separation minima shall be established as necessary by—

(i) the Authority, following consultation with operators, for routes or portions of routes contained within the airspace that is the responsibility of Trinidad and Tobago; and

(ii) regional air navigation agreements for routes or portions of routes contained within airspace over the high seas or over areas of undetermined sovereignty;

*(b)* the selection of separation minima shall be made in consultation between the Authority and the appropriate ATS authorities responsible for the provision of ATS in adjacent airspace when—

(i) traffic will pass into an adjacent airspace; and

(ii) routes are closer to the common boundary of an adjacent airspace than the separation minima applicable in the circumstances.

Note: *The purpose of this provision is to ensure, in the first case, compatibility on both sides of the line of transfer of traffic, and, in the other case, adequate space between aircraft operating on both sides of the common boundary.*

(2) Details of the selected separation minima and the associated areas of application shall be provided—

(i) to the ATS units concerned; and

(ii) to pilots and operators through aeronautical information publications, where separation is based on the use by aircraft of specified navigation aids or specified navigation techniques.

**RESPONSIBILITY FOR CONTROL OF AIRCRAFT**

4. (1) A controlled flight shall be under the control of only one air traffic control unit at any given time.

(2) Responsibility for the control of all aircraft operating within a given block of airspace shall be vested in a single air traffic control unit.

(3) Notwithstanding subclause (2) control of an aircraft or groups of aircraft may be delegated to other ATC units provided that co-ordination between the ATC units concerned is assured.

**PLACE OR TIME OF TRANSFER OF RESPONSIBILITY FOR CONTROL OF AIRCRAFT**

5. The place or time of the transfer of responsibility for the control of an aircraft shall be made from one air traffic control unit to another air traffic control unit as follows:

*(a)* between two units providing area control service: responsibility for the control of an aircraft shall be transferred from a unit providing area control service in a control area to the unit providing area control service in an adjacent control area at the time of crossing the common control area boundary as estimated by the area control centre having control of the aircraft or at such other point or time as agreed between the two units;

*(b)* between a unit providing area control service and a unit providing approach control service: responsibility for the control of an aircraft shall be transferred between a unit providing area control service and a unit providing approach control service, at a point or time agreed between the two units;

*(c)* between a unit providing approach control service and an aerodrome control tower for—

(i) arriving aircraft: responsibility for the control of an arriving aircraft shall be transferred from the unit

providing approach control service to the aerodrome control tower, where the aircraft—

(A) is in the vicinity of the aerodrome; and

(I) it is considered that approach and landing will be completed in visual reference to the ground, or

(II) has reached uninterrupted visual meteorological conditions, or

(B) is at a prescribed point or level, as specified in letters of agreement or ATS unit instructions; or

(C) has landed;

(ii) departing aircraft: responsibility for control of a departing aircraft shall be transferred from the aerodrome control tower to the unit providing approach control service—

(A) when visual meteorological conditions prevail in the vicinity of the aerodrome—

(I) prior to the time the aircraft leaves the vicinity of the aerodrome;

(II) prior to the aircraft entering instrument meteorological conditions; or

(III) at a prescribed point or level,

as specified in letters of agreement or ATS unit instructions;

(B) when instrument meteorological conditions prevail at the aerodrome—

(I) immediately after the aircraft is airborne; or

(II) at a prescribed point or level,

as specified in letters of agreement or ATS unit instructions;

*(d)* between control sectors or positions within the same air traffic control unit: responsibility for control of an aircraft shall be transferred from one control sector or position to another control sector or position within the same air traffic control unit at a point, level or time, as specified in ATS unit instructions.

**CO-ORDINATION OF TRANSFER OF RESPONSIBILITY FOR CONTROL**

6. Responsibility for control of an aircraft, shall not be transferred from one ATC unit to another without the consent of the ATC unit that is accepting control, in accordance with the following:

*(a)* the air traffic control unit that is transferring control shall communicate to the ATC unit that is accepting control, the

appropriate parts of the current flight plan and any control information pertinent to the transfer requested;

*(b)* where transfer of control is to be effected using radar or ADS-B data, the control information pertinent to the transfer shall include information on the position and if required, the track and speed of the aircraft, as observed by radar or ADS-B immediately prior to the transfer;

*(c)* where transfer of control is to be effected using ADS-C data, the control information pertinent to the transfer shall include the four-dimensional position and other information as necessary;

*(d)* the ATC unit accepting control shall—

(i) indicate its ability to accept control of the aircraft on the terms specified by the ATC unit that is transferring control, unless by prior agreement between the ATC units concerned, the absence of any such indication is understood to signify acceptance of the terms specified, or indicate any necessary changes thereto; and

(ii) specify any other information or clearance for a subsequent portion of the flight, which it requires the aircraft to have at the time of transfer;

(iii) notify the transferring air traffic control unit when it has established two-way voice and data link communications with an assumed control of the aircraft concerned, unless otherwise specified by agreement between the two control units concerned;

*(e)* applicable co-ordination procedures, including transfer of control points, shall be specified in letters of agreement and air traffic control unit instructions as appropriate.

**AIR TRAFFIC CONTROL CLEARANCES**

7. Air traffic control clearances shall be based solely on the requirements for providing ATC services as follows:

*(a)* contents of an ATC clearance shall indicate the following:

(i) aircraft identification as shown in the flight plan;

(ii) clearance limit;

(iii) route of flight;

(iv) levels of flight for the entire route or part thereof and changes of levels if required; and

(v) any necessary instructions or information on other matters such as approach or departure manoeuvres, communications and the time clearance expires;

*(b)* the ATC clearance relating to the transonic acceleration phase of a supersonic flight shall extend at least to the end of that phase;

*(c)* the flight crew shall read back to the air traffic controller safety-related parts of ATC clearances and instructions that were transmitted by voice;

*(d)* notwithstanding paragraph *(c)* the following items shall always be read back by flight crew:

(i) ATC route clearances;

(ii) clearances and instructions to enter, land on, take off from, hold short of, cross and backtrack on any runway; and

(iii) runway-in-use, altimeter settings, SSR codes, level instructions, heading and speed instructions and, whether issued by the controller or contained in ATIS broadcasts, transition levels;

*(e)* other clearances or instructions, including conditional clearances, shall be read back or acknowledged by the flight crew in a manner to clearly indicate that the clearance or instructions have been understood and will be complied with;

*(f)* the air traffic controller shall listen to the read-back to ascertain that the clearance or instruction has been correctly acknowledged by the flight crew and shall take immediate action to correct any discrepancies revealed by the read back;

*(g)* unless specified by the Authority, voice read-back of CPDLC messages shall not be required;

Note: *The procedures and provisions relating to the exchange and acknowledgement of CPDLC messages are contained in Annex 10, Volume II of the Chicago Convention, and PANS-ATM, Chapter 14.*

*(h)* an air traffic control clearance shall be co-ordinated between air traffic control units to cover the entire route of an aircraft or a specified portion thereof as follows:

(i) an aircraft shall be cleared for the entire route to the aerodrome of first intended landing when—

(A) it has been possible, prior to departure, to co-ordinate the clearance between all the units under whose control the aircraft will come; or

(B) there is reasonable assurance that prior co-ordination will be effected between those units under whose control the aircraft will subsequently come;

(ii) co-ordination as prescribed in paragraph (i) has not been achieved or is not anticipated, the aircraft shall be cleared only to that point when co-ordination is reasonably assured; prior to reaching such point, or at such point, the aircraft shall receive further clearance with holding instructions being issued as appropriate;

(iii) where prescribed by the appropriate ATS authority, aircraft shall contact a downstream air traffic control unit, for the purpose of receiving a downstream clearance prior to the transfer of control point;

(iv) aircraft shall maintain the necessary two-way communication with the current air traffic control unit while obtaining a downstream clearance;

(v) a clearance issued as a downstream clearance shall be clearly identifiable as such to the pilot;

(vi) unless co-ordinated, downstream clearances shall not affect the aircraft's original flight profile in any airspace, other than that of the air traffic control unit responsible for the delivery of the downstream clearance;

Note: *Requirements relating to the application of downstream clearance, delivery service are specified in Volume 2 of Annex 10 of the Chicago Convention. Guidance material is contained in the manual of air traffic services data link applications (ICAO Doc. 9694).*

(vii) when an aircraft intends to depart from an aerodrome within a control area to enter another control area within a period of thirty minutes, or such other specific period of time as has been agreed between the area control centres concerned, co-ordination with the subsequent area control centre shall be effected prior to issuance of the departure clearance;

(viii) when an aircraft intends to leave a control area for flight outside controlled airspace, and will subsequently re-enter the same or another control area, a clearance from point of departure to the aerodrome of first intended landing may be issued;

(xi) the clearance or revisions specified in paragraph (viii), shall apply only to those portions of the flight conducted within controlled airspace;

*(i)* ATFM shall be implemented for airspace where air traffic demand at times exceeds, or is expected to exceed, the declared capacity of the air traffic control services concerned;

*(j)* when it becomes apparent to an air traffic control unit that traffic additional to that already accepted cannot be accommodated within a given period of time at a particular location or in a particular area, or can only be accommodated at a given rate, that air traffic control unit shall so advise the ATFM unit, when such is established, as well as, when appropriate, air traffic services units concerned;

*(k)* flight crews of aircraft destined to the location or area in question and operators concerned shall also be advised of the delays expected or the restrictions that will be applied.

**CONTROL OF PERSONS AND VEHICLES AT AERODROMES**

8. (1) The movement of persons or vehicles including towed aircraft on the manoeuvring area of an aerodrome shall, where necessary, be controlled by the aerodrome control tower to avoid hazard to other persons, vehicles or to aircraft landing, taxiing or taking off.

(2) In conditions where low visibility procedures are in operation—

*(a)* persons and vehicles operating on the manoeuvring area of an aerodrome shall be restricted to the essential minimum, and in particular, regard shall be given to the requirements to protect the ILS sensitive areas when Category II or Category III precision instrument operations are in progress;

*(b)* subject to paragraph 8(3), the minimum separation between vehicles and taxiing aircraft shall be as prescribed by the Authority taking into account the landing aids available.

(3) Emergency vehicles proceeding to the assistance of an aircraft in distress shall be given priority over all other surface movement traffic.

(4) Subject to subclause (3), vehicles on the manoeuvring area shall be required to comply with the following:

*(a)* vehicles and vehicles towing aircraft shall give way to aircraft which are landing, taking off or taxiing;

*(b)* vehicles shall give way to other vehicles towing aircraft; and

*(c)* vehicles shall give way to other vehicles in accordance with ATS unit instructions.

(5) Notwithstanding subclause (4), vehicles and vehicles towing aircraft shall comply with instructions issued by the aerodrome control tower.

Regulation 6. [204/2009].

**PART C**

## FLIGHT INFORMATION SERVICE

The standards to be met for flight information service are as follows:

### SCOPE OF FLIGHT INFORMATION SERVICE

1. (1) Flight information service shall provide all information likely to affect safety including pertinent—

*(a)* SIGMET and AIRMET information;

*(b)* information concerning pre-eruption volcanic activity, volcanic eruptions and volcanic ash clouds;

*(c)* information concerning the release into the atmosphere of radioactive materials or toxic chemicals;

*(d)* information on changes in the availability of radio navigation services;

*(e)* information on changes in condition of aerodromes and associated facilities, including information on the state of the aerodrome movement areas where the aerodrome and movement areas are affected by significant depth of water and any other condition likely to affect safety; and

*(f)* information on unmanned free balloons.

(2) Flight information service provided to all flights shall include, in addition to the requirements specified in subclause (1), the provision of information concerning—

*(a)* weather conditions reported or forecast at departure, destination and alternate aerodromes;

*(b)* collision hazards to aircraft operating in airspace Classes C, D, E, F and G; and

*(c)* flight over water areas, where and when requested by a pilot, any available information including radio call sign, position, true track, speed of surface vessels in the area and other relevant information.

(3) Flight information service provided to VFR flights shall include, in addition to requirements specified in subclause (1), the provision of available information concerning traffic and weather conditions along the route of flight that are likely to make operation under the VFR impracticable.

### OPERATIONAL FLIGHT INFORMATION SERVICE BROADCASTS

2. (1) Meteorological information and operational information concerning radio navigation services and aerodromes included in the flight information service shall, where available, be provided in an operationally integrated form.

(2) Where requested by a pilot the applicable operational flight information service messages shall be transmitted by the appropriate ATS unit.

(3) Voice-ATIS broadcasts shall meet the following requirements:

*(a)* be provided at aerodromes where there is a requirement to reduce the communication load on the ATS VHF air-ground communication channels and comprise—

(i) one broadcast serving arriving aircraft;

(ii) one broadcast serving departing aircraft;

(iii) one broadcast serving both arriving and departing aircraft; or

(iv) two broadcasts serving arriving and departing aircraft respectively at those aerodromes where the length of a broadcast serving both arriving and departing aircraft would be excessively long;

*(b)* use a discrete VHF frequency, where practicable;

*(c)* where a discrete VHF frequency is not available, the transmission of the Voice-ATIS broadcast may be made on the voice channel of the most appropriate terminal navigation aid, preferably a VOR, provided that the range and readability are adequate and the identification of the navigation aid is sequenced with the broadcast so that the Voice-ATIS broadcast is not obliterated;

*(d)* Voice-ATIS broadcast shall not be transmitted on the voice channel of an ILS;

*(e)* where Voice-ATIS is provided, the broadcast shall be continuous and repetitive;

*(f)* information contained in a current broadcast shall immediately be made known to the ATS unit concerned with the provision to aircraft of information relating to approach, landing and take-off, where the message has not been prepared by that ATS unit;

*(g)* Voice-ATIS broadcast provided at designated aerodromes for use by international air services shall be made available in the English Language;

(4) D-ATIS shall meet the following requirements—

*(a)* where a D-ATIS supplements the existing availability of Voice-ATIS, the information shall be identical in both content and format to the applicable Voice-ATIS broadcast;

*(b)* where real-time meteorological information is included but the data remains within the parameters of the significant

change criteria, the content shall be considered identical, for the purpose of maintaining the same designator; and

*(c)* where a D-ATIS supplements the existing availability of Voice-ATIS and the ATIS requires updating Voice-ATIS and D-ATIS shall be updated simultaneously.

(5) Automatic Voice-ATIS and D-ATIS shall meet the following requirement:

*(a)* where Voice-ATIS or D-ATIS is provided—

(i) the information communicated shall relate to a single aerodrome;

(ii) the information communicated shall be updated immediately where a significant change occurs;

(iii) the preparation and dissemination of the ATIS message shall be the responsibility of the appropriate ATS unit;

(iv) individual ATIS messages shall be identified by a designator in the form of a letter of the ICAO spelling alphabet;

(v) designators assigned to consecutive ATIS messages shall be in alphabetical order;

(vi) flight crew shall acknowledge receipt of the information upon establishing communication with the ATS unit providing approach control service or the aerodrome control tower, as appropriate;

(vii) the appropriate ATS unit shall, when replying to the message in paragraph (vi) or, in the case of arriving aircraft, at such other time as may be prescribed by the Authority, provide the aircraft with the current altimeter setting; and

(viii) the meteorological information shall be extracted from the local meteorological routine or special report;

*(b)* where rapidly changing meteorological conditions make it inadvisable to include a weather report in the ATIS, the ATIS messages shall indicate that the relevant weather information will be given on initial contact with the appropriate ATS unit;

*(c)* where information contained in a current ATIS, has been acknowledged as being received by the aircraft concerned, the information received need not be included in a directed transmission to the aircraft, except for the altimeter setting, which shall be provided in accordance with subparagraph (5)*(a)*(vii);

*(d)* where an aircraft acknowledges receipt of an ATIS that is not current, any element of information that needs updating shall be transmitted to the aircraft without delay.

(6) ATIS messages for both arriving and departing aircraft shall contain arrival and departure information in the order listed as follows:

*(a)* name of aerodrome;

*(b)* arrival and departure indicator;

*(c)* contract type, where communication is by D-ATIS;

*(d)* designator;

*(e)* time of observation, where appropriate;

*(f)* type of approaches to be expected;

*(g)* the runway in use; and if applicable status of arresting system constituting a potential hazard;

*(h)* significant runway surface conditions and where appropriate, braking action;

*(i)* holding delay where appropriate;

*(j)* transition level where applicable;

*(k)* other essential operational information;

*(l)* surface wind direction and speed, including significant variations and where surface wind sensors related specifically to the sections of runway in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers;

**(m)* visibility and when applicable, RVR;

**(n)* present weather;

**(o)* cloud below 5,000 feet or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available;

*(p)* air temperature;

*(q)* dew point temperature as determined on the basis of regional air navigation agreements;

*(r)* altimeter setting;

*(s)* any available information on significant meteorological phenomena in the approach and climb-out areas including wind shear, and information on recent weather of operational significance;

*(t)* trend forecast, when available; and

*(u)* specific ATIS instructions.

(7) ATIS messages for arriving aircraft containing arrival information only shall be presented in the order listed as follows:

*(a)* name of aerodrome;

*(b)* arrival indicator;

*(c)* contract type, where communication is by D-ATIS;

*(d)* designator;

*(e)* time of observation, if appropriate;

*(f)* type of approach to be expected;

*(g)* main landing runway; status of arresting system constituting a potential hazard, if any;

*(h)* significant runway surface conditions and, if appropriate, braking action;

*(i)* holding delay, if appropriate;

*(j)* transition level, if applicable;

*(k)* other essential operational information;

*(l)* surface wind direction and speed, including significant variations and, if surface wind sensors related specifically to the sections of runway in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers;

*(m)* visibility and, when applicable, RVR;

*(n)* present weather;

*(o)* cloud below 1 500 m (5,000 ft) or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available;

*(p)* air temperature;

*(q)* dew point temperature as determined on the basis of regional air navigation agreements;

*(r)* altimeter setting;

*(s)* any available information on significant meteorological phenomena in the approach area including wind shear, and information on recent weather of operational significance;

*(t)* trend forecast, when available; and

*(u)* specific ATIS instructions.

(8) ATIS messages for departing aircraft containing departure information only, shall be presented in the order listed as follows:

*(a)* name of aerodrome;

*(b)* departure indicator;

*(c)* contract type, if communication is by D-ATIS;

*(d)* designator;

*(e)* time of observation, where appropriate;

*(f)* runways to be used for take-off and where applicable status of arresting system constituting a potential hazard;

*(g)* significant surface conditions of runway to be used for take-off and where appropriate, braking action;

*(h)* departure delay, where appropriate;

*(i)* transition level, where applicable;

*(j)* other essential operational information;

*(k)* surface wind direction and speed, including significant variations and, if surface wind sensors related specifically to the sections of runways in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers;

**(l)* visibility and, when applicable, RVR;

**(m)* present weather;

**(n)* cloud below 5,000 feet or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available;

*(o)* air temperature;

*(p)* dew point temperature as determined on the basis of regional air navigation agreements;

*(q)* altimeter setting;

*(r)* any available information on significant meteorological phenomena in the climb-out area including wind shear;

*(s)* trend forecast, when available; and

*(t)* specific ATIS instructions.

Note: *The items marked with an asterisk (*) are replaced by the term "CAVOK", where the conditions as specified in the PANS-ATM (Doc 4444), Chapter 11 prevail.*

**PART D**

Regulation 9. [100/2009].

## ALERTING SERVICE

### APPLICATION

The standards required to be met for alerting service are as follows:

1. (1) Flight information centres or area control centres shall serve as the central point for collecting all information relevant to a state of

emergency of an aircraft operating within the flight information region or control area concerned and for forwarding the information to the appropriate rescue co-ordination centre.

(2) Where there is an emergency affecting an aircraft while the aircraft is under the control of an aerodrome control tower unit or approach control unit, that unit shall immediately notify the flight information centre or area control centre responsible and thereafter the flight information centre or area control centre shall notify the rescue co-ordination centre.

(3) Subject to subclause (2), notification of the area control centre, flight information centre, or rescue co-ordination centre shall not be required where the nature of an emergency is such that the notification would be superfluous.

(4) Where in an emergency under subclause (2), it is determined that the nature of the emergency requires urgent attention, the aerodrome control tower or approach control unit responsible, shall first alert and take other necessary steps to set in motion all appropriate local rescue and emergency organisations which can give the immediate assistance required.

**NOTIFICATION OF RESCUE CO-ORDINATION CENTRES**

2. (1) ATS units shall immediately notify rescue co-ordination centres where an aircraft is considered to be in any phase of a state of emergency set out below:

*(a)* uncertainty phase when—

(i) no communication has been received from an aircraft within a period of thirty minutes after the time a communication should have been received, or from the time an unsuccessful attempt to establish communication with the aircraft was first made, whichever is the earlier; or

(ii) an aircraft fails to arrive within thirty minutes of the estimated time of arrival last notified to or estimated by ATS units, whichever is the later;

*(b)* alert phase when—

(i) following the uncertainty phase, subsequent attempts to establish communication with the aircraft or inquiries to other relevant sources have failed to reveal any news of the aircraft;

(ii) the aircraft has been cleared to land and fails to land within five minutes of the estimated time of landing and communication has not been re-established with the aircraft;

(iii) information has been received which indicates that the operating efficiency of the aircraft has been impaired, but not to the extent that a forced landing is likely; or

(iv) an aircraft is known or believed to be the subject of an act of unlawful interference;

*(c)* distress phase when—

(i) following the alert phase, further unsuccessful attempts to establish communication with the aircraft and more widespread unsuccessful inquiries point to the probability that the aircraft is in distress; or

(ii) the fuel of an aircraft is considered to be exhausted, or to be insufficient to enable the aircraft to reach safety; or

(iii) information is received which indicates that the operating efficiency of the aircraft has been impaired to the extent that a forced landing is likely; or

(iv) information in respect of the aircraft is received or it is reasonably certain that the aircraft is about to make or has made a forced landing.

(2) In addition to the requirements under subclause (1), rescue co-ordination centre shall, without delay, be furnished with—

*(a)* any useful additional information, especially on the development of the state of emergency of an aircraft through subsequent phases; or

*(b)* information that the emergency situation no longer exists.

(3) A notification under this clause shall contain information where available in the order listed as follows:

*(a)* INCERFA, ALERFA or DETRESFA, as appropriate to the phase of the emergency;

*(b)* agency and person calling;

*(c)* nature of the emergency;

*(d)* significant information from the flight plan;

*(e)* ATC unit which made last contact, time and means used;

*(f)* last position report in respect of the aircraft and how determined;

*(g)* colour and distinctive marks of aircraft;

*(h)* dangerous goods carried as cargo on board the aircraft;

*(i)* any action taken by reporting office; and

*(j)* other pertinent remarks.

(4) The rescue co-ordination centre shall be provided without delay with—

*(a)* any useful additional information especially on the development of the state of emergency through subsequent phases; and

*(b)* information that the emergency situation no longer exists.

**INFORMATION TO THE OPERATOR**

3. (1) Where an area control centre or a flight information centre decides that an aircraft is in the uncertainty or the alert phase, the area control centre or flight control centre shall, where practicable, advise the operator prior to notifying the rescue co-ordination centre.

(2) All information which has been notified to the rescue co-ordination centre by an area control centre or flight information centre shall, where practicable, also be communicated, without delay, to the operator.

**USE OF COMMUNICATION FACILITIES**

4. ATS units shall, where necessary, use all available communication facilities to establish and maintain communication with an aircraft in an emergency, and to request news of the aircraft.

**PLOTTING AIRCRAFT IN A STATE OF EMERGENCY**

5. (1) In an emergency, the flight of an aircraft involved shall be plotted on a chart in order to determine the probable future position of the aircraft and its maximum range from its last known position.

(2) Other aircraft known to be operating in the vicinity of the aircraft involved in an emergency, shall also be plotted on a chart in order to determine the probable future positions and maximum endurance of those aircraft.

**INFORMATION TO AIRCRAFT OPERATING IN THE VICINITY OF AN AIRCRAFT IN A STATE OF EMERGENCY**

6. (1) When it has been established by an ATS unit that an aircraft is in a state of emergency, other aircraft known to be in the vicinity of the aircraft involved shall, except as provided in subclause (2) be informed of the nature of the emergency as soon as possible.

(2) When an ATS unit knows or believes that an aircraft is being subjected to an act of unlawful interference, no reference shall be made in ATS air-ground communications to the nature of the emergency unless it has first been referred to in communications from the aircraft involved and it is certain that such reference will not aggravate the situation.

Regulation 10. [100/2009].

## PART E

## AIR TRAFFIC SERVICES REQUIREMENTS FOR COMMUNICATIONS

The standards required to be met for ATS communications are as follows:

### AERONAUTICAL MOBILE SERVICE FOR AIR-GROUND COMMUNICATIONS

1. (1) Radiotelephony or data link shall be used in air-ground communications for air traffic services.

(2) When direct pilot-controller two-way radiotelephony or data link communication is used for the provision of air traffic control service, recording facilities shall be provided on all air-ground communication channels.

(3) Air-ground communication under subclause (2) shall be recorded and retained for a period of at least thirty days.

1A. Where RCP types have been prescribed by the Authority for ATM functions, ATS units shall, in addition to the requirements specified in paragraph (1), be provided with communication equipment which will enable them to provide ATS in accordance with the prescribed RCP types.

2. The following standards are required to be met by air ground communication facilities:

*(a)* flight information services: this service shall enable two-way communication to take place between ATS unit providing flight information service and appropriately equipped aircraft flying anywhere within the flight information region;

*(b)* area control service: this service shall enable two-way communications to take place between a unit providing area control service and appropriately equipped aircraft flying anywhere within the control area;

*(c)* aerodrome control service: this service shall enable direct, rapid, continuous and static-free two-way communications to take place between an aerodrome control tower and appropriately equipped aircraft operating at any distance within 45 kilometres (25 NM) of the aerodrome concerned; and

*(d)* approach control service: this service shall—

(i) enable direct, rapid, continuous and static-free two-way communications to take place between the unit providing approach control service and appropriately equipped aircraft under its control; and

(ii) where an air ground communication facility is providing approach control service functions under

subparagraph (i) as a separate unit, air-ground communications shall be conducted over communication channels provided for its exclusive use.

**AERONAUTICAL FIXED SERVICE FOR GROUND-GROUND COMMUNICATIONS**

3. (1) Direct-speech or data link communications shall be used in ground-ground communications for ATS.

(2) Communications within a flight information region between ATS units shall be as follows:

*(a)* a flight information centre shall have facilities for communications with the following units providing a service within its area of responsibility:

(i) the area control centre, unless collocated;

(ii) approach control units; and

(iii) aerodrome control towers;

*(b)* an area control centre, in addition to being connected to the flight information centre as prescribed in subparagraph *(a)*, shall have facilities for communications with the following units providing a service within its area of responsibility:

(i) approach control units;

(ii) aerodrome control towers; and

(iii) ATS reporting offices, when separately established;

*(c)* an approach control unit, in addition to being connected to the flight information centre and the area control centre as prescribed in subparagraphs *(a)* and *(b)*, shall have facilities for communications with the associated aerodrome control tower and, where separately established, the associated ATS reporting office;

*(d)* an aerodrome control tower, in addition to being connected to the flight information centre, the area control centre and the approach control unit as prescribed in subparagraphs *(a)*, *(b)* and *(c)*, shall have facilities for communications with the associated ATS reporting office, where separately established;

(3) Communication within a flight information region between air traffic services units and other units shall be as follows:

*(a)* a flight information centre and an area control centre shall have facilities for communications with the following units providing a service within the respective area of responsibility to the flight information centre and area control centre:

(i) appropriate military units;

(ii) the meteorological office serving the centre;

(iii) the aeronautical telecommunications station serving the centre;

(iv) appropriate operator's offices;

(v) the rescue co-ordination centre or, in the absence of a rescue co-ordination centre, any other appropriate emergency service; and

(vi) the international NOTAM office serving the centre;

*(b)* an approach control unit and an aerodrome control tower shall have facilities for communications with the following units providing a service within the respective area of responsibility of the approach control unit and aerodrome control tower:

(i) appropriate military units;

(ii) rescue and emergency services including ambulance and fire;

(iii) the meteorological office serving the unit concerned;

(iv) the aeronautical telecommunications station serving the unit concerned; and

(v) the unit providing apron management service, when separately established;

*(c)* the communication facilities required under subparagraphs *(a)*(i) and *(b)*(i), shall include provisions for rapid and reliable communications between the ATS unit concerned and the military unit responsible for control of interception operations within the area of responsibility of the ATS unit.

(4) Description of communication facilities within a flight information region shall be as follows:

*(a)* the communication facilities required under subclauses 3(2), (3)*(a)*(i) and (3)*(b)*(i), (ii) and (iii) and shall include provisions for—

(i) communications by direct speech alone, or in combination with data link communications, whereby for the purpose of transfer of control using radar or ADS-B, the communications can be established instantaneously and for other purposes the communications can normally be established within fifteen seconds; and

(ii) printed communications, when a written record is required; the message transit time for such communications being no longer than five minutes;

*(b)* in all cases where automatic transfer of data to or from ATS computers is required, suitable facilities for automatic recording shall be provided;

*(c)* the communication facilities required under subparagraphs (3)*(a)*(i), (ii) and (iii), shall include provisions for communications by direct speech arranged for conference communications;

*(d)* all facilities for direct-speech or data link communications between ATS units or between air traffic services units and other units described under subparagraphs (3)*(a)* and *(b)*, shall be provided with automatic recording; and

*(e)* recordings of data and communications as required in subparagraphs (3)*(c)* and (4)*(d)*, shall be retained for a period of at least thirty days.

(5) Communications between flight information regions shall be as follows:

*(a)* light information centres and area control centres shall have facilities for communications with all adjacent flight information centres and area control centres;

*(b)* the communication facilities under subparagraph (5)*(a)*, shall in all cases include provisions for messages in a form suitable for retention as a permanent record, and delivery in accordance with transit times specified by regional air navigation agreements;

*(c)* unless otherwise prescribed on the basis of regional air navigation agreements, facilities for communications between area control centres serving contiguous control areas shall, in addition, include provisions for direct speech and, where applicable, data link communications, with automatic recording, whereby for the purpose of transfer of control using radar, ADS-B or ADS-C data the communications can be established instantaneously and for other purposes the communications can normally be established within fifteen seconds;

*(d)* where so required by agreement between the States concerned in order to eliminate or reduce the need for interceptions in the event of deviations from assigned track, facilities for communications between adjacent flight information centres or area control centres other than those mentioned in subparagraphs (5)*(c)*, shall include provisions for direct speech alone, or in combination with data link communications;

*(e)* the communication facilities shall be provided with automatic recording;

*(f)* in all cases where automatic exchange of data between ATS computers is required, suitable facilities for automatic recording shall be provided; and

*(g)* recordings of data and communications as required in paragraph (5)*(f)*, shall be retained for a period of at least thirty days.

3A. Where RCP types have been prescribed by the Authority for ATM functions, ATS units shall, in addition to the requirements specified in paragraph (1), be provided with communication equipment which will enable them to provide ATS in accordance with the prescribed RCP types.

**SURFACE MOVEMENT CONTROL SERVICE**

4. Communications for the control of vehicles other than aircraft on manoeuvring areas at controlled aerodromes shall be as follows:

*(a)* two-way radiotelephony communication facilities shall be provided for aerodrome control service for the control of vehicles on the manoeuvring area, except where communication by a system of visual signals is deemed to be adequate;

*(b)* where conditions warrant, separate communication channels with automatic recording facilities shall be provided for the control of vehicles on the manoeuvring area;

*(c)* recordings of communications as required in paragraph *(b)*, shall be retained for a period of at least thirty days.

**AERONAUTICAL RADIO NAVIGATION SERVICE**

5. Automatic recording of surveillance data shall be as follows:

*(a)* surveillance data from primary and secondary radar equipment or other systems such as ADS-B and ADS-C used as an aid to ATS, shall be automatically recorded for use in—

(i) accident and incident investigations;

(ii) search and rescue;

(iii) air traffic control; and

(iv) surveillance systems evaluation and training;

*(b)* automatic recordings of surveillance data shall be retained for a period of at least thirty days;

*(c)* where the recordings under paragraph *(b)* are pertinent to accident and incident investigations, they shall be retained for longer periods until it is evident that the recordings are no longer required.

Regulation 9. [100/2009 204/2009].

## PART F

## AIR TRAFFIC SERVICES REQUIREMENTS FOR INFORMATION

The standards required to be met for Air Traffic Services Requirements for information are as follows:

### METEOROLOGICAL INFORMATION

1. (1) ATS units shall be supplied with up-to-date information on existing and forecast meteorological conditions as necessary for the performance of their respective functions.

(2) The information under subparagraph (1), shall be supplied in such a form as to require a minimum of interpretation on the part of air traffic services personnel and with a frequency which satisfies the requirements of the air traffic services units concerned.

(3) ATS units shall be supplied with available detailed information on the location, vertical extent, direction and rate of movement of metrological phenomena in the vicinity of the aerodrome and particularly in the climb-out and approach areas, which could be hazardous to aircraft operations.

2. Flight information centres and area control centres:

*(a)* flight information centres and area control centres shall be supplied with meteorological information as described in Annex 3, Appendix 9, 1.3, covering the flight information region or control area and such other areas as may be determined on the basis of regional air navigation agreements, particular emphasis being given to the occurrence or expected occurrence of weather deterioration as soon as this can be determined;

*(b)* flight information centres and area control centres shall be provided, at suitable intervals, with current pressure data for setting altimeters, for locations specified by the flight information centre or area control centre concerned.

3. Units providing approach control service:

*(a)* units providing approach control service shall be supplied with meteorological information as described in Annex 3, Appendix 9, 1.2 for the airspace and the aerodromes with which units providing approach control service are concerned;

*(b)* special reports and amendments to forecasts shall be communicated to the units providing approach control service as soon as they are necessary in accordance with established criteria, without waiting for the next routine report or forecast;

*(c)* where multiple sensors are used, the displays to which the multiple sensors are related shall be clearly marked to identify the runway and section of the runway monitored by each sensor;

*(d)* units providing approach control service shall be provided with current pressure data for setting altimeters, for locations specified by the unit providing approach control service;

*(e)* units providing approach control service for final approach, landing and take-off shall be equipped with surface wind display;

*(f)* the display under paragraph *(e)*, shall be related to the same location of observation and be fed from the same sensor as the corresponding display in the aerodrome control tower and in the meteorological station, where a meteorological station exists;

*(g)* units providing approach control service for final approach, landing and take-off at aerodromes where runway visual range values are assessed by instrumental means shall be equipped with display permitting read-out of the current RVR value;

*(h)* the display under paragraph *(g)*, shall be related to the same location of observation and be fed from the same sensor as the corresponding displays in the aerodrome control tower and in the meteorological station, where a meteorological station exists;

*(i)* units providing approach control service for final approach, landing and take-off shall be supplied with information on wind shear which could adversely affect aircraft on the approach or take-off paths or during circling approach.

4. Aerodrome control towers:

*(a)* aerodrome control towers shall be supplied with meteorological information as described in Annex 3, Appendix 9, 1.1 for the aerodrome with which they are concerned;

*(b)* special reports and amendments to forecasts shall be communicated to the aerodrome control towers as soon as the special reports and amendments to forecasts become necessary in accordance with established criteria, without waiting for the next routine report or forecast;

*(c)* aerodrome control towers shall be provided with current pressure data for setting altimeters for the aerodrome concerned;

*(d)* aerodrome control towers shall be equipped with surface wind display;

*(e)* the display under paragraph *(d)*, shall be related to the same location of observation and be fed from the same sensor as the corresponding display in the meteorological station, where such a station exists;

*(f)* where multiple sensors are used, the displays to which the multiple sensors are related shall be clearly marked to identify the runway and section of the runway monitored by each sensor;

*(g)* aerodrome control towers at aerodromes where RVR range values are measured by instrumental means shall be equipped with display permitting read-out of the current RVR value;

*(h)* the display under paragraph *(g)*, shall be related to the same location of observation and be fed from the same sensor as the corresponding display in the meteorological station, where a meteorological station exists;

*(i)* aerodrome control towers shall be supplied with information on wind shear which can adversely affect aircraft on the approach or take-off paths or during circling approach and aircraft on the runway during the landing roll or take-off run.

5. Communication stations:

*(a)* where necessary for flight information purposes, current meteorological reports and forecasts shall be supplied to communication stations;

*(b)* a copy of the information under paragraph *(a)*, shall be forwarded to the flight information centre or the area control centre.

**INFORMATION ON AERODROME CONDITION AND THE OPERATIONAL STATUS OF ASSOCIATED FACILITIES**

6. Aerodrome control towers and units providing approach control service shall be kept currently informed of the operationally significant conditions of the movement area, including the existence of temporary hazards, and the operational status of any associated facilities at the aerodrome with which aerodrome control towers and approach control units are concerned.

**INFORMATION ON THE OPERATIONAL STATUS OF NAVIGATION SERVICES**

7. ATS units shall be kept currently informed of the operational status of radio navigation services, and those visual aids essential for take-off, departure, approach and landing procedures within the area of responsibility of the ATS units and those radio navigation services and visual aids essential for surface movement.

**INFORMATION ON UNMANNED FREE BALLOONS**

8. Operators of unmanned free balloons shall keep the appropriate ATS units informed of details of flights of unmanned free balloons in accordance with the provisions contained in Civil Aviation [(No. 2) Operations], Regulations. Sub. Leg.

**INFORMATION CONCERNING VOLCANIC ACTIVITY**

9. (1) ATS units shall be informed, in accordance with local agreement, of pre-eruption volcanic activity, volcanic eruptions and volcanic ash cloud which could affect airspace used by flights within the area of responsibility of the ATS units.

(2) Area control centres and flight information centres shall be provided with volcanic ash advisory information issued by the associated volcanic ash advisory information centre.

**INFORMATION CONCERNING RADIOACTIVE MATERIALS AND TOXIC CHEMICAL "CLOUDS"**

10. ATS units shall be informed, in accordance with local agreement, of the release into the atmosphere of radioactive materials or toxic chemicals which could affect airspace used by flights within the area of responsibility of the ATS units.

## SCHEDULE 2

Regulation 13.

### PART A

## GENERAL

### RESPONSIBILITIES AND FUNCTIONS

The following are the standards required to be met by the Authority in providing Aeronautical Information Services:

1. (1) Except in circumstances where aeronautical information service is provided to an aircraft in flight in the area of responsibility of the aeronautical information service on a continuous basis, the minimum period for the provision of aeronautical information service to an aircraft in flight in the area of responsibility of the information flight service shall be for at least two hours before the flight and throughout the entire flight until two hours after the flight has ended.

(2) Aeronautical information services under subclause (3) shall also be made available at such other time as may be requested by an appropriate ground organisation.

(3) Any aeronautical information and aeronautical data provided by aeronautical information services that is necessary for the safety, regularity or efficiency of air navigation shall be made available—

*(a)* promptly to the aeronautical information service of other Contracting States; and

*(b)* in a form suitable for the operational requirements of—

(i) persons involved in flight operations, including flight crews, flight planning and flight simulators; and

(ii) the air traffic services unit responsible for flight information service and the services responsible for pre-flight information.

(4) An aeronautical information service shall—

*(a)* receive;

*(b)* generate;

*(c)* collate or assemble;

*(d)* edit;

*(e)* format;

*(f)* publish; and

*(g)* distribute aeronautical information and aeronautical data concerning the entire territory of Trinidad and Tobago as well as areas in which the Authority is responsible for air traffic services outside the territory of Trinidad and Tobago.

(5) All aeronautical information shall be published as an Integrated Aeronautical Information Package.

**QUALITY SYSTEM**

2. (1) Established quality system shall provide users with the necessary assurance and confidence that distributed aeronautical information and aeronautical data satisfy stated requirements for data quality (accuracy, resolution and integrity) and for data traceability by the use of appropriate procedures in every stage of data production or data modification process.

(2) The system shall also provide assurance of the applicability period of intended use of aeronautical data as well as that the agreed distribution dates will be met.

(3) The order of accuracy for aeronautical data, based upon a ninety-five per cent confidence level, shall be as specified in Part A of Schedule 1 and Chapter 2 Annex 14 of the ICAO. Part A. Schedule 1.

(4) In determining the order of accuracy for aeronautical data the three types of positional data shall be identified as follows:

*(a)* surveyed points such as runway thresholds, navigation aid positions, etc.;

*(b)* calculated points based on mathematical calculations from the known surveyed points of points in space and fixes and declared points such as flight information region boundary points.

(5) The order of publication resolution of aeronautical data shall be that as specified in the Appendix to this Part.

(6) The integrity of aeronautical data is maintained throughout the data process from survey and origin to distribution to the next intended user.

(7) Aeronautical data integrity requirements shall be based upon the potential risk resulting from the corruption of data and upon the use to which the data item is put.

(8) Further to the requirements in subclause (7), the following classifications and data integrity levels shall apply:

*(a)* critical data, integrity level $1 \times 10^{-8}$: there is a high probability when using corrupted critical data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe;

*(b)* essential data, integrity level $1 \times 10^{-5}$: there is a low probability when using corrupted essential data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe; and

*(c)* routine data, integrity level 1 x $10^{-3}$: there is a very low probability when using corrupted routine data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe.

(9) Aeronautical data quality requirements related to classification and data integrity shall be as provided in Tables A–1 through A–5 of the Appendix to this Part.

(10) Protection of electronic aeronautical data while stored or in transit shall be totally monitored by the CRC.

(11) To achieve protection of the integrity level of critical and essential aeronautical data as classified in subclauses (10) and (11), a 32 – or 24 – bit CRC algorithm shall apply respectively.

(12) The material to be issued as part of the Integrated Aeronautical Information Package shall be thoroughly checked and co-ordinated with the responsible services before it is submitted to the aeronautical information service, in order to make certain that all necessary information has been included and that it is correct in detail prior to distribution.

(13) Validation and verification procedures shall be established to ensure that quality requirements including accuracy, resolution, integrity and traceability of aeronautical data are met.

Note: *Guidance material on liaison with other related services is contained in the Aeronautical Services Manual ICAO Doc 8126.*

(14) An audit shall be conducted of the quality system applied to evaluate the degree at compliance with standards prescribed in this clause.

(15) Where nonconformity is identified, corrective action shall be determined and applied.

(16) All audit observations and remedial actions shall be evidenced and properly documented.

Note: *Guidance material on the aeronautical data requirements (accuracy, resolution, integrity and traceability) is contained in ICAO Doc 9684 (WGS 84) Manual.*

**EXCHANGE OF AERONAUTICAL INFORMATION AND AERONAUTICAL DATA**

3. (1) The Authority shall designate the office to which all elements of the Integrated Aeronautical Information Package originated by other States are to be forwarded.

(2) The office designated under subclause (1), shall be qualified to deal with requests for information and aeronautical data originated by other States.

(3) Where the Authority designates more than one international NOTAM office, the Director-General shall define the extent of responsibility and the territory covered by each office.

(4) The aeronautical information service shall arrange, as necessary, to satisfy operational requirements for the issue and receipt of NOTAM distributed by telecommunication.

(5) The Director-General shall, wherever practicable, establish direct contact with other AIS in order to facilitate the international exchange of aeronautical information and aeronautical data.

(6) One copy of each of the elements of the Integrated Aeronautical Information Package, in paper or electronic form or both, that has been requested by an AIS of another Contracting State shall be made available by the Director-General in the mutually-agreed form, without charge, even where authority for publication, storage and distribution has been delegated to a commercial agency.

**COPYRIGHT**

4. Any AIS product of another Contracting State which has been granted copyright protection shall only be made available to a third party on the condition that the third party is made aware that the product is copyright protected and provided that it is appropriately annotated that the product is subject to copyright protection of the originating State.

**GENERAL SPECIFICATIONS**

5. (1) Each element of the Integrated Aeronautical Information Package for international distribution shall include English text for those parts expressed in plain language.

(2) The name of places shall be spelt in conformity with local usage and transliterated, where necessary, into the Latin alphabet.

6. ICAO abbreviations shall be used in the aeronautical information services where the abbreviations are appropriate and the use of those abbreviations will facilitate distribution of information and data.

7. (1) Each prohibited area, restricted area, or danger area established by the Authority shall, upon initial establishment, be given an identification and full details shall be promulgated under ENR 5.1 of the AIP.

(2) The identification assigned under subclause (4) shall—

*(a)* be used to identify the area in all subsequent notifications pertaining to that area; and

*(b)* be composed of a group of letters and figures as follows:

(i) nationality letters for location indicators assigned to the State or territory which has established the airspace;

(ii) a letter P for prohibited area, R for restricted area and D for danger area as appropriate; and

(iii) a number, unduplicated within the State or territory concerned.

(3) Identification numbers shall not be reused for a period of at least one year after cancellation of the area to which they refer.

8. Human factors principles shall be taken into consideration in determining the organisation of the aeronautical information services as well as the design, contents, processing and distribution of aeronautical information and data to facilitate their optimum utilisation.

**COMMON REFERENCE SYSTEMS FOR AIR NAVIGATION**

9. (1) Common reference system used for air navigation shall be as follows:

*(a)* World Geodetic System—1984 shall be used as the horizontal geodetic reference system for international air navigation and published aeronautical geographical co-ordinates indicating latitude and longitude shall be expressed in terms of the WGS-84 geodetic reference datum;

*(b)* geographical co-ordinates which have been transformed into WGS-84 co-ordinates but whose accuracy of original field work does not meet the requirements in Part A of Schedule 1 and Chapter 2 of Volume 1 of Annex 14 of the Chicago Convention, shall be identified by an asterisk;

*(c)* the order of publication resolution of geographical co-ordinates shall be that specified in Table A-1 of the Appendix while the order of chart resolution of geographical coordinates shall be that specified in Table 1 of Part A of Appendix 3 of Schedule 3.

(2) Vertical reference system for air navigation shall be as follows:

*(a)* MSL datum, which gives the relationship of gravity-related height (elevation) to a surface known as the geoid, shall be used as the vertical reference system for international air navigation;

*(b)* The Earth Gravitational Mode—1996 (EGM—96), containing long wavelength gravity field data to degree and order 360, shall be used by international air navigation as the global gravity model;

*(c)* Geographical positions where the accuracy of EGM-96 does not meet the accuracy requirements for elevation and geoid undulation specified in Volumes I and II of Annex 14, on the basis of EGM-96 data, regional, national or local geoid models containing high resolution (short wavelength) gravity field data shall be developed and used;

*(d)* where a geoid model other than the EGM-96 model is used, a description of the model used, including the parameters required for height transformation between the model and EGM-96, shall be provided in the AIP;

*(e)* further to elevation referenced to the MSL (geoid), for the specific surveyed ground positions, geoid undulation (referenced to the WGS-84 ellipsoid) for those positions specified in the Appendix to Part B of Schedule 2 shall also be published; and

*(f)* the order of publication resolution of elevation and geoid undulation shall be that specified in Table A-2 of the Appendix, while the order of chart resolution of elevation and geoid undulation shall be that specified in Table 3 of Part A of Appendix 3 of Schedule 3.

(3) Temporal references for air navigation shall be as follows:

*(a)* for international civil aviation, the Gregorian calendar and Co-ordinated Universal Time (UTC) shall be used as the temporal reference system; and

*(b)* where a different temporal reference system is used for some applications, the feature catalogue, or the metadata associated with an application schema or a data set, as appropriate, shall include either a description of that system or a citation for a document that describes that temporal reference system.

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*L.R.O.*

# APPENDIX

## TABLE A-1 LATITUDE AND LONGITUDE

[Schedule 2 Part A Paragraph 2(13)].

| Latitude and Longitude | Publication Resolution | Integrity Classification |
|---|---|---|
| Flight Information region boundary points | 1 min | $1 \times 10^{-3}$ routine |
| P.R.D. area boundary points (outside CTA/CTZ boundaries) | 1 min | $1 \times 10^{-3}$ routine |
| P.R.D. area boundary points (inside CTA/CTZ boundaries) | 1 sec | $1 \times 10^{-5}$ essential |
| CTA/CTZ boundary points | 1 sec | $1 \times 10^{-5}$ essential |
| En route NAVAIDS and Fixes holding, STAR/SID points | 1 sec | $1 \times 10^{-5}$ essential |
| Obstacles in Area 1 (the entire state territory) | 1 sec | $1 \times 10^{-3}$ routine |
| Aerodrome/heliport reference point | 1 sec | $1 \times 10^{-3}$ routine |
| NAVAIDS located at the aerodrome/heliport | 1/10 sec | $1 \times 10^{-5}$ essential |
| Obstacles in Area 3 | 1/10 sec | $1 \times 10^{-5}$ essential |
| Obstacles in Area 2 | 1/10 sec | $1 \times 10^{-5}$ essential |
| Final approach fixes/points and other essential fixes/ points comprising the instrument approach procedure | 1/10 sec | $1 \times 10^{-5}$ essential |
| Runway threshold | 1/100 sec | $1 \times 10^{-8}$ critical |
| Runway end (flight path alignment point) | 1/100 sec | $1 \times 10^{-8}$ critical |
| Runway holding position | 1/100 sec | $1 \times 10^{-8}$ critical |
| Taxiway centre line/parking guidance line points | 1/100 sec | $1 \times 10^{-5}$ essential |
| Taxiway intersection marking line | 1/100 sec | $1 \times 10^{-5}$ essential |
| Exit guidance line | 1/100 sec | $1 \times 10^{-5}$ essential |
| Aircraft stand points/INS checkpoints | 1/100 sec | $1 \times 10^{-3}$ routine |
| Geometric centre of TLOF or FATO thresholds, heliport | 1/100 sec | $1 \times 10^{-8}$ critical |
| Apron boundaries (polygon) | 1/10 sec | $1 \times 10^{-3}$ routine |
| De-icing/Anti-icing facility (polygon) | 1/10 sec | $1 \times 10^{-3}$ routine |

*See* the Appendix to Part H of Schedule 2 for graphical illustration of obstacle data collection surfaces and criteria used to identify obstacles in the defined area.

**TABLE A-2 ELEVATION/ALTITUDE/HEIGHT**

[Schedule 2, Part A Paragraph 2(9) and (13), 6(3) and (9)].

| Elevation/Altitude/Height | Publication Resolution | Integrity Classification |
|---|---|---|
| Aerodrome/heliport elevation | 1m or 1 ft | $1 \times 10^{-5}$ essential |
| WGS-84 Geoid undulation at aerodrome/heliport elevation position | 1m or 1 ft | $1 \times 10^{-5}$ essential |
| Runway or FATO threshold, non-precision approaches | 1m or 1 ft | $1 \times 10^{-5}$ essential |
| WGS-84 Geoid undulation at runway or FATO threshold, TLOF geometric centre, non-precision approaches | 1m or 1 ft | $1 \times 10^{-5}$ essential |
| Runway or FATO threshold, precision approaches | 0.1m or 0.1 ft | $1 \times 10^{-8}$ critical |
| WGS-84 Geoid undulation at runway or FATO threshold, TLOF geometric centre, precision approaches | 0.1m or 0.1 ft | $1 \times 10^{-8}$ critical |
| Threshold crossing height, precision approaches | 0.1m or 0.1 ft | $1 \times 10^{-8}$ critical |
| Obstacles in Area 2 | 1m or 1 ft | $1 \times 10^{-5}$ essential |
| Obstacles in Area 3 | 1m or 1 ft<br>0.1m or 0.1 ft | $1 \times 10^{-5}$ essential |
| Obstacles in Area 1 (the entire State territory) | 1m or 1 ft | $1 \times 10^{-3}$ routine |
| Distance measuring equipment/precision (DME/P) | 3m (10 ft) | $1 \times 10^{-5}$ essential |
| Distance measuring equipment (DME) | 30m (100 ft) | $1 \times 10^{-5}$ essential |
| Minimum altitudes | 50m or 100 ft | $1 \times 10^{-3}$ routine |

*See* the Appendix to Part H of Schedule 2 for graphical illustration of obstacle data collection surfaces and criteria used to identify obstacles in the defined area.

**TABLE A-3 DECLINATION AND MAGNETIC VARIATION**

[Schedule 2, Part A Paragraph 2(9) and (13) and 6(3)].

| Declination/Variation | Publication Resolution | Integrity Classification |
|---|---|---|
| VHF NAVAID station declination used for technical line-up | 1 degree | $1 \times 10^{-5}$ essential |
| NDB NAVAID magnetic variation | 1 degree | $1 \times 10^{-3}$ routine |
| Aerodrome/heliport magnetic variation | 1 degree | $1 \times 10^{-5}$ essential |
| ILS localizer antenna magnetic variation | 1 degree | $1 \times 10^{-5}$ essential |
| MLS azimuth antenna magnetic variation | 1 degree | $1 \times 10^{-5}$ essential |

*L.R.O.*

**TABLE A-4 BEARING**

[Schedule 2, Part A Paragraph 2(9) and (13) and 6(3)].

| Bearing | Publication Resolution | Integrity Classification |
|---|---|---|
| Airway segments | 1 degree | $1 \times 10^{-3}$ routine |
| En route and terminal fix formations | 1/10 degree | $1 \times 10^{-3}$ routine |
| Terminal arrival/departure route segments | 1 degree | $1 \times 10^{-3}$ routine |
| Instrument approach procedure fix formations | 1/100 degree | $1 \times 10^{-5}$ essential |
| ILS localizer alignment (True) | 1/100 degree | $1 \times 10^{-5}$ essential |
| MLS zero azimuth alignment (True) | 1/100 degree | $1 \times 10^{-5}$ essential |
| Runway and FATO bearing (True) | 1/100 degree | $1 \times 10^{-3}$ routine |

**TABLE A-5 LENGTH/DISTANCE/DIMENSION**

[Schedule 2, Paragraph 2(9) and (13) and 6(3)].

| Length/Distance/Dimension | Publication Resolution | Integrity Classification |
|---|---|---|
| Airway segment length | 1/10 km or 1/10 NM | $1 \times 10^{-3}$ routine |
| En route Fix Formation distance | 1/10 km or 1/10 NM | $1 \times 10^{-3}$ routine |
| Terminal arrival/departure route segment length | 1/100 km or 1/100 NM | $1 \times 10^{-5}$ essential |
| Terminal and instrument approach procedure fix formation distance | 1/100 km or 1/100 NM | $1 \times 10^{-5}$ essential |
| Runway and FATO length, TLOF dimensions | 1m or 1 ft | $1 \times 10^{-8}$ critical |
| Runway width | 1m or 1 ft | $1 \times 10^{-5}$ essential |
| Displaced threshold distance | 1m or 1 ft | $1 \times 10^{-3}$ routine |
| Clearway length and width | 1m or 1 ft | $1 \times 10^{-5}$ essential |
| Stopway length and width | 1m or 1 ft | $1 \times 10^{-8}$ critical |
| Landing distance available | 1m or 1 ft | $1 \times 10^{-8}$ critical |
| Take off run available | 1m or 1 ft | $1 \times 10^{-8}$ critical |

**TABLE A-5 LENGTH/DISTANCE/DIMENSION**—*Continued*

| Length/Distance/Dimension | Publication Resolution | Integrity Classification |
|---|---|---|
| Take off distance available | 1m or 1 ft | $1 \times 10^{-8}$ critical |
| Accelerate-stop distance available | 1m or 1 ft | $1 \times 10^{-8}$ critical |
| Runway shoulder width | 1m or 1 ft | $1 \times 10^{-5}$ essential |
| Taxiway width | 1m or 1 ft | $1 \times 10^{-5}$ essential |
| Taxiway shoulder width | 1m or 1 ft | $1 \times 10^{-5}$ essential |
| ILS localizer antenna-runway end distance | 1m or 1 ft | $1 \times 10^{-3}$ routine |
| ILS glidescope antenna-threshold distance along centre line | 1m or 1 ft | $1 \times 10^{-3}$ routine |
| ILS marker-threshold distance | 1m or 1 ft | $1 \times 10^{-5}$ routine |
| ILS DME antenna-threshold, distance along centre line | 1m or 1 ft | $1 \times 10^{-5}$ essential |

**TABLE A-5**

| Length/Distance/Dimension | Publication Resolution | Integrity Classification |
|---|---|---|
| MLS azimuth antenna-runway end distance | 1m or 1 ft | $1 \times 10^{-3}$ routine |
| MLS elevation antenna-threshold, distance along centre line | 1m or 1 ft | $1 \times 10^{-3}$ routine |
| MLS DME/P antenna-threshold, distance along centre line | 1m or 1 ft | $1 \times 10^{-5}$ essential |

*L.R.O.*

Regulation 20.
[100/2009].

**PART B**

## AERONAUTICAL INFORMATION PUBLICATIONS (AIP)

The standards required to be met for AIP shall be as follows:

**CONTENTS**

1. (1) An AIP shall contain, in three parts, sections and subsections uniformly referenced to allow for standardised electronic data storage and retrieval, current information relating to, and arranged under those subjects enumerated in the Appendix to this Part.

(2) Notwithstanding subclause (1), when the AIP, or volume of the AIP, is designed basically to facilitate operational use in flight, the precise format and arrangement may be left to the discretion of the Director-General provided that an adequate table of contents is included.

(3) An AIP shall include in Part 1—General (GEN) the following:

*(a)* a statement of the competent authority responsible for the air navigation facilities, services or procedures covered by the AIP;

*(b)* the general conditions under which the services or facilities are available for international use;

*(c)* a list of significant differences between the regulations and practices of Trinidad and Tobago and the related ICAO Standards, Recommended Practices and Procedures, given in a form that would enable a user to readily differentiate between the requirements of the Authority and the related ICAO provisions; and

*(d)* the choice made by the Director-General in each significant case where an alternative course of action is provided for in ICAO Standards, Recommended Practices and Procedures.

(4) The following aeronautical charts shall, where available for designated international ICAO aerodromes and heliports, form part of the AIP, or be distributed separately to recipients of the AIP:

*(a)* Aerodrome and Heliport Chart—ICAO;

*(b)* Aerodrome Ground Movement Chart—ICAO;

*(c)* Aerodrome Obstacle Chart (Type A)—ICAO;

*(d)* Aerodrome Terrain and Obstacle Chart—ICAO (Electronic);

*(e)* Aircraft Parking and Docking Chart—ICAO;

*(f)* Area Chart—ICAO;

*(g)* ATC Surveillance Minimum Altitude Chart—ICAO;

*(h)* Instrument Approach Chart—ICAO;

*(i)* Precision Approach Terrain Chart—ICAO;

*(j)* Standard Arrival Chart—Instrument (STAR)—ICAO;

*(k)* Standard Departure Chart—Instrument (SID)—ICAO; and

*(l)* Visual Approach Chart—ICAO.

(5) Charts, maps or diagrams shall be used, where appropriate, to complement or as a substitute for the tabulations or text of an AIP.

**GENERAL SPECIFICATIONS**

2. (1) An AIP shall—

*(a)* be self-contained and include a table of contents; and

*(b)* not duplicate information within the AIP or from other sources.

(2) Where the Authority and another State combine to issue a joint AIP, this information shall be made clear on the cover and in the table of contents.

(3) All AIP shall be dated.

(4) Where an AIP is issued in loose-leaf form, each page shall contain the day, month and year, of the publication date or the effective date of the information.

(5) A checklist giving the current date of each page in the AIP series shall be reissued frequently to assist the user in maintaining a current publication.

(6) The page number, chart title and date of the checklist under subclause (4), shall appear on the checklist itself.

(7) An AIP issued as a bound volume and each page of an AIP issued in loose-leaf form shall be so annotated as to indicate clearly—

*(a)* the identity of the AIP;

*(b)* the territory covered and subdivisions when necessary;

*(c)* the identification of the issuing State and the authority;

*(d)* page numbers and chart titles; and

*(e)* the degree of reliability where the information is doubtful.

(8) All changes to the AIP, or new information on a reprinted page, shall be identified by a distinctive symbol or annotation.

(9) Operationally significant changes to the AIP shall be published in accordance with AIRAC procedures and shall be clearly identified by the acronym—AIRAC.

(10) AIP shall be amended or reissued at such regular intervals as may be necessary to keep the AIP up to date.

(11) Recourse to hand amendments or annotations shall be kept to the minimum.

(12) The normal method of amendment shall be by means of a replacement sheet.

(13) The regular interval referred to in subclause (10) shall be specified in the AIP, Part 1—General (GEN).

**SPECIFICATIONS FOR AIP AMENDMENTS**

3. (1) Permanent changes to the AIP shall be published as AIP amendments.

(2) Each AIP amendment shall be allocated a consecutive serial number.

(3) Each AIP Amendment page, including the cover sheet, shall display a publication date.

(4) Each AIRAC AIP amendment page, including the cover sheet, shall display the date when the amendment becomes effective.

(5) When an AIP amendment is issued, the AIP amendment shall include references to the serial number of those elements, if any, of the Integrated Aeronautical Information Package which have been incorporated into the amendment.

(6) A brief indication of the subjects affected by the amendment shall be stated on the AIP amendment cover sheet.

(7) When an AIP amendment will not be published at the established interval or publication date, a NIL notification shall be originated and distributed by the monthly printed plain-language list of valid NOTAM required in subclause 2(14) of Part C of this Schedule.

**SPECIFICATIONS FOR AIP SUPPLEMENTS**

4. (1) Temporary changes of duration three months or longer and information of short duration which contains extensive text or graphics shall be published as AIP Supplements.

(2) Each AIP supplement shall be allocated consecutive serial numbers based on the calendar year.

(3) AIP supplement pages shall be kept in the AIP for as long as all or some of their contents remain valid.

(4) Where an AIP supplement is sent in replacement of a NOTAM, the AIP supplement shall include a reference to the serial number of the NOTAM.

(5) A checklist of valid AIP supplements shall be issued through the medium of the monthly printed plain-language list of valid NOTAM required in subclause 2(14) of Part C of this Schedule.

**DISTRIBUTION**

5. AIP amendments and AIP supplements shall be made available by the Authority by the most expeditious means.

## APPENDIX

## CONTENTS OF AERONAUTICAL INFORMATION PUBLICATION (AIP)

Part B.
[100/2009].

Note: *This Appendix provides for structure in which an AIP is to be formatted.*

### PART 1

### GENERAL (GEN)

Where an AIP is produced and made available in more than one volume with each having a separate amendment and supplement service, a separate preface, record of AIP amendments, record of AIP supplements, checklist of AIP pages and list of current hand amendments must be included in each volume.

#### GEN 0.1—PREFACE

Brief description of the AIP, including the—

*(a)* name of the publishing authority;

*(b)* applicable ICAO documents;

*(c)* AIP structure and established regular amendment interval; and

*(d)* service to contact in case of detected AIP errors or omissions.

#### GEN 0.2—RECORD OF AIP AMENDMENTS

A record of AIP amendments and AIRAC AIP amendments published in accordance with the AIRAC system containing the—

*(a)* amendment number;

*(b)* publication date;

*(c)* date inserted for AIP amendments and effective date for AIRAC AIP amendments;

*(d)* initials of officer who inserted the amendment.

#### GEN 0.3—RECORD OF AIP SUPPLEMENTS

A record of issued AIP Supplements containing the—

*(a)* supplement number;

*(b)* supplement subject;

*(c)* AIP section affected;

*(d)* period of validity; and

*(e)* cancellation record.

#### GEN 0.4—CHECKLIST OF AIP PAGES

A checklist of AIP pages containing the—

*(a)* page number and chart title; and

*(b)* publication or effective date of the aeronautical information expressed as day, month by name and year.

#### GEN 0.5—LIST OF HAND AMENDMENTS TO THE AIP

A list of current hand amendments to the AIP containing the—

*(a)* AIP page affected;

*(b)* amendment text; and

*(c)* AIP amendment number by which a hand amendment was introduced.

#### GEN 0.6—TABLE OF CONTENTS TO PART 1

A list of all sections and subsections of the subjects enumerated in Part 1—General (GEN).

## GEN 1.—NATIONAL REGULATIONS AND REQUIREMENTS

#### GEN 1.1—DESIGNATED AUTHORITIES

The addresses of authorities designated by the Government of Trinidad and Tobago concerned with the facilitation of international air navigation such as civil aviation, meteorology, customs, immigration, health, en route and aerodrome/heliport charges, agricultural quarantine and aircraft accident investigation and containing, for each authority the—

*(a)* designated authority;

*(b)* name of the authority;

*(c)* postal address;

*(d)* telephone number;

*(e)* telefax number;

*(f)* telex number; and

*(g)* AFS address.

#### GEN 1.2—ENTRY, TRANSIT AND DEPARTURE OF AIRCRAFT

Regulations and requirements for advance notification and applications for permission concerning entry, transit and departure of aircraft on international flights.

**GEN 1.3—ENTRY, TRANSIT AND DEPARTURE OF PASSENGERS AND CREW**

Regulations including customs, immigration and quarantine, and requirements for advance notification and applications for permission and concerning entry, transit and departure of non-immigrant passengers and crew.

**GEN 1.4—ENTRY, TRANSIT AND DEPARTURE OF CARGO**

Regulations including customs, and requirements for advance notification and applications for permission and concerning entry, transit and departure of cargo.

Note: *Provisions for facilitating entry and departure for search, rescue, salvage, investigation, repair or salvage in connection with lost or damaged aircraft are detailed in GEN 3.6, search and rescue.*

**GEN 1.5—AIRCRAFT INSTRUMENTS, EQUIPMENT AND FLIGHT DOCUMENTS**

A brief description of aircraft instruments, equipment and flight documents, including the aircraft communication, navigation and surveillance equipment to be carried on aircraft and any special requirement in addition to the requirements specified in the Civil Aviation [(No. 7) Instrument and Equipment] Regulations. Sub. Leg.

**GEN 1.6—SUMMARY OF NATIONAL REGULATIONS AND INTERNATIONAL AGREEMENTS AND CONVENTIONS**

A list of titles and references and, where applicable, summaries of national regulations affecting air navigation, together with a list of international agreements and conventions ratified by Trinidad and Tobago.

**GEN 1.7—DIFFERENCES FROM ICAO STANDARDS, RECOMMENDED PRACTICES AND PROCEDURES**

A list of significant differences between any written law and practices in Trinidad and Tobago and related ICAO provisions must be listed under this subsection, including the:

*(a)* provision affected (Annex and edition number, paragraph);

*(b)* difference in full text;

*(c)* all Annexes in numerical order even if there is no difference to an Annex, in which case a NIL notification shall be provided; and

*(d)* the degree of non-application of the regional supplementary procedures that shall be notified immediately following the Annex to which the supplementary procedure relates.

*L.R.O.*

## GEN 2.—TABLES AND CODES

### GEN 2.1—MEASURING SYSTEM, AIRCRAFT MARKINGS AND HOLIDAYS

#### *GEN 2.1.1—Units of measurement*

A description of units of measurement used including table of units of measurement.

#### *GEN 2.1.2—Temporal reference system*

A description of the temporal reference system employed, together with an indication of whether or not daylight saving hours are employed and how the temporal reference system is presented throughout the AIP.

#### *GEN 2.1.3—Horizontal reference system*

A brief description of the horizontal reference system used, including:

*(a)* the name and designation of the reference system;

*(b)* the identification of the projection;

*(c)* the identification of the ellipsoid used;

*(d)* the identification of the datum used;

*(e)* the area of application; and

*(f)* an explanation, where applicable, of the asterisk used to identify those co-ordinates that do not meet the accuracy requirements of Schedule 1 and Annex 14.

#### *GEN 2.1.4—Vertical reference system*

A brief description of the vertical reference system used, including the—

*(a)* name and designation of the reference system;

*(b)* description of the geoid model used including the parameters required for height transformation between the model used and EGM-96; and

*(c)* an explanation, where applicable, of the asterisk used to identify those elevations and geoid undulations that do not meet the accuracy requirements of Annex 14.

#### *GEN 2.1.5—Aircraft nationality and registration marks*

An indication of aircraft nationality and registration as specified in Civil Aviation [(No. 4) Registration and Markings] Regulations, 2004.

#### *GEN 2.1.6—Public holidays*

A list of public holidays indicating the services being affected.

**GEN 2.2—ABBREVIATIONS USED IN AIS PUBLICATIONS**

A list of alphabetically arranged abbreviations and their respective significations used by the Authority in its AIP and in the distribution of aeronautical information and data with appropriate annotation for those national abbreviations that are different from those contained in the ICAO Procedures for Air Navigation Services Doc 8400.

Note: *A list of alphabetically arranged definitions or glossary of terms may also be added.*

**GEN 2.3—CHART SYMBOLS**

A list of chart symbols arranged according to the chart series where symbols are applied.

**GEN 2.4—LOCATION INDICATORS**

A list of alphabetically arranged location indicators assigned to the locations of AFS to be used for encoding and decoding purposes with an annotation to locations not connected to the AFS where applicable.

**GEN 2.5—LIST OF RADIO NAVIGATION AIDS**

A list of radio navigation aids arranged alphabetically, containing—

*(a)* the identifier;

*(b)* the name of the station;

*(c)* the type of facility or aid; and

*(d)* the indication whether aid serves en route, aerodrome or dual purposes represented by the letters EA and AE respectively.

**GEN 2.6—CONVERSION TABLES**

Tables for conversion between:

*(a)* nautical miles and kilometres and *vice versa*;

*(b)* feet and metres and *vice versa*;

*(c)* decimal minutes of arc and seconds of arc and *vice versa*; and

*(d)* other conversion tables, as appropriate.

**GEN 2.7—SUNRISE AND SUNSET TABLES**

A brief description of criteria used for determination of the times given in the sunrise and sunset tables, together with an alphabetical list of locations for which the times are given with a reference to the related page in the table and the sunrise and sunset tables for the selected stations or locations, including the—

*(a)* station name;

*(b)* ICAO location indicator;

*(c)* geographical co-ordinates in degrees and minutes;

*(d)* date for which times are given;

*(e)* time for the beginning of morning civil twilight;

*(f)* time for sunrise;

*(g)* time for sunset; and

*(h)* time for the end of evening civil twilight.

## GEN 3.—SERVICES

### GEN 3.1—AERONAUTICAL INFORMATION SERVICES

#### *GEN 3.1.1—Responsible service*

A description of the AIS provided and its major components, including—

*(a)* the service and unit name;

*(b)* the postal address;

*(c)* the telephone number;

*(d)* the telefax number;

*(e)* the telex number;

*(f)* the AFS address;

*(g)* a statement concerning the ICAO documents on which the service is based and a reference to the AIP location where differences, if any, are listed; and

*(h)* an indication if service is not H24.

#### *GEN 3.1.2—Area of responsibility*

The area of responsibility for the aeronautical information service.

#### *GEN 3.1.3—Aeronautical publications*

A description of the elements of the Integrated Aeronautical Information Package, including:

*(a)* AIP and related amendment service;

*(b)* AIP Supplements;

*(c)* AIC including whether used to publish publication prices;

*(d)* NOTAM and PIB;

*(e)* checklists and lists of valid NOTAM; and

*(f)* how each element may be obtained.

### *GEN 3.1.4—AIRAC system*

A brief description of the AIRAC system provided including a table of present and near future AIRAC dates.

### *GEN 3.1.5—Pre-flight information service at aerodromes and heliports*

A list of aerodromes and heliports at which pre-flight information is routinely available, including an indication of the relevant:

*(a)* elements of the Integrated Aeronautical Information Packages held;

*(b)* maps and charts held; and

*(c)* general area of coverage of such data.

### *GEN 3.1.6 —Electronic terrain and obstacle data*

Details of how electronic terrain and obstacle data may be obtained, containing the—

*(a)* name of the individual, service or organisation responsible;

*(b)* street address and e-mail address of the individual, service or organisation responsible;

*(c)* telefax number of the individual, service or organisation responsible;

*(d)* telephone number of the individual, service or organisation responsible;

*(e)* hours of service represented in time period including time zone when contact can be made;

*(f)* online information that can be used to contact the individual, service or organisation; and

*(g)* supplemental information, where necessary, on how and when to contact the individual, service or organisation.

## GEN 3.2—AERONAUTICAL CHARTS

### *GEN 3.2.1—Responsible service*

A description of service responsible for the production of aeronautical charts, including—

*(a)* the service name;

*(b)* the postal address;

*(c)* the telephone number;

*(d)* the telefax number;

*(e)* telex number;

*(f)* the AFS address;

*(g)* a statement concerning the ICAO documents on which the service is based and a reference to the AIP location where differences, if any, are listed; and

*(h)* an indication if service is not H24.

*GEN 3.2.2—Maintenance of charts*

A brief description of how aeronautical charts are revised and amended.

*GEN 3.2.3—Purchase arrangements*

Details of how charts may be obtained containing the—

*(a)* service and sales agency;

*(b)* postal address;

*(c)* telephone number;

*(d)* telefax number;

*(e)* telex number; and

*(f)* AFS address.

*GEN 3.2.4—Aeronautical chart series available*

A list of aeronautical chart series available followed by a general description of each series and an indication of the intended use.

*GEN 3.2.5—List of aeronautical charts available*

A list of aeronautical charts available, including the—

*(a)* title of series;

*(b)* scale of series;

*(c)* name and number of each chart or each sheet in a series;

*(d)* price per sheet; and

*(e)* date of latest revision.

*GEN 3.2.6—Index to the WAC-ICAO 1:1000 000*

An index chart showing coverage and sheet layout for the WAC 1:1000 000 produced by the Authority where Aeronautical Chart—ICAO 1:500 000 is produced instead of WAC 1:1000 000, index charts must be used to indicate coverage and sheet layout for the Aeronautical Chart—ICAO 1:500 000.

### *GEN 3.2.7—Topographical charts*

Details of how topographical charts may be obtained, containing the—

*(a)* name of service and agency;

*(b)* postal address;

*(c)* telephone number;

*(d)* telefax number;

*(e)* telex number; and

*(f)* AFS address.

### *GEN 3.2.8—Corrections to charts not contained in the AIP*

A list of corrections to aeronautical charts not contained in the AIP, or an indication where the information can be obtained.

## GEN 3.3—AIR TRAFFIC SERVICES

### *GEN 3.3.1—Responsible service*

A description of the ATS and its major components, including—

*(a)* the service name;

*(b)* the postal address;

*(c)* the telephone number;

*(d)* the telefax number;

*(e)* the telex number;

*(f)* the AFS address;

*(g)* a statement concerning the ICAO documents on which the service is based and a reference to the AIP location where differences, if any, are listed; and

*(h)* an indication if service is not H24.

### *GEN 3.3.2—Area of Responsibility*

A brief description of area of responsibility for which ATS are provided.

### *GEN 3.3.3—Types of services*

A brief description of main types of ATS provided.

### *GEN 3.3.4—Co-ordination between an operator and ATS*

General conditions under which co-ordination between an operator and ATS is effected.

### *GEN 3.3.5—Minimum flight altitude*

The criteria used to determine minimum flight altitudes.

### *GEN 3.3.6—ATS units address list*

A list of ATS units and the units addresses arranged alphabetically, containing the—

*(a)* unit name;

*(b)* postal address;

*(c)* telephone number;

*(d)* telefax number;

*(e)* telex number; and

*(f)* AFS address.

## GEN 3.4—COMMUNICATION SERVICES

### *GEN 3.4.1—Responsible service*

A description of the service responsible for the provision of telecommunication and navigation facilities, including—

*(a)* the service name;

*(b)* the postal address;

*(c)* the telephone number;

*(d)* the telefax number;

*(e)* the telex number;

*(f)* the AFS address;

*(g)* a statement concerning the ICAO documents on which the service is based and a reference to the AIP location where differences, if any, are listed; and

*(h)* an indication if service is not H24.

### *GEN 3.4.2—Area of responsibility*

A brief description of area of responsibility for which telecommunication service is provided.

### *GEN 3.4.3—Types of service*

A brief description of the main types of service and facilities provided, including—

*(a)* the radio navigation services;

*(b)* voice or data link services;

*(c)* the broadcasting service;

*(d)* the language used; and

*(e)* an indication of where detailed information can be obtained.

### *GEN 3.4.4—Requirements and conditions*

A brief description concerning the requirements and conditions under which the communication service is available.

## GEN 3.5—METEOROLOGICAL SERVICES

### *GEN 3.5.1—Responsible service*

A brief description of the meteorological service responsible for the provision of meteorological information, including—

*(a)* the service name;

*(b)* the postal address;

*(c)* the telephone number;

*(d)* the telefax number;

*(e)* the telex number;

*(f)* the AFS address;

*(g)* a statement concerning the ICAO documents on which the service is based and a reference to the AIP location where differences, if any, are listed; and

*(h)* an indication if service is not H24.

### *GEN 3.5.2—Area of responsibility*

A brief description of the area and air routes for which meteorological service is provided.

### *GEN 3.5.3—Meteorological observations and reports*

A detailed description of the meteorological observations and reports provided for international air navigation, including the—

*(a)* name of the station and the ICAO location indicator;

*(b)* type and frequency of observation including an indication of automatic observing equipment;

*(c)* types of meteorological reports such as METAR and availability of a trend forecast;

*(d)* specific type of observation system and number of observation sites used to observe and report surface wind, visibility, runway

visual range, cloud base, temperature and where applicable, wind shear measured by an anemometer at intersection of runways and transmissometer next to touchdown zone.

*(e)* hours of operation; and

*(f)* indication of aeronautical climatological information available.

*GEN 3.5.4—Types of services*

Brief description of the main types of service provided, including details of briefing, consultation, display of meteorological information, flight documentation available for operators and flight crew members, and of the methods and means used for supplying the meteorological information.

*GEN 3.5.5—Notification required from operators*

Minimum amount of advance notice required by the unit responsible for meteorological services from operators in respect of briefing, consultation and flight documentation and other meteorological information they require or change.

*GEN 3.5.6—Aircraft reports*

As necessary, requirements of the unit responsible for meteorological services for the making and transmission of aircraft reports.

*GEN 3.5.7—VOLMET service*

Description of VOLMET or VOLMET service, including the—

*(a)* name of transmitting station;

*(b)* call sign or identification and abbreviation for the radio communication emission;

*(c)* frequency or frequencies used for broadcast;

*(d)* broadcasting period;

*(e)* hours of service;

*(f)* list of aerodromes and heliports for which reports and forecasts are included; and

*(g)* reports, forecasts and SIGMET information included and remarks.

*GEN 3.5.8—SIGMET and AIRMET service*

Description of the meteorological watch provided within flight information regions or control areas for which ATS are provided, including a list of the meteorological watch offices with the—

*(a)* name of the meteorological watch office, ICAO location indicator;

*(b)* hours of service;

*(c)* flight information region or control area served;

*(d)* SIGMET validity period;

*(e)* specific procedures applied to SIGMET information such as for volcanic ash and tropical cyclones;

*(f)* procedures applied to AIRMET information in accordance with relevant regional air navigation agreements;

*(g)* ATS unit provided with SIGMET and AIRMET information; and

*(h)* additional information such as limitation of service.

### *GEN 3.5.9—Other automated meteorological services*

Description of available automated services for the provision of meteorological information such as automated pre-flight information service accessible by telephone and computer modem including the—

*(a)* service name;

*(b)* information available;

*(c)* areas, routes and aerodromes covered; and

*(d)* telephone, telex and telefax numbers.

## GEN 3.6—SEARCH AND RESCUE

### *GEN 3.6.1—Responsible service*

Brief description of service responsible for the provision of SAR, including—

*(a)* the service and unit name;

*(b)* the postal address;

*(c)* the telephone number;

*(d)* the telefax number;

*(e)* the telex number;

*(f)* the AFS address; and

*(g)* a statement concerning the ICAO documents on which the service is based and a reference to the AIP location where differences, if any, are listed.

### *GEN 3.6.2—Area of responsibility*

A brief description of area of responsibility within which SAR services are provided.

### *GEN 3.6.3—Types of service*

A brief description and geographical portrayal, where appropriate, of the type of service and facilities provided including indications where SAR aerial coverage is dependent upon significant deployment of aircraft.

*GEN 3.6.4—SAR agreements*

A brief description of SAR agreements in force, including provisions for facilitating entry and departure of other States' aircraft for search, rescue, salvage, repair or salvage in connection with lost or damaged aircraft, either with airborne notification only or after flight plan notification.

*GEN 3.6.5—Conditions of availability*

A brief description of provisions for search and rescue, including the general conditions under which the service and facilities are available for international use, including an indication of whether a facility available for search and rescue is specialised in SAR techniques and functions, or is specially used for other purposes but adapted for SAR purposes by training and equipment, or is only occasionally available and has no particular training or preparation for SAR work.

*GEN 3.6.6—Procedures and signals used*

A brief description of the procedures and signals employed by rescue aircraft and a table showing the signals to be used by survivors.

## GEN 4.—CHARGES FOR AERODROMES, HELIPORTS AND AIR NAVIGATION SERVICES

Reference may be made to where details of actual charges may be found, if not itemised in this chapter.

### GEN 4.1—AERODROME AND HELIPORT CHARGES

Brief description of type of charges which may be applicable at aerodromes and heliports available for international use, including—

*(a)* the landing of aircraft;
*(b)* the parking, hangarage and long-term storage of aircraft;
*(c)* the passenger service;
*(d)* the security;
*(e)* the noise-related items;
*(f)* other information such as, customs, health and immigration;
*(g)* the exemptions and reductions; and
*(h)* methods of payment.

### GEN 4.2—AIR NAVIGATION SERVICES CHARGES

A brief description of charges which may be applicable to air navigation services provided for international use, including the—

*(a)* approach control;
*(b)* route air navigation services;

*(c)* cost basis for air navigation services and exemptions and reductions; and

*(d)* methods of payment.

### PART 2—EN ROUTE(ENR)

Where an AIP is produced and made available in more than one volume with each having a separate amendment and supplement service, a separate preface, record of AIP Amendments, record of AIP Supplements, checklist of AIP Pages and list of current hand amendments must be included in each volume. In the case of an AIP being published as one volume, the annotation "not applicable" must be entered against each of the above subsections.

Reference must be made in the appropriate subsection to indicate that differences between national regulations and ICAO SARPs and procedures exist and that they are detailed in GEN 1.7.

### ENR 0.6—TABLE OF CONTENTS TO PART 2

A list of sections and subsections contained in Part 2—En route.

Note: *Subsections may be listed alphabetically*.

## ENR 1. GENERAL RULES AND PROCEDURES

### ENR 1.1—GENERAL RULES

Publication of the general rules as applied within the Piarco Flight Information Region.

### ENR 1.2—VISUAL FLIGHT RULES

Publication of the VFR as applied within the Piarco Flight Information Region.

### ENR 1.3—INSTRUMENT FLIGHT RULES

Publication of the instrument flight rules as applied within the Piarco Flight Information Region.

### ENR 1.4—ATS AIRSPACE CLASSIFICATION

The description of ATS airspace classes, in the form of the ATS airspace classification table set out in Appendix 4 of Schedule 1, and appropriately annotated to indicate those airspace classes not used by the Piarco Flight Information Region.

### ENR 1.5—HOLDING, APPROACH AND DEPARTURE PROCEDURES

#### *ENR 1.5.1—General*

A statement setting out the criteria on which holding, approach and

departure procedures are established. Where the format is different from the ICAO requirements the presentation of criteria should be in a tabular form.

### *ENR 1.5.2—Arriving flights*

Presentation of conventional or area navigation procedures for arriving flights which are common to flights into or within the same type of airspace. Where different procedures apply within a terminal airspace, a note to this effect must be given together with a reference to where the specific procedures can be found.

### *ENR 1.5.3—Departing flights*

Presentation of conventional or area navigation procedures for departing flights which are common to flights departing from any aerodrome or heliport.

## ENR 1.6—ATS SURVEILLANCE SERVICES AND PROCEDURES

### *ENR 1.6.1—Primary radar*

A description of primary radar services and procedures, including the—

*(a)* supplementary services;

*(b)* the application of radar control service;

*(c)* radar and air-ground communication failure procedures;

*(d)* voice and CPDLC position reporting requirements; and

*(e)* graphic portrayal of area of radar coverage.

### *ENR 1.6.2—Secondary Surveillance Radar*

A description of SSR operating procedures, including—

*(a)* emergency procedures;

*(b)* air-ground communication failure and unlawful interference procedures;

*(c)* the system of SSR code assignment;

*(d)* voice and CPDLC position reporting requirements; and

*(e)* graphic portrayal of area of SSR coverage.

Note: *The SSR description is of particular importance in areas or routes where the possibility of interception exists.*

### *ENR 1.6.3—Automatic Dependent Surveillance Broadcast (ADS-B)*

A description of Automatic dependent surveillance—broadcast (ADS-B) operating procedures, including—

*(a)* emergency procedures;

*(b)* air-ground communication failure and unlawful interference procedures;

*(c)* aircraft identification requirements;

*(d)* voice and CPDLC position reporting requirements; and

*(e)* graphic portrayal of area of ADS-B coverage.

Note: *The ADS-B description is of particular importance in areas or routes where the possibility of interception exists.*

**ENR 1.7—ALTIMETER SETTING PROCEDURES**

A statement of altimeter setting procedures in use, containing—

*(a)* brief introduction with a statement concerning the ICAO documents on which the procedures are based together with differences to ICAO provisions, if any;

*(b)* basic altimeter setting procedures;

*(c)* description of altimeter setting region;

*(d)* procedures applicable to operators including pilots; and

*(e)* table of cruising levels.

**ENR 1.8—REGIONAL SUPPLEMENTARY PROCEDURES**

Presentation of SUPPS affecting the entire area of responsibility, with properly annotated national differences, if any.

**ENR 1.9—AIR TRAFFIC FLOW MANAGEMENT**

A brief description of ATFM system, including the—

*(a)* ATFM structure, service area, service provided, location of unit and hours of operation;

*(b)* types of flow messages and descriptions of the formats; and

*(c)* procedures applicable for departing flights, containing the—

(i) service responsible for provision of information on applied ATFM measures;

(ii) flight plan requirements; and

(iii) slot allocations.

**ENR 1.10—FLIGHT PLANNING**

An indication of any restriction, limitation or advisory information related to the flight planning stage which may assist the user in the presentation of the intended flight operation, including the—

*(a)* procedures for the submission of a flight plan;

*(b)* repetitive flight plan system; and

*(c)* changes to the submitted flight plan.

### ENR 1.11—ADDRESSING OF FLIGHT PLAN MESSAGES

An indication, in tabular form, of the addresses allocated to flight plans, showing the—

*(a)* category of flight such as IFR, VFR;

*(b)* route into or through the FIR or TMA; and

*(c)* message address.

### ENR 1.12—INTERCEPTION OF CIVIL AIRCRAFT

A complete statement of interception procedures and visual signals to be used with a clear indication of whether ICAO provisions are applied and if not, a complete presentation of differences.

### ENR 1.13—UNLAWFUL INTERFERENCE

A presentation of appropriate procedures to be applied in case of unlawful interference.

### ENR 1.14—AIR TRAFFIC INCIDENTS

A description of air traffic incidents reporting system, including the—

*(a)* definition of air traffic incidents;

*(b)* use of the Air Traffic Incident Reporting Form;

*(c)* reporting procedures including in-flight reporting procedures; and

*(d)* purpose for reporting and handling of the form.

## ENR 2.—AIR TRAFFIC SERVICES AIRSPACE

### ENR 2.1—FIR, UIR, TMA

A detailed description of flight information regions, upper flight information regions, and terminal control areas, including the—

*(a)* name, geographical co-ordinates in degrees and minutes of the FIR or UIR lateral limits and in degrees, minutes and seconds of the TMA lateral limits, vertical limits and class of airspace;

*(b)* identification of unit providing the service;

*(c)* call sign of aeronautical station serving the unit and the language used, specifying the area and conditions, when and where to be used, if applicable;

*(d)* frequencies supplemented by indications for specific purposes; and

*(e)* remarks.

Control zones around military air bases not otherwise described in the AIP must be included under this heading.

Where the requirements of Civil Aviation [(No. 2) Operations] Regulations, concerning flight plans, two-way communications and position reporting apply to all flights in order to eliminate or reduce the need for interceptions or where the possibility of interception exists and the maintenance of guard on the VHF emergency channel 121.5 MHz is required, a statement to this effect must be included for the relevant area or portion. Sub. Leg.

A description of designated areas over which the carriage of an ELT is required and where aircraft shall continuously guard the VHF emergency frequency 121.5 MHz, except for those periods when aircraft are carrying out communications on other VHF channels or when airborne equipment limitations or cockpit duties do not permit simultaneous guarding of two channels.

Note: *Other types of airspace around civil aerodromes and heliports such as control zones and aerodrome traffic zones are described in the relevant aerodrome or heliport section.*

### ENR 2.2—OTHER REGULATED AIRSPACE

Where established, a detailed description of other types of regulated airspace and airspace classification.

## ENR 3.—ATS ROUTES

Note 1: *Bearings, tracks and radials are normally magnetic. In areas of high latitude, where it is determined by the appropriate authority that reference to Magnetic North is impractical, another suitable reference, such as True North or Grid North, may be used.*

Note 2: *Change over points established at the midpoint between two radio navigation aids, or at the intersection of the two radials in the case of a route which changes direction between the navigation aids, need not be shown for each route segment if a general statement regarding their existence is made.*

### ENR 3.1—LOWER ATS ROUTES

Detailed description of lower ATS routes, including the—

*(a)* route designator, RNP type applicable to a specified segment, name, coded designator or name-code and the geographical co-ordinates in degrees, minutes and seconds of all significant points defining the route including "compulsory" or "on-request" reporting points;

*(b)* tracks or VOR radials to the nearest degree, geodetic distance to the nearest tenth of a kilometre or tenth of a nautical mile between each successive designated significant point and, in the case of VOR radials, changeover points;

*(c)* upper and lower limits or minimum en route altitudes, to the nearest higher fifty metres or one hundred feet and airspace classification;

*(d)* lateral limits and minimum obstacle clearance altitudes;

*(e)* direction of cruising levels; and

*(f)* remarks, including an indication of the controlling unit, its operating channel and, if applicable, its log on address.

Note: *In relation to Appendix 1 of Schedule 1 and for flight planning purposes, the specified RNP type is not considered to be an integral part of the route designator.*

**ENR 3.2—UPPER ATS ROUTES**

A detailed description of upper ATS routes, including the—

*(a)* route designator, RNP type applicable to a specified segment, name, coded designator or name-code and the geographical co-ordinates in degrees, minutes and seconds of all significant points defining the route including "compulsory" or "on-request" reporting points;

*(b)* track or VOR radial to the nearest degree, geodetic distance to the nearest tenth of a kilometre or tenth of a nautical mile between each successive designated significant point and, in the case of VOR radials, changeover points;

*(c)* upper and lower limits and airspace classification;

*(d)* lateral limits;

*(e)* direction of cruising levels; and

*(f)* remarks, including an indication of the controlling unit, its operating channel and, if applicable, its log on address.

Note: *In relation to Appendix 1 of Schedule 1 and for flight planning purposes, the specified RNP type is not considered to be an integral part of the route designator.*

**ENR 3.3—AREA NAVIGATION ROUTES**

A detailed description of area navigation routes, including the—

(1) route designator, RNP type applicable to a specified segment, name, coded designator or name-code and the geographical co-ordinates in degrees, minutes and seconds of all significant points defining the route including compulsory or on-request reporting points;

(2) in respect of waypoints defining a VOR or DME area navigation route, including the—

*(a)* station identification of the reference VOR or DME;

*(b)* bearing to the nearest degree and the distance to the nearest tenth of a kilometre or tenth of a nautical mile from the reference VOR or DME, if the waypoint is not collocated with it; and

*(c)* elevation of the transmitting antenna of DME to the nearest thirty metres or one hundred feet;

(3) geodetic distance to the nearest tenth of a kilometre or tenth of a nautical mile between defined end-points and distance between each successive designated significant point;

(4) upper and lower limits and airspace classification;

(5) direction of cruising levels; and

(6) Remarks, including an indication of the controlling unit, its operating channel and, if applicable, its log on address.

Note: *In relation to Appendix 1 of Schedule 1 and for flight planning purposes, the specified RNP type is not considered to be an integral part of the route designator.*

**ENR 3.4—HELICOPTER ROUTES**

A detailed description of helicopter routes, including the—

(1) route designator, RNP type applicable to a specified segment, name, coded designator or name-code and the geographical co-ordinates in degrees, minutes and seconds of all significant points defining the route including compulsory or on-request reporting points;

(2) tracks or VOR radials to the nearest degree, geodetic distance to the nearest tenth of a kilometre or tenth of a nautical mile between each successive designated significant point and, in the case of VOR radials, changeover points;

(3) upper and lower limits and airspace classification;

(4) minimum flight altitudes to the nearest higher 50 metres or 100 feet; and

(5) remarks, including an indication of the controlling unit and its operating frequency.

Note: *In relation to Appendix 1 of Schedule 1 and for flight planning purposes, the specified RNP type is not considered to be an integral part of the route designator.*

**ENR 3.5—OTHER ROUTES**

A description of other specifically designated routes which are compulsory within specified area.

Note: *Arrival, transit and departure routes which are specified in connection with procedures for traffic to and from aerodromes and heliports need not be described since they are described in the relevant section of Part 3 of the AIP—Aerodromes.*

**ENR 3.6—EN ROUTE HOLDING**

A detailed description of en route holding procedures, containing the—

(1) holding identification where applicable and holding fix (navigation aid) or waypoint with geographical co-ordinates in degrees, minutes and seconds;

(2) inbound track;

(3) direction of the procedure turn;

(4) maximum indicated airspeed;

(5) minimum and maximum holding level;

(6) time and distance outbound; and

(7) indication of the controlling unit and its operating frequency.

Note: *Obstacle clearance criteria related to holding procedures are contained in ICAO Doc 8168 "Procedures for Air Navigation Services—Aircraft Operations PANS-OPS", Volumes I and II.*

## ENR 4.—RADIO NAVIGATION AIDS AND SYSTEMS

### ENR 4.1—RADIO NAVIGATION AIDS—EN ROUTE

A list of stations providing radio navigation services established for en route purposes and arranged alphabetically by name of the station, including—

(1) the name of the station and magnetic variation to the nearest degree and for VOR, station declination to the nearest degree used for technical line-up of the aid;

(2) the identification code;

(3) the frequency and channel for each element;

(4) the hours of operation;

(5) the geographical co-ordinates in degrees, minutes and seconds of the position of the transmitting antenna;

(6) the elevation of the transmitting antenna of DME to the nearest 30 metres or 100 feet; and

(7) remarks.

Where the operating authority of the facility is not the Authority, the name of the operating authority and facility coverage must be indicated in the remarks column.

### ENR 4.2—SPECIAL NAVIGATION SYSTEMS

A description of stations associated with special navigation systems such as DECCA and LORAN, including—

(1) the name of station or chain;

(2) the type of service available such as master signal, slave signal and colour;

(3) the frequency of operations together with the channel number, basic pulse rate, recurrence rate, as applicable;

(4) the hours of operation;

(5) the geographical co-ordinates in degrees, minutes and seconds of the position of the transmitting station; and

(6) remarks.

Where the operating authority of the facility is not the Authority, the name of the operating authority and facility coverage must be indicated in the remarks column.

**ENR 4.3—GLOBAL NAVIGATION SATELLITE SYSTEM**

A list and description of elements of the global navigation satellite system providing the navigation service established for en route purposes and arranged alphabetically by name of the element, including—

(1) the name of the GNSS element such as GPS, GLONASS, EGNOS, MSAS and WAAS;

(2) the frequency, as appropriate;

(3) the geographical co-ordinates in degrees, minutes and seconds of the nominal service area and coverage area; and

(4) remarks.

Where the operating authority of the facility is not the Authority, the name of the operating authority must be indicated in the remarks column.

**ENR 4.4—NAME-CODE DESIGNATORS FOR SIGNIFICANT POINTS**

An alphabetically arranged list of five-letter pronounceable name-code designators established for significant points at positions other than the site of radio navigation aids, including the—

(1) name-code designator;

(2) geographical co-ordinates in degrees, minutes and seconds of the position; and

(3) reference to ATS or other routes where the point is located.

**ENR 4.5—AERONAUTICAL GROUND LIGHTS—EN ROUTE**

A list of aeronautical ground lights and other light beacons designating geographical positions which are selected by the Authority as being significant, including the—

(1) name of the city or town or other identification of the beacon;

(2) type of beacon and intensity of the light in thousands of candelas;

(3) characteristics of the signal;

(4) operational hours; and

(5) remarks.

## ENR 5.—NAVIGATION WARNINGS

### ENR 5.1—PROHIBITED, RESTRICTED AND DANGER AREAS

A description, supplemented by graphic portrayal where appropriate, of prohibited, restricted and danger areas together with information regarding their establishment and activation, including—

(1) the identification, name and geographical co-ordinates of the lateral limits in degrees, minutes and seconds if inside and in degrees and minutes if outside control area or control zone boundaries;

(2) the upper and lower limits; and

(3) remarks, including time of activity.

Type of restriction or nature of hazard, risk of interception in the event of penetration and time of activity must be indicated in the remarks column.

### ENR 5.2—MILITARY EXERCISE AND TRAINING AREAS AND AIR DEFENCE IDENTIFICATION ZONE

A description, supplemented by graphic portrayal where appropriate, of established military training areas and military exercises taking place at regular intervals, and established air defence identification zone ADIZ, including—

(1) the geographical co-ordinates of the lateral limits in degrees, minutes and seconds if inside and in degrees and minutes if outside control area or control zone boundaries;

(2) the upper and lower limits and system and means of activation announcements together with information pertinent to civil flights and applicable ADIZ procedures; and

(3) remarks.

Time of activity and risk of interception in the event of penetration of ADIZ must be indicated in the remarks section.

### ENR 5.3—OTHER ACTIVITIES OF A DANGEROUS NATURE AND OTHER POTENTIAL HAZARDS

#### *ENR 5.3.1—Other activities of a dangerous nature*

A description, supplemented by charts where appropriate, of activities that could affect flights including the—

(1) the geographical co-ordinates in degrees and minutes of centre of area and range of influence;

(2) the vertical limits of activities of a dangerous nature;

(3) the advisory measures;

(4) the authority responsible for the provision of information; and

(5) remarks, including time of activity.

*ENR 5.3.2—Other potential hazards*

A description, supplemented by charts where appropriate, of other potential hazards such as active volcanoes, nuclear power stations that could affect flights, including—

*(a)* the geographical co-ordinates in degrees and minutes of location of potential hazard;

*(b)* the vertical limits of the potential hazards;

*(c)* any advisory measures;

*(d)* the authority responsible for the provision of information; and

*(e)* remarks.

**ENR 5.4—AIR NAVIGATION OBSTACLES**

The list of obstacles affecting air navigation in Area 1, including the—

*(a)* obstacle identification or designation;

*(b)* type of obstacle;

*(c)* obstacle position, represented by geographical co-ordinates in degrees, minutes and seconds;

*(d)* obstacle elevation and height to the nearest metre or foot;

*(e)* type and colour of obstacle lighting where applicable; and

*(f)* if appropriate, an indication that the list of obstacles is available in electronic form, and a reference to GEN 3.1.6.

Note 1: *An obstacle whose height above the ground is one hundred metres and higher is considered an obstacle for Area 1.*

Note 2: *Specifications governing the determination and reporting (accuracy of field work and data integrity) of positions (latitude and longitude) and elevations/heights for obstacles in Area 1 are given in Tables 1 and 2 of Appendix 5 of Schedule 1.*

**ENR 5.5—AERIAL SPORTING AND RECREATIONAL ACTIVITIES**

A brief description, supplemented by graphic portrayal where appropriate, of intensive aerial sporting and recreational activities together with conditions under which they are carried out, including—

*(a)* the designation and geographical co-ordinates of the lateral limits in degrees, minutes and seconds if inside and in degrees and minutes if outside control area or control zone boundaries;

*(b)* the vertical limits of the aerial, sporting and recreational activities;

*(c)* the operator or user telephone number; and

*(d)* remarks.

Note 1: *The time of activity must be indicated in the remarks section.*

Note 2: *This paragraph may be subdivided into different sections for each different category of activity, giving the indicated details in each case.*

#### ENR 5.6—BIRD MIGRATION AND AREAS WITH SENSITIVE FAUNA

A description, supplemented by charts where practicable, of movements of birds associated with migration, including migration routes and permanent resting areas and areas with sensitive fauna.

## ENR 6.—EN ROUTE CHARTS

En Route Chart—ICAO and index charts to be included in this section.

### PART 3—AERODROMES (AD)

Where an AIP is produced and made available in more than one volume with each having a separate amendment and supplement service, a separate preface, record of AIP Amendments, record of AIP Supplements, checklist of AIP Pages and list of current hand amendments must be included in each volume. In the case of an AIP being published as one volume, the annotation "not applicable" must be entered against each of the above subsections.

#### AD 0.6—TABLE OF CONTENTS TO PART 3

A list of sections and subsections contained in Part 3—Aerodromes.

## AD 1.— AERODROMES AND HELIPORTS

## INTRODUCTION

#### AD 1.1—AVAILABILITY OF AERODROME AND HELIPORT

A brief description of the authority responsible for aerodromes and heliports, including—

*(a)* the general conditions under which aerodromes and heliports and associated facilities are available for use;

*(b)* a statement concerning the ICAO documents on which the services are based and a reference to the AIP location where differences, if any, are listed;

*(c)* regulations, if any, concerning civil use of military airbases;

*(d)* the general conditions under which the low visibility procedures applicable to Category II and Category III operations at aerodromes, if any, are applied;

*(e)* friction measuring device used and the runway friction level below which the Director-General will declare the runway to be slippery when wet; and

*(f)* other information of a similar nature.

#### AD 1.2—RESCUE AND FIREFIGHTING SERVICES AND SNOW PLAN

*AD 1.2.1—Rescue and firefighting services*

A brief description of rules governing the establishment of rescue and firefighting services at aerodromes and heliports available for public use together with an indication of rescue and fire-fighting categories established by the aerodrome authority.

#### AD 1.3—INDEX TO AERODROMES AND HELIPORTS

A list, supplemented by graphic portrayal, of aerodromes and heliports within Trinidad and Tobago, including the—

*(a)* aerodrome or heliport name and ICAO location indicator;

*(b)* type of traffic permitted to use the aerodrome or heliport such as international or national, IFR or VFR, scheduled or non-scheduled and private; and

*(c)* reference to AIP, Part 3 subsection in which the aerodrome and heliport details are presented.

#### AD 1.4—GROUPING OF AERODROMES AND HELIPORTS

A brief description of the criteria applied by the Authority in grouping aerodromes and heliports such as international or national; primary or secondary, major or other and civil or military for the purpose of the production, distribution and provision of information.

## AD 2.—AERODROMES

In this Part the four asterisk "****" appearing at each heading is to be replaced by the relevant ICAO location indicator.

#### **** AD 2.1—AERODROME LOCATION INDICATOR AND NAME

The ICAO location indicator allocated to the aerodrome and the name of aerodrome must be provided. An ICAO location indicator must be an integral part of the referencing system applicable to all subsections in section AD 2.

****** AD 2.2—AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

Aerodrome geographical and administrative data including—

*(a)* the aerodrome reference point represented by geographical co-ordinates in degrees, minutes and seconds and its site;

*(b)* the direction and distance of aerodrome reference point from centre of the city or town which the aerodrome serves;

*(c)* the aerodrome elevation to the nearest metre or foot, and reference temperature;

*(d)* the geoid undulation at the aerodrome elevation position to the nearest metre or foot;

*(e)* the magnetic variation to the nearest degree, date of information and annual change;

*(f)* the name of aerodrome administration, address, telephone, telefax and telex numbers and AFS address;

*(g)* the types of traffic permitted to use the aerodrome such as IFRNVFR; and

*(h)* remarks.

****** AD 2.3—OPERATIONAL HOURS**

A detailed description of the hours of operation of services at the aerodrome, such as—

*(a)* aerodrome administration;

*(b)* customs and immigration;

*(c)* health and sanitation;

*(d)* AIS briefing office;

*(e)* ATS reporting office;

*(f)* MET briefing office;

*(g)* air traffic service;

*(h)* fuelling;

*(i)* handling;

*(j)* security;

*(k)* de-icing where applicable; and

*(l)* remarks.

****** AD 2.4—HANDLING SERVICES AND FACILITIES**

A detailed description of the handling services and facilities available at the aerodrome, such as—

*(a)* cargo-handling facilities;

*(b)* fuel and oil types;
*(c)* fuelling facilities and capacity;
*(d)* de-icing facilities where available;
*(e)* hangar space for visiting aircraft;
*(f)* repair facilities for visiting aircraft; and
*(g)* remarks.

****** AD 2.5—PASSENGER FACILITIES**

A brief description of passenger facilities available at the aerodrome, such as—

*(a)* hotels at or in the vicinity of aerodrome;
*(b)* restaurants at or in the vicinity of aerodrome;
*(c)* transportation options;
*(d)* medical facilities;
*(e)* banks and post offices at or in the vicinity of aerodrome;
*(f)* tourist offices; and
*(g)* remarks.

****** AD 2.6—RESCUE AND FIREFIGHTING SERVICES**

A detailed description of the rescue and firefighting services and equipment available at the aerodrome, including—

*(a)* aerodrome category for firefighting;
*(b)* rescue equipment;
*(c)* capability for removal of disabled aircraft; and
*(d)* remarks.

****** AD 2.7—SEASONAL AVAILABILITY—CLEARING**

A detailed description of the equipment and operational priorities established for the clearance of aerodrome movement areas, including—

*(a)* the type of clearing equipment;
*(b)* clearance priorities; and
*(c)* remarks.

****** AD 2.8—APRONS, TAXIWAYS AND CHECK LOCATIONS OR POSITIONS DATA**

Details related to the physical characteristics of aprons, taxiways and check locations or positions of designated checkpoints, including—

*(a)* the surface and strength of aprons;

*(b)* the width, surface and strength of taxiways;

*(c)* the location and elevation to the nearest metre or foot of altimeter checkpoints;

*(d)* the location of VOR checkpoints;

*(e)* the position of INS checkpoints in degrees, minutes, seconds and hundredths of seconds; and

*(f)* remarks.

If check locations or positions are shown on an aerodrome chart, a note to that effect must be provided under this subsection.

****** AD 2.9—SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS**

Brief description of the surface movement guidance and control system and runway and taxiway markings, including—

*(a)* the use of aircraft stand identification signs, taxiway guide lines and visual docking or parking guidance system at aircraft stands;

*(b)* the runway and taxiway markings and lights;

*(c)* stop bars where applicable; and

*(d)* remarks.

****** AD 2.10—AERODROME OBSTACLES**

A detailed description of obstacles, in respect of—

(1) obstacles in Area 2 as follows:

*(a)* obstacle identification or designation;

*(b)* type of obstacle;

*(c)* obstacle position, represented by geographical co-ordinates in degrees, minutes, seconds and tenths of seconds;

*(d)* obstacle elevation and height to the nearest metre or foot;

*(e)* obstacle marking, and type and colour of obstacle lighting where applicable;

*(f)* if appropriate, an indication that the list of obstacles is available in electronic form, and a reference to GEN 3.1.6; and

*(g)* NIL indication, if appropriate.

Note 1: *Subclause 2(2) of Part H, provides a description of Area 2 while, Figure A-2 of the Appendix of Part H contains graphical illustrations of obstacle data collection surfaces and criteria used to identify obstacles in Area 2.*

Note 2: *Specifications governing the determination and reporting accuracy of field work and data integrity of positions latitude and longitude and elevations for obstacles in Area 2 are given in Tables 1 and 2 in Appendix 5 of Schedule 1, and Tables A5-1 and A5-2, in Appendix 5, Volume 1 of Appendix 14, respectively.*

(2) obstacles in Area 3 as follows:

*(a)* the obstacle identification or designation;

*(b)* the type of obstacle;

*(c)* the obstacle position, represented by geographical co-ordinates in degrees, minutes, seconds and tenths of seconds;

*(d)* the obstacle elevation and height to the nearest metre or foot;

*(e)* the obstacle marking, and type and colour of obstacle lighting where applicable;

*(f)* if appropriate, an indication that the list of obstacles is available in electronic form, and a reference to GEN 3.1.6; and

*(g)* a NIL indication, if appropriate.

Note 1: *Subclause 2(3) of Part H, provides a description of Area 3 while Figure A8-3 of Appendix 8 contains graphical illustrations of obstacle data collection surfaces and criteria used to identify obstacles in Area 3.*

Note 2: *Specifications governing the determination and reporting accuracy of field work and data integrity of positions latitude and longitude and elevations for obstacles in Area 3 are given in Appendix 5, Volume 1 of Annex 14 and Tables A5-1 and A5-2, respectively.*

****** AD 2.11—METEOROLOGICAL INFORMATION PROVIDED**

A detailed description of meteorological information provided at the aerodrome and an indication of which meteorological office is responsible for the service enumerated, including—

*(a)* the name of the associated meteorological office;

*(b)* the hours of service and, where applicable, the designation of the responsible meteorological office outside these hours;

*(c)* the office responsible for preparation of TAFs and periods of validity and interval of issuance of the forecasts;

*(d)* the availability of the trend forecasts for the aerodrome, and interval of issuance;

*(e)* the information on how briefing or consultation is provided;

*(f)* types of flight documentation supplied and the language used in flight documentation;

*(g)* charts and other information displayed or available for briefing or consultation;

*(h)* supplementary equipment available for providing information on meteorological conditions, such as weather radar and receiver for satellite images;

*(i)* the ATS unit provided with meteorological information; and

*(j)* any additional information such as limitation of service.

****** AD 2.12—RUNWAY PHYSICAL CHARACTERISTICS**

A detailed description of runway physical characteristics for each runway, including—

*(a)* the designations;

*(b)* true bearings to one-hundredth of a degree;

*(c)* the dimensions of runways to the nearest metre or foot;

*(d)* the strength of pavement to include PCN and associated data and surface of each runway and associated stopways;

*(e)* the geographical co-ordinates in degrees, minutes, seconds and hundredths of seconds for each threshold and runway end, and geoid undulation to the nearest one-half metre or foot for each threshold;

*(f)* elevations of—

(i) thresholds of a non-precision approach runway to the nearest metre or foot; and

(ii) thresholds and the highest elevation of the touchdown zone of a precision approach runway to the nearest one-half metre or foot;

*(g)* the slope of each runway and associated stopways;

*(h)* the dimensions of stopway where applicable to the nearest metre or foot;

*(i)* the dimensions of clearway where applicable to the nearest metre or foot;

*(j)* the dimensions of strips;

*(k)* the existence of an obstacle-free zone; and

*(l)* remarks.

****** AD 2.13—DECLARED DISTANCES**

A detailed description of declared distances to the nearest metre or foot for each direction of each runway, including—

*(a)* the runway designator;

*(b)* the take-off run available;

*(c)* the take-off distance available;

*(d)* the accelerate-stop distance available;

*(e)* the landing distance available; and

*(f)* remarks.

Where a runway direction cannot be used for take-off or landing, or both, because it is operationally forbidden, then this must be declared and the words "not usable" or the abbreviation "NU" entered.

****** AD 2.14—APPROACH AND RUNWAY LIGHTING**

A detailed description of approach and runway lighting, including—

*(a)* the runway designator;

*(b)* the type, length and intensity of approach lighting system;

*(c)* the runway threshold lights, colour and wing bars;

*(d)* the type of visual approach slope indicator system;

*(e)* the length of runway touchdown zone lights;

*(f)* the length, spacing, colour and intensity of runway centre line lights;

*(g)* the length, spacing, colour and intensity of runway edge lights;

*(h)* the colour of runway end lights and wing bars;

*(i)* the length and colour of stopway lights; and

*(j)* remarks.

****** AD 2.15—OTHER LIGHTING, SECONDARY POWER SUPPLY**

A description of other lighting and secondary power supply, including—

*(a)* the location, characteristics and hours of operation of aerodrome beacon or identification beacon where applicable;

*(b)* the location and lighting where applicable of anemometer or landing direction indicator;

*(c)* the taxiway edge and taxiway centre line lights;

*(d)* secondary power supply including switch-over time; and

*(e)* remarks.

****** AD 2.16—HELICOPTER LANDING AREA**

A detailed description of helicopter landing area provided at the aerodrome, including—

*(a)* the geographical co-ordinates in degrees, minutes, seconds and hundredths of seconds and geoid undulation to the nearest one-half metre or foot of the geometric centre of touchdown and lift-off or of each threshold of final approach and take-off area where appropriate;

*(b)* the TLOF and FATO area elevation—

(i) for non-precision approaches, to the nearest metre or foot; and

(ii) for precision approaches, to the nearest one-half metre or foot;

*(c)* the TLOF and FATO area dimensions to the nearest metre or foot, surface type, bearing strength and marking;

*(d)* true bearings to one-hundredth of a degree of FATO;

*(e)* the declared distances available, to the nearest metre or foot;

*(f)* the approach and FATO lighting; and

*(g)* remarks.

****** AD 2.17—AIR TRAFFIC SERVICES AIRSPACE**

A detailed description of ATS airspace organised at the aerodrome, including—

*(a)* the airspace designation and geographical co-ordinates in degrees, minutes and seconds of the lateral limits;

*(b)* the vertical limits;

*(c)* the airspace classification;

*(d)* the call sign and language of the ATS unit providing service;

*(e)* the transition altitude; and

*(f)* remarks.

****** AD 2.18—AIR TRAFFIC SERVICES COMMUNICATION FACILITIES**

A detailed description of air traffic services communication facilities established at the aerodrome, including—

*(a)* the service designation;

*(b)* the call sign;

*(c)* channels;

*(d)* log on address, as appropriate;

*(e)* hours of operation; and

*(f)* remarks.

****** AD 2.19—RADIO NAVIGATION AND LANDING AIDS**

A detailed description of radio navigation and landing aids associated with the instrument approach and the terminal area procedures at the aerodrome, including—

*(a)* the type of aids, magnetic variation to the nearest degree, as appropriate, and type of supported operation for ILS or MLS, basic GNSS, SBAS, and GBAS and for VOR, ILS and MLS also station declination to the nearest degree used for technical line-up of the aid;

*(b)* the identification, if required;

*(c)* the frequency, as appropriate;

*(d)* the hours of operation, as appropriate;

*(e)* the geographical co-ordinates in degrees, minutes, seconds and tenths of seconds of the position of the transmitting antenna, as appropriate;

*(f)* the elevation of the transmitting antenna of DME to the nearest 30 metres or 100 feet and of DME/P to the nearest 3 metres or 10 feet; and

*(g)* remarks.

When the same aid is used for both en route and aerodrome purposes, a description must also be given in section ENR 4. Where the GBAS serves more than one aerodrome, description of the aid must be provided under each aerodrome. Where the operating authority of the facility is not the Authority, the name of the operating authority and facility coverage must be indicated in the remarks column.

****** AD 2.20—LOCAL TRAFFIC REGULATIONS**

A detailed description of regulations applicable to the traffic at the aerodrome including standard routes for taxiing aircraft, parking regulations, school and training flights and similar but excluding flight procedures.

****** AD 2.21—NOISE ABATEMENT PROCEDURES**

A detailed description of noise abatement procedures established at the aerodrome.

****** AD—2.22 FLIGHT PROCEDURES**

A detailed description of the conditions and flight procedures, including radar or ADS-B procedures, established on the basis of airspace organisation at the aerodrome and where established, detailed description of the low visibility procedures at the aerodrome, including—

*(a)* runways and associated equipment authorised for use under low visibility procedures;

*(b)* defined meteorological conditions under which initiation, use and termination of low visibility procedures would be made; and

*(c)* description of ground marking/lighting for use under low visibility procedures.

****** AD 2.23—ADDITIONAL INFORMATION**

Additional information at the aerodrome, such as an indication of bird concentrations at the aerodrome, together with an indication of significant daily movement between resting and feeding areas, to the extent practicable.

*L.R.O.*

****** AD 2.24 CHARTS RELATED TO AN AERODROME**

Charts related to an aerodrome are to included in the following order:

*(a)* Aerodrome and Heliport Chart—ICAO;
*(b)* Aircraft Parking and Docking Chart—ICAO;
*(c)* Aerodrome Ground Movement Chart—ICAO;
*(d)* Aerodrome Obstacle Chart—ICAO Type A;
*(e)* Aerodrome Terrain and Obstacle Chart—ICAO (Electronic);
*(f)* Precision Approach Terrain Chart—ICAO for precision approach Categories II and III runways;
*(g)* Area Chart—ICAO for departure and transit routes;
*(h)* Standard Departure Chart—Instrument—ICAO;
*(i)* Area Chart—ICAO for arrival and transit routes;
*(j)* Standard Arrival Chart—Instrument—ICAO;
*(k)* Radar ATC Surveillance Minimum Altitude Chart—ICAO;
*(l)* Instrument Approach Chart—ICAO for each runway and procedure type;
*(m)* Visual Approach Chart—ICAO; and
*(n)* bird concentrations in the vicinity of the aerodrome.

Where some of the charts are not produced, a statement to this effect must be given in section GEN 3.2, Aeronautical charts.

## AD 3.—HELIPORTS

When a helicopter landing area is provided at the aerodrome, associated data must be listed only under **** AD 2.16.

****** AD 3.1—HELIPORT LOCATION INDICATOR AND NAME**

The ICAO location indicator assigned to the heliport and the name of heliport must be provided. An ICAO location indicator must be an integral part of the referencing system applicable to all subsections in section AD 3.

****** AD 3.2—HELIPORT GEOGRAPHICAL AND ADMINISTRATIVE DATA**

Heliport geographical and administrative data shall be provided, including—

*(a)* the heliport reference point represented by geographical co-ordinates in degrees, minutes and seconds and its site;
*(b)* the direction and distance of heliport reference point from centre of the city or town which the heliport serves;
*(c)* the heliport elevation to the nearest metre or foot, and reference temperature;
*(d)* the geoid undulation at the heliport elevation position to the nearest metre or foot;

*(e)* the magnetic variation to the nearest degree, date of information and annual change;

*(f)* the name of heliport administration, address, telephone, telefax and telex numbers and AFS address;

*(g)* the types of traffic permitted to use the heliport such as IFR or VFR; and

*(h)* remarks.

****** AD 3.3 OPERATIONAL HOURS**

A detailed description of the hours of operation of services at the heliport, such as—

*(a)* heliport administration;

*(b)* customs and immigration;

*(c)* health and sanitation;

*(d)* AIS briefing office;

*(e)* ATS reporting office;

*(f)* MET briefing office;

*(g)* air traffic service;

*(h)* fuelling;

*(i)* handling;

*(j)* security;

*(k)* de-icing, as applicable; and

*(l)* remarks.

****** AD 3.4—HANDLING SERVICES AND FACILITIES**

A detailed description of the handling services and facilities available at the heliport, such as—

*(a)* cargo-handling facilities;

*(b)* fuel and oil types;

*(c)* fuelling facilities and capacity;

*(d)* de-icing facilities;

*(e)* hangar space for visiting helicopters;

*(f)* repair facilities for visiting helicopters; and

*(g)* remarks.

****** AD 3.5—PASSENGER FACILITIES**

A brief description of passenger facilities available at the heliport, such as—

*(a)* hotels at or in the vicinity of the heliport;

*(b)* restaurants at or in the vicinity of the heliport;

*(c)* transportation options;

*(d)* medical facilities;

(e) banks and post offices at or in the vicinity of the heliport;

*(f)* tourist offices; and

*(g)* remarks.

****** AD 3.6—RESCUE AND FIREFIGHTING SERVICES**

A detailed description of the rescue and firefighting services and equipment available at the heliport, including—

*(a)* the heliport category for firefighting;

*(b)* the rescue equipment;

*(c)* the capability for removal of disabled helicopter; and

*(d)* remarks.

****** AD 3.7—SEASONAL AVAILABILITY—CLEARING**

A detailed description of the equipment and operational priorities established for the clearance of heliport movement areas, including—

*(a)* the types of clearing equipment;

*(b)* the clearance priorities; and

*(c)* remarks.

****** AD 3.8—APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA**

A detailed description of the physical characteristics of aprons, taxiways and locations or positions of designated checkpoints, including—

*(a)* the surface and strength of aprons, helicopter stands;

*(b)* the width, surface type and designation of helicopter ground taxiways;

*(c)* the width and designation of helicopter air taxiway and air transit route;

*(d)* the location and elevation to the nearest metre or foot of altimeter checkpoints;

*(e)* the location of VOR checkpoints;

*(f)* the position of INS checkpoints in degrees, minutes, seconds and hundredths of seconds; and

*(g)* remarks.

Where check locations or positions are presented on a heliport chart, a note to that effect must be provided under this subsection.

****** AD 3.9—MARKINGS AND MARKERS**

A brief description of final approach and take-off area and taxiway markings and markers, including—

*(a)* the final approach and take-off markings;

*(b)* the taxiway markings, air taxiway markers and air transit route markers; and

*(c)* remarks.

****** AD 3.10 HELIPORT OBSTACLES**

A detailed description of obstacles, in respect of—

(1) Obstacles in Area 2 such as—

*(a)* obstacle identification or designation;

*(b)* type of obstacle;

*(c)* obstacle position, represented by geographical co-ordinates in degrees, minutes, seconds and tenths of seconds;

*(d)* obstacle elevation and height to the nearest metre or foot;

*(e)* obstacle marking, and type and colour of obstacle lighting where applicable;

*(f)* if appropriate, an indication that the list of obstacles is available in electronic form, and a reference to GEN 3.1.6; and

*(g)* NIL indication, if appropriate.

Note 1: *Subclause 2(2), (3) and (4)(a) of Part H, provides a description of Area 2 while Figure A-2 of the Appendix to Part H, contains graphical illustrations of obstacle data collection surfaces and criteria used to identify obstacles in Area 2.*

Note 2: *Specifications governing the determination and reporting accuracy of field work and data integrity of positions latitude and longitude and elevations for obstacles in Area 2 are given in, Tables 1 and 2, in the Appendix to Part A of Schedule 1 and in Tables 1 and 2 in Appendix 1 Volume 11 of Annex 14, respectively.*

(2) Obstacles in Area 3 such as—

*(a)* obstacle identification or designation;

*(b)* type of obstacle;

*(c)* obstacle position, represented by geographical co-ordinates in degrees, minutes, seconds and tenths of seconds;

*(d)* obstacle elevation and height to the nearest metre or foot;

*(e)* obstacle marking, and type and colour of obstacle lighting where applicable;

*(f)* if appropriate, an indication that the list of obstacles is available in electronic form, and a reference to GEN 3.1.6; and

*(g)* NIL indication, if appropriate.

Note 1: *Subclause 2(3) of Part H provides a description of Area 3 while Figure A-3 of the Appendix to Part H, contains graphical illustrations of obstacle data collection surfaces and criteria used to identify obstacles in Area 3.*

Note 2: *Specifications governing the determination and reporting accuracy of field work and data integrity of positions latitude and longitude and elevations for obstacles in Area 3 are given in Tables 1 and 2 in the Appendix to Part A of Schedule 1, respectively.*

****** AD 3.11 METEOROLOGICAL INFORMATION PROVIDED**

A detailed description of meteorological information provided at the heliport and an indication of which meteorological office is responsible for the service enumerated, including—

*(a)* the name of the associated meteorological office;

*(b)* the hours of service and, where applicable, the designation of the responsible meteorological office outside these hours;

*(c)* the office responsible for preparation of TAFs, and periods of validity of the forecasts;

*(d)* the availability of the trend forecasts for the heliport, and interval of issuance;

*(e)* the information on how briefing and/or consultation is provided;

*(f)* the type of flight documentation supplied and language used in flight documentation;

*(g)* the charts and other information displayed or available for briefing or consultation;

*(h)* the supplementary equipment available for providing information on meteorological conditions, such as weather radar and receiver for satellite images;

*(i)* the ATS units provided with meteorological information; and

*(j)* any additional information such as limitation of service.

****** AD 3.12—HELIPORT DATA**

A detailed description of the heliport dimensions and related information, including—

*(a)* the heliport type such as surface-level, elevated or helideck;

*(b)* the TLOF area dimensions to the nearest metre or foot;

*(c)* the true bearings to one-hundredth of a degree of FATO area;

*(d)* the dimensions to the nearest metre or foot of FATO, and surface type;

*(e)* the surface and bearing strength in tonnes of TLOF;

*(f)* the geographical co-ordinates in degrees, minutes, seconds and hundredths of seconds and geoid undulation to the nearest one-half metre or foot of the geometric centre of TLOF or of each threshold of FATO where appropriate;

*(g)* the TLOF and FATO slope and elevation—

(i) for non-precision approaches to the nearest metre or foot; and

(ii) for precision approaches to the nearest one-half metre or foot;

*(h)* the dimensions of safety area;

*(i)* the dimensions, to the nearest metre or foot, of helicopter clearway;

*(j)* the existence of an obstacle-free sector; and

*(k)* remarks.

****** AD 3.13—DECLARED DISTANCES**

A detailed description of declared distances to the nearest metre or foot, where relevant for a heliport, including the—

*(a)* take-off distance available;

*(b)* rejected take-off distance available;

*(c)* landing distance available; and

*(d)* remarks.

****** AD 3.14—APPROACH AND FATO LIGHTING**

A detailed description of approach and FATO lighting, including—

*(a)* the type, length and intensity of approach lighting system;

*(b)* the type of visual approach slope indicator system;

*(c)* the characteristics and location of FATO area lights;

*(d)* the characteristics and location of aiming point lights;

*(e)* the characteristics and location of TLOF lighting system; and

*(f)* remarks.

****** AD 3.15—OTHER LIGHTING, SECONDARY POWER SUPPLY**

A description of other lighting and secondary power supply, including—

*(a)* the location, characteristics and hours of operation of heliport beacon;

*(b)* the location and lighting of WDI;

*(c)* the taxiway edge and taxiway centre line lights;

*(d)* the secondary power supply including switch-over time; and

*(e)* remarks.

*L.R.O.*

****** AD 3.16—AIR TRAFFIC SERVICES AIRSPACE**

A detailed description of ATS airspace organised at the heliport, including—

*(a)* the airspace designation and geographical co-ordinates in degrees, minutes and seconds of the lateral limits;

*(b)* the vertical limits of the ATS airspace at the heliport;

*(c)* the airspace classification;

*(d)* the call sign and language of ATS unit providing service;

*(e)* the transition altitude; and

*(f)* remarks.

****** AD 3.17—AIR TRAFFIC SERVICES COMMUNICATION FACILITIES**

A detailed description of air traffic services communication facilities established at the heliport, including—

*(a)* the service designation;

*(b)* the call sign;

*(c)* the frequency;

*(d)* the hours of operation; and

*(e)* remarks.

****** AD 3.18—RADIO NAVIGATION AND LANDING AIDS**

A detailed description of radio navigation and landing aids associated with the instrument approach and the terminal area procedures at the heliport, including—

*(a)* the type of aids, magnetic variation for VOR, station declination used for technical line-up of the aid to the nearest degree, and type of operation for ILS, MLS, basic GNSS, SBAS, and GBAS;

*(b)* the identification of the radio navigation and landing aids, if required;

*(c)* the frequency, as appropriate;

*(d)* the hours of operation, as appropriate;

*(e)* the geographical co-ordinates in degrees, minutes, seconds and tenths of seconds of the position of the transmitting antenna, as appropriate;

*(f)* the elevation of the transmitting antenna of DME to the nearest 100 feet and of DME/P to the nearest 10 feet; and

*(g)* remarks.

Where the same aid is used for both en route and heliport purposes, a description must also be given in section ENR 4. Where the ground-based augmentation system (GBAS) serves more than one heliport, description of the aid must be provided under each heliport. Where the operating authority

of the facility is not the Authority, the name of the operating authority and facility coverage must be indicated in the remarks column.

****** AD 3.19—LOCAL TRAFFIC REGULATIONS**

A detailed description of regulations applicable to traffic at the heliport, including standard routes for taxiing helicopters, parking regulations, school flights, training flights and other similar flights but excluding flight procedures.

****** AD 3.20—NOISE ABATEMENT PROCEDURES**

A detailed description of noise abatement procedures established at the heliport.

****** AD 3.21—FLIGHT PROCEDURES**

A detailed description of the conditions and flight procedures, including radar and/or ADS-B procedures, established on the basis of airspace organisation established at the heliport and where established, detailed description of the low visibility procedures at the heliport, including—

*(a)* touchdown and lift-off (TLOF) area(s) and associated equipment authorised for use under low visibility procedures;

*(b)* defined meteorological conditions under which initiation, use and termination of low visibility procedures would be made; and

*(c)* description of ground marking/lighting for use under low visibility procedures.

****** AD 3.22—ADDITIONAL INFORMATION**

Additional information about the heliport, such as an indication of bird concentrations at the heliport together with an indication of significant daily movement between resting and feeding areas, to the extent practicable.

****** AD 3.23—CHARTS RELATED TO A HELIPORT**

Charts related to a heliport shall be included in the following order:

*(a)* Aerodrome and Heliport Chart—ICAO;

*(b)* Area Chart—ICAO for departure and transit routes;

*(c)* Standard Departure Chart—Instrument—ICAO;

*(d)* Area Chart—ICAO for arrival and transit routes;

*(e)* Standard Arrival Chart—Instrument—ICAO;

*(f)* ATC Surveillance Minimum Altitude Chart—ICAO;

*(g)* Instrument Approach Chart—ICAO for each procedure type;

*(h)* Visual Approach Chart—ICAO; and

*(i)* A chart showing bird concentrations in the vicinity of heliport.

Where some of the charts are not produced, a statement to this effect must be given in section. GEN 3.2—Aeronautical charts.

Regulation 21. [100/2009].

**PART C**

## NOTAM

The Standards required to be met for NOTAM shall be as follows:

### ORIGINATION

1. (1) A NOTAM shall be originated and issued promptly where—
   *(a)* the information to be distributed is of a temporary nature and of short duration; or
   *(b)* operationally significant permanent changes, or temporary changes of long duration are made at short notice.

(2) A NOTAM shall be originated and issued in respect of the following:
   *(a)* establishment, closure or significant changes in operation of aerodrome and heliport or runways;
   *(b)* establishment, withdrawal and significant changes in operation of aeronautical services such as AGA, AIS, ATS, COM, MET and SAR;
   *(c)* establishment or withdrawal of electronic and other aids to air navigation and aerodrome and heliport which includes—
      (i) interruption or return to operation;
      (ii) change of frequencies;
      (iii) change in notified hours of service;
      (iv) change of identification;
      (v) change of orientation such as directional aids;
      (vi) change of location;
      (vii) power increase or decrease amounting to fifty per cent or more;
      (viii) change in broadcast schedules or contents; or
      (ix) irregularity or unreliability of operation of any electronic aid to air navigation, and air-ground communication services;
   *(d)* establishment, withdrawal or significant changes made to visual aids;
   *(e)* interruption of or return to operation of major components of aerodrome lighting systems;
   *(f)* establishment, withdrawal or significant changes made to procedures for air navigation services;

*(g)* occurrence or correction of major defects or impediments in the manoeuvring area;

*(h)* changes to and limitations on availability of fuel, oil and oxygen;

*(i)* major changes to search and rescue facilities and services available;

*(j)* establishment, withdrawal or return to operation of hazard beacons marking obstacles to air navigation;

*(k)* changes in regulations requiring immediate action, such as prohibited areas for SAR action;

*(l)* presence of hazards which affect air navigation including obstacles, military exercises, displays, races and major parachuting events outside promulgated sites;

*(m)* erecting or removal of, or changes to, obstacles to air navigation in the take-off and climb, missed approach, approach areas and runway strip;

*(n)* establishment or discontinuance, including activation or deactivation as applicable, or changes in the status of prohibited, restricted or danger areas;

*(o)* establishment or discontinuance of areas or routes or portions of the areas or routes where the possibility of interception exists and where the maintenance of guard on the VHF emergency frequency 121.5 MHz is required;

*(p)* allocation, cancellation or change of location indicators;

*(q)* significant changes in the level of protection normally available at an aerodrome for rescue and firefighting purposes;

*(r)* presence or removal of, or significant changes in, hazardous conditions due to water on the movement area;

*(s)* outbreaks of epidemics necessitating changes in notified requirements for inoculations and quarantine measures;

*(t)* forecasts of solar cosmic radiation, where provided;

*(u)* an operationally significant change in volcanic activity, the location, date and time of volcanic eruptions and horizontal and vertical extent of volcanic ash cloud, including direction of movement, flight levels and routes or portions of routes which could be affected;

*(v)* release into the atmosphere of radioactive materials or toxic chemicals following a nuclear or chemical incident, the location, date and time of the incident, the flight levels and routes or portion of routes which could be affected and the direction of movement;

*(w)* establishment of operations of humanitarian relief missions, such as those undertaken under the auspices of the United Nations, together with procedures and or limitations which affect air navigation; and

*(x)* implementation of short-term contingency measures in cases of disruption, or partial disruption, of air traffic services and related supporting services.

(3) The following information shall not be notified by NOTAM:

*(a)* routine maintenance work on aprons and taxiways which does not affect the safe movement of aircraft;

*(b)* runway marking work, where aircraft operations can safely be conducted on other available runways, or the equipment used can be removed where necessary;

*(c)* temporary obstructions in the vicinity of aerodrome and heliport that do not affect the safe operation of aircraft;

*(d)* partial failure of aerodrome and heliport lighting facilities where the partial failure does not directly affect aircraft operations;

*(e)* partial temporary failure of air-ground communications where suitable alternative frequencies are known to be available and are operative;

*(f)* the lack of apron marshalling services and road traffic control;

*(g)* the unserviceability of location, destination or other instruction signs on the aerodrome movement area;

*(h)* parachuting where in uncontrolled airspace under VFR, when controlled, at promulgated sites or within danger or prohibited areas; and

*(i)* other information of a similar temporary nature.

(4) At least seven days' advance notice shall be given of the activation of established danger, restricted or prohibited areas and of activities requiring temporary airspace restrictions other than for emergency operations.

(5) NOTAM notifying unserviceability of aids to air navigation, facilities or communication services shall give an estimate of the period of unserviceability or the time at which restoration of service is expected.

(6) Where an AIP amendment or an AIP supplement is published in accordance with AIRAC procedures, NOTAM shall be originated giving a brief description of the contents, the effective date and the reference number to the amendment or supplement.

(7) The NOTAM under subclause (5) shall come into force on the effective date as the amendment or supplement became effective and remain valid in the pre-flight information bulletin for a period of fourteen days.

**GENERAL SPECIFICATIONS**

2. (1) Except as otherwise provided in subclauses (3) and (4), each NOTAM shall contain the information in the order shown in the NOTAM Format in Appendix 3 of this Part.

(2) Text of NOTAM shall be composed of the significations and uniform abbreviated phraseology assigned to the ICAO NOTAM Code complemented by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language.

(3) When NOTAM is selected for international distribution, English text shall be included for those parts expressed in plain language.

(4) Information concerning an operationally significant change in volcanic activity, a volcanic eruption or volcanic ash cloud when reported by means of an ASHTAM, shall contain the information in the order shown in the ASHTAM Format in Appendix 1 of this Part.

(5) The NOTAM originator shall allocate to each NOTAM a series identified by a letter and a consecutive four-digit number based on the calendar year followed by a stroke and a two-digit number for the year.

(6) Where errors occur in a NOTAM, a new number to replace the erroneous NOTAM shall be issued.

(7) Where a NOTAM is issued which cancels or replaces a previous NOTAM, the series and number of the previous NOTAM shall be indicated so the series, location indicator and subject of both NOTAM are the same and only one NOTAM is cancelled or replaced by another NOTAM.

(8) Each NOTAM shall—

*(a)* deal with only one subject and one condition of the subject;

*(b)* be as brief as possible and compiled so that the meaning of the NOTAM is clear without the need to refer to another document; and

*(c)* be transmitted as a single telecommunication message.

(9) A NOTAM containing permanent or temporary information of long duration shall carry appropriate AIP or AIP supplement references.

(10) A complete form of Location indicators shall be included in the text of a NOTAM contained in the Location Indicators specified in the ICAO Doc. 7910.

(11) In no case shall an abbreviated form of a location indicator under subclause (11) be used.

(12) Where no ICAO location indicator is assigned to the location, the name of the location spelt in accordance with subclause 5(2), shall be entered in plain language.

(13) A checklist of valid NOTAM for each series shall—

*(a)* be issued as a NOTAM over the AFS at intervals of not more than one month using the NOTAM format specified in Appendix 3 of this Part one NOTAM issued for each series;

*(b)* refer to the latest AIP Amendments, AIP Supplements and at least the internationally distributed AIC; and

*(c)* have the same distribution as the actual message series to which they refer and be clearly identified as checklist.

(14) A monthly printed plain-language list of valid NOTAM, including indications of the latest AIP amendments, AIC issued and a checklist of AIP supplements, shall be prepared with a minimum of delay and forwarded by the most expeditious means to recipients of the Integrated Aeronautical Information Package.

**DISTRIBUTION**

3. (1) NOTAM shall—

*(a)* be distributed on the basis of a request;

*(b)* be prepared in conformity with the relevant provisions of the ICAO communication procedures.

(2) AFS shall, where practicable, be employed for NOTAM distribution.

(3) Where a NOTAM exchange as specified in subclause (5) is sent by means other than the AFS, a six-digit date-time group indicating the date and time of NOTAM origination, and the identification of the originator shall be used, preceding the text.

(4) The Director-General shall select the NOTAM that are to be given international distribution.

(5) International exchange of NOTAM shall take place only as mutually agreed between the Authority and the international NOTAM offices concerned.

(6) The international exchange of ASHTAM, and NOTAM where the Authority use NOTAM for distribution of information on volcanic activity, shall include volcanic ash advisory centres and the centres designated by regional air navigation agreement for the operation of AFS satellite distribution systems, such as satellite distribution system for information relating to air navigation (SADIS) and international satellite communications system (ISCS), and shall take account of the requirements of long-range operations.

(7) The exchanges of NOTAM between international NOTAM offices shall, as far as practicable, be limited to the requirements of the receiving States concerned by means of separate series providing for at least international and domestic flights.

(8) A predetermined distribution system for NOTAM transmitted on the AFS in accordance with Appendix 2 of this Part shall be used where possible, subject to the requirements of subclause (5).

## APPENDIX 1

Paragraph 2(5) of Part C. [100/2009].

## ASHTAM FORMAT

| | | | | | |
|---|---|---|---|---|---|
| (COM heading) | (PRIORITY INDICATOR) | (ADDRESSES) | | | |
| | (DATE AND TIME OF FILING) | | (ORIGINATOR'S INDICATOR) | | |
| (Abbreviated heading) | (VA*2 SERIAL NUMBER) V A *2 * 2 | | (LOCATION INDICATOR) | DATE/TIME OF ISSUANCE | (OPTIONAL GROUP) |
| ASHTAM | (Serial number) | | | | |

| | |
|---|---|
| (FLIGHT INFORMATION REGION AFFECTED) | A) |
| [DATE/TIME (UTC) OF ERUPTION] | B) |
| (VOLCANO NAME AND NUMBER) | C) |
| (VOLCANO LATITUDE/LONGITUDE OR VOLCANO RADIAL AND DISTANCE FROM NAVAID) | D) |
| (VOLCANO LEVEL OF ALERT COLOUR CODE, INCLUDING ANY PRIOR LEVEL OF ALERT COLOUR CODE)[3] | E) |
| (EXISTENCE AND HORIZONTAL/VERTICAL EXTENT OF VOLCANIC ASH CLOUD)[4] | F) |
| (DIRECTION OF MOVEMENT OF ASH CLOUD)[4] | G) |
| (AIR ROUTES OR PORTIONS OF AIR ROUTES AND FLIGHT LEVELS AFFECTED) | H) |
| (CLOSURE OF AIRSPACE AND/OR AIR ROUTES OR PORTIONS OF AIR ROUTES, AND ALTERNATIVE AIR ROUTES AVAILABLE) | I) |
| (SOURCE OF INFORMATION) | J) |
| (PLAIN-LANGUAGE REMARKS) | K) |
| NOTES:<br>*1. See also Appendix 2 regarding address indicators used in predetermined distribution systems.*<br>*2. *Enter ICAO nationality letter as given in ICAO Doc 7910, Part 2.*<br>*3. See paragraph 3.5 below.*<br>*4. Advice on the existence, extent and movement of volcanic ash cloud G) and H) may be obtained from the Volcanic Ash Advisory Centre(s) responsible for the FIR concerned.*<br>*5. Item titles in brackets ( ) not to be transmitted.* | |

Signature of Orginator (not for transmission)

## INSTRUCTIONS FOR THE COMPLETION OF THE ASHTAM FORMAT

### 1. General

*(a)* the ASHTAM provides information on the status of activity of a volcano when a change in its activity is, or is expected to be of operational significance. This information is provided using the volcano level of alert colour code given in subclause 3*(e)* below;

*(b)* in the event of a volcanic eruption producing ash cloud of operational significance, the ASHTAM also provides information on the location, extent and movement of the ash cloud and the air routes and flight levels affected;

*(c)* issuance of an ASHTAM giving information on a volcanic eruption, in accordance with section 3 below, should not be delayed until complete information (A) to (K) is available but should be issued immediately following receipt of

notification that an eruption has occurred or is expected to occur, or a change in the status of activity of a volcano of operational significance has occurred or is expected to occur, or an ash cloud is reported. In the case of an expected eruption, and hence no ash cloud evident at that time, items (A) to (E) should be completed and items (F) to (I) indicated as "not applicable". Similarly, if a volcanic ash cloud is reported, e.g., by special air-report, but the source volcano is not known at that time, the ASHTAM should be issued initially with items (A) to (E) indicated as "unknown", and items (F) to (K) completed, as necessary, based on the special air-report, pending receipt of further information. In other circumstances, if information for a specific field (A) to (K) is not available indicate "NIL";

*(d)* the maximum period of validity of ASHTAM is twenty-four hours;

*(e)* new ASHTAM must be issued where there is a change in the level of alert.

**2. Abbreviated heading**

Following the usual AFTN communications header, the abbreviated heading "TT AAiiii CCCC MMYYGGgg (BBB)" is included to facilitate the automatic processing of ASHTAM messages in computer data banks. The explanation of these symbols is:

TT = data designator for ASHTAM = VA;

AA = geographical designator for States, e.g., NZ = New Zealand [*see* Location Indicators (Doc 7910), Part 2, Index to Nationality Letters for Location Indicators];

iiii = ASHTAM serial number in a four-figure group;

CCCC = four-letter location indicator of the flight information region concerned [*see* Location Indicators (Doc 7910), Part 5, addresses of centres in charge of FIR/UIR];

MMYYGGgg = date/time of report, whereby:

MM = month, e.g., January = 01, December = 12

YY = day of the month

GGgg = time in hours (GG) and minutes (gg) UTC;

(BBB) = Optional group for correction to an ASHTAM message previously disseminated with the same serial number = COR.

Note: *Brackets in (BBB) are used to indicate that this group is optional.*

Example: Abbreviated heading of ASHTAM for Auckland Oceanic FIR, report on 7 November at 0620 UTC:

**VANZ0001 NZZO 11070620**

**3. Content of ASHTAM**

*(a)* Item A—Flight information region affected, plain-language equivalent of the location indicator given in the abbreviated heading, in this example "Auckland Oceanic FIR";

*(b)* Item B—Date and time (UTC) of first eruption;

*(c)* Item C—Name of volcano, and number of volcano as listed in the ICAO Manual on Volcanic Ash, Radioactive Material and Toxic Chemical Clouds (Doc 9691), Appendix H, and on the World Map of Volcanoes and Principal Aeronautical Features;

*(d)* Item D—Latitude and Longitude of the volcano in whole degrees or radial and distance of volcano from NAVAID [as listed in the ICAO Manual on Volcanic Ash, Radioactive Material and Toxic Chemical Clouds (Doc 9691), Appendix H, and on the World Map of Volcanoes and Principal Aeronautical Features];

*(e)* Item E—Colour code for level of alert indicating volcanic activity, including any previous level of alert colour code as follows:

| *Level of alert colour code* | *Status of activity of Volcano* |
|---|---|
| GREEN ALERT | Volcano is in normal, non-eruptive state;<br>or, after a change from a higher alert level:<br>Volcanic activity considered to have ceased and volcano reverted to its normal, non-eruptive state. |
| YELLOW ALERT | Volcano is experiencing signs of elevated unrest above known background levels;<br>or, after a change from higher alert level:<br>Volcanic activity has decreased significantly but continues to be closely monitored for possible renewed increase. |
| ORANGE ALERT | Volcano is exhibiting heightened unrest with increased likelihood of eruption;<br>or, Volcanic eruption is underway with no or minor ash emission.<br>*[specify ash-plume height if possible].* |
| RED ALERT | Eruption is forecasted to be imminent with significant emission of ash into the atmosphere likely;<br>or, Eruption is underway with significant emission of ash into the atmosphere<br>*[specify ash-plume height if possible].* |
| Note: *The colour code for the level of alert indicating the status of the volcano and any change from a previous status of activity should be provided to the area control centre by the responsible vulcanological agency in the State concerned, e.g., "RED ALERT FOLLOWING YELLOW" OR "GREEN ALERT FOLLOWING ORANGE".* | |

*L.R.O.*

*(f)* Item F—Where volcanic ash cloud of operational significance is reported, indicate the horizontal extent and base and top of the ash cloud using latitude and longitude in whole degrees and altitudes in thousands of metres or feet or radial and distance from source volcano;

*(g)* Information initially may be based only on special air-report, but subsequent information may be more detailed based on advice from the responsible meteorological watch office and/or volcanic ash advisory centre;

*(h)* Item G—Indicate forecast direction of movement of the ash cloud at selected levels based on advice from the responsible meteorological watch office and/or volcanic ash advisory centre;

*(i)* Item H—Indicate air routes and portions of air routes and flight levels affected, or expected to become affected;

*(j)* Item I—Indicate closure of airspace, air routes or portions of air routes, and availability of alternative routes;

*(k)* Item J—Source of the information, e.g., "special air-report" or "vulcanological agency", etc. The source of information should always be indicated, whether an eruption has actually occurred or ash cloud reported, or not; and

*(l)* Item K—Include in plain language any operationally significant information additional to the foregoing.

## APPENDIX 2

Schedule 2
Part C,
Paragraph 3(8).

## PREDETERMINED DISTRIBUTION SYSTEM FOR NOTAM

1. The predetermined distribution system provides for incoming NOTAM and ASHTAM to be channelled through the AFTN direct to designated addressees predetermined by the receiving country concerned while concurrently being routed to the international NOTAM office for checking and control purposes.

2. The addressee indicators for those designated addressees are constituted as follows:

*(a) First and second letters:*

The first two letters of the location indicator for the AFTN communication centre associated with the relevant international NOTAM office of the receiving country.

*(b) Third and fourth letters:*

The letters "ZZ" indicating a requirement for special distribution.

*(c) Fifth letter:*

The fifth letter differentiating between NOTAM (letter "N") and ASHTAM (letter "V").

*(d) Sixth and seventh letters:*

The sixth and seventh letters, each taken from the series A to Z and denoting the national and/or international distribution list(s) to be used by the receiving AFTN centre.

Note: *The fifth, sixth and seventh letters replace the three-letter designator YNY which, in the normal distribution system, denotes an international NOTAM office.*

*(e) Eighth letter:*

The eighth position letter shall be the filler letter "X" to complete the eight-letter addressee indicator.

3. The Authority shall inform the States from which it received NOTAM of the sixth and seventh letters to be used under different circumstances to ensure proper routing.

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*L.R.O.*

# APPENDIX 3

## NOTAM FORMAT

Schedule 2
Part C
Paragraph 2(1)
and (13).
[100/2009].

| | | | |
|---|---|---|---|
| Priority indicator | | | → |
| Address | | | |
| | | | |
| | | | |
| | | | |
| Date and time of filing | | | → |
| Originator's indicator | | | |
| Message series, number and identifier | | | |
| NOTAM containing new information | ..... (series and number/year) | NOTAMN | |
| NOTAM replacing a previous NOTAM | ..... (series and number/year) | NOTAMR ..... (series and number/year of NOTAM to be replaced) | |
| NOTAM canceling a previous NOTAM | ..... (series and number/year) | NOTAMC ..... (series and number/year of NOTAM to be cancelled) | |

Qualifiers

| | FIR | NOTAM Code | Traffic | Purpose | Scope | Lower limit | Upper limit | Co-ordinates, Radius |
|---|---|---|---|---|---|---|---|---|
| Q) | / | Q / | / | / | / | / | / | |

| | | |
|---|---|---|
| Identification of ICAO location indicator in which the facility airspace or condition reported on is located | A) | → |
| Period of Validity | | |
| From (date-time group) | B) | → |
| To (PERM or date-time group) | C) | EST* PERM* |
| Time Schedule (if applicable) | D) | → |
| | | |

Text of NOTAM; Plain-language Entry (using ICAO Abbreviations)

E)

| | | |
|---|---|---|
| Lower Limit | F) | → |
| Upper Limit | G) | |
| Signature | | |

*Delete as appropriate

# INSTRUCTIONS FOR THE COMPLETION OF THE NOTAM FORMAT

## 1. General

The qualifier line Item Q and all identifiers Items A to G inclusive each followed by a closing parenthesis, as shown in the format, shall be transmitted unless there is no entry to be made against a particular identifier.

## 2. NOTAM numbering

Each NOTAM shall be allocated a series identified by a letter and a four-digit number followed by a stroke and a two-digit number for the year (e.g., A0023/03).

## 3. Qualifiers Item Q

Item Q is divided in eight fields, each separated by a stroke. If no entry is to be made in a field, it is not necessary to transmit blanks between the strokes. Examples of how fields are to be filled are shown in the Aeronautical Information Services Manual (Doc 8126). The definition of the field is as follows:

*(a)* FIR—ICAO location indicator of affected FIR;

*(b)* NOTAM CODE:

All NOTAM Code groups contain a total of five letters and the first letter is always the letter Q. The second and third letters identify the subject, and the fourth and fifth letters denote the status of the subject reported upon. For combinations of second and third and fourth and fifth letters, insert the ICAO NOTAM codes listed in the PANS-ABC (Doc 8400) or in the NOTAM Selection Criteria contained in the Aeronautical Information Services Manual (Doc 8126) or insert one of the following combinations, as appropriate—

(i) If the subject is not listed in the NOTAM Code (Doc 8400) or in the NOTAM Selection Criteria (Doc 8126), insert "XX" as the second and third letters (e.g., QXXAK);

(ii) If the condition of the subject is not listed in the NOTAM Code (Doc 8400) or in the NOTAM Selection Criteria (Doc 8126), insert "XX" as the fourth and fifth letters (e.g., QFAXX);

(iii) Where a NOTAM containing operationally significant information is issued in accordance with Appendix 4 and Chapter 6 and when it is used to announce existence of AIRAC AIP Amendments or Supplements, insert "TT" as the fourth and fifth letters of the NOTAM Code;

(iv) Where a NOTAM is issued containing a checklist of valid NOTAM, insert "KKKK" as the second, third, fourth and fifth letters; and

(v) The following fourth and fifth letters of the NOTAM Code shall be used in NOTAM cancellations:

AK: RESUMED NORMAL OPERATION

AL: OPERATIVE OR RE-OPERATIVE SUBJECT TO PREVIOUSLY PUBLISHED LIMITATIONS OR CONDITIONS

AO: OPERATIONAL

CC: COMPLETED

XX: PLAIN LANGUAGE

*(c)* TRAFFIC

I = IFR

V = VFR

K = NOTAM is a checklist

Note: *Depending on the NOTAM subject and content, the qualifier field TRAFFIC may contain combined qualifiers. For possible combinations refer to the NOTAM Selection Criteria in the Aeronautical Information Services Manual (Doc 8126).*

*(d)* PURPOSE

N = NOTAM selected for the immediate attention of aircraft operators

B = NOTAM selected for PIB entry

O = NOTAM concerning flight operations

M= Miscellaneous NOTAM; not subject for a briefing, but it is available on request

K = NOTAM is a checklist

Note: *Depending on the NOTAM subject and content, the qualifier field PURPOSE may contain combined qualifiers. For possible combinations refer to the NOTAM Selection Criteria in the Aeronautical Information Services Manual (Doc 8126).*

*(e)* SCOPE

A = Aerodrome

E = En route

W= Nav Warning

K = NOTAM is a checklist

Note: *Depending on the NOTAM subject and content, the qualifier field SCOPE may contain combined qualifiers. For possible combinations refer to the NOTAM Selection Criteria in the Aeronautical Information Services Manual (Doc 8126). If the subject is qualified AE, the aerodrome location indicator must be reported in Item A.*

*(f)* LOWER AND UPPER

LOWER and UPPER limits shall always be filled and shall only be expressed in flight levels (FL). In the case of navigation warnings and airspace restrictions, values entered shall be consistent with those provided under Items F and G.

Where the subject does not contain specific height information, insert "000" for LOWER and "999" for UPPER as default values.

*(g)* CO-ORDINATES, RADIUS

The latitude and longitude accurate to one minute, as well as a three-digit distance figure giving the radius of influence in NM (e.g., 4700N01140E043). Co-ordinates present approximate centre of circle whose radius encompasses the whole area of influence, and if the NOTAM affects the entire FIR, enter the default value "999" for radius.

**4. Item A**

Insert the location indicator as contained in ICAO Doc 7910 of the aerodrome or FIR in which the facility, airspace, or condition being reported on is located. More than one FIR or IR may be indicated when appropriate. If there is no available ICAO location indicator, use the ICAO nationality letter as given in ICAO Doc 7910, Part 2, plus "XX" and followed up in Item E by the name, in plain language.

If information concerns GNSS, insert the appropriate ICAO location indicator allocated for a GNSS element or the common location indicator allocated for all elements of GNSS (except GBAS).

Note: *In the case of GNSS, the location indicator may be used when identifying a GNSS element outage (e.g., KNMH for a GPS satellite outage).*

**5. Item B**

For the date-time group, use a ten-figure group, giving year, month, day, hours and minutes in UTC and this entry shall be the date-time at which the NOTAMN, NOTAMR or NOTAMC comes into force.

**6. Item C**

With the exception of NOTAMC, a ten-figure day-time group giving year, month, day, hours and minutes in UTC indicating duration of information shall be used unless the information is of a permanent nature in which case the

abbreviation "PERM" is inserted instead. Where the information on timing is uncertain, the approximate duration shall be indicated using a date-time group followed by the abbreviation "EST". Any NOTAM which includes an "EST" shall be cancelled or replaced before the date-time specified in Item C.

**7. Item D**

Where the hazard, status of operation or condition of facilities being reported on will be active in accordance with a specific time and date schedule between the dates-times indicated in Items (B) and (C), insert such information under Item (D). Where Item (D) exceeds two hundred characters, consideration shall be given to providing such information in a separate, consecutive NOTAM.

Note: *Guidance concerning a harmonised definition of Item (D) content is provided in Doc 8126.*

**8. Item E**

Use decoded NOTAM Code, complemented where necessary by ICAO abbreviations, indicators, identifiers, designators, call signs, frequencies, figures and plain language. When NOTAM is selected for international distribution, English text shall be included for those parts expressed in plain language. This entry shall be clear and concise in order to provide a suitable PIB entry. In the case of NOTAMC, a subject reference and status message shall be included to enable accurate plausibility checks.

**9. Items F and G**

These items are normally applicable to navigation warnings or airspace restrictions and are usually part of the PIB entry. Insert both lower and upper height limits of activities or restrictions, clearly indicating reference datum and units of measurement.

Note: *For NOTAM examples see Doc 8126 and the PANS-ABC (Doc 8400).*

Regulation 22.

## PART D

## AERONAUTICAL INFORMATION REGULATION AND CONTROL (AIRAC)

The standards required to be met for AIRAC shall be as follows:

### GENERAL SPECIFICATIONS

1. (1) Information concerning the circumstances listed in Part 1 of the Appendix, shall be distributed under AIRAC, basing establishment, withdrawal or significant changes upon a series of common effective dates at intervals of twenty-eight days.

(2) Information notified in the AIRAC shall not be changed further for at least another twenty-eight days after the effective date, unless the circumstance notified is of a temporary nature and would not persist for the full period.

(3) Where information has not been submitted by the AIRAC date, a NIL notification shall be originated and distributed by NOTAM or other suitable means, not later than one cycle before the AIRAC effective date concerned.

(4) Implementation dates other than the AIRAC effective dates shall not be used for pre-planned operationally significant changes requiring cartographic work or for updating of navigation databases.

**PROVISION OF INFORMATION IN PAPER COPY FORM**

2. In all circumstances, information provided under the AIRAC system shall be published in paper copy form and distributed by the AIS unit at least forty-two days in advance of the effective date with the objective of reaching recipients at least twenty-eight days in advance of the effective date.

**PROVISION OF INFORMATION IN ELECTRONIC FORM**

3. (1) Where the Authority has established an aeronautical database in and thereafter updates the contents of that database concerning the circumstances listed in Part 1 of the Appendix, the Authority shall ensure that the effective dates of the data coincide with the established AIRAC effective dates used for the provision of information in paper copy form.

(2) The information provided in electronic form, concerning the circumstances listed in Part 1 of the Appendix, shall be distributed and made available by the AIS unit so as to reach recipients at least twenty-eight days in advance of the AIRAC effective date.

## APPENDIX

Paragraphs 1(1), 6 and 7 of Part D.

## INFORMATION TO BE NOTIFIED BY AIRAC

**PART 1**

1. The AIRAC shall provide information on the establishment and withdrawal of, and premeditated significant changes including operational trials as follows:

*(a)* horizontal and vertical limits and regulations and procedures applicable to—

(i) flight information regions;

(ii) control areas;

(iii) control zones;
(iv) advisory areas;
(v) ATS routes;
(vi) permanent danger, prohibited and restricted areas (including type and periods of activity when known) and ADIZ;
(vii) permanent areas or routes or portions thereof where the possibility of interception exists;

*(b)* positions, frequencies, call signs, known irregularities and maintenance periods of radio navigation aids and communication facilities;

*(c)* holding and approach procedures, arrival and departure procedures, noise abatement procedures and any other pertinent ATS procedures; and

*(d)* meteorological facilities including broadcasts and procedures.

*(e)* runways and stopways.

**PART 2**

2. The AIRAC shall provide information on the establishment and withdrawal of, and premeditated significant changes to—

*(a)* position, height and lighting of navigational obstacles;

*(b)* taxiways and aprons;

*(c)* hours of service: aerodromes, facilities and services;

*(d)* customs, immigration and health services;

*(e)* temporary danger, prohibited and restricted areas and navigational hazards, military exercises and mass movements of aircraft; and

*(f)* temporary areas or routes or portions thereof where the possibility of interception exists.

Regulation 23.

**PART E**

## AERONAUTICAL INFORMATION CIRCULARS

The standards required to be met for AIC shall be as follows:

**ORIGINATION**

1. (1) Whenever it is necessary to publish aeronautical information which does not qualify—

*(a)* under the specifications in clause 1 of Part B for inclusion in an AIP; or

*(b)* under the specifications in clause 1 of Part C for the origination of a NOTAM,

an AIC shall be originated.

(2) Whenever it is desirable to publish—

*(a)* a long-term forecast of any major change in legislation, regulations, procedures or facilities;

*(b)* information of a purely explanatory or advisory nature liable to affect flight safety;

*(c)* information or notification of an explanatory or advisory nature concerning technical, legislative or purely administrative matters such as—

(i) forecasts of important changes in the air navigation procedures, services and facilities provided;

(ii) forecasts of implementation of new navigational systems;

(iii) significant information arising from aircraft accident or incident investigation which has a bearing on flight safety;

(iv) information on regulations relating to the safeguarding of international civil aviation against acts of unlawful interference;

(v) advice on medical matters of special interest to pilots;

(vi) warnings to pilots concerning the avoidance of physical hazards;

(vii) effect of certain weather phenomena on aircraft operations;

(viii) information on new hazards affecting aircraft handling techniques;

(ix) regulations relating to the carriage of restricted articles by air;

(x) reference to the requirements of, and publication of changes in, national legislation;

(xi) aircrew licensing arrangements;

(xii) training of aviation personnel;

(xiii) application of, or exemption from, requirements in national legislation;

(xiv) advice on the use and maintenance of specific types of equipment;

(xv) actual or planned availability of new or revised editions of aeronautical charts;

(xvi) carriage of communication equipment;

(xvii) explanatory information relating to noise abatement;

(xviii) selected airworthiness directives;

(xix) changes in NOTAM series or distribution, new editions of AIP or major changes in their contents, coverage or format; and

(xx) other information of a similar nature,

an AIC shall be originated.

Note: *The publication of an AIC does not remove the obligation set out in Part B and Part C.*

**GENERAL SPECIFICATIONS**

2. (1) An AIC shall be issued in printed form.

(2) Each AIC shall be allocated a consecutive serial number which shall be based on the calendar year.

(3) Where AIC are distributed in more than one series, each series shall be separately identified by a letter.

(4) A checklist of AIC currently in force shall be issued at least once a year, and distributed to the recipients of AIC.

Regulation 24. [100/2009].

**PART F**

## PRE-FLIGHT AND POST-FLIGHT INFORMATION/DATA

The standards required to be met for pre-flight and post-flight information and data are as follows:

**PRE-FLIGHT INFORMATION**

1. (1) Aeronautical information provided for pre-flight planning purposes at the aerodrome or heliport referred to in regulation, shall include relevant—

*(a)* elements of the Integrated Aeronautical Information Package; and

*(b)* maps and charts.

(2) Additional current information relating to the aerodrome of departure shall be provided concerning the following where applicable:

*(a)* construction or maintenance work on or immediately adjacent to the manoeuvring area;

*(b)* rough portions of any part of the manoeuvring area, whether marked or unmarked such as broken parts of the surface of runways and taxiways;

*(c)* presence and depth of water on runways and taxiways, including their effect on surface friction;

*(d)* parked aircraft or other objects on or immediately adjacent to taxiways;

*(e)* presence of other temporary hazards;

*(f)* presence of birds constituting a potential hazard to aircraft operations;

*(g)* failure or irregular operation of part or all of the aerodrome lighting system including approach, threshold, runway, taxiway, obstruction and manoeuvring area unserviceability lights and aerodrome power supply;

*(h)* failure, irregular operation and changes in the operational status of ILS including markers, basic GNSS, SBAS, GBAS, SRE, PAR, DME, SSR, ADS-B, ADS-C, CPDLC, D-ATIS, D-VOLMET, VOR, NDB, VHF aeromobile channels, RVR observing system, and secondary power supply; and

*(i)* presence and operation of humanitarian relief missions, such as those undertaken under the auspices of the United Nations, together with any associated procedures or limitations applied thereof.

(3) A summary of current NOTAM and other information of urgent character shall be made available to flight crews in the form of plain-language pre-flight information bulletins (PIB).

Note: *Guidance on the preparation of PIB is contained in ICAO Doc 8126.*

**AUTOMATED AERONAUTICAL INFORMATION SYSTEMS**

2. (1) Where the Authority uses automated pre-flight information systems to make aeronautical information or data available to operations personnel including flight crew members for self-briefing, flight planning and flight information service purposes, the information or data made available shall comply with the provisions of subclauses (2) and (4).

(2) Where automated pre-flight information systems are used to provide the harmonised, common point of access by operations personnel, including flight crew members and other aeronautical personnel concerned, to aeronautical information or data and meteorological information, the Authority shall remain responsible for the quality and timeliness of the aeronautical information and data provided by means of such a system.

(3) Self-briefing facilities of an automated pre-flight information system shall provide for every access to all relevant information or data in guided manner to operations personnel, including flight crew members and other aeronautical

personnel concerned, to consultation as necessary with the aeronautical information service by telephone or other suitable telecommunications means.

**POST-FLIGHT INFORMATION**

3. The Authority shall ensure that arrangements are made to receive at aerodromes and heliports information concerning—

*(a)* the state and operation of air navigation facilities noted by aircrews and shall ensure that such information is made available to the aeronautical information service for distribution as the circumstances necessitate;

*(b)* the presence of birds observed by aircrews and shall ensure that such information is made available to the aeronautical information service for such distribution as the circumstances necessitate.

Regulation 25.

**PART G**

## TELECOMMUNICATION REQUIREMENTS

The standards required to be met for Telecommunications requirements are as follows:

*(a)* International NOTAM offices shall be connected to the AFS;

*(b)* the connections provide for printed communications; and

*(c)* each international NOTAM office shall be connected, through the AFS, to the following points within Trinidad and Tobago for which NOTAM office provides service:

(i) area control centres and flight information centres; and

(ii) aerodromes and heliports at which an information service is established in accordance with Part F.

Regulation 26. [100/2009].

**PART H**

## ELECTRONIC TERRAIN AND OBSTACLE DATA

The standards required to be met for electronic terrain and obstacle data are as follows:

**FUNCTION**

1. Sets of electronic terrain and obstacle data used in combination with aeronautical data, as appropriate shall satisfy user requirements necessary to support the following air navigation applications:

*(a)* ground proximity warning system with forward looking terrain avoidance function and MSAW system;

*(b)* determination of contingency procedures for use in the event of an emergency during a missed approach or take-off;

*(c)* analysis aircraft operating limitations;

*(d)* instrument procedure design including circling procedure;

*(e)* determination of en route drift-down procedure and en route emergency landing location;

*(f)* advanced surface movement guidance and control system;

*(g)* aeronautical chart production and on-board databases;

*(h)* flight simulator;

*(i)* synthetic vision; and

*(j)* aerodrome or heliport obstacle restriction and removal.

**COVERAGE AND TERRAIN AND OBSTACLE DATA NUMERICAL REQUIREMENTS**

2. (1) To satisfy requirements necessary to accommodate air navigation systems or functions specified in clause 1, sets of electronic terrain and obstacle data shall be collected and recorded in databases in accordance with the following areas of coverage:

*(a)* Area 1: entire territory of a State;

*(b)* Area 2: terminal control area;

*(c)* Area 3: aerodrome and heliport area; and

*(d)* Area 4: Category II or III operations area.

(2) Area 1 shall cover the entire territory of Trinidad and Tobago, including aerodromes and heliports.

(3) Area 2 shall be the terminal control area as published in the AIP or limited to a forty-five kilometre radius from the aerodrome or heliport reference point whichever is smaller.

(4) At IFR aerodromes and heliports—

*(a)* where a terminal control area has not been established, Area 2 shall be the area within a forty-five-kilometre radius of the aerodrome or heliport reference point;

*(b)* Area 3 shall cover the area that extends from the edges of the runways to ninety metres from the runway centre line and for all other parts of aerodrome or heliport movement areas, fifty metres from the edges of the defined areas.

(5) Area 4 shall be restricted to those runways where precision approach Category II or III operations have been established and where detailed terrain information is required by operators to enable them to assess, by use of radio altimeters, the effect of terrain on decision height determination.

(6) The width of the area under subclause (5), shall be sixty metres on either side of the extended runway centre line while the length shall be nine hundred metres from the runway threshold measured along the extended runway centre line.

(7) According to the air navigation applications listed in subclause 1 and areas of coverage, sets of electronic terrain data shall satisfy the numerical requirements specified in Table 1 of the Appendix, while obstacle data shall satisfy the numerical requirements specified in Table 2 of the Appendix.

**CONTENT AND STRUCTURE OF TERRAIN DATABASE**

3. (1) A terrain database shall contain digital sets of data representing terrain surface in the form of continuous elevation values at all intersections of a defined grid, referenced to common datum.

(2) A terrain grid under subclause (1), shall be angular or linear and of regular or irregular shape.

(3) Sets of electronic terrain data shall include spatial or represented by position and elevation, thematic and temporal aspects for the surface of the earth containing naturally occurring features such as mountains, hills, ridges, valleys, bodies of water, permanent ice and snow, and excluding obstacles.

Note: *In practical terms depending in the acquisition method used, sets of electronic data when put together would represent a continuous surface that exists at the bare earth, the top of the canopy or something in between, also known as "first reflective surface".*

(4) Terrain data shall be collected according to—

*(a)* the areas specified in clause 2;

*(b)* terrain data collection surfaces and criteria specified in Figure 1 of the Appendix; and

*(c)* the terrain data numerical requirements provided in Table 1 of the Appendix.

(5) In terrain databases, only terrain feature type shall be recorded.

(6) Feature attributes describing terrain under subclause (5), shall be those listed in Table 3 of the Appendix, representing the minimum set of terrain attributes, and those annotated as mandatory shall be recorded in the terrain database.

**CONTENT AND STRUCTURE OF OBSTACLE DATABASE**

4. (1) One obstacle database shall contain a digital set of obstacle data that includes those features having vertical significance in relation to adjacent and surrounding features that are considered hazardous to air navigation.

(2) Obstacle data shall—

*(a)* comprise the digital representation of the vertical and horizontal extent of man-made objects; and

*(b)* not be included in terrain databases.

(3) Obstacle data elements are features that shall be represented in the database by points, lines or polygons.

(4) Obstacles shall be identified within the areas defined in Clause 2, on the basis of the obstacle data collection surfaces and criteria specified in Figure 2 of the Appendix, and collected in accordance with obstacle data numerical requirements provided in Table 2 of the Appendix.

(5) In an obstacle database, all defined obstacle feature types shall be recorded and each of them shall be described according to the list of mandatory attributes provided in Table 4 of the Appendix.

**TERRAIN AND OBSTACLE DATA PRODUCT SPECIFICATIONS**

5. (1) To allow and support the interchange and use of sets of electronic terrain and obstacle data among different data providers and data users, the ISO 19100 series of standards for geographic information shall be used as a general data modelling framework.

(2) A comprehensive statement of available electronic terrain and obstacle data sets shall be provided in the form of terrain data product specifications as well as obstacle data product specifications on which basis air navigation users will be able to evaluate the products and determine whether the products fulfil the requirements for the intended application.

(3) Each terrain data product specification shall include an overview, a specification scope, data product identification, data content and structure, reference system, data quality, data capture, data maintenance, data portrayal, data product delivery, additional information, and metadata.

(4) An overview of terrain data product specification or obstacle data product specification shall provide an informal description of the product and contain general information about the data product.

Note: *Specification of terrain data may not be homogenous across the whole data product but may vary for different parts of the data sets and a specification scope shall be identified.*

(5) Where specifications of terrain data is not homogenous across the whole data product, for each subject the specification scope shall be identified.

(6) Identification information concerning both terrain and obstacle data products shall—

*(a)* include the title of the product;

*(b)* a brief narrative summary of the content purpose, and spatial resolution if appropriate;

*(c)* the geographic area covered by the data product; and

*(d)* supplemental information.

(7) Content information of feature-based terrain data sets or of feature-based obstacle data sets shall each be described in terms of an application schema and a feature catalogue.

(8) Application schema shall provide a formal description of the data structure and content of data sets.

(9) Feature catalogue shall provide the semantics of all feature types and their attributes and attribute value domains, association types between feature types and feature operations, inheritance relations and constraints.

(10) Both terrain and obstacle data product specifications shall identify clearly the coverage and imagery they include and shall provide a narrative description of each of them.

Note: *Coverage is considered a subtype of a feature and can be derived from a collection of features that have common attributes.*

(11) Both terrain data product specifications and obstacle data product specifications shall include—

*(a)* information that identifies the reference system used in the data product;

*(b)* the spatial reference system and temporal reference system;

*(c)* the data quality requirements for each data product;

*(d)* a statement on acceptable conformance quality levels and corresponding data quality measures that cover all the data quality elements and data quality sub-elements, even if only to state that a specific data quality element or sub-element is not applicable.

(12) Terrain data product specifications shall include a data capture statement that is a general description of the sources and of processes applied for the capture of terrain data.

(13) The principles and criteria applied in the maintenance of terrain data sets and obstacle data sets shall also be provided with the data specifications, including the frequency with which data products are updated.

Note: *Of particular importance shall be the maintenance information of obstacle data sets and an indication of the principles, methods and criteria applied for obstacle data maintenance.*

(14) Terrain data product specifications shall contain information on how data held with data sets is presented, such as a graphic output, as a plot or as an image.

(15) The product specifications for both terrain and obstacles data shall also contain data product delivery information which shall include delivery formats and delivery medium information.

(16) The core terrain and obstacle metadata elements shall be included in the data product specifications.

(17) Any additional metadata items required to be supplied shall be stated in each product specification together with the format and encoding of the metadata.

## APPENDIX 8

Part H.
Schedule 2.

## TERRAIN AND OBSTACLE DATA REQUIREMENTS

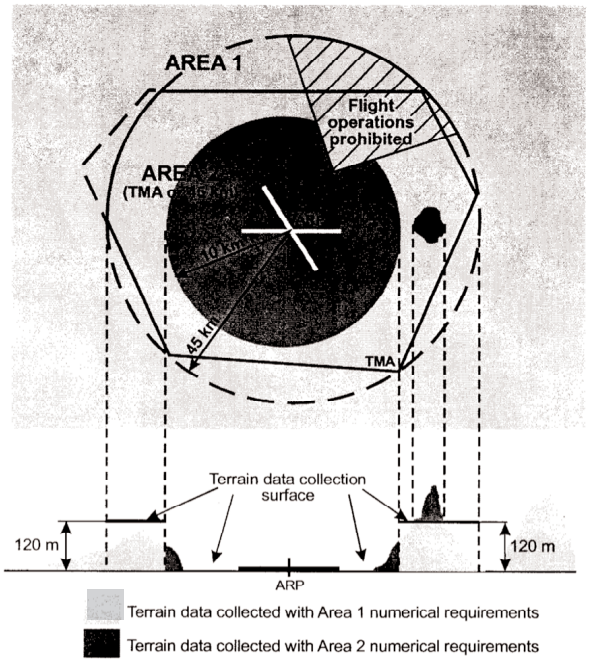



**Figure 1 Terrain data collection surfaces — Area 1 and Area 2**

1. Within the area covered by a 10 km radius from the ARP, terrain data shall be collected and recorded in accordance with the Area 2 numeric requirements.

2. In the area between 10 km and the TMA boundary or 45 km radius (whichever is smaller), data on terrain that penetrates the horizontal plan 120 m above the lowest runway elevation shall be collected and recorded in accordance with the Area 2 numerical requirements.

3. In the area between 10 km and the TMA boundary or 45 km radius (whichever is smaller), data on terrain that does not penetrate the horizontal plane 120 m above the lowest runway elevation shall be collected and recorded in accordance with the Area 1 numerical requirements.

4. In those portions of Area 2 where flight operations are prohibited due to very high terrain or other local restrictions and/or regulations, terrain data shall only be collected and recorded in accordance with the Area 1 numerical requirements.

*L.R.O.*

*Note: Terrain data numerical requirements for Areas 1 and 2 are specified in Table 1 of the Appendix*

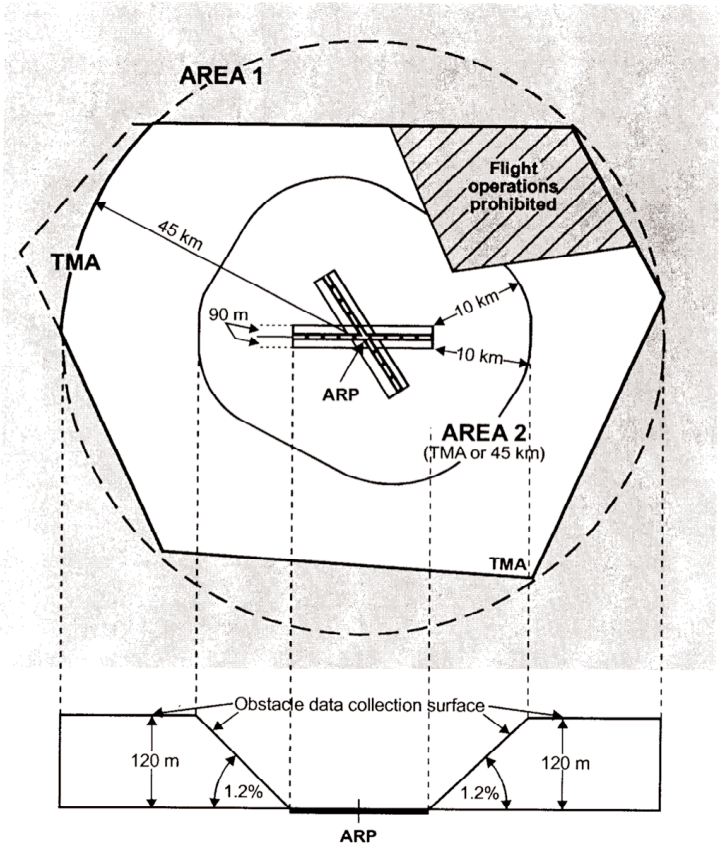



**Figure 2. Obstacle data collection surfaces—Area 1 and 2.**

1. Obstacle data shall be collected and recorded in accordance with the Area 2 numerical requirements specified in Table 2 of the Appendix:

*(a)* any obstacle that penetrates the conical surface whose origin is at the edges of the 180 m wide rectangular area and at the nearest runway elevation measured along the runway centre line, extending at 1.2 per cent slope until it reaches 120 m above the lowest runway elevation of all operational runways at the aerodrome (1.2 per cent slope reaches 120 m at 10 km); in the remainder of Area 2 (between 10 km and the TMA boundary or 45 km radius, whichever is smaller), the horizontal surface 120 m above the lowest runway elevation; and

*(b)* in those portions of Area 2 where flight operations are prohibited due to very high terrain or other local restrictions and/or regulations, obstacle data shall be collected and recorded in accordance with the Area 1 requirements.

2. Data on every obstacle within Area 1 whose height above the ground is 100 m or higher shall be collected and recorded in the database in accordance with the Area 1 numerical requirements specified in Table 2 of the Appendix.

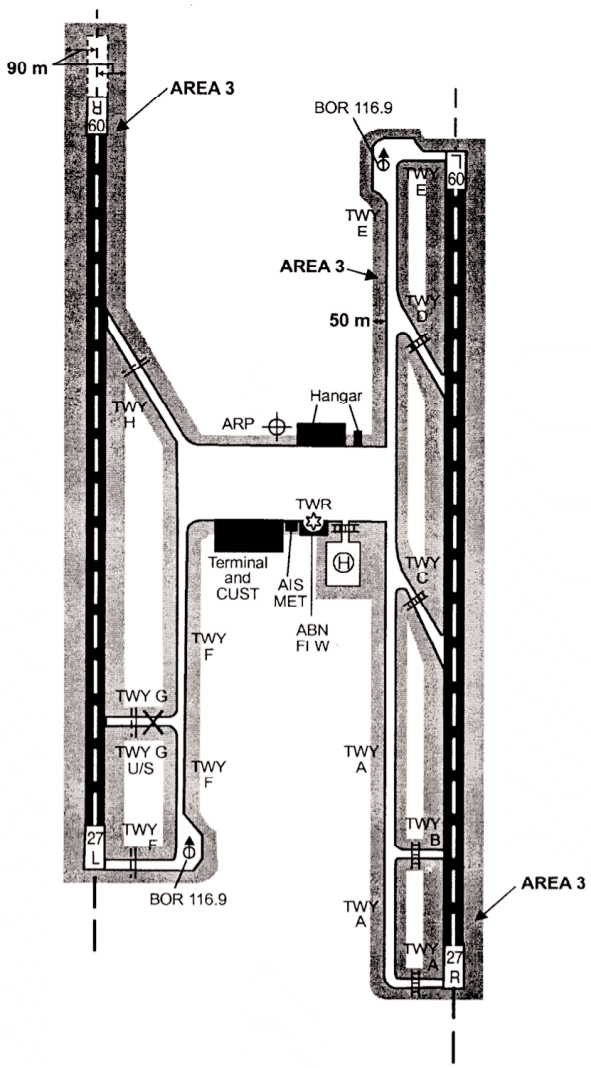



**Figure 3. Terrain and obstacle data collection surface—Area 3.**

*L.R.O.*

1. Data on terrain and obstacles that extend more than a half-metre (0.5 m) above the horizontal plane passing through the nearest point on the aerodrome/heliport movement area shall be collected and recorded.

2. Terrain and obstacle data in Area 3 shall be collected and recorded in accordance with numerical requirements specified in Table 1 and Table 2 of the Appendix, respectively.

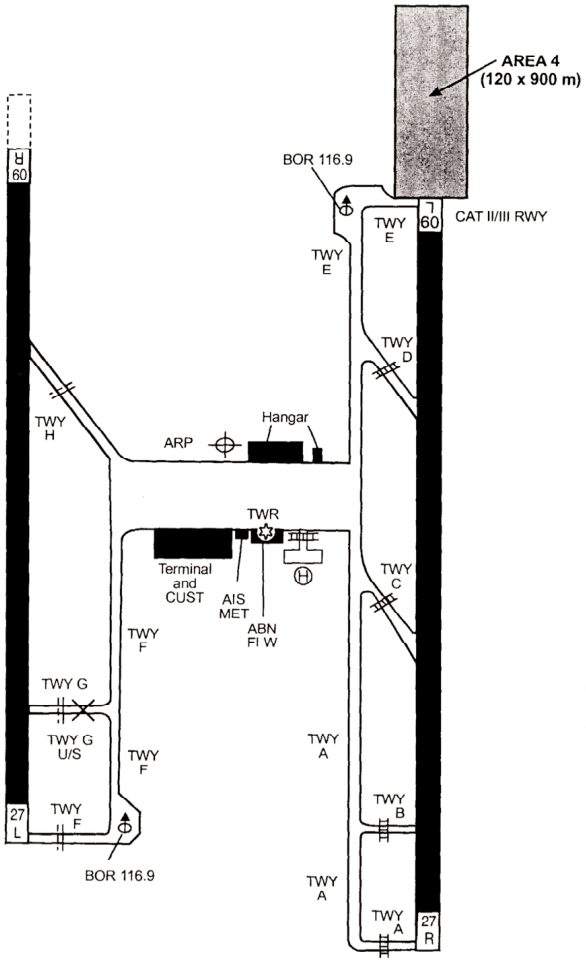



**Figure 4. Terrain data collection surface—Area 4**

Only terrain data shall be collected and recorded in Area 4 in accordance with the numerical requirements specified in Table 1 of the Appendix.

**TABLE 1. TERRAIN DATA NUMERICAL REQUIREMENTS**

| | **Area 1** | **Area 2** | **Area 3** | **Area 4** |
|---|---|---|---|---|
| Post spacing | 3 arc seconds (approx. 90 m) | 1 arc second (approx. 30 m) | 0.6 arc seconds (approx. 20 m) | 0.3 arc seconds (approx. 9 m) |
| Vertical accuracy | 30 m | 3 m | 0.5 m | 1 m |
| Vertical resolution | 1 m | 0.1 m | 0.01 m | 0.1 m |
| Horizontal accuracy | 50 m | 5 m | 0.5 m | 2.5 m |
| Confidence level | 90% | 90% | 90% | 90% |
| Data classification Integrity level | routine $1 \times 10^{-3}$ | essential $1 \times 10^{-5}$ | essential $1 \times 10^{-5}$ | essential $1 \times 10^{-5}$ |
| Maintenance period | as required | as required | as required | as required |

**TABLE 2. OBSTACLE DATA NUMERICAL REQUIREMENTS**

| | **Area 1** | **Area 2** | **Area 3** |
|---|---|---|---|
| Vertical accuracy | 30 m | 3 m | 0.5 m |
| Vertical resolution | 1 m | 0.1 m | 0.01 m |
| Horizontal accuracy | 50 m | 5 m | 0.5 m |
| Confidence level | 90% | 90% | 90% |
| Data classification Integrity level | routine $1 \times 10^{-3}$ | essential $1 \times 10^{-5}$ | essential $1 \times 10^{-5}$ |
| Maintenance period | as required | as required | as required |

*L.R.O.*

**TABLE 3. TERRAIN ATTRIBUTES**

| **Terrain attribute** | **Mandatory/Optional** |
|---|---|
| Area of coverage | Mandatory |
| Data originator identifier | Mandatory |
| Acquisition method | Mandatory |
| Post spacing | Mandatory |
| Horizontal reference system | Mandatory |
| Horizontal resolution | Mandatory |
| Horizontal accuracy | Mandatory |
| Horizontal confidence level | Mandatory |
| Horizontal position | Mandatory |
| Elevation | Mandatory |
| Elevation reference | Mandatory |
| Vertical reference system | Mandatory |
| Vertical resolution | Mandatory |
| Vertical accuracy | Mandatory |
| Vertical confidence level | Mandatory |
| Surface type | Mandatory |
| Recorded surface | Mandatory |
| Penetration level | Optional |
| Known variations | Optional |
| Integrity | Mandatory |
| Date and time stamp | Mandatory |
| Unit of measurement used | Mandatory |

**TABLE 4. OBSTACLE ATTRIBUTES**

| **Obstacle attribute** | **Mandatory/Optional** |
|---|---|
| Area of coverage | Mandatory |
| Data originator identifier | Mandatory |
| Obstacle identifier | Mandatory |
| Horizontal accuracy | Mandatory |
| Horizontal confidence level | Mandatory |
| Horizontal position | Mandatory |
| Horizontal resolution | Mandatory |
| Horizontal extent | Mandatory |
| Horizontal reference system | Mandatory |
| Elevation | Mandatory |
| Vertical accuracy | Mandatory |
| Vertical confidence level | Mandatory |
| Elevation reference | Mandatory |
| Vertical resolution | Mandatory |
| Vertical reference system | Mandatory |
| Obstacle type | Mandatory |
| Geometry type | Mandatory |
| Integrity | Mandatory |
| Date and time stamp | Mandatory |
| Unit of measurement used | Mandatory |
| Operations | Optional |
| Effectivity | Optional |
| Lighting | Mandatory |
| Marking | Mandatory |

*L.R.O.*

Regulation 27.
[100/2009].

# SCHEDULE 3

## PART A

The following are the standards required to be met in respect of charts:

### OPERATIONAL REQUIREMENTS FOR CHARTS

1. (1) Each type of chart shall be designed observing Human Factors principles which facilitate its optimum use and contain information relevant to the function of the chart.

(2) The information and its presentation shall be accurate, free from distortion and clutter, unambiguous, and be readable under all normal operating conditions.

(3) Colours or tints and type size used shall be such that the chart can be easily read and interpreted by the pilot in varying conditions of natural and artificial light.

(4) The information on the chart shall be in a form which enables the pilot to acquire the information in a reasonable time consistent with workload and operating conditions.

(5) The information and its presentation on each type of chart shall permit smooth transition from chart to chart as appropriate to the phase of flight.

### TITLES

2. The title of a chart or chart series prepared in accordance with the specifications contained in this Schedule and intended to satisfy the function of the chart, shall be that of the relevant Part heading as modified by application of any Standard contained in that Part, except that such title shall not include "ICAO" unless the chart conforms with all Standards specified in this Part and any specified for the particular chart.

### MISCELLANEOUS INFORMATION

3. (1) The marginal note layout shall be as given in Appendix 1, except as otherwise specified for a particular chart.

(2) The following information shall be shown on the face of each chart unless otherwise stated in the specification of the chart concerned:

*(a)* designation or title of the chart series;

*(b)* name and reference of the sheet;

*(c)* on each margin an indication of the adjoining sheet (where applicable).

(3) A legend to the symbols and abbreviations used shall be provided on the face or reverse of each chart except that, where it is impracticable for reasons of space, a legend may be published separately.

(4) The name and adequate address of the producing agency shall be shown in the margin of the chart except that, where the chart is published as part of an aeronautical document, this information may be placed in the front of that document.

Note: *The title may be abbreviated.*

**SYMBOLS**

4. Symbols used shall conform to those shown in Appendix 2, except that where it is desired to show on an aeronautical chart special features or items of importance to civil aviation for which no ICAO symbol is at present provided, any appropriate symbol may be chosen for this purpose, provided that it does not cause confusion with any existing ICAO chart symbol or impair the legibility of the chart.

**UNITS OF MEASUREMENT**

5. (1) Distances shall be—

*(a)* derived as geodesic distances;

*(b)* expressed in kilometres, nautical miles or both, provided the units are clearly differentiated.

(2) Altitudes, elevations and heights shall be expressed in feet, provided the units are clearly differentiated.

(3) Linear dimensions on aerodromes and short distances shall be expressed in metres.

(4) The order of resolution of distances, dimensions, elevations and heights shall be that as specified for a particular chart.

(5) The units of measurement used to express distances, altitudes, elevations and heights shall be conspicuously stated on the face of each chart.

(6) Conversion scales such as kilometres to nautical miles or metres to feet and *vice versa* shall be—

*(a)* provided on each chart on which distances, elevations or altitudes are shown; and

*(b)* placed on the face of each chart.

**SCALE AND PROJECTION**

6. For charts of—

*(a)* large areas, the name and basic parameters and scale of the projection shall be indicated; and

*(b)* of small areas, a linear scale only shall be indicated.

**DATE OF VALIDITY OF AERONAUTICAL INFORMATION**

7. The date of validity of aeronautical information shall be clearly indicated on the face of each chart.

**SPELLING OF GEOGRAPHICAL NAMES**

8. (1) The symbols of the Roman alphabet shall be used for all writing.

(2) The names of places and of geographical features in countries which officially use varieties of the Roman alphabet shall be accepted in their official spelling, including the accents and diacritical marks used in the respective alphabets.

(3) Where a geographical term such as cape, point, gulf or river, is abbreviated any particular chart, that word shall be spelt out in full in the language used by the publishing agency, in respect of the most important example of each type.

(4) Punctuation marks shall not be used in abbreviations within the body of a chart.

**ABBREVIATIONS**

9. Abbreviations shall be used on aeronautical charts where they are appropriate.

**POLITICAL BOUNDARIES**

10. (1) International boundaries shall be shown, but may be interrupted if data more important to the use of the chart would be obscured.

(2) Where the territory of more than one State appears on a chart, the names identifying the countries shall be indicated.

**RELIEF**

11. (1) Relief, where shown, shall be portrayed in a manner that will satisfy the chart users' need for—

*(a)* orientation and identification;

*(b)* safe terrain clearance;

*(c)* clarity of aeronautical information when shown;

*(d)* planning.

(2) Where spot elevations are used they shall be shown for selected critical points.

(3) The value of spot elevations of doubtful accuracy shall be followed by the sign "±".

**PROHIBITED, RESTRICTED AND DANGER AREAS**

12. When prohibited, restricted or danger areas are shown, the reference or other identification shall be included, except that the nationality letters may be omitted.

**AIR TRAFFIC SERVICES AIRSPACES**

13. Where ATS airspace is shown on a chart, the class of airspace, the type, name or call sign, the vertical limits and the radio frequency to be used shall be indicated and the horizontal limits depicted in accordance with **Appendix 2**.

**MAGNETIC VARIATION**

14. True North and magnetic variation shall be indicated and the order of resolution of magnetic variation shall be as specified for the particular chart.

**AERONAUTICAL DATA**

15. (1) The Director-General shall take all necessary measures to introduce a properly organised quality system containing procedures, processes and resources necessary to implement quality management at each function stage as outlined in **paragraph 2 of Part A in Schedule 2**.

(2) The execution of quality management under subclause (1), shall be made demonstrable for each function stage, where required.

(3) The Director-General shall ensure that established procedures exist in order that aeronautical data at any moment is traceable to its origin to allow any data anomalies or errors, detected during the production or maintenance phases or in the operational use, to be corrected.

(4) The Director-General shall ensure that the order of chart resolution of aeronautical data shall be that as specified for a particular chart and as presented in a tabular form in **Appendix 3**.

(5) The Director-General shall ensure that integrity of aeronautical data is maintained throughout the data process from survey or origin to the next intended user.

(6) Aeronautical data integrity requirements shall be based upon the potential risk resulting from the corruption of data and upon the use to which the data item is put and, the following classification and data integrity level shall apply:

*(a)* critical data, integrity level 1 x $10^{-8}$: is a high probability when using corrupted critical data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe;

*(b)* essential data, integrity level 1 x $10^{-5}$: a low probability when using corrupted essential data that the confirmed safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe;

*(c)* routine data, integrity level 1 x $10^{-3}$: a very low probability when using corrupted routine data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe.

(7) Aeronautical data quality requirements related to the integrity and data classification shall be as provided in Tables 1 to 5 in **Appendix 3**.

(8) Protection of electronic aeronautical data while stored or in transit shall be totally monitored by the CRC.

(9) To achieve protection of the integrity level of critical and essential aeronautical data as classified in subclauses (5) and (6), a 32-bit or 24-bit CRC algorithm shall apply respectively.

**COMMON REFERENCE SYSTEMS**

16. (1) The Horizontal reference system shall meet the following standards:

*(a)* World Geodetic System—1984 (WGS-84) shall be used as the horizontal geodetic reference system;

*(b)* published aeronautical geographical coordinates indicating latitude and longitude shall be expressed in terms of the WGS-84 geodetic reference datum;

*(c)* geographical coordinates which have been transformed into WGS-84 coordinates but whose accuracy of original field work does not meet the requirements in **Part A of Schedule 1, Volumes I and II,** shall be identified by an asterisk;

*(d)* the order of chart resolution of geographical co-ordinates shall be that specified for a particular chart series and in accordance with **Table 1 of Appendix 3**.

(2) The vertical reference system shall meet the following standards:

*(a)* mean sea level datum, which gives the relationship of gravity-related height or elevation to a surface known as the geoid, shall be used as the vertical reference system;

*(b)* in addition to the elevations referenced to mean sea level, for the specific surveyed ground positions, geoid undulation referenced to the WGS-84 ellipsoid for those positions shall also be published as specified for a particular chart; and

*(c)* the order of chart resolution of elevation and geoid undulation shall be that specified for a particular chart series and in accordance with **Table 2 of Appendix 3**.

(3) The temporal reference system shall meet the following standards:

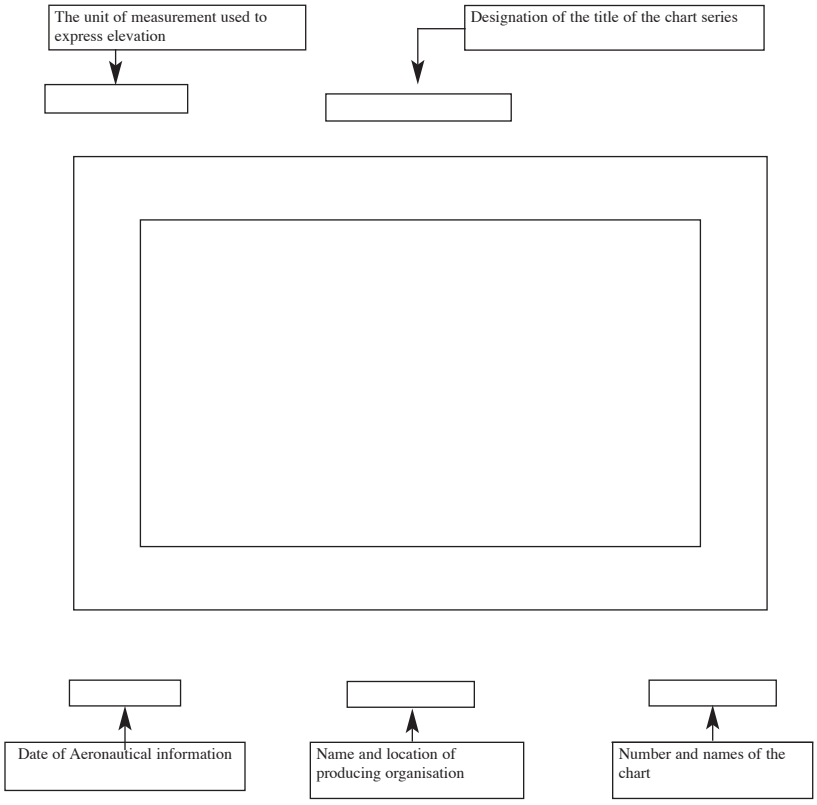
*(a)* the Gregorian calendar and UTC shall be used as the temporal reference system; and

*(b)* where a different temporal reference system is used for charting, this shall be indicated in GEN 2.1.2 of the AIP.

## APPENDIX 1

Schedule 3.
Part A 3(1).

## MARGINAL NOTE LAYOUT




*L.R.O.*

Schedule 3.
Part A.
Paragraphs 4, 1 and 13.
[100/2009].

# APPENDIX 2

# ICAO CHART SYMBOLS

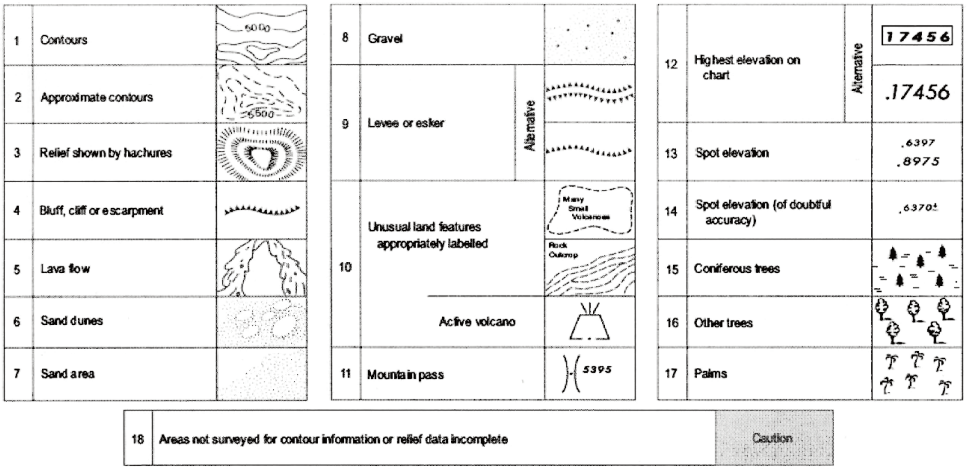

| *Index* | *No.* |
|---|---|
| Abandoned canal | 30 |
| Advisory airspace—ADA | 115 |
| Advisory route—ADR | 118 |
| Aerodrome and Heliport Charts | 144-158 |
| Aerodrome Obstacle Charts | 159-167 |
| Building or large structure | 161 |
| Clearway —CWY | 167 |
| Escarpment | 165 |
| Pole, tower, spire, antenna | 160 |
| Railroad | 162 |
| Stopway—SWY | 166 |
| Terrain penetrating obstacle plane | 164 |
| Transmission line or overhead cable | 163 |
| Tree or shrub | 159 |
| Aerodrome reference point—ARP (on Aerodrome and Heliport Charts) | 149 |
| Aerodromes | 84-98 |
| Abandoned or closed | 91 |
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| Civil, water | 85 |
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| For Approach Charts | 97,98 |
| For use on charts on which aerodrome classification is not required | 93 |
| Joint civil and military, land | 88 |
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| Bluff | 4 |
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| Boundaries, other | 64 |
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| Collocated VOR and TACAN, radio navigation aids— VORTAC | 107,110 |
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| Control zone—CTR | 116 |
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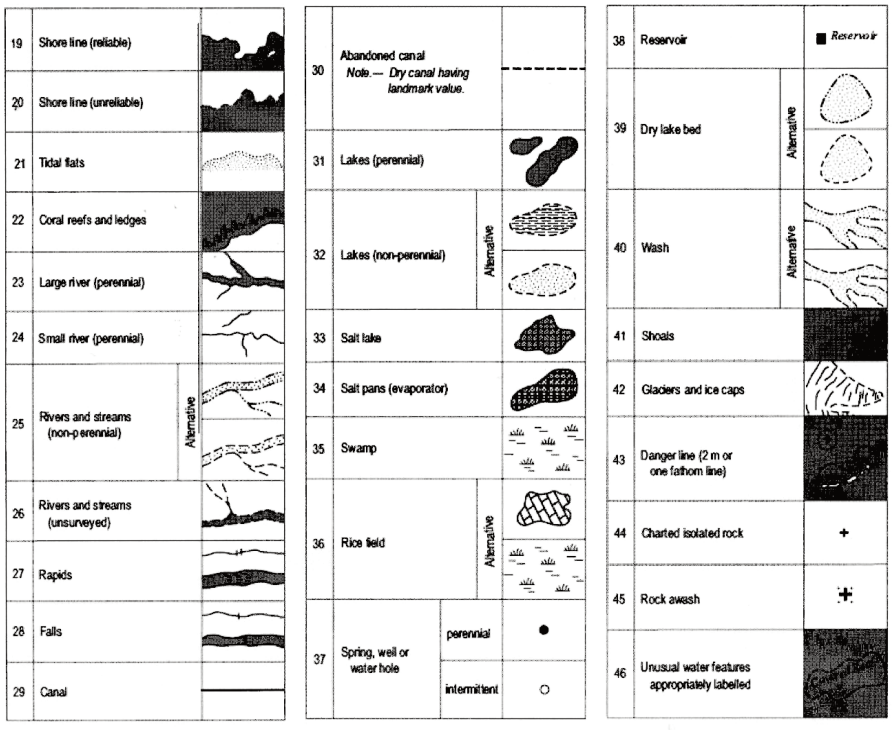

*L.R.O.*

| *Index* | *No.* |
|---|---|
| Sheltered anchorage | 92 |
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## TOPOGRAPHY




## HYDROGRAPHY




*L.R.O.*

# CULTURE

### *BUILT-UP AREAS*

| | | |
|---|---|---|
| 47 | City or large town |  |
| 48 | Town |  |
| 49 | Village |  |
| 50 | Buildings |  |

### *HIGHWAYS AND ROADS*

| | | |
|---|---|---|
| 57 | Dual highway |  |
| 58 | Primary road |  |
| 59 | Secondary road |  |
| 60 | Trail |  |
| 61 | Road bridge |  |
| 62 | Road tunnel |  |

### *MISCELLANEOUS (Cont.)*

| | | |
|---|---|---|
| 69 | Pipeline | Pipeline |
| 70 | Oil or gas field | |
| 71 | Tank farms | |
| 72 | Nuclear power station | |
| 73 | Coast guard station | |
| 74 | Lookout tower | |
| 75 | Mine | |
| 76 | Forest ranger station | |
| 77 | Race track or stadium | |
| 78 | Ruins | |
| 79 | Fort | |
| 80 | Church | |
| 81 | Mosque | |
| 82 | Pagoda | |
| 83 | Temple | |

### *RAILROADS*

| | | |
|---|---|---|
| 51 | Railroad (single track) |  |
| 52 | Railroad (two or more tracks) |  |
| 53 | Railroad (under construction) |  |
| 54 | Railroad bridge |  |
| 55 | Railroad tunnel |  |
| 56 | Railroad station |  |

### *MISCELLANEOUS*

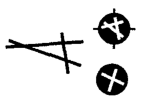
| | | |
|---|---|---|
| 63 | Boundaries (international) | |
| 64 | Outer boundaries | |
| 65 | Fence | X—X—X |
| 66 | Telegraph or telephone line (when a landmark) | —T—T— |
| 67 | Dam |  |
| 68 | Ferry |  |

### AERODROMES

| | | | |
|---|---|---|---|
| 84 | Civil | Land |  |
| 85 | Civil | Water |  |
| 86 | Military | Land |  |
| 87 | Military | Water |  |

| | | | |
|---|---|---|---|
| 88 | Joint civil and military | Land |  |
| 89 | Joint civil and military | Water |  |
| 90 | Emergency aerodrome or aerodrome with no facilities | | |
| 91 | Abandoned or closed aerodrome | | Ⓧ |

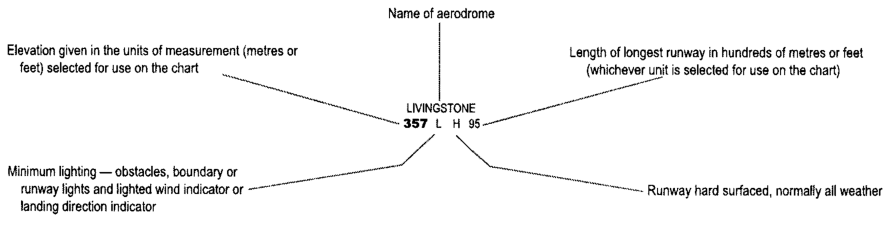
| | | |
|---|---|---|
| 92 | Sheltered anchorage | |
| 93 | Aerodrome for use on charts on which aerodrome classification is not required e.g. Enroute Charts | |
| 94 | Heliport<br>*Note.— Aerodrome for the exclusive use of helicopters* | Ⓗ |

| | | |
|---|---|---|
| 95 | *Note.— Where required by the function of the chart, the runway pattern of the aerodrome may be shown in lieu of the aerodrome symbol, for example:* |  |

# AERODROMES

## AERODROME DATA IN ABBREVIATED FORM WHICH MAY BE IN ASSOCIATION WITH AERODROME SYMBOLS

96



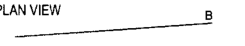
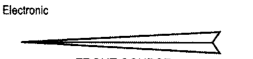
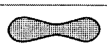

*Note.— A dash (—) is to be inserted where L or H do not apply.*

### *AERODROME SYMBOLS FOR APPROACH CHARTS*

| | | |
|---|---|---|
| 97 | Aerodromes affecting the traffic pattern on the aerodrome on which the procedure is based |  |
| 98 | The aerodrome on which the procedure is based |  |

### RADIO NAVIGATION AIDS*

| | | | | |
|---|---|---|---|---|
| 99 | Basic radio navigation aid symbol<br>*Note.— This symbol may be used with or without a box to enclose the data.* | |  | |
| 100 | Non-directional radio beacon | NDB |  | Electronic  |
| 101 | VHF omnidirectional radio range | VOR |  |  |
| 102 | Distance measuring equipment | DME |  | |
| 103 | Collocated VOR and DME radio navigation aids | VOR/DME |  |  |
| 104 | DME distance | Distance in kilometres (nautical miles) to DME → 15 km<br>Identification of radio navigation aid → KAV | | |
| 105 | VOR radial | Radial bearing from, and identification of, VOR | R 090 KAV | |
| 106 | UHF tactical air navigation aid | TACAN |  | |

| | | | | |
|---|---|---|---|---|
| 107 | Collocated VOR and TACAN radio navigation aids | VORTAC |  | Electronic  |
| 108 | Instrument landing system | ILS | PLAN VIEW  | |
| | | | Electronic  | FRONT COURSE<br>BACK COURSE |
| | | | PROFILE  | |
| | | | Electronic  | GLIDE PATH |
| 109 | Radio marker beacon | | Elliptical  | |
| | | | Bone Shape  | |

*Note.— Marker beacon may be shown by outline, or stipple, or both.*

| | | | |
|---|---|---|---|
| 110 | Compass rose<br>To be orientated on the chart in accordance with the alignment of the station (normally Magnetic North) |  | Compass rose to be used as appropriate in combination with the following symbols: |

| | |
|---|---|
| VOR |  |
| VOR/DME |  |
| TACAN |  |
| VORTAC |  |

*Note.— Additional points of compass may be added as required.*

* *Note.— Guidance material on the presentation of radio navigation aid data is given in the* Aeronautical Chart Manual *(Doc 8697).*

*L.R.O.*

## AIR TRAFFIC SERVICES

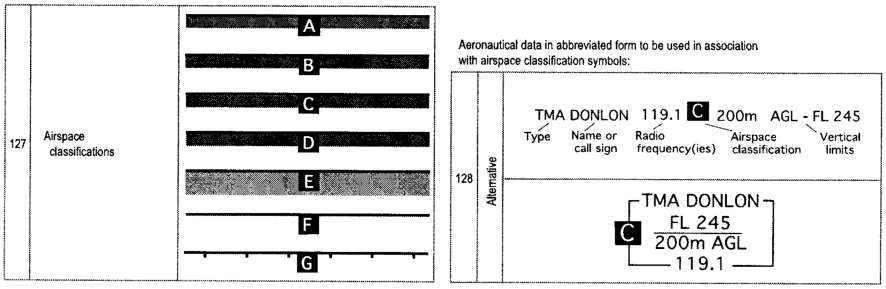
| | | | |
|---|---|---|---|
| 111 | Flight information region | FIR | |
| 112 | Aerodrome traffic zone | ATZ | |
| 113 | Control area<br>Airway<br>Controlled route | CTA<br>AWY | Alternative |
| 114 | Uncontrolled route | | |
| 115 | Advisory airspace | ADA | |
| 116 | Control zone | CTR | |
| 117 | Air defence identification zone | ADIZ | ADIZ |
| 118 | Advisory route | ADR | Alternative |

| | | | |
|---|---|---|---|
| 119 | Visual flight path | compulsory with radio communication requirement | Ⓡ |
| | | compulsory, without radio communication requirement | Ⓡ |
| | | recommended | |
| 120 | Scale-break (on ATS route) | | Alternative |
| 121 | Reporting point | REP | Compulsory ▲<br>On request △ |
| 122 | Change-over point<br>To be superimposed on the appropriate route symbol at right angles to the route | COP | 26 / 36 |
| 123 | ATS/MET reporting point | MRP | Compulsory<br>On request |
| 124 | Waypoint WPT | Flyover WPT (also used for start point and end point of a controlled turn) | |
| | | Fly-by WPT | |
| 125 | Final approach fix | FAF | |

| | | | | |
|---|---|---|---|---|
| 126 | Altitudes/flight levels | Altitude/flight level "window" | 17 000<br>10 000 | FL 220<br>10 000 |
| | | "At or above" altitude/flight level | 7 000 | FL 70 |
| | | "At or below" altitude/flight level | 5 000 | FL 50 |
| | | "Mandatory" altitude/flight level | 3 000 | FL 30 |
| | | "Recommended" procedure altitude/flight level | 5 000 | FL 50 |
| | | "Expected" altitude | Expect 5 000 | Expect FL 50 |

*Note.– For use only on SID and STAR charts. Not intended for depiction of minimum obstacle clearance altitude.*

## AIRSPACE CLASSIFICATIONS




### *AIRSPACE RESTRICTIONS*

| | | | | |
|---|---|---|---|---|
| 129 | Restricted airspace (prohibited, restricted or danger area) | | Common boundary of two areas | |
| | *Note.– The angle and density of rulings may be varied according to scale and the size, shape and orientation of the area.* | | | |
| 130 | International boundary closed to passage of aircraft except through air corridor | | | |

### *OBSTACLES*

| | | | | | |
|---|---|---|---|---|---|
| 131 | Obstacle | | 135 | Exceptionally high obstacle (optional symbol) | |
| 132 | Lighted obstacle | | 136 | Exceptionally high obstacle - lighted (optional symbol) | |
| 133 | Group obstacles | | | *Note.– For obstacles having a height of the order of 300 m (1 000 ft) above terrain.* | |
| 134 | Lighted group obstacles | | 137 | Elevation of top (italics) 52 (15) Height above specified datum (upright type in parentheses) | |

### *MISCELLANEOUS*

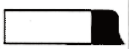
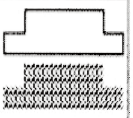
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 138 | Prominent transmission line | | 139 | Isogonic line or isogonal | 3° E | 140 | Ocean station vessel (normal position) |

### *VISUAL AIDS*

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 141 | Marine light<br>*Note 2.– Characteristics are to be indicated as follows:* | F | Alt Alternating<br>B Blue<br>F Fixed | *Note 1.– Marine alternating lights are red and white unless otherwise indicated. Marine lights are white unless colours are stated.* | Fl Flashing<br>G Green<br>Gp Group | Occ Occulting<br>R Red<br>SEC Sector | sec Second<br>(U) Unwatched<br>W White | |
| 142 | Aeronautical ground light | | Electronic | 143 | Lightship | | | |

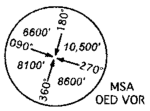
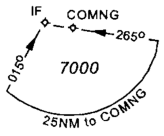
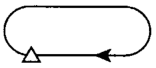
*L.R.O.*

## SYMBOLS FOR AERODROME/HELIPORT CHARTS

| | | |
|---|---|---|
| 144 | Hard surface runway |  |
| 145 | Pierced steel plank or steel mesh runway |  |
| 146 | Unpaved runway |  |
| 147 | Stopway SWY |  |
| 148 | Taxiways and parking areas |  |
| 149 | Helicopter alighting area on an aerodrome |  |
| 150 | Aerodrome reference point |  |
| 151 | VOR check-point |  |
| 152 | Runway visual range (RVR) observation site |  |

| | | |
|---|---|---|
| 153 | Point light |   |
| 154 | Obstacle light |  |
| 155 | Landing direction indicator (lighted) |  |
| 156 | Landing direction indicator (unlighted) |  |
| 157 | Stop bar |  |
| 158 | Runway-holding position Pattern A<br>Pattern B<br>*Note.– For application, see Annex 14, Volume I, 5.2.10.* |   |
| 159 | Intermediate holding position<br>*Note.– For application, see Annex 14, Volume I, 5.2.11.* |  |
| 160 | Hot spot<br>*Note.– Hot spot location to be circled.* |  |

## ADDITIONAL SYMBOLS FOR USE ON PAPER AND ELECTRONIC CHARTS

| | | | |
|---|---|---|---|
| | PLAN VIEW | | |
| 168 | Minimum sector altitude<br>*Note.– This symbol may be modified to reflect particular sector shapes.* | MSA |  |
| 169 | Terminal arrival altitude<br>*Note.– This symbol may be modified to reflect particular TAA shapes.* | TAA |  |
| 170 | Holding pattern | |  |
| 171 | Missed approach track | |  |
| | PROFILE | | |
| 172 | Runway | |  |
| 173 | Radio navigation aid<br>(type of aid and its use in the procedure to be annotated on top of the symbol) | |  |
| 174 | Radio marker beacon<br>(type of beacon to be annotated on top of the symbol) | |  |
| 175 | Collocated radio navigation aid and marker beacon<br>(type of aid to be annotated on top of the symbol) | |  |
| 176 | DME fix<br>(distance from DME and the fix use in the procedure to be annotated on top of the symbol) | |  |
| 177 | Collocated DME fix and marker beacon<br>(distance from DME and the type of beacon to be annotated on top of the symbol) | |  |

*L.R.O.*

## APPENDIX 3

Part A 15(4)(7), 16(1), (2)*(c)*. [100/2009].

## AERONAUTICAL DATA QUALITY REQUIREMENTS

### TABLE 1. LATITUDE AND LONGITUDE

| Latitude and Longitude | Chart Resolution | Integrity Classification |
|---|---|---|
| Flight information region boundary points | as plotted | $1 \times 10^{-3}$ routine |
| P, R, D area boundary points (outside CTA and CTZ boundaries) | as plotted | $1 \times 10^{-3}$ routine |
| P, R, D area boundary points (inside CTA and CTZ boundaries) | as plotted | $1 \times 10^{-5}$ essential |
| CTA/CTZ boundary points | as plotted | $1 \times 10^{-5}$ essential |
| En route navaids and fixes, holding, STAR and SID points | 1 sec | $1 \times 10^{-5}$ essential |
| Obstacles in Area 1 (the entire State territory) | as plotted | $1 \times 10^{-3}$ routine |
| Aerodrome/heliport reference point | 1 sec | $1 \times 10^{-3}$ routine |
| Navaids located at the aerodrome/heliport | as plotted | $1 \times 10^{-5}$ essential |
| Obstacles in Area 3 | 1/10 sec | $1 \times 10^{-5}$ essential |
| Obstacles in Area 2 | 1/10 sec | $1 \times 10^{-5}$ essential |
| Final approach fixes final approach points and other essential Fixes final approach points comprising the instrument approach procedure | 1 sec | $1 \times 10^{-5}$ essential |
| Runway thresholds | 1 sec | $1 \times 10^{-8}$ critical |
| Taxiway centre line and parking guidance line points | 1/100 sec | $1 \times 10^{-5}$ essential |
| Runway end (flight path alignment point) | 1 sec | $1 \times 10^{-8}$ critical |
| Runway holding position | 1 sec | $1 \times 10^{-8}$ critical |
| Taxiway intersection marking line | 1 sec | $1 \times 10^{-5}$ essential |
| Exit guidance line | 1 sec | $1 \times 10^{-5}$ essential |
| Apron boundaries (polygon) | 1 sec | $1 \times 10^{-3}$ routine |
| De-/anti-icing facility (polygon) | 1 sec | $1 \times 10^{-3}$ routine |
| Aircraft standpoints/INS checkpoints | 1/100 | $1 \times 10^{-3}$ routine |
| Geometric centre of TLOF or FATO thresholds, heliports | 1 sec | $1 \times 10^{-8}$ critical |

Note: *Schedule 2, Appendix 8, for graphical illustrations of obstacle data collection surfaces and criteria used to identify obstacles in the defined areas.*

**TABLE 2. ELEVATION/ALTITUDE/HEIGHT**

| Elevation, altitude and height | Chart Resolution | Integrity Classification |
|---|---|---|
| Aerodrome and heliport elevation | 1 m or 1 ft | $1 \times 10^{-5}$ essential |
| WGS-84 geoid undulation at aerodrome/heliport elevation position | 1 m or 1 ft | $1 \times 10^{-5}$ essential |
| Runway or FATO threshold, non-precision approaches | 1 m or 1 ft | $1 \times 10^{-5}$ essential |
| WGS-84 geoid undulation at runway or FATO threshold, TLOF geometric centre, non-precision approaches | 1 m or 1 ft | $1 \times 10^{-5}$ essential |
| Runway or FATO threshold, precision approaches | 0.5 m or 1 ft | $1 \times 10^{-8}$ critical |
| WGS-84 geoid undulation at runway or FATO threshold, TLOF geometric centre, precision approaches | 0.5 m or 1 ft | $1 \times 10^{-8}$ critical |
| Threshold crossing height, precision approaches | 0.5 m or 1 ft | $1 \times 10^{-8}$ critical |
| Obstacles clearance altitude and height | as specified in PANS-OPS (Doc 8168) | $1 \times 10^{-5}$ essential |
| Obstacles in Area 1 (the entire State territory) | 3 m (10 ft) | $1 \times 10^{-3}$ routine |
| Obstacles in Area 2 | 1 m or 1 ft | $1 \times 10^{-5}$ essential |
| Obstacles in Area 3 | 1 m or 1 ft | $1 \times 10^{-5}$ essential |
| Distance measuring equipment (DME) | 30 m (100 ft) | $1 \times 10^{-5}$ essential |
| Instrument approach procedures altitude | as specified PANS-OPS (Doc 8168) | $1 \times 10^{-5}$ essential |
| Minimum altitudes | 50 m or (100 ft) | $1 \times 10^{-3}$ routine |

Note: *See Schedule 2 for graphical illustrations of obstacle data collection surfaces and criteria used to identify obstacles in the defined areas.*

*L.R.O.*

### TABLE 3. MAGNETIC VARIATION

| Magnetic variation | Chart Resolution | Integrity Classification |
|---|---|---|
| Aerodrome/heliport magnetic variation | 1 degree | $1x\ 10^{-5}$ essential |

### TABLE 4. BEARING

| Bearing | Chart Resolution | Integrity Classification |
|---|---|---|
| Airway segments | 1 degree | $1 \times 10^{-3}$ routine |
| En route and terminal fix formations | 1/10 degree | $1 \times 10^{-3}$ routine |
| Terminal arrival/departure route segments | 1 degree | $1 \times 10^{-3}$ routine |
| Instrument approach procedure fix formations | 1/10 degree | $1 \times 10^{-5}$ essential |
| ILS localizer alignment | 1 degree | $1 \times 10^{-5}$ essential |
| MLS zero azimuth alignment | 1 degree | $1 \times 10^{-5}$ essential |
| Runway and FATO bearing | 1 degree | $1 \times 10^{-3}$ routine |

### TABLE 5. LENGTH , DISTANCE AND DIMENSION

| Length/distance/dimension | Chart Resolution | Integrity Classification |
|---|---|---|
| Airway segment length | 1 km or I NM | $1 \times 10^{-3}$ routine |
| En route fix formation distance | 2/10 km (1/10 NM) | $1 \times 10^{-3}$ routine |
| Terminal arrival/departure route segment length | 1 km or I NM | $1 \times 10^{-5}$ essential |
| Terminal and instrument approach procedure fix formation distance | 2/10 km (1/10 NM) | $1 \times 10^{-5}$ essential |
| Runway and FATO length, TLOF dimensions | 1m | $1 \times 10^{-8}$ critical |
| Runway width | 1m | $1 \times 10^{-5}$ essential |
| Stopway length and width | 1m | $1 \times 10^{-8}$ critical |
| Landing distance available | 1m | $1 \times 10^{-8}$ critical |
| Take-off run available | 1m | $1 \times 10^{-8}$ critical |
| Take-off distance available | 1m | $1 \times 10^{-8}$ critical |

| | | |
|---|---|---|
| Accelerate-stop distance available ..... | 1m | $1 \times 10^{-8}$ critical |
| ILS localizer antenna-runway end, distance ..... | as plotted | $1 \times 10^{-3}$ routine |
| ILS glide slope antenna-threshold, distance along centre line ..... | as plotted | $1 \times 10^{-3}$ routine |
| ILS marker-threshold distance ..... | 2/10 km (1/10 NM) | $1 \times 10^{-5}$ essential |
| ILS DME antenna-threshold, distance along centre line ..... | as plotted | $1 \times 10^{-5}$ essential |
| MLS azimuth antenna-runway end, distance ..... | as plotted | $1 \times 10^{-3}$ routine |
| MLS elevation antenna-threshold, distance along centre line ..... | as plotted | $1 \times 10^{-3}$ routine |
| MLS DME/P antenna-threshold, distance along centre line ..... | as plotted | $1 \times 10^{-5}$ essential |

## TABLE 6. GRADIENT AND ANGLES

| **Type of gradient/angle** | **Chart Resolution** | **Integrity Classification** |
|---|---|---|
| Non-precision final approach and descent gradient ..... | 0.1 per cent | $1 \times 10^{-8}$ Critical |
| Final approach descent angle (Non-precision approach or approach with vertical guidance) ..... | 0.1 degree | $1 \times 10^{-8}$ Critical |
| Precision approach glide path/elevation angle ..... | 0.1 degree | $1 \times 10^{-8}$ Critical |

*L.R.O.*

Regulation 30.

**PART B**

## AERODROME OBSTACLE CHART—ICAO TYPE A, OPERATING LIMITATIONS

The Standards required for Aerodrome, Obstacle Chart—ICAO Type A, Operating limitations are as follows:

### UNITS OF MEASUREMENT

1. (1) Elevations shall be shown to the nearest foot.

(2) Linear dimensions shall be shown to the nearest half-metre.

### COVERAGE AND SCALE

2. (1) The extent of each plan view shall be sufficient to cover all obstacles.

(2) The horizontal scale shall be within the range of 1:10 000 to 1:15 000.

(3) The vertical scale shall be ten times the horizontal scale.

(4) Horizontal and vertical linear scales showing both metres and feet shall be included on an ICAO Type A chart.

### FORMAT

3. (1) An ICAO Type A chart shall depict a plan and profile of each runway, any associated stopway or clearway, the take-off flight path area and obstacles.

(2) The profile for each runway, stopway, clearway and the obstacles in the take-off flight path area shall be shown above its corresponding plan.

(3) The profile of an alternative take-off flight path area shall comprise a linear projection of the full take-off flight path and shall be disposed above its corresponding plan in the manner most suited to the ready interpretation of the information.

(4) A profile grid shall be ruled over the entire profile area exclusive of the runway.

(5) The zero for vertical co-ordinates shall be mean sea level.

(6) The zero for horizontal coordinates shall be the end of the runway furthest from the take-off flight path area concerned.

(7) Graduation marks indicating the subdivisions of intervals shall be shown along the base of the grid and along the vertical margins.

**IDENTIFICATION**

4. A chart shall be identified by—

*(a)* the name of the country in which the aerodrome is located;

*(b)* the name of the city or town, or area, which the aerodrome serves;

*(c)* the name of the aerodrome and the designator of the runway.

**MAGNETIC VARIATION**

5. The magnetic variation to the nearest degree and date of information shall be indicated.

**AERONAUTICAL DATA**

6. (1) The following are standards for representing obstacles on a chart:

*(a)* objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area, shall be regarded as obstacles, except that obstacles lying wholly below the shadow of other obstacles as defined in paragraph *(c)* need not be shown;

*(b)* mobile objects such as boats, trains and trucks, which may project above the 1.2 per cent plane, shall be considered obstacles but shall not be considered as being capable of creating a shadow;

*(c)* the shadow of an obstacle is considered to be a plane surface originating at a horizontal line passing through the top of the obstacle at right angles to the centre line of the take-off flight path area;

*(d)* the plane surface under *(c)* covers the complete width of the take-off flight path area and extends to the plane surface defined in paragraph *(a)* or to the next higher obstacle if it occurs first;

*(e)* for the first three hundred metres or one thousand feet of the take-off flight path area, the shadow planes are horizontal and beyond this point such planes have an upward slope of 1.2 per cent;

*(f)* where the obstacle creating a shadow is likely to be removed, objects that would become obstacles by its removal shall be shown.

(2) Take-off flight path area shall consist of a quadrilateral area on the surface of the earth lying directly below, and symmetrically disposed about, the take-off flight path and shall have the following characteristics:

*(a)* the take-off flight path area shall commence at the end of the area declared suitable for take-off (i.e., at the end of the runway or clearway as appropriate);

*(b)* the take-off flight path area shall have its width at the point of origin as 180 m (600 ft) and this width increases at the rate of 0.25D to a maximum of 1 800 m (6, 000 ft), where D is the distance from the point of origin;

*(c)* the take-off flight path area shall extend to the point beyond which no obstacles exist or to a distance of 10.0 km (5.4 NM), whichever is the lesser.

(4) The following information on declared distances for each direction of each runway shall be entered in the space provided:

*(a)* take-off run available;

*(b)* accelerate-stop distance available;

*(c)* take-off distance available; and

*(d)* landing distance available.

(5) A plan view shall include—

*(a)* an outline of the runway identified by a solid line, including the length and width, the magnetic bearing to the nearest degree and the runway number;

*(b)* an outline of the clearways shown by a broken line, including the length and identification as such;

*(c)* take-off flight path areas shown by a dashed line and the centre line shown by a fine line consisting of short and long dashes;

*(d)* the exact location of each obstacle together with a symbol indicative of its type;

*(e)* the elevation and identification of each obstacle;

*(f)* the limits of penetration of obstacles of large extent in a distinctive manner identified in the legend;

*(g)* alternative take-off flight path areas;

*(h)* indication of the length of each stopway when stopways are shown.

(6) Where alternative take-off flight path areas not centred on the extension of the runway centre line are shown, notes shall be provided explaining the significance of such areas.

(7) A profile view shall include—

*(a)* a profile of the centre line of the runway identified by a solid line and the profile of the centre line of any associated stopways and clearways identified by a broken line;

*(b)* an elevation of the runway centre line—

(i) at each end of the runway, at the stopway and at the origin of each take-off flight path area; and

(ii) wherever there is significant change in slope of runway and stopway;

*(c)* the following information in respect of obstacles:

(i) each obstacle shown by a solid vertical line extending from a convenient grid line over at least one other grid line to the elevation of the top of the obstacle;

(ii) identification of each obstacle;

(iii) the limits of penetration of obstacles of large extent in a distinctive manner identified in the legend.

**ACCURACY**

7. (1) The order of accuracy attained shall be shown on the chart.

(2) Where no accurate datum for vertical reference is available, the elevation of the datum used shall be stated and shall be identified as assumed.

**PART C**

Regulation 31. [100/2009].

## EN ROUTE CHART—ICAO

The standards required for En Route Charts-ICAO are as follows:

**COVERAGE AND SCALE**

1. En Route Charts shall have adequate overlap to ensure continuity of navigation and where adjacent charts showing a continuous route structure are used, a large variation of scale between charts shall be avoided.

**PROJECTION**

2. Parallels and meridians shall be shown at suitable intervals and graduation marks shall be placed at consistent intervals along selected parallels and meridians.

**IDENTIFICATION**

3. Each sheet of the chart shall be identified by chart series and number.

**CULTURE AND TOPOGRAPHY**

4. (1) Generalised shore lines of all open water areas, large lakes and rivers shall be shown on the chart except where there would be conflict with data more applicable to the function of the chart.

(2) The area minimum altitude shall be shown on the chart, within each quadrilateral formed by the parallels and meridians.

(3) Where charts are not True North orientated, this fact and the selected orientation used shall be clearly indicated.

**BEARINGS, TRACKS AND RADIALS**

5. Bearings, tracks and radials shall be magnetic.

**AERONAUTICAL DATA FOR AERODROMES**

6. All aerodromes used for international civil aviation to which an instrument approach can be made shall be shown.

**AERONAUTICAL DATA FOR PROHIBITED, RESTRICTED AND DANGER AREAS**

7. Prohibited, restricted and danger areas relevant to the layer of airspace shall be depicted with their identification and vertical limits.

**AERONAUTICAL DATA FOR AIR TRAFFIC SYSTEM**

8. (1) Where appropriate, the components of the established air traffic services system shall be shown.

(2) The components under subclause (1) shall include the following:

*(a)* the names, identifications, frequencies and geographical coordinates in degrees, minutes and seconds of all radio navigation aids associated with the air traffic services system;

*(b)* where there is a DME under paragraph *(a)*, the elevation of, in additionally of the transmitting antenna of the DME, to the nearest 100 feet;

*(c)* an indication of all designated airspace, including lateral and vertical limits and the appropriate class of airspace;

*(d)* all ATS routes for en route flight including route designators, RNP types, the track to the nearest degree in both directions along each segment of the routes and, where applicable, the direction of traffic flow;

*(e)* name-codes and geographical coordinates in degrees, minutes and seconds of all significant points which define the ATS routes and which are not marked by the position of a radio navigation aid;

*(f)* for waypoints defining VOR and DME navigation routes—

(i) the station identification and radio frequency of the reference VOR and DME;

(ii) the bearing to the nearest tenth of a degree and the distance to the nearest two-tenths of a kilometre or tenth of a nautical mile from the reference VOR or DME, where the waypoint is not collocated with the VOR or DME;

*(g)* an indication of all compulsory and "on-request" reporting points and ATS and MET reporting points;

*(h)* the distances to the nearest kilometre or nautical mile between significant points constituting turning points or reporting points;

*(i)* change-over points on route segments defined by reference to VOR indicating the distances to the nearest kilometre or nautical mile to the navigation aids;

*(j)* minimum en route altitudes and minimum obstacle clearance altitudes on ATS routes to the nearest higher 100 feet as provided in paragraph 16 of Part A to Schedule 1;

*(k)* communication facilities listed with their channels and, where applicable, log on address; and

*(l)* properly identified air defence identification zone.

**SUPPLEMENTARY INFORMATION TO AERONAUTICAL DATA**

9. (1) Details of departure and arrival routes and associated holding patterns in terminal areas shall be shown on an en route chart unless the details are shown on an Area Chart, a Standard Departure Chart—Instrument (SID)—ICAO or a Standard Arrival Chart—Instrument (STAR)—ICAO.

(2) Altimeter setting regions shall be shown and identified where established.

Regulation 32. [100/2009].

**PART D**

## AREA CHART—ICAO

The standards required for Area Charts—ICAO are as follows:

**COVERAGE AND SCALE**

1. (1) The coverage of each chart shall extend to points that effectively show departure and arrival routes.

(2) The chart shall be drawn to scale and show a scale-bar shown.

**PROJECTION**

2. (1) Parallels and meridians shall be shown at suitable intervals with graduation marks placed at consistent intervals along the neat lines, as appropriate.

**IDENTIFICATION**

3. The chart shall be identified by a name associated with the airspace portrayed.

**CULTURE AND TOPOGRAPHY**

4. Generalised shorelines of all open water areas, large lakes and rivers shall be shown on a chart except where their would be conflict with data more applicable to the function of the chart.

*L.R.O.*

**MAGNETIC VARIATION**

5. The average magnetic variation of the area covered by the chart shall be shown to the nearest degree.

**BEARINGS, TRACKS AND RADIALS**

6. Bearings, tracks and radials shall be magnetic.

**AERONAUTICAL DATA FOR AERODROME**

7. All aerodromes which affect the terminal routings shall be shown and where appropriate a runway pattern symbol shall be used.

**AERONAUTICAL DATA FOR PROHIBITED, RESTRICTED AND DANGER AREAS**

8. Prohibited, restricted and danger areas shall be depicted with the associated identification and vertical limits.

**AERONAUTICAL DATA FOR AREA MINIMUM ALTITUDES**

9. Area minimum altitudes shall be shown within quadrilaterals formed by the parallels and meridians.

**AERONAUTICAL DATA FOR AIR TRAFFIC SERVICES SYSTEM**

10. The components of the established relevant ATS shall be shown which shall include the following:

*(a)* the names, identifications, frequencies and geographical coordinates in degrees, minutes and seconds of all radio navigation aids associated with the ATS system;

*(b)* where there is a DME, under paragraph *(a)*, the elevation of the transmitting antenna of the DME, to the nearest 100 feet;

*(c)* terminal radio aids which are required for outbound and inbound traffic and for holding patterns;

*(d)* the lateral and vertical limits of all designated airspace and the appropriate class of airspace;

*(e)* holding patterns and terminal routings, together with the route designators, and the track to the nearest degree along each segment of the prescribed airways and terminal routings;

*(f)* name-codes and geographical coordinates in degrees, minutes and seconds of all significant points which define the terminal routings and are not marked by the position of a radio navigation aid;

*(g)* for waypoints defining VOR and DME area navigation routes:

(i) the station identification and radio frequency of the reference VOR and DME;

(ii) the bearing to the nearest tenth of a degree and the distance to the nearest two-tenths of a kilometre or one-tenth of a nautical mile from the reference VOR and DME, where the waypoint is not collocated with the VOR or DME;

*(h)* an indication of all compulsory and "on-request" reporting points;

*(i)* the distances to the nearest kilometre or nautical mile between significant points constituting turning points or reporting points;

*(j)* change-over points on route segments defined by reference to VOR, indicating the distances to the nearest kilometre or nautical mile to the radio navigation aids;

*(k)* minimum en route altitudes and minimum obstacle clearance altitudes on ATS routes to the nearest higher 100 feet as provided in paragraph 16 of Part A in Schedule 1;

Schedule 1. Part A.

*(l)* established minimum vectoring altitudes to the nearest higher 100 feet, clearly identified;

*(m)* area, speed and level or altitude restrictions where established;

*(n)* communication facilities listed with their channels and, if applicable, log on address.

**PART E**

Regulation 33. [100/2009].

## STANDARD DEPARTURE CHART—INSTRUMENT (SID)—ICAO

The standards required to be met on Standard Departure Charts—Instrument (SID)—ICAO are as follows:

## COVERAGE AND SCALE

1. (1) The coverage of a chart shall be sufficient to indicate the point where the departure route begins and the specified significant point at which the en route phase of flight along a designated ATS route can be commenced.

(2) If a chart is drawn to scale, a scale-bar shall be shown.

(3) When a chart is not drawn to scale the annotation "NOT TO SCALE" shall be shown and the symbol for scale-break used on tracks and other aspects of the chart which are too large to be drawn to scale.

*L.R.O.*

**PROJECTION**

2. Graduation marks shall be placed at consistent intervals along the neat lines.

**IDENTIFICATION**

3. A chart shall be identified by—

*(a)* the name of the city or town, or area, which the aerodrome serves;

*(b)* the name of the aerodrome; and

*(c)* the identification of the standard departure route—instrument as established in accordance with the ICAO Procedures for Air Navigation Services Doc 8168, Volume II, Part II, Chapter 5.

**CULTURE AND TOPOGRAPHY**

4. Where a chart is drawn to scale, generalised shore lines of all open water areas, large lakes and rivers shall be shown except where there is conflict with data more applicable to the function of the chart.

**MAGNETIC VARIATION**

5. Magnetic variation used in determining the magnetic bearings, tracks and radials shall be shown to the nearest degree.

**BEARINGS, TRACKS AND RADIALS**

6. Bearings, tracks and radials shall be magnetic.

**AERONAUTICAL DATA FOR AERODROME**

7. (1) The aerodrome of departure shall be shown by the runway pattern symbol.

(2) All aerodromes which affect the designated standard instrument departure route shall be shown and identified and where appropriate the aerodrome runway patterns shall also be shown.

**AERONAUTICAL DATA FOR PROHIBITED, RESTRICTED AND DANGER AREAS**

8. Prohibited, restricted and danger areas which may affect the execution of the procedures shall be shown with the associated identification and vertical limits.

**AERONAUTICAL DATA FOR MINIMUM SECTOR ALTITUDE**

9. (1) The established minimum sector altitude, based on a navigation aid associated with the procedure, shall be shown with a clear indication of the sector to which it applies.

(2) Where the minimum sector altitude has not been established, the chart shall be drawn to scale and area minimum altitudes shown within quadrilaterals formed by the parallels and meridians.

(3) Area minimum altitudes under subclause (2), shall also be shown in those parts of the chart not covered by the minimum sector altitude.

**AERONAUTICAL DATA FOR AIR TRAFFIC SERVICES SYSTEM**

10. (1) The components of the established relevant ATS system shall be shown and shall comprise the following:

*(a)* a graphic portrayal of each standard instrument departure route, including—

(i) route designator;

(ii) significant points defining the route;

(iii) track or radial to the nearest degree along each segment of the route;

(iv) distances to the nearest kilometre or nautical mile between significant points;

(v) minimum obstacle clearance altitudes along the route or route segments and altitudes required by the procedure to the nearest higher 100 feet and flight level restrictions where established;

(vi) where the chart is drawn to scale and vectoring on departure is provided, established minimum vectoring altitudes to the nearest higher 100 feet, clearly identified;

*(b)* the radio navigation aid associated with the route including—

(i) plain language name;

(ii) identification;

(iii) frequency;

(iv) geographical co-ordinates in degrees, minutes and seconds;

(v) for DME, the channel and the elevation of the transmitting antenna of the DME to the nearest 100 feet;

*(c)* the name-codes and geographical co-ordinates in degrees, minutes and seconds of the significant points not marked by the position of a radio navigation aid, the bearing to the nearest one-tenth of a degree and distance to the nearest two-tenths of a kilometre or one-tenth of a nautical mile from the reference radio navigation aid;

*(d)* applicable holding patterns;

*(e)* transition altitude or height to the nearest higher 100 feet;

*(f)* the position and height of close-in obstacles which penetrate the obstacle identification surface and a note included where close-in obstacles penetrating the obstacle identification surface exist but which were not considered for the published procedure design gradient;

*(g)* area speed restrictions, where established;

*(h)* all compulsory and "on-request" reporting points;

*(i)* radio communication procedures, including—

(i) call sign of ATS unit;

(ii) frequency;

(iii) transponder setting, where appropriate.

**AERONAUTICAL DATABASE REQUIREMENTS**

11. Appropriate data provided by the procedures specialist to support navigation database coding shall be published in accordance with the Procedures for Air Navigation Services—Aircraft Operations (Doc. 8168), Volume II, Section 5, Chap. 2, 2.1 on the verso of the chart or as a separate, properly referenced sheet.

Regulation 34. [100/2009].

**PART F**

## STANDARD ARRIVAL CHART—INSTRUMENT (STAR)—ICAO

The standards required to be met for Standard Arrival Charts—Instrument (STAR)—ICAO are as follows:

**COVERAGE AND SCALE**

1. (1) The coverage of a chart shall be sufficient to indicate the points where the en route phase ends and the approach phase begins.

(2) If a chart is drawn to scale, a scale-bar shall be shown.

(3) When a chart is not drawn to scale the annotation "NOT TO SCALE" shall be shown and the symbol for scale break shall be used on tracks and other aspects of the chart which are too large to be drawn to scale.

**PROJECTION**

2. Graduation marks shall be placed at consistent intervals along the neat lines.

**IDENTIFICATION**

3. A chart shall be identified by—

*(a)* the name of the city or town, or area, which the aerodrome serves;

*(b)* the name of the aerodrome; and

*(c)* the identification of the Standard Arrival Route—Instrument as established in accordance with the ICAO Procedures for Air Navigation Services, Doc 8168, Volume II, Part III, Chapter 3.

**CULTURE AND TOPOGRAPHY**

4. Where a chart is drawn to scale, generalised shore lines of all open water areas, large lakes and rivers shall be shown except where there is conflict with data more applicable to the function of the chart.

**MAGNETIC VARIATION**

5. Magnetic variation used in determining the magnetic bearings, tracks and radials shall be shown to the nearest degree.

**BEARINGS, TRACKS AND RADIALS**

6. Bearings, tracks and radials shall be magnetic.

**AERONAUTICAL DATA FOR AERODROME**

7. (1) The aerodrome of landing shall be shown by the runway pattern symbol.

(2) All aerodromes which affect the designated standard instrument arrival route shall be shown and identified and where appropriate the aerodrome runway patterns shall be shown.

**AERONAUTICAL DATA FOR PROHIBITED, RESTRICTED AND DANGER AREAS**

8. Prohibited, restricted and danger areas which may affect the execution of the procedures shall be shown with the associated identification and vertical limits.

**AERONAUTICAL DATA FOR MINIMUM SECTOR ALTITUDE**

9. (1) The established minimum sector altitude shall be shown with a clear indication of the sector to which it applies.

(2) Where the minimum sector altitude has not been established, the chart shall be drawn to scale and area minimum altitudes shown within quadrilaterals formed by the parallels and meridians.

(3) Area minimum altitudes under subclause (2) shall also be shown in those parts of the chart not covered by the minimum sector altitude.

**AERONAUTICAL DATA FOR AIR TRAFFIC SERVICES SYSTEM**

10. The components of the established relevant ATS system shall be

shown and shall comprise the following:

*(a)* a graphic portrayal of each standard instrument arrival route, including—

(i) route designator;

(ii) significant points defining the route;

(iii) track or radial to the nearest degree along each segment of the route;

(iv) distances to the nearest kilometre or nautical mile between significant points;

(v) minimum obstacle clearance altitudes along the route or route segments and altitudes required by the procedure to the nearest higher 100 feet and flight level restrictions where established; and

(vi) where the chart is drawn to scale and vectoring on arrival is provided, established minimum vectoring altitudes to the nearest higher 100 feet, clearly identified;

*(b)* the radio navigation aid associated with the route including—

(i) plain language name;

(ii) identification;

(iii) frequency;

(iv) geographical co-ordinates in degrees, minutes and seconds; and

(v) for DME, the channel and the elevation of the transmitting antenna of the DME to the nearest 100 feet;

*(c)* the name-codes and geographical co-ordinates in degrees, minutes and seconds of the significant points not marked by the position of a radio navigation aid, the bearing to the nearest one-tenth of a degree and distance to the nearest two-tenths of a kilometre or one-tenth of a nautical mile from the reference radio navigation aid;

*(d)* applicable holding patterns;

*(e)* transition altitude or height to the nearest higher 1,000 feet;

*(f)* area speed restrictions, where established;

*(g)* all compulsory and "on-request" reporting points;

*(h)* radio communication procedures, including:

(i) call sign of ATS unit;

(ii) frequency; and

(iii) transponder setting, where appropriate.

**AERONAUTICAL DATABASE REQUIREMENTS**

11. Appropriate data provided by the procedures specialist to support navigation database coding shall be published in accordance with the

Procedures for Air Navigation Services—Aircraft Operations (Doc. 8168), Volume II, Section 5, Chap. 2, 2.2 on the verso of the chart or as a separate, properly referenced sheet.

Regulation 35. [100/2009].

**PART G**

**INSTRUMENT APPROACH CHART—ICAO**

The standards required to be met on Instrument Approach Charts—ICAO are as follows:

**COVERAGE AND SCALE**

1. (1) The coverage of a chart shall be sufficient to include all segments of the instrument approach procedure and any additional areas as may be necessary for the type of approach intended.

(2) The scale selected for a chart shall provide for optimum legibility and be consistent with—

*(a)* the procedure shown on the chart; and

*(b)* sheet size.

(3) An indication of the scale selected under subclause (2) shall be shown on a chart.

(4) Except where this is not practicable, a distance circle with a radius of 20 kilometres or 10 nautical miles centred on a DME located on or close to the aerodrome, or on the aerodrome reference point where no suitable DME is available, shall be shown and its radius indicated on the circumference.

**PROJECTION**

2. A conformal projection on which a straight line approximates a great circle shall be used.

**IDENTIFICATION**

3. A chart shall be identified by—

*(a)* the name of the city or town, or area, which the aerodrome serves;

*(b)* the name of the aerodrome; and

*(c)* the identification of the instrument approach procedure as established in accordance with the ICAO Procedures for Air Navigation Services, Doc 8168, Volume II, Part III, Chapter 1.

**CULTURE AND TOPOGRAPHY**

4. (1) Culture and topographic information pertinent to the safe execution instrument approach procedure, including missed approach procedure associated holding patterns and visual manoeuvers or circling procedures when established shall be shown.

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(2) The topographic information under subclause (1), shall be named, only where necessary to facilitate the understanding of such information.

(3) The minimum topographic information under this clause, shall be a delineation of land masses and significant lakes and rivers.

(4) Relief shall be shown in a manner best suited to the particular elevation characteristics of the area.

(5) In areas where relief exceeds 1,200 metres or 4,000 feet above the aerodrome elevation within the coverage of the chart or 600 metres or 2,000 feet within eleven metres or 6 nautical miles of the aerodrome reference point or where final approach or missed approach procedure gradient is steeper than optimal due to terrain, all relief exceeding 150 metres or 500 feet above the aerodrome elevation shall be shown by smoothed contour lines with contour values and layer tints printed in brown.

(6) Appropriate spot elevations, including the highest elevation within each top contour line, shall also be shown printed in black.

**MAGNETIC VARIATION**

5. Where the value of magnetic variation is used it shall be displayed to the nearest degree and agree with the magnetic variation used in determining magnetic bearings, tracks and radials.

**BEARINGS, TRACKS AND RADIALS**

6. Bearings, tracks and radials shall be magnetic.

**AERONAUTICAL DATA FOR AERODROMES**

7. (1) All aerodromes which show a distinctive pattern from the air shall be shown by the appropriate symbol and abandoned aerodromes shall be identified as abandoned.

(2) The runway pattern shall be shown at a scale sufficiently large to show it clearly.

(3) The runway pattern under subclause (1), shall be shown for—

*(a)* the aerodrome on which the procedure is based; and

*(b)* aerodromes affecting the traffic pattern or so situated as to be likely, under adverse weather conditions, to be mistaken for the aerodrome of intended landing.

(4) Aerodrome elevation shall be shown to the nearest foot in a prominent position on the chart.

(5) Threshold elevation or, where applicable, the highest elevation of the touchdown zone shall be shown to the nearest foot.

**AERONAUTICAL DATA FOR OBSTACLES**

8. (1) Obstacles shall be shown on the plan view of the chart.

(2) The elevation of the top of obstacles shall be shown to the next higher foot.

(3) When heights of obstacles above a datum other than mean sea level are shown, the datum shall be the aerodrome elevation except that, at aerodromes having an instrument runway with a threshold elevation more than 7 feet below the aerodrome elevation, the chart datum shall be the threshold elevation of the runway to which the instrument approach is related.

(4) Where a datum other than mean sea level is used, it shall be stated in a prominent position on the chart.

(5) Where an obstacle free zone has not been established for a precision approach runway Category I, this shall be indicated.

**AERONAUTICAL DATA FOR PROHIBITED, RESTRICTED AND DANGER AREAS**

9. Prohibited, restricted and danger areas which may affect the execution of instrument approach procedures shall be shown with associated identification and vertical limits.

**AERONAUTICAL DATA FOR RADIO COMMUNICATION FACILITIES AND NAVIGATION AIDS**

10. (1) Radio navigation aids required for instrument approach procedures together with associated frequencies, identifications and track-defining characteristics, if any, shall be shown.

(2) For an instrument approach procedure when more than one station is located on the final approach track, the facility to be used for track guidance for final approach shall be clearly identified, and consideration given to the elimination from the approach chart of those facilities that are not used by the procedure.

(3) The initial approach fix (IAF), the intermediate approach fix (IF), the final approach fix (FAF) [or final approach point (FAP) for an ILS approach procedure], the missed approach point (MAPt), where established, and other essential fixes or points comprising the procedure shall be shown and identified.

(4) Radio navigation aids that might be used in diversionary procedures together with associated track-defining characteristics, if any, shall be shown or indicated on the chart.

(5) Radio communication frequencies, including call signs, that are required for the execution of the procedures shall be shown.

(6) The distance to the aerodrome from each radio navigation aid concerned with the final approach when required by the instrument approach procedure, shall be shown to the nearest kilometre or nautical mile.

(7) When no track-defining aid indicates the bearing of the aerodrome, the bearing shall also be shown to the nearest degree.

**AERONAUTICAL DATA FOR MINIMUM SECTOR ALTITUDE OR TERMINAL ARRIVAL ALTITUDE**

11. The minimum sector altitude or terminal arrival altitude established by the Authority shall be shown, with a clear indication of the sector to which it applies.

**AERONAUTICAL DATA FOR PORTRAYAL OF PROCEDURE TRACKS**

12. (1) The plan view shall show the following:

*(a)* the approach procedure track by an arrowed continuous line indicating the direction of flight;

*(b)* the missed approach procedure track by an arrowed broken line;

*(c)* any additional procedure track, other than those specified in paragraphs *(a)* and *(b)*, by an arrowed dotted line;

*(d)* bearings, tracks, radials to the nearest degree and distances to the nearest two-tenths of a kilometre or one-tenth of a nautical mile or times required for the procedure;

*(e)* where no track-defining aid is available, the magnetic bearing to the nearest degree to the aerodrome from the radio navigation aids concerned with the final approach;

*(f)* the boundaries of any sector in which visual manoeuvring is prohibited;

*(g)* where specified the holding pattern and minimum holding altitude or height associated with the approach and missed approach; and

*(h)* caution notes where required, prominently displayed on the face of the chart.

(2) A profile shall be provided showing the following:

*(a)* the aerodrome by a solid block at aerodrome elevation;

*(b)* the profile of the approach procedure segments by an arrowed continuous line indicating the direction of flight;

*(c)* the profile of the missed approach procedure segment by an arrowed broken line and a description of the procedure;

*(d)* the profile of any additional procedure segment, other than those specified in paragraphs *(b)* and *(c)*, by an arrowed dotted line;

*(e)* bearings, tracks, radials to the nearest degree and distances to the nearest two-tenths of a kilometre or one-tenth of a nautical mile or times required for the procedure;

*(f)* altitudes or height required by the procedure, including transition altitude and procedure altitudes or heights, where established;

*(g)* limiting distance to the nearest kilometre or nautical mile on procedure turn, where specified;

*(h)* the intermediate approach fix or point, on procedures where no course reversal is authorised; and

*(i)* a line representing the aerodrome elevation or threshold elevation, as appropriate, extended across the width of the chart including a distance scale with its origin at the runway threshold.

Note: *The profile is normally located below the plan view*.

**AERONAUTICAL DATA FOR AERODROME OPERATING MINIMA**

13. (1) Aerodrome operating minima where established shall be shown.

(2) The obstacle clearance altitudes or heights for the aircraft categories for which the procedure is designed shall be shown.

(3) For precision approach procedures, additional OCA/H for Cat DL aircraft wing span between 65 metres and 80 metres or vertical distance between the flight path of the wheels and the glide path antenna between 7 metres and 8 metres shall be published, when necessary.

**AERONAUTICAL DATE FOR SUPPLEMENTARY INFORMATION**

14. (1) The distance to the nearest two-tenths of a kilometre or one-tenth of a nautical mile and a table showing ground speeds and times from the final approach fix to the missed approach point shall be shown where the missed approach point defined by—

*(a)* a distance from the final approach fix; or

*(b)* a facility or a fix and the corresponding distance from the final approach fix.

(2) Where DME is required for use in the final approach segment, a table showing altitude or height for every 2 kilometre or 1 nautical mile, as appropriate, shall be shown.

(3) The table under subclause (2), shall not include distances which would correspond to altitude or height below the OCA or OCH.

(4) For non-precision approach procedures with a final approach fix, the final approach descent gradient to the nearest one-tenth of a per cent and, in parenthesis, descent angle to the nearest one-tenth of a degree shall be shown.

(5) For precision approach procedures and approach procedures with vertical guidance, the reference datum height to the nearest foot and the glide path, elevation and vertical path angle to the nearest one-tenth of a degree shall be shown.

(6) Where ILS or MLS glide path or elevation angle exceeds 3.5 degrees, a note shall be included referring to appropriate aircraft and flight crew qualification requirements for such a procedure.

(7) When a final approach fix is specified at the final approach point for ILS, a clear indication shall be given whether it applies to the ILS procedure, the associated ILS localiser only procedure, or both.

(8) For MLS, a clear indication shall be given where a final approach fix has been specified at the final approach point.

(9) Where the final approach descent gradient/angle for any type of instrument approach procedure exceeds the maximum value specified in the Procedures for Air Navigation Services—Aircraft Operations (PANS-OPS, Doc. 8168), Volume II, Part I, Section IV, Chap. 5, a cautionary note shall be included.

**AERONAUTICAL DATABASE REQUIREMENTS**

(10) Appropriate data provided by a procedures specialist to support navigation database coding shall be published in accordance with the Procedures for Air Navigation Services—Aircraft Operations (Doc. 8168), Volume II, Section 5, Chap. 2, 2.2 on the verso of the chart or as a separate, properly referenced sheet.

Regulation 36. [100/2009].

**PART H**

## VISUAL APPROACH CHART—ICAO

The standards required to be met for Visual Approach Charts—ICAO are as follows:

**SCALE**

1. The scale shall be sufficiently large to permit depiction of significant features and indication of the aerodrome layout.

**PROJECTION**

2. A conformal projection on which a straight line approximates a great circle shall be used.

**IDENTIFICATION**

3. A chart shall be identified by—

*(a)* the name of the city or town which the aerodrome serves; and

*(b)* the name of the aerodrome.

**CULTURE AND TOPOGRAPHY**

4. (1) The following shall be shown on a Visual Approach Chart—ICAO:

*(a)* natural and cultural landmarks such as bluffs, cliffs, sand dunes, cities, towns, roads, railroads and isolated lighthouses;

*(b)* shore lines, lakes, rivers and streams shall be shown; and

*(c)* relief depicted in a manner best suited to the particular elevation and obstacle characteristics of the area covered by the chart.

(2) The figures relating to different reference levels shall be clearly differentiated.

**MAGNETIC VARIATION**

5. The magnetic variation shall be shown.

**BEARINGS, TRACKS AND RADIALS**

6. Bearings, tracks and radials shall be magnetic.

**AERONAUTICAL DATA FOR AERODROMES**

7. (1) An aerodrome shall be shown by the runway pattern and abandoned aerodromes shall be identified as abandoned.

(2) Restrictions on the use of any landing direction shall be indicated.

(3) Where the aeronautical data of two or more aerodromes are similar to an extent that would confuse identification one from the other, this shall be indicated.

(4) Aerodrome elevation shall be shown in a prominent position on the chart.

**AERONAUTICAL DATA FOR OBSTACLES**

8. (1) Obstacles shall be shown and identified on a chart.

(2) The elevation of the top of obstacles shall be shown to the next higher foot.

(3) Where the height of an obstacle is shown, the height datum shall be stated in a prominent position on the charts and heights given in parentheses on the chart.

**AERONAUTICAL DATA FOR PROHIBITED, RESTRICTED AND DANGER AREAS**

9. Prohibited, restricted and danger areas shall be depicted with associated identification and vertical limits.

**AERONAUTICAL DATA FOR DESIGNATED AIRSPACE**

10. Where applicable, control zones and aerodrome traffic zones shall be depicted with associated vertical limits and the appropriate class of airspace.

**AERONAUTICAL DATA FOR VISUAL APPROACH INFORMATION**

11. (1) Visual approach procedures shall be shown on a chart, where applicable.

(2) Visual aids for navigation shall be shown on a chart, where appropriate.

(3) Location and type of the visual approach slope indicator systems shall be shown with associated:

*(a)* nominal approach slope angle;

*(b)* minimum eye height over the threshold of the on-slope signal; and

*(c)* the angle and direction of displacement, left or right, where the axis of the system is not parallel to the runway centre line.

**AERONAUTICAL DATA FOR SUPPLEMENTARY INFORMATION**

12. (1) Radio navigation aids together with associated frequencies and identifications shall be shown, where appropriate.

(2) Radio communication facilities with associated frequencies shall be shown, where appropriate.

Regulation 37. [100/2009].

**PART I**

## AERODROME/HELIPORT CHART—ICAO

The standards required to be met on Aerodrome or Heliport Charts—ICAO are as follows:

**COVERAGE AND SCALE**

1. The chart shall use a linear scale which shall in addition to the coverage be sufficiently large to show clearly all the elements listed in subclause 4(1).

**IDENTIFICATION**

2. A chart shall be identified by—

*(a)* the name of the city or town, or area, which the aerodrome or heliport serves; and

*(b)* the name of the aerodrome or heliport.

**MAGNETIC VARIATION**

3. True and Magnetic North arrows and magnetic variation to the nearest degree and annual change of magnetic variation shall be shown.

**DATA FOR AERODROME OR HELIPORT**

4. (1) The following shall be shown on a chart:

*(a)* geographical coordinates in degrees, minutes and seconds for the aerodrome or heliport reference point;

*(b)* elevations, to the nearest foot, of the aerodrome or heliport and apron altimeter checkpoint locations where applicable and for non-precision approaches, elevation and geoid undulations of runway threshold and the geometric centre of the touchdown and lift-off area;

*(c)* elevation and geoid undulation, to the nearest foot—

(i) of the precision approach runway threshold;

(ii) of the geometric centre of the touchdown and lift-off area; and

(iii) at the highest elevation of the touchdown zone of a precision approach runway;

*(d)* all runways including those under construction with designation number, length and width to the nearest metre, bearing strength, displaced thresholds, stopways, clearways, runway directions to the nearest degree magnetic, type of surface and runway markings;

*(e)* all aprons, with aircraft or helicopter stands, lighting, markings and other visual guidance and control aids, where applicable, including location and type of visual docking guidance systems, type of surface for heliports, and bearing strengths or aircraft type restrictions where the bearing strength is less than that of the associated runways;

*(f)* geographical coordinates in degrees, minutes and seconds for threshold, geometric centre of touchdown and lift-off area and threshold of the final approach and take-off area where appropriate;

*(g)* all taxiways, helicopter air and ground taxiways with type of surface, helicopter air transit route, with designation, width, lighting, markings, including runway-holding positions and where established, intermediate holding positions, stop bars, other visual guidance and control aids, and bearing strength or aircraft type restrictions where the bearing strength is less than that of the associated runways;

*(h)* geographical coordinates in degrees, minutes, seconds and hundredths of seconds for appropriate taxiway centre line point and aircraft stand;

*(i)* where established, standard routes for taxiing aircraft with associated designators;

*(j)* the boundaries of the air traffic control service;

*(k)* position of RVR observation sites;

*(l)* approach and runway lighting;

*(m)* location and type of the visual approach slope indicator systems with associated nominal approach slope angle, minimum eye height over the threshold of the on-slope signal, and the angle and direction of the displacement, left or right where the axis of the system is not parallel to the runway centre line;

*(n)* relevant communication facilities listed with their channels and, where applicable, log on address;

*(o)* obstacles to taxiing;

*(p)* aircraft servicing areas and buildings of operational significance;

*(q)* VOR checkpoint and radio frequency of the aid concerned;

*(r)* any part of the depicted movement area permanently unsuitable for aircraft, clearly identified as such; and

*(s)* where established, hot spot locations with additional information properly annoted in tabular form on the face or verso of the chart.

(2) In addition to those items applicable to heliports in subclause (1), a chart shall show:

*(a)* heliport type;

*(b)* touchdown and lift-off area including dimensions to the nearest metre, slope, type of surface and bearing strength in tonnes;

*(c)* final approach and take-off area including type, true bearing to the nearest degree, designation number where appropriate, length and width to the nearest metre, slope and type of surface;

*(d)* safety area including length, width and type of surface;

*(e)* helicopter clearway including length and ground profile;

*(f)* obstacles including type and elevation of the top of the obstacles to the next higher foot;

*(g)* visual aids for approach procedures, marking and lighting of final approach and take-off area, and of touchdown and lift-off area; and

*(h)* declared distances to the nearest metre for heliports, where relevant, including—

(i) take-off distance available;

(ii) rejected take-off distance available; and

(iii) landing distance available.

**PART J**

Regulation 37A. [100/2009].

## AERONAUTICAL CHART—ICAO 1:500 000

The Standards required for Aeronautical Chart—ICAO 1:500 000 are as follows:

### SCALE

1. (1) Linear scales for kilometres and nautical miles arranged in the following order:

*(a)* kilometres; and

*(b)* nautical miles,

with their zero points in the same vertical line shall be shown in the margin.

(2) A conversion scale (metres or feet) shall be shown in the margin.

### FORMAT

2. (1) The title and marginal notes shall be in the English Language.

(2) The information regarding the number of the adjoining sheets and the unit of measurement used to express elevation shall be so located as to be clearly visible when the sheet is folded.

### PROJECTION

3. (1) A conformal or orthomorphic projection shall be used.

(2) Parallels shall be shown at intervals of thirty minutes.

(3) Meridians shall normally be shown at intervals of thirty minutes.

(4) Graduation marks shall be shown at one minute intervals along each whole degree meridian and parallel, extending away from the Greenwich Meridian and from the Equator and each ten-minute interval shall be shown by a mark on both sides of the graticule line.

(5) All meridians and parallels shown shall be numbered in the borders of the chart.

(6) The name and basic parameters of the projection shall be indicated in the margin.

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**IDENTIFICATION**

4. Each sheet shall be identified by a name which should be that of the principal town or of a main geographical feature appearing on the sheet.

**CULTURE AND TOPOGRAPHY**

5. (1) In built-up areas, cities, towns and villages shall be selected and shown on the chart according to their relative importance to visual air navigation.

(2) All railroads having landmark value shall be shown on the chart.

Note 1: *In congested areas, some railroads may be omitted in the interest of legibility.*
Note 2: *Railroads may be named.*
Note 3: *Rail stations may be shown.*

(3) Tunnels shall be shown on the chart when they serve as prominent landmarks.

Note: *A descriptive note may be added, if necessary to accentuate this feature.*

(4) Road systems shall be shown on the chart in sufficient detail to indicate significant patterns from the air.

Note 1: *Roads under construction may be shown.*
Note 2: *The number or names of important highways may be shown.*

(5) Natural and cultural landmarks such as bridges, mine structure, lookout towers, forts, ruins, levees, pipelines, prominent transmission lines, permanent cable car installations, and rocks, bluffs, cliffs, and dunes, isolated lighthouses and lightships when considered to be of importance for visual air navigation shall be shown on the chart.

Note: *Descriptive notes may be added.*

(6) International boundaries shall be shown on the chart and undemarcated or undefined boundaries shall be distinguished by descriptive notes.

Note: *Other boundaries may be shown.*

(7) Hydrograph information such as water features compatible with the scale of the chart comprising shore lines, lakes, rivers and streams including those that are non-perennial in nature, salt lakes, glaciers and ice caps shall be shown on the chart.

(8) Contours shall be shown on the chart with the selection of intervals governed by the requirement to depict clearly the relief features required in air navigation.

(9) The values of the contours used shall be shown on the chart.

(10) When hypsometric tints are used, the range of elevations for the tints shall be shown on the chart and the scale used shown in the margin.

(11) Spot elevations shall be shown on the chart at selected critical points.

(12) The elevation selected in subclause (11) shall always be the highest in the immediate vicinity and shall generally indicate the top of a peak and ridge.

(13) Elevations in valleys and at lake surface levels which are of navigational value shall be shown on the chart.

(14) The position of each selected elevation shall be indicated by a dot on the chart.

(15) The elevation measured in feet of the highest point on the chart and its geographical position to the nearest five minutes shall be indicated in the margin.

(16) Areas on the chart that have not been surveyed for contour information shall be labelled "Relief data incomplete".

(17) Charts on which spot elevations are generally unreliable shall bear a warning note prominently displayed on the face of the chart in the colour used for aeronautical information, as follows:

"Warning—The reliability of relief information on this chart is doubtful and elevations should be used with caution".

(18) Wooded areas shall be shown with the approximate northern or southern limits of tree growth indicated by a dashed black line and appropriately labelled.

(19) The date of latest information shown on the topographic base shall be indicated in the margin.

**MAGNETIC VARIATION**

6. (1) Isogonic lines shall be shown on the chart.

(2) The date of the isogonic information shall be indicated in the margin.

**AERONAUTICAL DATA**

7. (1) Aeronautical information shall be shown consistent with the use of the chart and the revision cycle.

(2) Land and water aerodromes and heliports shall be shown with their names, to the extent that they do not produce undesirable congestion on the chart, priority being given to those of greatest aeronautical significance.

(3) The aerodrome elevation, the lighting available, the type of runway surface and the length of the longest runway or channel, shown in abbreviated form for each aerodrome in conformity with the example given in Appendix 2, provided they do not cause undesirable clutter on the chart, shall be indicated.

(4) Abandoned aerodromes which are still recognisable as aerodromes from the air shall be shown and identified as abandoned.

(5) Objects of a height of 300 feet and more above ground shall be shown as obstacles on the chart.

(6) When considered of importance to visual flight, prominent transmission lines and permanent cable car installations, which are obstacles, shall be shown on the chart.

(7) Prohibited, restricted and danger areas shall be shown on the chart.

(8) Significant elements of the air traffic services system including, where practicable, control zones, aerodrome traffic zones, control areas, flight information regions and other airspaces in which VFR flights operate shall be shown on the chart together with the appropriate class of airspace.

(9) Where appropriate, the air defence identification zone (ADIZ) shall be shown and properly identified on the chart.

(10) Radio navigation aids shall be shown on the chart by the appropriate symbol and named, but excluding their frequences, coded designators, times of operation and other characteristics unless any or all of this information which is shown is kept up to date by means of new editions of the chart.

(11) Aeronautical ground lights together with their characteristics or their identifications or both shall be shown on the chart.

(12) Marine lights on outer prominent coastal or isolated features of not less than 28 kilometres or 15 nautical miles visibility range shall be shown on the chart—

*(a)* where they are not less distinguishable than more powerful marine lights in the vicinity;

*(b)* where they are readily distinguishable from other marine or other types of lights in the vicinity of built-up coastal areas; or

*(c)* where they are the only lights of significance available.

**PART K**

Regulation 37B.

## AERODROME TERRAIN AND OBSTACLE CHARTS—ICAO (ELECTRONIC)

The Standards required for Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) are as follows:

### FUNCTION

1. The function of the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall be to portray the terrain and obstacle data in combination with aeronautical data, as appropriate, necessary to—

*(a)* enable an operator to comply with the aircraft performance operating limitations by developing contingency procedures for use in the event of an emergency during a missed approach or take-off, and by performing aircraft operating limitations analysis; and

*(b)* support the following air navigation applications:

(i) instrument procedure design including circling procedure;

(ii) aerodrome obstacle restriction and removal; and

(iii) provision of source data for the production of other aeronautical charts.

### AVAILABILITY

2. Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall—

*(a)* be made available for all aerodromes regularly used by international civil aviation from 18th November 2010;

*(b)* be made available in hard copy format upon request;

*(c)* use ISO 19100 series of standards for geographic information as a general data modelling framework.

Note: *The use of ISO 19100 series of standards for geographic information supports the interchange and use of the Aerodrome Terrain and Obstacle Chart—ICAO (Electronic) among different users.*

### IDENTIFICATION

3. Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall be identified by—

*(a)* the name of the country in which the aerodrome is located;

*(b)* the name of the city or town which the aerodrome serves; and

*(c)* the name of the aerodrome.

**CHART COVERAGE**

4. The extent of each Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall be sufficient to cover Area 2 as specified in paragraph 2 of Part H of Schedule 3 in the Regulations.

Schedule 3. Part H.

**CHART CONTENT**

5. (1) Where computer graphic applications are being developed to portray features on the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic), the relationships between features, feature attributes, and the underlying spatial geometry and associated topological relationships shall be specified by an application schema.

(2) Portrayed information on the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall be provided on the basis of portrayal specifications applied according to defined portrayal rules.

(3) Portrayal specifications and portrayal rules shall not be part of the data set of the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic).

(4) Portrayal rules of the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall be stored in a portrayal catalogue which shall make reference to separately-stored portrayal specifications.

Note: *ISO Standards 19117 contains a definition of the schema describing the portrayal mechanism of feature-based geographic information, ISO Standards 19109 contains rules for application schema and ISO Standards 19107 defines spatial geometry and associated topographical relationships.*

(5) Symbols used to portray features on the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall be in accordance with paragraph 4 of Part A of Schedule 3 in the Regulations and Appendix 2 of Part A of Schedule 3 in the Regulations.

Schedule 3. Part A.

6. (1) The terrain feature, and associated attributes, to be portrayed and database linked to the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall be based on the electronic terrain data sets which satisfy the requirements of Part H of Schedule 2 of the Regulations.

Schedule 2. Part H.

(2) The terrain feature on the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall be portrayed in a manner that provides an effective general impression of a terrain.

(3) The portrayal of the terrain features on the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall be a presentation of terrain surface by continuous elevation values at all intersections of the defined grid, also known as the Digital Elevation Model (DEM).

7. The portrayed terrain feature of the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall be linked to the following associated attributes in the database:

*(a)* horizontal positions of grid points in geographic co-ordinates and elevations of the points;

*(b)* surface type;

*(c)* contour line values, where provided; and

*(d)* names of cities, towns and other prominent topographic features.

8. (1) Obstacle features, and associated attributes, portrayed or database linked to the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall be based on electronic obstacle data sets which satisfy the requirements of Part H of Schedule 2 of the Regulations.

Schedule 2. Part H.

(2) Each obstacle shall be portrayed by an appropriate symbol and obstacle identifier on the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic).

(3) The portrayed obstacle feature of the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall be linked to the following associated attributes in the database:

*(a)* horizontal position in geographic co-ordinates and associated elevation;

*(b)* obstacle type; and

*(c)* obstacle extent, where appropriate.

9. (1) Aerodrome features, and associated attributes, portrayed and database linked to the Aerodrome Terrain Obstacle Charts—ICAO (Electronic) shall be based on aerodrome data which satisfy the requirements of Annex 14, Volume I, Appendix 5 and the Appendix to Part A of Schedule 2 of the Regulations.

Schedule 2. Part A.

(2) The following aerodrome features of the Aerodrome Terrain and Obstacle Charts—ICAO (Electronic) shall be portrayed by an appropriate symbol:

*(a)* aerodrome reference point;

*(b)* runways, with designation numbers, and where available, stopways and clearways; and

*(c)* taxiways, aprons, large buildings and other prominent aerodrome features.

(3) The portrayed aerodrome feature of the Aerodrome Terrain Obstacle Charts—ICAO (Electronic) shall be linked to the following associated attributes in the database:

*(a)* geographical co-ordinates of the aerodrome reference point;

*(b)* aerodrome magnetic variation, year of information and annual change;

Note: *Magnetic variation may be database linked to the aerodrome reference point.*

*(c)* length and width of runways, stopways and clearways;

*(d)* type of surface of runways and stopways;

*(e)* magnetic bearings of the runways to the nearest degree;

*(f)* elevations at each end of the runway(s), stopways and clearways, and at each significant change in slope of runways and stopways; and

*(g)* declared distances for each runway direction, or the abbreviation "NU" where a runway direction cannot be used for a take-off or landing or both.

10. Each radio navigation aid feature located within the chart coverage shall be portrayed by an appropriate symbol.

Note: *Navigation aid feature attributes may be linked to the portrayed navigation aid features in the databases.*

**ACCURACY AND RESOLUTION**

Schedule 1. Part A.

11. (1) The order of accuracy of aeronautical data shall be as specified in Appendix 5, Part A, Schedule 1 of the Regulations and Annex 14, Volume I, Appendix 5 and Volume II, Appendix 1.

Schedule 2. Part H.

(2) The order of accuracy of terrain and obstacle data shall be as specified in Part H of Schedule 2 in the Regulations.

Schedule 2. Part A. Schedule 2. Part H.

(3) The aeronautical data resolution shall be as specified in the Appendix to Part A of Schedule 2 in the Regulations while the resolution for terrain and obstacle data shall be as specified in the Appendix to Part H of Schedule 2 in the Regulations.

**ELECTRONIC FUNCTIONALITY**

12. (1) It shall be possible to vary the scale at which the chart is viewed so that symbols and text size vary with chart scale to enhance readability.

(2) Information on the chart shall be geo-referenced, and it shall be possible to determine cursor position to at least the nearest second.

(3) The chart shall be compatible with widely available desktop computer hardware, software and media.

(4) It shall not be possible to add or remove information from the chart without an authorised update.

(5) To avoid clutter of information and where the details necessary to support the function of the chart cannot be shown with sufficient clarity on a single comprehensive chart view, selectable information layers shall be provided to allow for the customised combination of information.

Note: *An electric chart format with user-selectable information layers is the preferred method of presentation for most aerodrome features.*

(6) It shall be possible to print the chart in hard copy format according to the content specifications and scale determined by the user.

Note 1: *Printed output may be "tiled" sheets or specific selected areas according to user requirements.*

Note 2: *Feature attribute information available through database link may be supplied separately on appropriately reference sheets.*

**CHART DATA PRODUCT SPECIFICATIONS**

13. (1) A comprehensive statement of the data sets comprising the chart shall be provided in the form of data product specifications on which basis air navigation users will be able to evaluate the chart data product and determine whether it fulfils the requirements for its intended use or application.

(2) The chart data product specifications shall include an overview, a specification scope, a data product identification, data content information, the reference systems used, the data quality requirements and information on data capture, data maintenance, data portrayal, data product delivery, as well as any additional information available and metadata.

Note: *ISO Standard 19131 specifies the requirements and outline of data product specifications for geographic information.*

(3) The overview of the chart data product specifications shall provide an informal description of the product and shall contain general information about the data product.

(4) The specification scope of the chart data product specifications shall contain the spatial (horizontal) extent of the chart coverage.

(5) The chart data product identification shall include the title of the product, a brief narrative summary of the content and purpose, and a description of the geographic area covered by the chart.

(6) The data content of the chart data product specifications shall clearly identify the type of coverage or imagery and shall provide a narrative description of each.

Note: *ISO Standard 19123 contains schema for coverage geometry and functions.*

(7) The chart data product specifications shall include information that defines the reference systems used.

(8) The reference system referred to in subclause (7) shall include the spatial reference system (horizontal and vertical) and, where appropriate, temporal reference system.

(9) The chart data product specifications shall identify the data quality requirement and include a statement on acceptable conformance quality levels and corresponding data quality measures covering all the data

quality elements and data quality sub-elements, even if only to state that a specific data quality element or sub-element is not applicable.

Note: *ISO Standard 19113 contains quality principles for geographic information and ISO Standard 19114 covers quality evaluation procedures.*

(10) The chart data product specifications shall include a data capture statement which shall be a general description of the sources and of processes applied for the capture of chart data.

(11) The principles and criteria applied in the maintenance of the chart shall also be provided in the chart data product specifications, including the frequency with which the chart product is updated, particularly the maintenance information of obstacle data sets included on the chart and an indication of the principles, methods and criteria applied for obstacle data maintenance.

(12) The chart data product specifications shall contain—

*(a)* information on how data are portrayed on the chart, as detailed in paragraph 5; and

*(b)* data product delivery information including delivery formats and delivery medium information.

(13) The core chart metadata elements shall be included in the chart data product specifications and additional metadata items required to be supplied shall be stated in the product specifications together with the format and encoding of the metadata.

Note 1: *ISO Standard 19115 specifies requirements for geographic information metadata.*

Note 2: *The chart data product specifications document in the chart data product which is implemented as a data set which is described by metadata.*

# CIVIL AVIATION [(NO. 16) COMPOUNDING OF OFFENCES] (PECUNIARY PENALTIES) REGULATIONS

ARRANGEMENT OF REGULATIONS

**REGULATION**

1. Citation.
2. Interpretation.

**COMPOUNDING OF OFFENCES COMMITTED BY AIRMEN AND OPERATORS**

3. Compounding of offences committed by airmen and operators.

**ISSUING OF NOTICE BY THE DIRECTOR-GENERAL**

4. Issuing of notice by the Director-General.

**REQUIREMENTS OF A NOTICE**

5. Requirements of a notice.

**SIGNED RECEIPT IS SUFFICIENT EVIDENCE OF PAYMENT OF FINE**

6. Signed receipt is sufficient evidence of payment of fine.

**FAILURE TO PAY FIXED PENALTY FINE**

7. Failure to pay fixed penalty fine.

**SCHEDULE 1.**
**SCHEDULE 2.**

*L.R.O.*

52/2007.

# CIVIL AVIATION [(NO. 16) COMPOUNDING OF OFFENCES] (PECUNIARY PENALTIES) REGULATIONS

*made under section 33*

Citation.

**1.** These Regulations may be cited as the Civil Aviation [(No. 16) Compounding of Offences] (Pecuniary Penalties) Regulations.

Interpretation.

**2.** In these Regulations—

"Act" means the Civil Aviation Act;

"airman" means an individual—

*(a)* who engages, as the pilot in command, mechanic or member of the crew or who navigates an aircraft while the aircraft is underway;

*(b)* in charge of the inspection, maintenance, overhauling or repair of an aircraft, and any individual in charge of inspection, maintenance, overhauling or repair of aircraft, aircraft engines, propellers or appliances; or

*(c)* who serves in the capacity of flight operations officer;

Sub. Leg.

"Airworthiness Regulations" means the Civil Aviation [(No. 5) Airworthiness] Regulations;

"Authority" means the Trinidad and Tobago Civil Aviation Authority;

"Director-General" means the person appointed to the office of Director-General under section 13(1) of the Civil Aviation Act;

"fixed penalty" means the penalty for an offence committed under the Act or Regulations made thereunder as specified in the fourth column of Schedule 1;

Schedule 1.

"notice" means a document issued by the Authority offering the opportunity for the discharge of any liability to conviction for an offence specified therein by payment of a fixed penalty in accordance with section 57 of the Act;

"offence" means any act or omission by an airman or operator that contravenes any provision of the Act or Regulations made thereunder;

"operator" means a person, organisation or enterprise, engaged in or offering to engage in, aircraft operations and any person who causes or authorises the operation of aircraft in the capacity of owner, lessee or otherwise, whether with or without the control of the aircraft; and who or which is deemed to be engaged in the operation of aircraft within the meaning of the Act;

"proceedings" means proceedings by complaint before a magistrate.

## COMPOUNDING OF OFFENCES COMMITTED BY AIRMEN AND OPERATORS

Compounding of offences committed by airmen and operators.

**3.** These Regulations prescribe the requirements for the compounding of any offence committed by an airman or an operator under section 57 of the Act or any Regulations made thereunder.

## ISSUING OF NOTICES BY THE DIRECTOR-GENERAL

Issuing of notices by the Director-General.

Schedule 2.

**4.** (1) Where the Director-General has reason to believe that an airman or operator has contravened any provision of the Regulations, the Director-General may issue to the airman or operator a notice in the form prescribed in Schedule 2.

(2) A notice issued under regulation 4(1) shall—

*(a)* specify the regulation which the airman or operator is believed to have breached and in respect of which he may be summarily convicted under the Act or any Regulations made thereunder; and

*(b)* notify the airman or operator that a complaint shall be filed against him in the event that he fails to pay the fixed fine within the time specified in the notice referred to in subregulation (1).

(3) The Minister may from time to time by Order—

*(a)* add any offence to those provided for in Schedule 1 and prescribe in respect of that offence a fine not exceeding forty thousand dollars;

*(b)* remove any offence from those provided for in Schedule 1; and

*(c)* alter the fixed penalty for any offence except that the penalty as altered does not exceed forty thousand dollars.

(4) A fixed penalty under this regulation shall be paid to the Authority within twenty-one days from the date of issue of the notice.

## REQUIREMENTS OF A NOTICE

Requirements of a notice.

**5.** (1) A notice issued under regulation 4 shall be signed by the Authority and shall specify—

*(a)* the date, time and place the notice was issued;

*(b)* the provision of the Act or regulation under which the airman or operator is suspected of having contravened;

*(c)* such other particulars of the offence as are necessary for giving reasonable information of the offence;

*(d)* the amount of the fixed penalty; and

*(e)* the place and time within which the fixed penalty is to be paid.

(2) The time within which the fixed penalty is payable shall be fourteen days from the date of the notice, and where payment is made after the time specified in the notice it shall not be receivable and shall be returned to the airman or operator as the case may be.

(3) Where the fixed penalty under this regulation is paid in accordance with the requirements of the notice, the airman or

operator thereafter shall not be liable to be convicted of the offence in respect of which the notice was given.

## SIGNED RECEIPT IS SUFFICIENT EVIDENCE OF PAYMENT OF FINE

Signed receipt is sufficient evidence of payment of fine.

**6.** In any proceedings, a receipt from the Authority that payment of a fixed fine was or was not made to the Authority by a date specified in the receipt shall, if the receipt purports to be signed by the Authority, be sufficient evidence to the facts stated in the receipt, unless the contrary is proved.

## FAILURE TO PAY FIXED PENALTY FINE

Failure to pay fixed penalty fine.

**7.** Where an airman or operator fails to pay the fixed fine specified in a notice issued to him, the Authority shall within reasonable time thereafter, file the necessary proceedings against the airman or operator that is suspected of committing the offence.

Regulation 5.

## SCHEDULE 1

The applicable provisions to the regulations and the related offences in respect of which liability for contravention may be discharged are set out hereunder:

| | Offence | Applicable Regulation | Fine |
|---|---|---|---|
| 1 | Failure to produce licence or aviation document for inspection | Civil Aviation [(No.1) General Application and Personnel Licensing] Regulations, 2004, regulation 6 | $2,500 |
| 2 | Failure to have valid crew licence and current medical certificate in physical possession or readily accessible in aircraft | Civil Aviation [(No.1) General Application and Personnel Licensing] Regulations, 2004, regulation 6(3) | $2,500 |
| 3 | Failure of air operator to properly display AOC | Civil Aviation [(No.1) General Application and Personnel Licensing] Regulations, 2004, regulation 6(6) | $2,000 to $10,000 |
| 4 | Failure of owner or operator to carry Airworthiness Certificate and Certificate of Registration in cockpit of aircraft | Civil Aviation [(No.1) General Application and Personnel Licensing] Regulations, 2004, regulation 6(7) | $2,000 to $10,000 |
| 5 | Failure of AMO to properly display certificate | Civil Aviation [(No.1) General Application and Personnel Licensing] Regulations, 2004, regulation 6(8) | $2,000 to $10,000 |
| 6 | Breech of Flight and Duty Time Limitations | Civil Aviation [(No.2) Operations] Regulations, 2004, Part X | $10,000 to $20,000 |
| 7 | Failure of an operator to maintain aircraft in an airworthy condition | Civil Aviation [(No.2) Operations] Regulations, 2004, regulation 27(1) | $10,000 to $15,000 |
| 8 | Failure to comply with airworthiness directives | Civil Aviation [(No. 2) Operations] Regulations, 2004, regulation 27(1) | $20,000 to $40,000 |
| 9 | Failure to perform or improper performance of maintenance | Civil Aviation [(No. 2) Operations] Regulations, 2004, regulation 27(2) | $10,000 |
| 10 | Performance of maintenance by unauthorized persons | Civil Aviation [(No. 2) Operations] Regulations, 2004, regulation 27(3) | $10,000 |
| 11 | Performance of maintenance by unauthorized persons | Civil Aviation [(No. 2) Operations] Regulations, 2004, regulation 27(3) | $10,000 to $40,000 |
| 12 | Improperly returning aircraft to service | Civil Aviation [(No. 2) Operations] Regulations, 2004, regulation 28(f) | $5,000 to $10,000 |
| 13 | Operation of aircraft beyond annual, 100-hour or progressive inspection | Civil Aviation [(No. 2) Operations] Regulations, 2004, regulation 29 | $5,000 to $10,000 |
| 14 | Using an Unqualified Crewmember | Civil Aviation [(No. 2) Operations] Regulations, 2004, regulation 35 | $20,000 to $40,000 |
| 15 | Failure to have current certificate in possession | Civil Aviation [(No. 2) Operations] Regulations, 2004, regulation 36 | $3,000 to $5,000 |
| 16 | Failure to close flight plan or file arrival notice | Civil Aviation [(No. 2) Operations] Regulations, 2004, regulation 83 | $2,000 |
| 17 | Operating an aircraft without loads properly distributed and properly secured | Civil Aviation [(No. 2) Operations] Regulations, 2004, regulation 100(1) | $5,000 to $10,000 |
| 18 | Operating an aircraft without proper calculations for mass and centre of gravity | Civil Aviation [(No. 2) Operations] Regulations, 2004, regulation 100(2) | $5,000 to $10,000 |

## SCHEDULE 1—*Continued*

| | | | |
|---|---|---|---|
| 19 | Failure by an air operator to make available load manifests | Civil Aviation [(No. 2) Operations] Regulations, 2004, regulation 100(6) | $10,000 to $20,000 |
| 20 | Failure to comply with preferential runway system | Civil Aviation [(No. 2) Operations] Regulations, 2004, regulation 150 | $5,000 to $10,000 |
| 21 | Failure of an operator to abide by conditions of Certificate issued by the Trinidad and Tobago Civil Aviation Authority | Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, 2004, regulation 3 | Suspension or revocation |
| 22 | Failure to comply with conditions of Operations Specifications or Training Specifications | Civil Aviation [(No. 3)Air Operator Certification and Administration] Regulations, 2004, regulation 3 | Suspension or revocation |
| 23 | Operation of an aircraft by an air operator without maintenance and release to service by an AMO or equivalent system of maintenance approved by the Authority | Civil Aviation [(No. 3) Air Operator Certification and Administration] Regulations, 2004, regulations 75 and 82 | $10,000 to $40,000 |
| 24 | Failure by an air operator to provide proper training for operations personnel | Civil Aviation [(No. 3)Air Operator Certification and Administration] Regulations, 2004, regulation 38(2) | $10,000 to $20,000 |
| 25 | Failure by an air operator to provide adequate instructions and procedures in the Operations Manual and Maintenance Control Manual | Civil Aviation [(No. 3)Air Operator Certification and Administration] Regulations, 2004, regulations 34 and 76 | $20,000 to $40,000 |
| 26 | Failure by an air operator to distribute manuals to appropriate personnel who require such manual for the performance of their duties | Civil Aviation [(No. 3)Air Operator Certification and Administration] Regulations, 2004, regulations 34 and 76 | $5,000 to $20,000 |
| 27 | Failure to make required entry in aircraft technical log | Civil Aviation [(No. 3)Air Operator Certification and Administration] Regulations, 2004, regulation 79(1) | $5,000 to $10,000 |
| 28 | Failure of an air operator to keep maintenance Records | Civil Aviation [(No. 3)Air Operator Certification and Administration] Regulations, 2004, regulations 79(2) and 80(2) | $10,000 to $40,000 |
| 29 | Improper release to service procedures by an air operator | Civil Aviation [(No. 3)Air Operator Certification and Administration] Regulations, 2004, regulations 82(1) and (2) | $5,000 to $40,000 |
| 30 | Operation without valid certificate of registration | Civil Aviation [(No. 4) Registration and Markings] Regulations, 2004, regulation 5 | $20,000 to $40,000 |
| 31 | Failure by an operator, organization or person to make timely reports to the authority of defects or unairworthy conditions of aircraft | Civil Aviation [(No. 5) Airworthiness] Regulations, 2004, regulation 22 | $20,000 to $40,000 |
| 32 | Operation without a valid airworthiness certificate | Civil Aviation [(No. 5) Airworthiness] Regulations, 2004, regulation 10 | $20,000 to $40,000 |
| 33 | Performance of maintenance without proper training | Civil Aviation [(No. 5) Airworthiness] Regulations, 2004, regulation 25(2) | $5,000 to $10,000 |
| 34 | Failure of an operator to comply with airworthiness directives | Civil Aviation [(No. 5) Airworthiness] Regulations, 2004, regulation 20(3) | $20,000 to $40,000 |
| 35 | Failure by an operator to promptly submit a report of each major modification or major repair to the authority | Civil Aviation [(No. 5) Airworthiness] Regulations, 2004, regulation 23(6) | $10,000 to $40,000 |
| 36 | Failure to revise aircraft data after repair | Civil Aviation [(No. 5) Airworthiness] Regulations, 2004, regulation 23(7) | $5,000 to $10,000 |
| 37 | Inspection of work performed and approval for return to service by other than a qualified inspector | Civil Aviation [(No. 5) Airworthiness] Regulations, 2004, regulation 26 | $5,000 to $40,000 |
| 38 | Improper return to service of an aircraft | Civil Aviation [(No. 5) Airworthiness] Regulations, 2004, regulations 31 and 32 | $5,000 to $10,000 |

*L.R.O.*

## SCHEDULE 1—*Continued*

| | | | |
|---|---|---|---|
| 39 | Release of aircraft without required equipment | Civil Aviation [(No. 5) Airworthiness] Regulations, 2004, regulation 32(d) | $5,000 to $10,000 |
| 40 | Failure to make required entry in aircraft technical log | Civil Aviation [(No. 5) Airworthiness] Regulations, 2004, regulation 34 IS 34 | $5,000 to $10,000 |
| 41 | Failure of person authorized to perform inspection to list discrepancies and un-airworthy items of an un-airworthy aircraft | Civil Aviation [(No. 5) Airworthiness] Regulations, 2004, regulation 36 | $5,000 to $10,000 |
| 42 | Operating as an approved maintenance organization without a valid AMO certificate | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulation 5 | $10,000 to $20,000 |
| 43 | Change of location, housing or facilities without advance written approval | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulation 11 | $20,000 |
| 44 | Failure to provide adequately for proper servicing, maintenance, repair and inspection of facilities and equipment | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulations 17 and 18 | $5,000 to $20,000 |
| 45 | Failure to ensure correct calibration of all inspection and test equipment is accomplished at prescribed intervals | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulations 18 and 36 | $5,000 to $40,000 |
| 46 | Inspection of work performed and approval for return to service by other than a qualified inspector | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulation 20 | $5,000 to $40,000 |
| 47 | Failure to provide adequate trained and experienced personnel who can perform, supervise and inspect work for which the station is rated | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulations 20 and 21 | $5,000 to $40,000 |
| 48 | Failure to have sufficient staff to plan, supervise, inspect, issue C of R and monitor the quality of activities performed | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulation 20(6) and 21 | $5,000 to $40,000 |
| 49 | Failure to maintain records of all certifying staff within an AMO | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulation 22 | $5,000 to $40,000 |
| 50 | Failure to maintain a quality assurance programme | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulation 26 | $5,000 to $20,000 |
| 51 | Performance of maintenance or modification by an AMO on an article not listed on its capability list | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulation 27 | $5,000 to $40,000 |
| 52 | Improperly returning aircraft to service | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulations 30 and 31 | $5,000 to $40,000 |
| 53 | Failure to maintain performance records and reports | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulation 31 | $5,000 to $40,000 |
| 54 | Maintaining or altering an article for which it is rated, without using required technical data, equipment or facilities | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulation 32 | $5,000 to $40,000 |
| 55 | Failure to permit the authority to inspect | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulation 35 | $10,000 to $20,000 |
| 56 | Failure to perform or properly perform maintenance, repairs, alterations, and required inspections | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulation 36 | $5,000 to $20,000 |
| 57 | Failure to report in a timely manner any identified condition that could present serious hazard | Civil Aviation [(No. 6) Approved Maintenance Organization ] Regulations, 2004, regulation 34 | $10,000 to $40,000 |

## SCHEDULE 1—*Continued*

| | | | |
|---|---|---|---|
| 58 | Operation without required instruments and/or equipment | Civil Aviation [(No. 7) Instruments and Equipment] Regulations, 2004, regulation 5(3) | $10,000 to $40,000 |
| 59 | Failure to comply with approved or current security programme | Civil Aviation [(No. 8) Aviation Security] Regulations, 2004, regulation 5 | $5,000 to $20,000 |
| 60 | Deliberate failure to maintain employee records | Civil Aviation [(No. 8) Aviation Security] Regulations, 2004, regulation 24(3) and 36 | $5,000 to $40,000 |
| 61 | Unauthorized access to aerodrome operations area | Civil Aviation [(No. 8) Aviation Security] Regulations, 2004, regulation 33 | $5,000 to $20,000 |
| 62 | Failure to properly screen baggage or each passenger | Civil Aviation [(No. 8) Aviation Security] Regulations, 2004, regulation 47 | $5,000 to $20,000 |
| 63 | Failure to comply with air operator security programme including failure to detect weapons, incendiary and other dangerous devices | Civil Aviation [(No. 8) Aviation Security] Regulations, 2004, regulation 47 | $5,000 to $20,000 |
| 64 | Failure to properly train | Civil Aviation [(No. 8) Aviation Security] Regulations, 2004, regulation 59 and 24(2)(b) | $5,000 to $20,000 |

*L.R.O.*

Regulation 4.

## SCHEDULE 2

REPUBLIC OF TRINIDAD AND TOBAGO

CIVIL AVIATION ACT

## NOTICE OF OPPORTUNITY TO PAY FIXED PECUNIARY PENALTY

Take Notice that the Director-General of the Trinidad and Tobago Civil Aviation Authority has reason to believe that you

.....
*(Name of airman or operator)*

of ……..……...……..……
*(Address of airman or operator)*

have committed an offence under the Civil Aviation Regulations made under section 33 of the Civil Aviation Act the particulars of which are provided hereunder…….....…
……
……
……

The fixed pecuniary penalty is ….....……....
*(Penalty in words and figures)*

If the aforementioned amount is paid to the Authority within twenty-one (21) days from the date of this notice, no proceedings will be taken and any liability to conviction for the offence will be discharged.

In paying the fixed pecuniary penalty the following conditions shall be observed:

*(a)* the fixed pecuniary penalty shall be accompanied by this Notice;

*(b)* where payment of the fixed pecuniary penalty is not made in conformity with these Regulations, the payment shall be refunded to the alleged offender and, thereafter, proceedings shall be instituted against the offender;

*(c)* where an alleged offender is convicted he shall be liable to a fine or term of imprisonment or both in accordance with the applicable provision of the Civil Aviation Act.

## SCHEDULE 2—*Continued*

## PARTICULARS OF OFFENCE

On ...……..……..…
……
……
……

Contrary to Regulation ……...……..….....
*(State provision contravened)*

……

……
*Director-General*

*L.R.O.*

# CIVIL AVIATION (TENDERS COMMITTEE) RULES

ARRANGEMENT OF RULES

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## CIVIL AVIATION (TENDERS COMMITTEE) RULES

307/2004.

*made under section 24(2)*

Citation.

**1.** These Rules may be cited as the Civil Aviation (Tenders Committee) Rules.

Interpretation.

**2.** In these Rules—

"Chairman" means the Chairman of the Committee unless otherwise stated;

"Committee" means the Tenders Committee of the Trinidad and Tobago Civil Aviation Authority appointed under rule 3(1) and charged with all matters relating to tenders;

"goods" means all goods, articles, materials, stores, vehicles, machinery, equipment and things of all kinds;

"Member" means a member of the Board of the Trinidad and Tobago Civil Aviation Authority;

"Minister" means a Minister to whom responsibility for the Trinidad and Tobago Civil Aviation Authority is assigned;

"Minister of Finance" means the Minister to whom responsibility for Finance is assigned;

"relative" means spouse, father, mother, brother, sister, son, daughter, son-in-law and daughter-in-law;

"secretary" means secretary to the Committee unless otherwise stated;

"services" includes consultancy services of all kinds; and

"works" means construction and maintenance of buildings, equipment and engineering works and works of all kinds.

Establishment and composition of Tenders Committee.

**3.** (1) There shall be a Tenders Committee (hereinafter called "the Committee") which shall comprise five members as follows:

*(a)* three members of the Board of the Authority, one of whom shall be appointed Chairman of the Committee by resolution of the Board;

*(b)* the Director-General or his designate; and

*(c)* the Executive Manager, Corporate Services.

(2) The Committee may co-opt one or more of the other members and officers of the Authority to attend meetings of the Committtee and any such co-opted member or officer may advise, but shall not vote on any matter at such meetings.

(3) Subject to rule 10(7) where the Committee proposes to award a contract, the value of which exceeds one million dollars, the Committee shall invite the Director of Contracts of the Central Tenders Board or his nominee or consultant to take part in the consideration or discussion of the award of that contract and to vote on the matter.

(4) The value of the contract mentioned in subrule (3) may be varied by resolution of the Board and with the written approval of the Minister.

(5) An officer of the Authority shall be appointed to act as Secretary to the Committee.

Establishment and composition of Management Tenders Committee.

**4.** There shall be a Management Tenders Committee (hereinafter called "the Management Committee") operating under contract procedures adopted by the Authority which shall comprise the Director-General or his designate who shall act as Chairman and any two of the following:

*(a)* Executive Manager, Corporate Services;

*(b)* Executive Manager, Safety Regulation; and

*(c)* Executive Manager, Air Navigation Services.

Functions of the Committee.

**5.** The Committee shall, in accordance with these Rules—

*(a)* act for the Authority in inviting and considering offers for the supply of goods or services or for the undertaking of works of all kinds necessary for carrying out the functions of the Authority;

*(b)* make recommendations to the Authority in acceptance or rejection of offers or tenders; and

*(c)* dispose of surplus or unserviceable goods belonging to the Authority.

Meetings of the Committee.

**6.** (1) The Committee shall meet as often as is necessary for the expedient transactioin of its business.

(2) The Secretary with the concurrence of the Chairman, shall fix the date, time and place for each meeting of the Committee.

(3) Except in such cases as may be determined by the Chairman, notices and agenda of meetings shall be circulated by the Secretary to members at least four days before the date fixed for such meetings.

(4) Meetings of the Committee shall be presided over by the Chairman and in the absence of the Chairman for any meeting or part thereof, the Committee may elect from among members present, a person to perform the functions of the Chairman.

(5) A member of the Committee who—

*(a)* is a member of a company or other body;

*(b)* is a partner in a firm or partnership;

*(c)* is employed by a company, other body, firm or partnership;

*(d)* has a financial interest in a company, other body, firm or partnership;

*(e)* is a relative of a person,

and who has submitted an offer for the supply or purchase of goods or for the undertaking of works or who has responded to a request for proposals which is the subject of consideration by the Committee shall disclose this fact and shall not take part in the consideration or discussion of, or vote on, any question relating to that offer.

(6) The members of the Committee are not precluded from placing offers for the purchase of surplus or unserviceable items so certified under rule 28 but the appropriate Tenders Committee is empowered to refuse to grant any award to the members, if in the opinion of the Committee, appearance of impropriety is likely to arise.

Quorum.

**7.** At any meeting of the Committee or for the purpose of voting on papers circulated, three members shall constitute a quorum.

Decisions of committee.

**8.** (1) Decisions of the Committee shall be taken at meetings, or in cases where the Chairman shall so direct, by the circulation of papers among the members.

(2) Where papers are circulated among members, the Chairman may direct that the papers shall not be circulated to any member, who through declared interest, is in the opinion of the Chairman, precluded from voting.

(3) Where papers are circulated among members for decision, any member of the Committee may request the Chairman to defer any matter or discussion for the next meeting of the Committee. The Committee shall then decide on the member's request.

(4) The decisions of the Committee shall be by a majority of votes and for that purpose the Chairman shall have both an original and a casting vote.

(5) Any member of the Committee who dissents from a decision may request the Secretary to record such dissent and the Secretary shall record such dissent and the reason therefor in the minutes.

Minutes of meetings.

**9.** (1) Minutes of each meeting of the Committee shall be—

*(a)* prepared in a form approved by the Committee;

*(b)* kept at the Authority's head office; and

*(c)* confirmed by the Committee and certified by the Chairman at the succeeding meeting.

(2) Copies of confirmed minutes of the Committee shall be submitted for consideration at meetings of the Board.

(3) Two copies of such minutes certified by the Chairman of the Board shall be forwarded to the Minister within one month of certification.

Purchasing procedures.

**10.** (1) The Authority shall issue purchase orders for the supply of goods or services or works to be undertaken where the value of such goods to be supplied or such services or works to

be undertaken, is less than fifty thousand dollars and the Authority shall not for the purpose of giving itself authority to act under this rule, subdivide the quantity of goods or services or works to be undertaken into two or more portions where the value of the subdivided portions falls within its financial authority, that is to say, fifty thousand dollars or less.

(2) Where action is taken by the Authority under subrule (1), the Director-General shall inform the Management Tenders Committee of such action.

(3) The Management Tenders Committee may act for the Committee by inviting offers and placing purchase orders where the value of the goods or services or works to be undertaken exceeds fifty thousand dollars but does not exceed two hundred thousand dollars, but the Management Tenders Committee shall not for the purpose of giving itself authority to act under this rule, subdivide the quantity of goods or services or works to be undertaken into two or more portions so that the value of the subdivided portions falls within its financial authority that is to say, two hundred thousand dollars or less.

(4) Where action is taken under subrule (3), the Management Tenders Committee shall inform the Committee of such action.

(5) The Committee may invite and consider offers and tenders and make decisions thereon where the value of the goods or services or works to be undertaken is more than two hundred thousand dollars and less than five hundred thousand dollars but, the Committee shall not for the purpose of giving itself authority to act under this rule, subdivide the quantity of the goods or services or works to be undertaken into two or more portions so that the value of the subdivided portions falls within its financial authority, that is to say, five hundred thousand dollars or less.

(6) Where action is taken under subrule (5), the Committee shall inform the Board of such action.

(7) The Committee may invite and consider offers and tenders where the value of the goods or services or works to be undertaken is more than five hundred thousand dollars but, the Committee shall not, for the purpose of giving itself authority to act under this rule, subdivide the quantity of the goods to be supplied or the services or works to be undertaken into two or more portions so that the value of the subdivided portions falls within its financial authority, that is to say, five hundred thousand dollars or less.

(8) After the evaluation of all offers for goods or services or works to be undertaken pursuant to subrule (7) is done in accordance with rule 23, the Committee shall make recommendation to the Board on the award of a contract for such goods or services or works to be undertaken and the Board shall make a decision by majority vote and the decision shall be recorded in the minutes of the meeting.

(9) The Authority and the Management Tenders Committee in the exercise of any functions under subrules (1) and (3), shall obtain a minimum of three offers for the goods or services or works to be undertaken, and the guidelines defined in rule 23 shall be used in evaluating such offers.

(10) The sums or values mentioned in subrules (1), (3), (5) and (7) may be varied by resolution of the Authority and subject to the approval of the Minister.

Cases of emergency.

**11.** (1) In cases of an emergency, where the supply of goods or services or works to be undertaken is necessary to prevent the disruption of essential services, the Chairman of the Authority or in his absence the Chairman of the Committee shall contact the other members of the Board and obtain approval in writing for any expenditure.

(2) The provisions of rule 7 shall apply *mutatis mutandis* to decisions taken under subrule (1).

(3) Where action is not practical under subrule (1) the Chairman of the Authority or in his absence the Chairman of the Committee shall be empowered to authorise sole tendering for

the purchase of any goods or services or works to be undertaken necessary for the expeditious handling of such emergency, and the total cost of such goods or services or works to be undertaken shall not exceed one hundred and fifty thousand dollars.

(4) Where action is taken under subrule (1), it shall be reported in writing to the Committee within twenty-four hours and the report shall contain a brief explanation of the emergency and actions taken to contact other Board members.

(5) The person ordering the goods or services under subrule (1) shall not sign for the receipt of the goods or services that is to say, the receiver must be another Director or an employee of the Authority.

(6) A confirmatory purchase order for the goods or services or works to be undertaken shall be issued by the Manager, Finance and Planning within forty-eight hours thereafter.

Exemptions from the operation of these Rules.

**12.** (1) At the discretion of the Committee and with the approval of the Chairman of the Authority the purchase of the goods or services by the Authority may be exempted from the operations of these Rules where there—

*(a)* is a limitation of sources of supply of goods or services;

*(b)* is an agency;

*(c)* is a sole distributorship;

*(d)* are goods or services which form part of a system already in use by the Authority; or

*(e)* are goods that are spares or replacement parts for other goods already in use by the Authority.

(2) The Committee shall report to the Board of any purchase made by the Authority under subrule (1).

Confidentiality of documents and information.

**13.** A person employed in the work of the Committee shall regard and deal with all documents and information relating to the functions of the Committee as confidential.

Invitation to tender.

**14.** (1) Where goods or services or works to be undertaken on behalf of the Authority are required, the Authority shall make a written request to the Committee to invite offers for the supply of such goods and services or works to be undertaken.

(2) A request under subrule (1) shall contain sufficient description of the goods or services or works to be undertaken.

(3) On receipt of a request under subrule (1), the Committee shall either—

*(a)* invite members of the public in general to make offers for the supply of such goods or services, or for an undertaking of such works as the case may be, by notice published in local printed press or in overseas printed press if circumstances so warrant; or

*(b)* subject to the approval of the Board of the Authority invite such bodies or persons as may be selected by the Committee to make offers for the supply of such goods or services or for an undertaking of such works, as the case may be, whenever the Committee considers it expedient or desirable to do so.

(4) The notices referred to in subrule (3)*(a)* shall be signed by a member of the Committee and shall contain—

*(a)* a sufficient description of the goods or services required or scope or works to be undertaken and shall whenever necessary also contain the place and time when additional information relating thereto can be obtained;

*(b)* the form or manner in which an offer is to be made;

*(c)* date of completion for work or services and the period of delivery for goods, if appropriate;

*(d)* the date and time within which an offer is to be made;

*(e)* the place and the manner in which the offer is to be submitted;

*(f)* a request for the submission of a Value Added Tax (VAT) Clearance Certificate, a Tax Clearance Certificate issued by the Board of Inland Revenue not more than six months old certifying that all obligations in respect of taxes administered by the said Board have been satisfied;

*(g)* where necessary, a Certificate of Environmental Clearance issued under the Environmental Management Act should be requested; Ch. 35:05.

*(h)* a request for payment of a non-refundable tender deposit where necessary;

*(i)* an indication of the form of security for performance, where necessary;

*(j)* the date, place and time for the public opening of the tenders; and

*(k)* any other essential matter.

(5) The notice described in subrule (4) shall be in such form as the Committee may determine.

Advertisement of offers on radio and television.

**15.** The Chairman may cause such advertisements in respect of offers for the supply of goods or services or for the undertaking of works to be made by radio or television or on the Internet as he may from time to time deem expedient.

Form of tender.

**16.** (1) The Committee may prepare and cause to be printed such forms or other documents as in its opinion are necessary and appropriate for the making of offers for the supply of goods or for the undertaking of works or any services.

(2) Offers for the supply of goods or for the undertaking of works or services may be made on the appropriate form supplied by the Committee in accordance with subrule (1) or when so directed by the Committee, by letter, and shall be signed by the person making the offer, or in the case of a company,

partnership or business firm by a duly authorised officer or employee of such company, partnership or business firm and shall be enclosed in a sealed envelope addressed to the Chairman.

(3) The following documents shall accompany every offer:

*(a)* a VAT Clearance Certificate;

*(b)* a Tax Clearance Certificate not more than six months old issued by the Board of Inland Revenue;

*(c)* an Environmental Management Authority's Certificate of Clearance when requested; and

*(d)* a Tender Deposit Receipt where applicable.

(4) Alterations or erasures in any offer submitted to the Committee shall be initialled by the person making the offer, or in the case of a company, partnership or business firm, by the authorised officer or employee of such company, partnership or business firm.

Tender deposit.

**17.** The Committee may require any person who is desirous of making an offer in response to a public notice to deposit with the Authority a sum in an amount to be fixed by the Committee before any offer is made.

Compliance with Rules.

**18.** The Committee may reject any offer that does not comply with the provisions of these Rules.

Tender boxes.

**19.** (1) The Authority shall keep at its head office specially constructed boxes in which all offers shall be placed. The boxes may also be kept in such other places which in the opinion of the Committee may be necessary for security or accessibility.

(2) Each box shall be marked with the words "Tenders Box" and shall conform to specifications that ensure security of the documents placed in the box.

(3) Each box shall be secured by two independent locks that control the opening of the box.

(4) The key for one of the locks under subrule (3) shall be kept by the Chairman of the Committee and the key for the other lock shall be kept by the Secretary of the Committee.

(5) The Chairman shall assign a box for the receipt of offers in respect of any matter up to the date and time fixed in the relevant notice and shall cause the box to be marked so that it can be readily identified by persons delivering offers.

(6) Each box shall be placed in a secured location accessible to the public during normal business hours.

Receipt of tenders.

**20.** A person making an offer to the Committee shall place the offer in a sealed envelope and shall deposit the envelope in the box before the closing date and time specified.

Opening of offers.

**21.** (1) The public shall be invited on the date and time fixed for the opening of offers in respect of any matter at which time the Chairman and the Secretary of the Committee shall unlock the box and remove the offers found therein.

(2) The Chairman or the Secretary of the Committee shall open the sealed envelopes and shall publicly announce the name of persons or organisations making the offer and the sums of money mentioned in the offer.

(3) Confirmation that all attendees heard the announcements, shall be obtained.

(4) A record of opening of all offers under subrule (1) shall be kept by the Secretary and where applicable it shall contain the following:

*(a)* the names of persons or firms making the offers;

*(b)* the sums of money mentioned in the offers;

*(c)* VAT Clearance Certificate;

*(d)* Tax Clearance Certificate issued by the Board of Inland Revenue certifying that all obligations in respect of taxes administered by the Board have been satisfied;

*(e)* Tender Deposit Receipt;

*(f)* an Environmental Management Authority's Certificate of Clearance; and

*(g)* such other information as the Committee may determine.

(5) Each Committee Member present shall—

*(a)* sign each offer when it is opened; and

*(b)* at the end of the opening exercise sign the record of opening.

Consideration of tenders.

**22.** (1) After all offers have been opened the Committee shall, at such times as may be deemed necessary or expedient, consider the offers so received.

(2) Subject to subrules (3) and (4), where there are no significant differences in the quality of goods or in the capacity of works or services undertaken between any tender, the lowest offer of best value shall be accepted by the Committee.

(3) Where the quality of goods differ between offers, the Committee in selecting which offer shall be accepted by the Authority shall set up an evaluation system to rate the suppliers or contractors taking into consideration the following information:

*(a)* price quoted;

*(b)* evidence of reliability of performance;

*(c)* any warranty or guarantee given;

*(d)* maintenance or repair service provided;

*(e)* compatibility with other goods, works or services used by the Authority;

*(f)* adequacy of stocks or spares held in Trinidad and Tobago by the person or company making the tender; and

*(g)* any matter related to the quality, reliability or adequacy of the goods.

(4) Where there is a significant difference in the capacity of persons or organisations making offers to supply goods or to undertake works or services for the Authority, the Committee shall take into account—

*(a)* price quoted;

*(b)* evidence of previous performance of similar works or services;

*(c)* any warranty or guarantee given;

*(d)* technical skills, adequacy of supporting staff, supporting financial and contractual arrangements available in Trinidad and Tobago to the persons or organisations making the offer;

*(e)* compatibility with other goods, works or services used by the Authority;

*(f)* government's policy with respect to locally made or processed items and locally offered services being given preference within the limits of reasonable economic operations; and

*(g)* any other matter related to the quality or adequacy of the supply of goods or the performance of the works or services in selecting which offer shall be acceptable by the Authority.

(5) The Committee may, in consideration of any offer—

*(a)* consult with any officer of the Authority's staff, or any officer of the Government or of a Statutory Body, or such other person or persons as the Committee in its discretion may consider proper and desirable;

*(b)* require any person or organisation who or which has made an offer to the Committee to attend a meeting of the Committee and to furnish the Committee within a specified time with such information with respect to that person's or organisation's finances, equipment or professional or technical qualifications as the

Committee may require or any other information that in the opinion of the Committee is necessary for the proper assessment of the offer and the person's or organisation's capacity to execute same;

*(c)* make inspections and arrange for the Chairman or another member of the Committee or an officer of the Authority to make inspection wherever the Committee considers it desirable so to do; and

*(d)* require samples to be submitted for test or examination.

Acceptance of offers.

**23.** (1) Where an offer has been accepted in respect of a contract above the sum of five million dollars an award shall not be made unless prior approval of the Minister with responsibility for finance is obtained.

(2) In seeking the approval of the Minister with responsibility for finance, the following information shall be provided:

*(a)* the form of invitation to tender, whether open or selective;

*(b)* the nature and specifications of the recommended contract;

*(c)* the duration of the contract;

*(d)* the names of all the tenderers and the respective bids made by these tenderers;

*(e)* the name of the recommended tenderer; and

*(f)* the rationale for the selection of the tenderer.

(3) Where an offer has been accepted in respect of a contract below the sum of five million dollars the following information must be provided:

*(a)* the form of invitation to tender, whether open or selective;

*(b)* the names of all tenderers and the bids made by these tenderers;

*(c)* the name of the successful tenderer or contractor;

*(d)* the value and duration of the proposed contract; and

*(e)* the rationale for the selection of the successful tenderer or contractor.

(4) A report of all contracts awarded below the sum of five million dollars shall be submitted to the Minister with responsibility for finance on a monthly basis, no later than seven days following the end of each month.

(5) After approval of the Minister with responsibility for finance is obtained in respect of a contract above the sum of five million dollars, the person submitting the offer shall be notified in writing by the Chairman of the acceptance of such offer, and the Chairman shall inform him that he is required to enter into a formal contract with the Authority.

(6) All unsuccessful tenderers shall also be informed of the outcome of their tender.

(7) Subject to rules 26 and 27, where an offer has been accepted by the Committee, the Authority and the person or organisation whose offer has been accepted shall enter into a formal contract, in appropriate cases for the supply of the goods or the undertaking of the works or services, as the case may be.

(8) A formal contract shall be in such form and contain such terms, conditions and provisions as the Authority may determine and shall specify, whenever applicable—

*(a)* a description of the goods or services or the works to be undertaken;

*(b)* the price to be paid for the supply of such goods or services or the undertaking of such works;

*(c)* a rate schedule or price list for any additional services or items that may be needed to handle any variation;

*(d)* the period within which the matters contemplated by the contract are to be performed;

*(e)* the amount of damages payable by the contractor for delay of non-completion within the period stipulated;

*(f)* provision for termination on breach;

*(g)* provisions for determination of disputes;

*(h)* a standard process to handle any variation to the original contract.

Contractor to provide security.

**24.** The Authority may require every person or organisation to whom a contract is awarded to provide security in such form and to such an extent as it may determine which may be in the form of a performance bond or retention sum.

Disqualification.

**25.** A person representing himself or an organisation whether that person has made an offer or not who, with the intention of gaining any advantage or concession for himself of any other person, offers any member of the Committee or officer of the Authority a gift of money or other thing or approaches any member of the Authority with respect to any other matter that is before the Committee or that is expected to come before the Committee shall be disqualified from being awarded a contract.

Prohibition from entering into contract.

**26.** A member of the Authority, a member of the staff of the Authority or the relative of any such person shall not enter into any contract for the supply of goods or the undertaking of any works or services for the Authority, and where a person joins the staff of the Authority after he or his relative has entered into a contract with the Authority, the Authority may terminate the contract upon such terms as the Committee may deem appropriate.

Disposal of surplus or unserviceable goods.

**27.** (1) The Authority may from time to time certify goods which are the property of the Authority as being no longer serviceable or as being surplus to its requirements and when goods are so certified the Authority shall report this fact to the Committee.

(2) The report shall contain a full description of the goods, the quality thereof and the places where the goods are stored.

(3) The Committee may sell and dispose of the unserviceable or surplus goods by public auction or may

adopt such other method of disposal as the Committee may consider proper or desirable.

(4) When surplus or unserviceable goods are being disposed of, the Secretary of the Authority shall nominate a member of the Authority's staff to attend and that nominated person shall submit a report in writing to the Committee.

(5) The Authority shall credit the proceeds of such sales less all expenses to the appropriate revenue item of the Authority's budget.

Tenders for office equipment.

**28.** When considering the purchase of—

*(a)* office machines;

*(b)* domestic appliances;

*(c)* furniture; and

*(d)* other supplies,

the Committee and the Authority may take note of annual contracts awarded for such goods by or on behalf of the Central Tenders Board.

International contracts.

**29.** Notwithstanding anything to the contrary in these Rules, contracts shall not be awarded to—

*(a)* non-residents;

*(b)* foreign companies; or

*(c)* partnerships,

unless the prior written approval of the Minister is obtained.

Applicability of the Central Tenders Board Act. Ch. 71:91.

**30.** With respect to any matter not expressly provided for in these Rules, the Committee may be guided by the provisions of the Central Tenders Board Act, as amended, from time to time, in so far as those provisions are not inconsistent with the directives and policies expressed or implied in these Rules.

Amendment to Rules.

**31.** The Board of the Authority may vary, rescind or amend these Rules by resolution of the Authority and with the written approval of the Minister.

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*L.R.O.*