LEGAL NOTICE NO. 84

REPUBLIC OF TRINIDAD AND TOBAGO

THE CIVIL AVIATION ACT, 2001

REGULATIONS

MADE BY THE AUTHORITY WITH THE APPROVAL OF THE MINISTER UNDER SECTION 33 OF THE CIVIL AVIATION ACT

THE CIVIL AVIATION [(NO. 2) OPERATIONS] (AMENDMENT) REGULATIONS, 2006

Citation

1. These Regulations may be cited as the Civil Aviation [(No. 2) Operations] (Amendment) Regulations, 2006.

Interpretation

2. In these Regulations—

"Act" means the Civil Aviation Act, 2001;

"Authority" means the Trinidad and Tobago Civil Aviation Authority established under the Act; No. 11 of 2001

"the Regulations" means the Civil Aviation [(No. 2) Operations] Regulations, 2004.

Regulation 2 amended

3. Regulation 2 of the Regulations is amended by—

(a) inserting in the appropriate alphabetical sequence the following definitions:

" "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;

"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;

"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;

"ground visibility" means the visibility at an aerodrome as reported by an accredited observer or by automatic systems;

"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 authorized by the aerodrome control tower;

"target level of safety'' means a generic term representing the level of risk which is considered acceptable in particular circumstances;

"total vertical error" means the geometric difference between the actual pressure altitude flown by an aircraft and its assigned pressure altitude (flight level);

"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 recognized 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;

(b) by deleting the definition of "day"; and

(c) inserting after the definition of "dangerous goods transport document" the following definition:

" "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;"

(d) deleting from the definition of "Flight Test Examiner" the words "approved Aviation" and substituting the words "Approved;".

Regulation 7A inserted

4. The Regulations are amended by inserting after regulation 7 the following new regulation:

"Electronic Navigation Data Management

Electronic Navigation data management

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.".

Regulation 34(1) amended

5. Regulation 34(1) of the Regulations is amended by inserting after paragraph *(h)*, the following new paragraph:

"(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.".

Regulation 35 amended

6. Regulation 35 of the Regulations is amended by inserting the after subregulation (3) the following new subregulation:

" (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.".

Regulation 41 amended

7. Regulation 41 of the Regulations is amended—

(a) by deleting the heading and substituting the following new heading:

"Pilot in Command and Co-Pilot Recency Requirements"

(b) in subregulation (1), by inserting after the words "pilot in command" the words "or co-pilot".

Regulation 50(1) amended

8. Regulation 50(1) of the Regulations is amended by inserting after the word "fitness" the words "for any cause".

Regulation 59(1) amended

9. Regulation 59(1) of the Regulations is amended—

(a) by deleting the word "or" at the end of paragraph *(b)*;

(b) in paragraph *(c),* by inserting after the words "permitted by" the words "the operator";

(c) by deleting the word "and" at the end of paragraph *(d)* and substituting the word "or".

Regulation 111(4) amended

10. Regulation 111(4) of the Regulations is amended by deleting the words "A single-engine" and substituting the words "Except as provided in regulation 118A a single-engine".

Regulation 118A inserted

11. The Regulations are amended by inserting after regulations 118 the following new regulation:

"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.

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.".

Regulation 143(1) amended

12. Regulation 143(1) of the Regulations is amended—

(a) in paragraph *(a),* by deleting subparagraph (ii) and substituting the following new subparagraph:

"(ii) a reduced vertical separation minimum (RVSM) of one thousand feet is applied between FL290 and FL410; or"

(b) by deleting paragraph *(b)*, and substituting the following new paragraph:

"*(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.".

13. The Regulations are amended by inserting after regulation 143 the following new regulation: Regulation 143A inserted

"Approval for Operations in Reduced Vertical Separation Minimum Airspace

Approved operation in vertical separation minimum airspace

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.

Regulation 149(2) deleted and substituted

14. Regulation 149(2) of the Regulations is deleted and the following substituted:

" (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

Regulation 152 amended

15. Regulation 152 of the Regulations is amended—

(a) in subregulation (1), by inserting after the words "Air Traffic Control Facility" the words "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"; and

(b) by inserting after subregulation (3), the following new subregulation:

" (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.".

Regulation 153(1) amended

16. Regulation 153(1) of the Regulations is amended by inserting after the words "Unless otherwise authorized" the words "by the appropriate air traffic services authority,".

Regulation 160 amended

17. Regulation 160 of the Regulations is amended by adding after subregulation (5) the following new subregulations:

" (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.".

Regulation 160A inserted

18. The Regulations are amended by inserting after regulation 160 the following new regulation:

"Technical and Servicing Communication Signals

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.

(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.".

Regulation 170 amended

19. Regulation 170 of the Regulations is amended—

(a) by deleting the heading above regulation 170 the words "Flight Rules" and substituting the words "Meteorological Conditions"; and

(b) by deleting regulation 170 of the Regulations and substituting the following regulation:

"Two-way radio communication failure in Visual Flight Rules

" 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.".

Regulation 188 deleted and substituted

20. Regulation 188 (including its heading) of the Regulations is deleted and the following substituted:

"Two-way Radio Communication Failure in Instrument Meteorological Conditions

Two-way Radio Communication failure in instrument Meteorological Conditions

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 RNAV 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.".

21. The Regulations are amended by inserting after regulation 224 the following new regulation: Regulation 224A inserted

"Single Pilot Operations Under the Instruments Flight Rules or at Night

Pilot operations under the instruments flight rules or at night

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 Regulatioins are complied with.".

22. Regulation 243 of the Regulations is amended by deleting subregulations (4) and (5). Regulation 243 amended

Regulation 256 amended

23. Regulation 256 of the Regulations is amended—

(a) by deleting the heading above the regulation and substituting the following new heading:

"Area, Route and Aerodrome Qualification for Pilot in Command"

(b) by deleting subregulation (5) and substituting the following subregulation:

" (5) A national air operator shall not continue to utilize 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."; and

(c) by deleting subregulation (6) and substituting the following:

" (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 practiced 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.".

Regulation 305 amended

24. Regulation 305 of the Regulations is amended by inserting after the words "33," the words "46(4), 46(5),".

Schedule 6 deleted and substituted

25. Schedule 6 of the Regulations is deleted and the following Schedule is substituted:

"SCHEDULE 6

(Regulation 118A)

Airworthiness and operational requirements referred to in 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 minimize 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;

(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;

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*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.

(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 pressurized 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 navigation 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 or 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.

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.

Schedule 7 of the Regulations is amended in paragraph (j) by deleting marshalling signals 1 through 20 and substituting the following marshalling signals:

Marshalling Signal No. 1	
	**1. Wingwalker/guide** Raise right hand above head level with wand pointing up; move left-hand wand pointing down toward body. *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** 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** 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** 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)** 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.

Marshalling Signal No. 5(b)	
	**5 b). Turn right (from pilot's point of view)** 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** Fully extend arms and wands at a 90-degree angle to sides and slowly move to above head until wands cross.
Marshalling Signal No. 6(b)	
	**6 b). Emergency stop** Abruptly extend arms and wands to top of head, crossing wands.

Marshalling Signal No. 7(a)	
	**7 a). Set brakes** Raise hand just above shoulder height with open palm. Ensuring eye contact with flight crew, close hand into a fist. **Do not** move until receipt of "thumbs up" acknowledgement from flight crew.
Marshalling Signal No. 7(b)	
	**7 b). Release brakes** Raise hand just above shoulder height with hand closed in a fist. Ensuring eye contact with flight crew, open palm. **Do not** move until receipt of "thumbs up" acknowledgement from flight crew.
Marshalling Signal No. 8(a)	
	**8 a). Chocks inserted** With arms and wands fully extended above head, move wands inward in a "jabbing" motion until wands touch. **Ensure** acknowledgement is received from flight crew.

Marshalling Signal No. 8(b)	
	**8 b). Chocks removed** With arms and wands fully extended above head, move wands outward in a "jabbing" motion. **Do not** remove chocks until authorized by flight crew.
Marshalling Signal No. 9	
	**9. Start engine(s)** 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** 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	
	**11. Slow down** 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** 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** 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).

Marshalling Signal No. 14(a)	
	**14 a). Turns while backing (for tail to starboard)** 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)** 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** Raise right arm to head level with wand pointing up or display hand with "thumbs up"; left arm remains at side by knee. *Note.— This signal is also used as a technical/ servicing communication signal.*

Marshalling Signal No. 14(a)	
	***16. Hover** Fully extend arms and wands at a 90-degree angle to sides.
Marshalling Signal No. 17	
	***17. Move upwards** 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** 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)** Extend arm horizontally at a 90-degree angle to right side of body. Move other arm in same direction in a sweeping motion.

Marshalling Signal No. 19(b)	
	***19 b). Move horizontally right (from pilot's point of view)** 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** Cross arms with wands downwards and in front of body.
Marshalling Signal No. 21	
	**21. Fire** 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** 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** 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)** Extend right arm fully above head and close fist or hold wand in horizontal position; left arm remains at side by knee.

Marshalling Signal No. 25	
	**25. Connect ground power (technical /servicing communication signal)** 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)** 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 authorized 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)** 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)** 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)** 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. *Note.— This signal is intended mainly for aircraft with the set of integral stairs at the front.*

Schedule 8 deleted and substituted

27. Schedule 8 of the Regulations is deleted and the following Schedule is substituted:

*Airspace and Visual Meteorological Condition Minima Table			
Altitude Band	**Airspace Class**	**Flight visibility**	**Distance from cloud**
At and above 3050 m (10 000 ft) AMSL	A*** BCDEFG	8 km	1 500 m horizontally 300m (1 000) ft vertically
Below 3050 m (10 000ft) and above 900 m (3 000ft) AMSL, or above 300 m (1 000ft) above terrain, whichever is the higher	A*** BCDEFG	5 km	1 500 m horizontally 300m (1 000) ft vertically
At and below 900 m (3000ft) AMSL, or 300 m (1 000ft) above terrain, whichever is the higher	A***BCDE	5 km	1 500 m horizontally 300m (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 1500 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.”.

28. Schedule 12 of the Regulations is amended— Schedule 12 amended

(a) by inserting after the Implementing Standard for Regulation 33, the following new Implementing Standards:

"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 organization 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)*.";

(b) by deleting the Implementing Standard for Regulation 50 including the heading and substituting the following:

"Regulations 46(4), 46(5) and 50

The fitness of flightcrew members under regulations 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 regulations 46(4), 46(5) or 50, and upon the request of the Authority, that person shall furnish the Authority or authorize 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.";

(c) by inserting after the Implementing Standard for regulation 143 the following new Implementing Standards:

"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 built 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 28-0.013z2 for 0 5z z25 when z is the magnitude of the mean TVE in metres, or 92 – 0.004z2 for 0 z 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 differences 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.";

(d) by inserting after the Implementing Standard for Regulation 219, the following Implementing Standard:

"Regulation 224

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 a 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 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.".

Made by the Authority this 14th day of March, 2006.

R. LUTCHMEDIAL
Civil Aviation Authority

Approved by the Minister of Works and Transport.

C. IMBERT
Minister of Works and Transport

Laid in the House of Representatives this day of , 2006.

Clerk of the House

Laid in the Senate this day of , 2006.

Clerk of the Senate

PRINTED BY THE GOVERNMENT PRINTER, PORT-OF-SPAIN
REPUBLIC OF TRINIDAD AND TOBAGO—2006