

## TENTH SCHEDULE (Regulations 21, 44, 45, 51-59, 66 and 67)

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## SUBPART A: GENERAL

## 10.001 APPLICABILITY

- (a) This Schedule prescribes the requirements for -
  - (1) operations conducted by airman certified in Jamaica while operating aircraft registered in Jamaica;
  - (2) operations of foreign registered aircraft by Jamaica AOC holders;
  - (3) operations of aircraft within Jamaica by airman or AOC holders of a foreign State.
- (b) For operations outside of Jamaica, all Jamaica pilots and operators shall comply with these requirements unless compliance would result in a violation of the laws of the foreign State in which the operation is conducted.

*(Note: Where a particular requirement is applicable only to a particular segment of aviation operations, it will be identified by a reference to those particular operations, such as "commercial air transport" or "small non-turbojet or turbofan aeroplanes.")*

## 10.005 DEFINITIONS

For the purpose of this Schedule, the following definitions shall apply -

- (1) "Advanced Ultra Light Aeroplane". An aeroplane that has a type design that is in compliance with the standards specified in the Transport Canada manual entitled *Design*

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*Standards for Advanced Ultra-light Aeroplanes*, or an equivalent document published by the United States Federal Aviation Administration, or by the European Aviation Safety Agency or one of its member states.

- (2) **"Advisory airspace"**. An airspace of defined dimensions, or designated route, within which air traffic advisory service is available;
- (3) **"Air navigation facility"**. Any facility used in, available for use in, or designed for use in aid of air navigation, including aerodromes, landing areas, lights, any apparatus or equipment for disseminating weather information, 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;
- (4) **"Basic ultra-light aeroplane"**.
  - (i) a single-seat aeroplane that has a launch weight of 165 kg (363.8 lbs) or less, and a wing area, expressed in square metres, of not less than the launch weight minus 15, divided by 10, and in no case less than 10 m<sup>2</sup>;
  - (ii) a two-seat instructional aeroplane that has a launch weight of 195 kg (429.9 lbs) or less and a wing area, expressed in square metres, of not less than 10 m<sup>2</sup> and a wing loading of not more than 25 kg/m<sup>2</sup> (5.12 lbs/ft<sup>2</sup>), the wing loading being calculated using the launch weight plus the occupant weight of 80 kg (176.4 lbs) per person; or
  - (iii) an aeroplane having no more than two seats, designed and manufactured to have a maximum take-off weight of 544 kg and a stall speed in the landing configuration ( $V_{so}$ ) of 39 knots (45 mph) or less indicated airspeed at the maximum take-off weight.
- (5) **"Controlled flight"**. Any flight which is subject to an air traffic control clearance;
- (6) **"Controlling RVR"**. The reported values of one or more RVR reporting locations (touchdown, mid-point and stop-end) used to determine whether operating minima are or are not met;
- (7) **"Critical engine"**. The engine whose failure would most adversely affect the performance or handling qualities of an aircraft;
- (8) **"Critical phases of flight"**. Those portions of operations involving taxiing, takeoff and landing, and all flight operations below 10,000 feet, except cruise flight;
- (9) **"Expires on"**. The licence/certificate, rating or check expires at 2400 hours on the day noted on the licence/certificate. For example, an Instrument Rating with an "expiry date" of January 31, 2005 would no longer be valid past midnight on January 31, 2005;
- (10) **"Extended overwater operation"**. With respect to aircraft other than helicopters, an operation over water at a horizontal distance of more than 50 nm from the nearest shoreline; and to helicopters, an operation over water at a horizontal distance of more than 50 nm from the nearest shoreline and more than 50 nm from an offshore heliport structure;
- (11) **"Flight plan"**. Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft. The term "flight plan" is used to 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 or to take off from, or to land at a controlled aerodrome;
- (12) **"General aviation operation"**. An aircraft operation other than a commercial air transport operation or an aerial work operation;
- (13) **"Helideck"**. A heliport located on a floating or fixed offshore structure;
- (14) **"Heliport"**. 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;
- (15) **"Journey log"**. A form signed by the PIC of each flight that records the aircraft's registration, crewmember names and duty assignments, the type of flight and the date, place and time of arrival and departure;

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- (16) **"Master minimum equipment list" (MMEL).** A list established for a particular aircraft type by the manufacturer 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. The MMEL may be associated with special operating conditions, limitations or procedures. The MMEL provides the basis for development, review and approval by the Authority of an individual operator's MEL;
- (17) **"Operational flight plan".** The operator's plan for the safe conduct of the 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;
- (18) **"Personal possession".** The use of this phrase indicates that a document, manual or piece of equipment shall be contained upon the person or readily assessable at the crewmember's station during the exercise of the licence privileges;
- (19) **"Valid to".** The licence/certificate, rating or check expires at 0000 hours local on the day noted on the licence/certificate. For example, an Instrument Rating valid to February 1, 2005 would no longer be valid past midnight on January 31, 2005. "Valid to" with respect to training is applied in the same manner;

**10.010 ACRONYMS**

The following acronyms are used in this Schedule -

- (1) AFM – Aircraft Flight Manual;
- (2) AGL – Above Ground Level;
- (3) AIP – Aeronautical Information Publication;
- (4) AOC – Air Operator Certificate;
- (5) AOM – Aircraft Operating Manual;
- (6) ATC – Air Traffic Control;
- (7) CAT – Category;
- (8) CCP – Company Check Pilot;
- (9) CG – Centre of Gravity;
- (10) CDL – Configuration Deviation List;
- (11) DFTE – Designated Flight Test Examiner;
- (12) DH – Decision Height;
- (13) ETA – Estimated Time of Arrival;
- (14) ETOPS – Extended Twin-engine Operations;
- (15) FA – Aerodrome Forecast;
- (16) FL – Flight Level;
- (17) GPS – Global Positioning System;
- (18) IMC – Instrument Meteorological Conditions;
- (19) LOC – Localizer;
- (20) LVTO – Low Visibility Take Off;
- (21) MDA – Minimum Descent Altitude;
- (22) MEA – Minimum Enroute Altitude;
- (23) MEL – Minimum Equipment List;
- (24) MMEL – Master Minimum Equipment List;
- (25) MNPSA – Minimum Navigation Performance Specifications Airspace;
- (26) MOCA – Minimum Obstruction Clearance Altitude;
- (27) MSL – Mean Sea Level;
- (28) NM – Nautical Mile;
- (29) NOTAM – Notice to Airmen;
- (30) OFP – Operational Flight Plan;
- (31) OTT – Over-the-Top;
- (32) RFM – Rotorcraft Flight Manual;
- (33) RVR – Runway Visibility Range;

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- (34) RVSM – Reduced Vertical Separation Minimum;
- (35) PBE – Protective Breathing Equipment;
- (36) PIC – Pilot-in-command;
- (37) SIC – Second-in-command;
- (38) SCA – Senior Cabin Attendant;
- (39) SM – Statute Miles;
- (40) TAF – Area Forecast;
- (41) VMC – Visual Meteorological Conditions;
- (42) VSM – Vertical Separation Minimum.

**SUBPART B: AIRCRAFT REQUIREMENTS****10.015 REGISTRATION MARKINGS**

- (a) No person may operate a Jamaica-registered aircraft unless it displays the proper markings prescribed in the Third Schedule.
- (b) No person may operate an aircraft in Jamaica unless it displays registration markings in accordance with ICAO Annex 7.

**10.017 OPERATION OF FOREIGN REGISTERED AIRCRAFT IN JAMAICA**

- (a) No person may operate a foreign registered aircraft between points within Jamaica for the purposes of commercial air transport unless that person is the holder of a Jamaican AOC.
- (b) No person may operate a foreign registered aircraft in Jamaica for other than commercial air transport operations for more than 30 days in any calendar year unless approved by the Authority. An application for such approval shall be made in writing and contain the following information –
  - (1) aircraft registration number;
  - (2) aircraft make, model and series;
  - (3) aircraft serial number;
  - (4) airport where the aircraft is based;
  - (5) operator name, address and telephone contact numbers;
  - (6) a current copy of the aircraft insurance papers;
  - (7) a current copy of the aircraft Certificate of Airworthiness; and
  - (8) a current copy of the aircraft Certificate of Registration.

**10.020 CIVIL AIRCRAFT AIRWORTHINESS**

- (a) No person may operate a civil aircraft unless it is in an airworthy condition.
- (b) Each PIC shall determine whether an aircraft is in a condition for safe flight before takeoff.
- (c) The PIC shall discontinue a flight as soon as practicable when any mechanical, electrical or structural condition occurs that would make the aircraft un-airworthy.

**10.022 FLIGHT PERMIT OPERATIONAL RESTRICTIONS**

No person may operate an aircraft with a flight permit except as provided in the limitations issued with that permit.

**10.030 AIRCRAFT INSTRUMENTS AND EQUIPMENT**

No person may operate an aircraft unless it is equipped with the instruments and equipment requirements of the Seventh Schedule appropriate to the type of flight operation conducted and the route being flown.

**10.035 INOPERATIVE INSTRUMENTS AND EQUIPMENT**

- (a) No person may operate an aircraft with inoperative instruments or equipment installed, except as authorized by the Authority.



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- (b) No person may take off in a multi-engine aircraft with inoperative instruments and equipment installed unless the following conditions are met –
  - (1) an approved Minimum Equipment List (MEL) exists for that aircraft;
  - (2) for commercial air transport operations, the Authority has approved the MEL for use for the specific aircraft and AOC holder;
  - (3) the approved MEL must –
    - (i) be prepared in accordance with the limitations specified in paragraph (c) of this Subsection; and
    - (ii) provide for the operation of the aircraft with certain instruments and equipment in an inoperative condition;
  - (4) records identifying the inoperative instruments and equipment and the information shall be available to the pilot; and
  - (5) the aircraft is operated under all applicable conditions and limitations contained in the MEL.
- (c) The following instruments and equipment may not be included in the MEL –
  - (1) instruments and equipment that are either specifically or otherwise required by the airworthiness requirements under which the aircraft is type certificated and which are essential for safe operations under all operating conditions;
  - (2) instruments and equipment required by an Airworthiness Directive to be in operable condition unless the Airworthiness Directive provides otherwise; and
  - (3) Instruments and equipment required for specific operations under the Seventh, Tenth, Eleventh and/or Twelfth Schedules.
- (d) An aircraft with inoperative required instruments or equipment may be operated only under a special flight permit issued by the Authority under the Fifth Schedule.
- (e) For operations with foreign registered aircraft using a MEL approved by the Authority, a Jamaican AOC holder shall ensure the MEL does not contravene any airworthiness requirements applicable in the State of Registry.

*(See Appendix 1 to 10.035 for specific limitation on inoperative instruments and equipment.)*

**10.040 CIVIL AIRCRAFT FLIGHT MANUAL, MARKING AND PLACARD REQUIREMENTS**

- (a) No person may operate a civil aircraft unless there is available in the aircraft -
  - (1) a current, approved AFM or RFM; or
  - (2) an AOM approved by the Authority for the AOC holder;
  - (3) if no AFM or RFM exists, approved manual material, markings and placards, or any combination thereof which provide the PIC with the necessary limitations for safe operation.
- (b) This information may be displayed in the aircraft in the form of placards, listings, instrument markings or combination thereof, containing those operating limitations prescribed by the certifying authority for the aircraft's State of Registry for visual presentation.
- (c) Each person operating a civil aircraft shall cause the AFM or RFM to be updated by implementing changes made mandatory by the State of Registry.

**10.045 REQUIRED AIRCRAFT AND EQUIPMENT INSPECTIONS**

- (a) Unless otherwise authorized by the Authority, no person may operate a Jamaica civil aircraft unless it has been inspected as per an approved maintenance programme and an entry certifying the completion of the last scheduled inspection has been made in the aircraft technical logbook carried on board the aircraft by an AME qualified to do so.
- (b) The requirements for these inspections are contained in the Fifth Schedule.

**10.050 DOCUMENTS TO BE CARRIED ON AIRCRAFT: ALL OPERATIONS**

No person may operate a civil aircraft unless it has within it the current and approved documents appropriate to the operations to be conducted -

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- (1) properly displayed registration certificate issued to the owner;
- (2) properly displayed Certificate of Airworthiness;
- (3) proof of insurance;
- (4) AFM or RFM;
- (5) normal, abnormal and emergency checklists;
- (6) for aircraft operating internationally, an aircraft radio licence;
- (7) aircraft journey log and aircraft technical log, if separate;
- (8) pilot operating handbook (or aircraft operating manual);
- (9) performance and mass and balance tables or graphs;
- (10) current and suitable charts for –
  - (i) the route and aerodromes of the proposed flight, and
  - (ii) all routes and aerodromes along which it is reasonable to expect that the flight may be diverted; and
- (11) air-ground signals for search and rescue.

**10.051 ADDITIONAL DOCUMENTS APPLICABLE TO INTERNATIONAL FLIGHTS**

No person may operate a civil aircraft for flights across international borders unless it has within it the additional documents necessary for such flights, including —

- (1) a general declaration for customs;
- (2) a list of passenger names and points of embarkation and destination, if applicable;
- (3) the procedures and signals relating to interception of aircraft;
- (4) a Noise Certificate, if required; and
- (5) any other documentation that may be required by the Authority or States concerned with a proposed flight.

*(Note: The noise certificate shall state the standards in ICAO Annex 16, Volume 1. The statement may be contained in any document, carried on board, approved by the Authority.)*

**10.055 ADDITIONAL DOCUMENT REQUIREMENTS: COMMERCIAL AIR TRANSPORT**

No person may operate a civil aircraft in commercial air transport unless the following current and approved documents must be carried on board the aircraft during those operations —

- (1) Aircraft Load Manifest.;
- (2) Operational Flight Plan;
- (3) NOTAMS briefing documentation applicable for the route to be flown and any possible diversions;
- (4) Meteorological information sufficient for the route of flight and any possible diversions;
- (5) Filed ATC flight plan;
- (6) Part(s) of the AOC holder's operations manual relevant to operation(s) conducted;
- (7) Aircraft Operating Manual acceptable to the State of the Operator;
- (8) MEL approved by the State of the Operator;
- (9) Air Operator Certificate, if required;
- (10) Except for aircraft operated by a single pilot, a bomb search checklist;
- (11) Least risk location instructions in the event a bomb is found; and
- (12) Forms for complying with the reporting requirements of the Authority and the AOC holder.

**SUBPART C: FLIGHT CREW REQUIREMENTS****10.060 COMPOSITION OF THE FLIGHT CREW**

- (a) The number and composition of the flight crew may not be less than that specified in the flight manual or other documents associated with the Certificate of Airworthiness.
- (b) A SIC is required for multi-engine, IFR commercial air transport operations, unless otherwise approved by the Authority as provided in Subsection 10.481.

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- (c) The flight crews shall include flight crewmembers in addition to the minimum numbers specified in the flight manual or other documents associated with the Certificate of Airworthiness when necessitated by considerations related to the type of aircraft used, the type of operations and duties involved and the duration of flight between points where flight crews are exchanged.

**10.062 AIRMAN: LIMITATIONS ON USE OF SERVICES**

- (a) No person may operate a civil aircraft in aerial work unless that person is qualified for the specific operation and in the specific type of aircraft used.
- (b) No person may serve as an airman, nor may any person use an airman in commercial air transport unless that person is qualified for the operations for which they are to be used in accordance with the Fourteenth Schedule.

**10.065 FLIGHT CREW LICENCES REQUIRED**

- (a) No person may act as PIC or in any other capacity as a required flight crewmember of a civil aircraft of—
- (1) Jamaican registry, unless he or she carries in their personal possession the appropriate and current Jamaican pilot licence or foreign pilot licence validation for that flight crew position for that type of aircraft and a valid medical certificate.
  - (2) Foreign registry, unless he or she carries in their personal possession a valid and current pilot licence for that type of aircraft issued to them by the State in which the aircraft is registered and a valid medical certificate.
- (b) No person may act as a flight crewmember of a foreign registered aircraft operated by a Jamaica AOC holder unless, in addition to paragraph (a) (2) of this Subsection, they have been issued and carry in their personal possession a Jamaican pilot licence or Jamaican pilot licence validation for the category, class and type of aircraft.

**10.066 NOTIFICATION OF CHANGE OF ADDRESS TO LICENCE**

No person may exercise the privileges of an airman licence issued by Jamaica for more than 30 days after they have changed their official mailing address unless they have provided written notification of the following information to the Authority -

- (1) full name;
- (2) pilot licence number;
- (3) street Address, house number and PO box number
- (4) city or town (for a Jamaica address);
- (5) city, State, Postal Code and Country (for a foreign address); and
- (6) telephone number (including Country codes).

**10.068 RADIO OPERATOR LICENCE**

Each pilot operating an aircraft shall hold a valid Radio Operator Licence or endorsement, issued or rendered valid by the State of Registry, authorizing operation of the type of radio transmitting equipment to be used.

**10.070 MEDICAL CERTIFICATE REQUIRED**

- (a) No person may serve as an airman nor may any person use an airman unless that person has in their personal possession a valid airman Medical Certificate, and abides by any included conditions, restrictions or limitations.
- (b) Except as provided in paragraph (d) of this Subsection, this person shall hold a --
- (1) Class 1 Medical Certificate to exercise flight crewmember privileges other than those for private or student pilot.
  - (2) Class 2 Medical Certificate to exercise private or student pilot privileges.
- (c). A Medical Certificate is valid to the first day of the month following the date of the medical examination plus --

TENTH SCHEDULE, *contd.*

- (1) 12 calendar months – for operations requiring airline transport pilot privileges unless the holder is 40 years of age or older and is engaged in single-crew commercial air transport operations carrying passengers, in which case the validity is for 6 months;
  - (2) 12 calendar months – for operations requiring commercial pilot privileges except for glider and balloon pilots;
  - (3) 12 calendar months – for operations requiring flight engineer privileges; and
  - (4) 60 calendar months – for operations requiring private or student pilot privileges and for glider and balloon pilots unless the holder is 40 years of age or older, in which case the validity is for 24 months or unless the holder is 50 years of age or older, in which case the validity is for 12 months.
- (d) A person is not required to hold a current and appropriate Medical Certificate if that person -
- (1) is exercising the privileges of a Student Pilot Licence while seeking a pilot licence with a glider category rating or balloon class rating;
  - (2) is exercising the privileges of a Flight Instructor rating, provided the Flight Instructor is not acting as PIC or as a required crewmember;
  - (3) 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;
  - (4) 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
  - (5) is taking a test or check for a licence, rating or authorization, not involving flight in an aircraft, conducted under an approved course by an ATO.

**10.075 FLIGHT CREW QUALIFICATIONS**

- (a) The PIC and, where applicable, the AOC holder shall ensure that the licences of each flight crewmember have been issued or rendered valid by the State of Registry, contain the appropriate category, class and type ratings and that all that the flight crewmembers are in conformance with the recency of experience requirements of this Schedule.
- (Note: The category and class ratings are identified in the Eighth Schedule, Subsection 8.025.)*
- (b) No person may operate or perform duties in a civil aircraft who requires a licence unless the licence authorizing the privileges to conduct that operation were issued in accordance with the specifications of the Eighth Schedule of the Civil Aviation Regulations and/or, where applicable, the Standards of Annex 1 of the International Civil Aviation Organization.

**10.080 CATEGORY, CLASS AND TYPE RATING REQUIRED**

- (a) No person may act as a required pilot of an aircraft unless that person holds the appropriate category, class and type rating (if a class rating and type rating is required) for the aircraft to be flown, except where the pilot —
- (1) 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 a rated Flight Instructor; or
  - (2) Has received training required by these Schedules that is appropriate to the aircraft category, class and type rating (if a class or type rating is required) for the aircraft to be flown and has received the required endorsements from an approved Company Check Pilot or Designated Flight Test Examiner.
- (b) A pilot may not act as a required pilot of an aircraft that is carrying another person, or is operated for remuneration or hire, unless that pilot holds a category, class and type rating (if a class and type rating is required) that applies to the aircraft.

**10.082 WHEN AIRCRAFT TYPE RATING IS REQUIRED**

- (a) Except as provided in paragraph (b) of this Subsection, no person may operate any of the following civil aircraft unless that person's licence has been endorsed for the aircraft type —
- (1) large aeroplanes, other than lighter-than-air;

TENTH SCHEDULE, *contd.*

- (2) all helicopters;
  - (3) aircraft certified for at least two pilots;
  - (4) high performance aircraft; and
  - (5) any aircraft considered necessary by the Authority.
- (b) The Authority may authorise a pilot to operate an aircraft requiring a type rating without a type rating for up to 60 days, provided -
- (1) the Authority has determined that an equivalent level of safety can be achieved through the operating limitations on the authorization;
  - (2) the operations -
    - (i) involve only a ferry flight, training flight, test flight, or practical test for a pilot licence or rating;
    - (ii) are within Jamaica, unless, by previous agreement with the Authority, the aircraft is flown to an adjacent contracting State for maintenance;
    - (iii) are not for compensation or hire unless the compensation or hire involves payment for the use of the aircraft for training or taking a practical test; and
    - (iv) involve only the carriage of flight crewmembers considered essential for the flight.
  - (3) if the purpose of the authorization provided by paragraph (b) of this Subsection cannot be accomplished within the time limit of the authorization, the Authority may authorize an additional period of up to 60 days.

**10.085 INSTRUMENT RATING REQUIRED**

No person may operate a civil aircraft as the PIC or SIC in the following situations unless that person's pilot licence has been endorsed with an IR for the category, class and, if required, type of aircraft -

- (1) in flight conditions where the proximity to clouds and minimum visibility is less than those prescribed for VFR (Visual Flight Rules);
- (2) in IMC (instrument meteorological conditions); or
- (3) on an ATS clearance for operations in accordance with IFR (Instrument Flight Rules).

**10.086 NIGHT RATING REQUIRED**

No person may operate an aircraft as the PIC or SIC, as applicable, at night unless that person's licence has been endorsed with a night rating.

**10.087 SPECIAL AUTHORIZATION REQUIRED FOR CATEGORY II/III OPERATIONS**

- (a) Except as provided in paragraph (b) of this Subsection, no person may act as a pilot crewmember of a civil aircraft in a Category II/III operation unless -
- (1) in the case of a PIC, he or she holds a current Category II or III pilot authorization for that type aircraft; or
  - (2) in the case of an SIC, he or she is authorized by the State of Registry to act as SIC in that aircraft in Category II/III operations.
- (b) An authorization is not required for individual pilots of an AOC holder that has Operations Specifications approving Category II or III operations.

**10.090 ADDITIONAL TRAINING REQUIREMENTS FOR FLIGHT CREWMEMBERS**

- (a) No person may act as a pilot of a general aviation aircraft unless, within the preceding 3 years, that person has received flight training from a licensed Flight Instructor and has been found competent in the operation of that aircraft. The instructor shall certify the competence in the pilot's logbook.
- (b) No person may act as PIC of a tailwheel aeroplane unless that person has -
- (1) received and logged flight training from a rated Flight Instructor in a tailwheel aeroplane on the manoeuvres and procedures prescribed by the Authority, and
  - (2) received an endorsement in the person's logbook from a rated Flight Instructor who found the person proficient in the operation of a tailwheel aeroplane, to include at least normal

TENTH SCHEDULE, *contd.*

and crosswind takeoffs and landings, wheel landings (unless the manufacturer has recommended against such landings) and go-around procedures.

*(Note: The training and endorsement required by this Subsection is not required if the person logged PIC time in a tailwheel aeroplane before October 1, 2004.)*

**10.100 PILOT LOGBOOKS**

- (a) Each pilot shall show the aeronautical training and experience used to meet the requirements for a licence or rating, or recency of experience, by a reliable record.
- (b) A student pilot shall carry his or her logbook, including the proper flight instructor endorsements, on all solo cross-country flights.
- (c) Upon the request of an authorized representative of the Authority or a law enforcement officer, the pilot shall provide their logbook to that person.

**10.101 CONTENTS OF PILOT LOGBOOK**

Each person shall enter the following information for each flight or lesson logged -

- (1) general -
  - (i) date.
  - (ii) total flight time.
  - (iii) 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.
  - (iv) type and identification of aircraft, approved flight simulator or approved flight training device, as appropriate.
  - (v) the name of a safety pilot, if required.
- (2) type of pilot experience or training -
  - (i) solo.
  - (ii) PIC.
  - (iii) SIC.
  - (iv) flight and ground training received from a rated Flight Instructor.
  - (v) training received in an approved flight simulator or approved flight training device from a rated instructor.
- (3) conditions of flight -
  - (i) day or night.
  - (ii) actual instrument.
  - (iii) simulated instrument conditions in flight, an approved flight simulator or an approved flight training device.

**10.102 LOGGING OF FLIGHT TIME AND TRAINING**

- (a) Logging of pilot time. The pilot time described in this Subsection may be used to -
  - (1) apply for a licence or rating issued under the Eighth Schedule; or
  - (2) satisfy the recent flight experience requirements of the Tenth, Eleventh or Fourteenth Schedule.
- (b) Logging of solo flight time: Except for a student pilot acting as PIC 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.
- (c) Logging PIC flight time -
  - (1) a private or commercial pilot may log PIC time only for that flight time during which that person is -
    - (i) the sole manipulator of the controls of an aircraft for which the pilot is rated; or

TENTH SCHEDULE, *contd.*

- (ii) acting as PIC of an aircraft on which more than one pilot is required under the type certification of the aircraft or the requirements under which the flight is conducted; or
  - (iii) performing the duties of PIC under the supervision of a check airman designated by the Authority, or
  - (iv) a sole occupant.
- (2) a qualified airline transport pilot may log as PIC time all of the flight time while acting as PIC of an operation requiring an Airline Transport Pilot Licence;
- (3) an authorized instructor may log as PIC time all flight time while acting as a rated Flight Instructor;
- (Note: An authorized instructor includes a rated Flight Instructor or an instructor providing training under the auspices of an AOC holder's approved training programme.)*
- (4) a type-qualified pilot may log as PIC time all flight time while acting as the PIC for the purpose of a PIC evaluation;
- (5) an approved CCP or DFTE may log as PIC time all flight time while occupying an aircrew seat and is acting as a flight crewmember or a safety pilot for a flight test, provided he/she is in possession of a valid licence in the category, class, and if necessary, is endorsed with an appropriate type rating for the aircraft in which the flight test is being conducted;
- (6) a commercial pilot may log as PIC time that period of flight time while, as a SIC, he/she is undergoing pilot-in-command under supervision training subject to the following conditions—
- (i) the flight time accumulated under this programme may only be credited towards an ATPL; and
  - (ii) not more than one hundred and fifty (150) hours of the PIC under supervision flight time accumulated may be credited as PIC flight time; and
- (See Appendix 1 to 10.102 for specific requirements pertaining to PIC under supervision.)*
- (7) a student pilot may log PIC time when the student pilot is the sole occupant of the aircraft or is performing the functions of the PIC of an airship requiring more than one flight crewmember.
- (d) Logging SIC flight time: A person may log SIC flight time only for that flight time during which that person -
- (1) is qualified in accordance with the requirements of this Schedule for SIC and occupies a crewmember station in an aircraft that requires more than one pilot by the aircraft's type certificate; or
  - (2) holds the appropriate category, class and IR (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 schedule under which the flight is being conducted.
- (e) Logging instrument flight time -
- (1) 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.
  - (2) a rated Flight Instructor may log instrument flight time when conducting instrument flight instruction in actual instrument flight conditions.
  - (3) for the purposes of logging instrument flight time to meet the recency of instrument experience requirements, 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.
  - (4) an approved flight simulator or approved flight training device may be used by a person to log instrument flight time, provided an authorized instructor is present during the simulated flight.

TENTH SCHEDULE, *contd.*

- (f) Logging training time.
- (1) a person may log training time when that person receives training from an authorized flight instructor in an aircraft, approved flight simulator or approved flight training device.
  - (2) the training time shall be logged in a logbook and shall –
    - (i) be endorsed in a legible manner by the authorized instructor; and
    - (ii) include a description of the training given, the length of the training lesson, and the instructor's signature, licence number and licence expiration date.

**10.105 PILOT CURRENCY**

- (a) No person may act as a pilot of an aircraft unless within the preceding 90 days that pilot has –
  - (1) made at least 3 takeoffs and landings as the sole manipulator of the flight controls in an aircraft of the same category and class and if a type rating is required, of the same type.
  - (2) for a tailwheel aeroplane, made the 3 takeoffs and landings in a tailwheel aeroplane with each landing to a full stop.
  - (3) for night operations, made at least 3 takeoffs and landings at night.
- (b) A pilot who has not met the recency of experience for takeoffs and landings shall satisfactorily complete a requalification curriculum acceptable to the Authority.
- (c) The requirements of paragraph (a) of this Subsection may be satisfied in a flight simulator approved by the Authority.

**10.110 PILOT CURRENCY: IFR OPERATIONS**

- (a) No person may act as a pilot under IFR or in IMC, unless he or she has, within the preceding 6 calendar months –
  - (1) logged at least 6 hours of instrument flight time including at least 3 hours in flight in the category of aircraft; and
  - (2) completed at least 6 instrument approaches.
- (b) A pilot who has completed an instrument competency check with an authorized representative of the Authority retains currency for IFR operations for 6 calendar months following that check.
- (c) The requirements of paragraph (a) of this Subsection may be satisfied in a flight simulator approved by the Authority.

**10.115 VALIDITY PERIODS**

- (a) The validity period of any check, qualification or training shall be to the first day of the month following the date the check, qualification or training was completed in addition to the period of validity specified in the appropriate Schedule.
- (b) Any required recurrent check or training may be completed within the 60 day period preceding its expiry, in which case the validity shall be extended by the appropriate period from that expiration date.
- (c) Any required recurrent check or training completed within a 30 day period following its expiration date, whether as a result of an extension or lapsed validity, shall be deemed to have been completed on that expiration date.
- (d) Any required check or training not completed within 24 months of the latest expiration date shall require completion of the initial qualification requirements for that check or training.

**(Note: 1. The term "check" refers to any flight test, competency check or qualification test required by these Regulations.)**

**2. The term "expiration date" refers to the date before which the training or check is valid and after which that training or check would be invalid.)**



TENTH SCHEDULE, *contd.***10.120 ADDITIONAL COMMERCIAL AIR TRANSPORT QUALIFICATIONS**

All aviation personnel involved in commercial air transport shall also conform to -

- (1) The initial and continuing qualification requirements of the Fourteenth Schedule; and
- (2) The requirements of the Fifteenth Schedule for maximum duty and flight time and minimum rest periods.

**10.125 PILOT PRIVILEGES AND LIMITATIONS**

A pilot may conduct operations only within the general privileges and limitations of the type of valid licence that he or she has been issued by the Authority.

**10.130 AIRLINE TRANSPORT PILOT PRIVILEGES**

When qualified and current for the aircraft category, class and type being operated, the holder of an Airline Transport Pilot Licence may —

- (1) act as PIC (or SIC) of an aircraft certificated for two pilots in commercial air transport operations after completing the additional requirements of the Fourteenth Schedule;
- (2) exercise the privileges accorded to a commercial pilot;
- (3) unless limited to VFR operations only, exercise the privileges accorded to an instrument rating for that category of aircraft; and
- (4) when appropriate, exercise the privileges accorded to a private pilot.

**10.135 COMMERCIAL PILOT PRIVILEGES**

When qualified and current for the aircraft category, class and type being operated, the holder of a Commercial Pilot Licence may —

- (1) act as PIC of an aeroplane or a helicopter certificated for single pilot operations in commercial air transport after completing the additional requirements of the Fourteenth Schedule;
- (2) act as SIC of an aircraft in commercial air transport after completing the additional requirements of the Fourteenth Schedule;
- (3) act as PIC (or SIC) of an aircraft in aerial work for remuneration and hire;
- (4) accept remuneration and hire as a PIC (or SIC) of an aircraft by or for a person or entity that is not required by Part X of these Regulations to be an AOC holder; and
- (5) when appropriate, exercise the privileges accorded to a private pilot.

**10.140 PRIVATE PILOT PRIVILEGES AND LIMITATIONS: REQUIRED CREWMEMBER**

- (a) When qualified and current for the aircraft category, class and type being operated, or, in the case of gliders, the launch method, the holder of a Private Pilot Licence may operate that aircraft carrying passengers or property as provided in this Subsection.
- (b) A private pilot may not act as a required crewmember of an aircraft carrying passengers or property for remuneration or hire.
- (c) A private pilot may act as a required crewmember of an aircraft in connection with any business or employment if the —
  - (1) pilot holds the required category, class and type ratings;
  - (2) flight is only incidental to that business or employment; and
  - (3) aircraft is not operated by or for an individual or entity that is required by Part X of the Civil Aviation Regulations to be, or use the services of, an AOC holder.
- (d) A private pilot may receive remuneration or valuable consideration for only the sharing of expenses for a flight, provided that a private pilot may not pay less than the pro rata share of the operating expenses of a flight with passengers, provided the expenses involve only fuel, oil, airport expenditures or rental fees.

TENTH SCHEDULE, *contd.***10.145 STUDENT PILOT - GENERAL LIMITATIONS**

- (a) A student pilot may not act as PIC of an aircraft —
- (1) that is carrying a passenger;
  - (2) that is carrying property for compensation or hire;
  - (3) that is operated for compensation or hire;
  - (4) in furtherance of a business;
  - (5) on an international flight;
  - (6) when the flight or surface visibility is less than 5 statute miles;
  - (7) when the flight cannot be made with visual reference to the surface; or
  - (8) in a manner contrary to any limitations placed in the pilot's logbook by a rated instructor.
- (b) A student pilot may not act as a required pilot flight crewmember on any aircraft for which more than one pilot is required by the aircraft type certificate or by the Schedule under which the flight is conducted, except when receiving flight training from a rated instructor on board an airship, and no person other than a required flight crewmember is carried in the aircraft.

**10.146 STUDENT PILOT SOLO FLIGHT LIMITATIONS**

- (a) A student pilot may not operate an aircraft in solo flight unless that pilot has been trained and satisfactorily demonstrated the knowledge and proficiency requirements of —
- (1) the Eighth Schedule, Subsection 8.177 for solo flight;
  - (2) for solo cross-country flights, Subsection 8.179; and
  - (3) has been so endorsed in his or her logbook by a flight instructor.
- (b) A student pilot may not operate an aircraft in solo flight unless that student pilot has received within the 90 days preceding the date of the flight an endorsement from a rated Flight Instructor for the specific make and model aircraft to be flown made —
- (1) in the student's training records; and
  - (2) in the student's logbook.
- (c) A student pilot may not operate an aircraft in solo flight at night.
- (d) A student pilot may not operate an aircraft in solo cross-country flights of more than 25 statute miles unless the flight planning has been reviewed by a Flight Instructor and the pilot's logbook has been endorsed by the instructor for the flight(s) as provided in 8.179.

**10.147 FLIGHT INSTRUCTOR PRIVILEGES AND LIMITATIONS**

- (a) A Flight Instructor is authorized within the limitations of that person's Flight Instructor rating and associated authorizations and pilot licence and ratings, to give training and make recommendations that are required for, and relate to —
- (1) a student pilot licence;
  - (2) a pilot licence;
  - (3) a flight instructor rating;
  - (4) a night rating;
  - (5) a multi-engine rating;
  - (6) an aircraft type rating;
  - (7) an instrument rating;
  - (8) a flight review, operating privilege or recency of experience requirement;
  - (9) a practical test; and
  - (10) a knowledge test.
- (b) A Class 2 Flight Instructor is authorized within the limitations of that person's Class 2 Flight Instructor rating, associated authorizations and pilot licence and ratings, to give training and recommendations that are required for, and relate to —
- (1) a Student Pilot Licence;
  - (2) a pilot licence;

TENTH SCHEDULE, *contd.*

- (3) a night rating;
  - (4) a multi-engine rating;
  - (5) an aircraft type rating;
  - (6) an instrument rating;
  - (7) a flight review, operating privilege or recency of experience requirement;
  - (8) a practical test; and
  - (9) a knowledge test.
- (c) No person other than a holder of a Flight Instructor rating may —
- (1) endorse a Student Pilot Licence and logbook for solo operating privileges;
  - (2) conduct a flight review for the purposes of establishing pilot currency;
- (d) The following instructors do not have to hold a Flight Instructor rating —
- (1) the holder of a Commercial Pilot Licence with a lighter-than-air rating, provided the training is given in a lighter-than-air aircraft;
  - (2) the holder of an Airline Transport Pilot Licence with appropriate ratings, provided the training is conducted in accordance with an approved training programme approved under the Fourteenth Schedule;
  - (3) a person who is qualified in accordance with the Ninth Schedule, provided the training is conducted in accordance with an approved training programme; or
  - (4) a ground instructor who has satisfactorily demonstrated to the Authority or an AOC or ATO certificate holder, knowledge of the subject matter being taught.

**10.148 FLIGHT ENGINEER PRIVILEGES AND LIMITATIONS**

- (a) No person may act as a Flight Engineer of a civil aircraft of Jamaica registry unless he or she has a flight engineer licence with appropriate ratings.
- (b) The holder of a Flight Engineer Licence with the appropriate rating is authorized to perform those duties on those aircraft that require a flight engineer for the operation of the aircraft under the type certificate.
- (c) A Flight Engineer in commercial air transport operations must also be qualified and current in accordance with the Fourteenth Schedule requirements.

**SUBPART D: CREWMEMBER DUTIES AND RESPONSIBILITIES****10.150 AUTHORITY AND RESPONSIBILITY OF THE PIC**

- (a) The PIC shall be responsible for the operations and safety of the aircraft and for the safety of all persons and property on board when the --
- (1) doors are closed; and
  - (2) the aircraft is ready to move for the purpose of taking off until the moment it finally comes to rest at the end of the flight and the primary propulsion units are shut down.
- (b) The PIC of an aircraft shall have final authority as to the operation of the aircraft while he or she is in command.
- (c) The PIC of an aircraft shall, whether manipulating the controls or not, be responsible for the operation of the aircraft in accordance with the rules of the air, except that the PIC may depart from these rules in emergency circumstances that render such departure absolutely necessary in the interests of safety.

**10.155 DESIGNATION OF PIC FOR COMMERCIAL AIR TRANSPORT**

The AOC holder shall, for each commercial air transport operation, designate in writing one pilot as the PIC.

TENTH SCHEDULE, *contd.***10.160 COMPLIANCE WITH LOCAL REGULATIONS**

- (a) All persons shall comply with the relevant laws, regulations and procedures of the States in which the aircraft is operated.
- (b) If an emergency situation which endangers the safety of the aircraft or persons necessitates the taking of action which involves a violation of local regulations or procedures, the PIC shall —
  - (1) notify the appropriate local authority without delay;
  - (2) submit a report of the circumstances, if required by the State in which the incident occurs; and
  - (3) submit a copy of this report to the Authority.
- (c) Each PIC shall submit reports specified in paragraph (b) of this Subsection to the Authority within 10 days in the form prescribed.

**10.165 NEGLIGENCE OR RECKLESS OPERATIONS OF THE AIRCRAFT**

No person may operate an aircraft in a negligent or reckless manner so as to endanger life or property of others.

**10.170 FITNESS OF FLIGHT CREWMEMBERS**

- (a) No person may act as PIC or in any other capacity as a required flight crewmember when they are aware of any decrease in their medical fitness which might render them unable to safely exercise the privileges of his or her licence.
- (b) The PIC shall be responsible for ensuring that a flight is not —
  - (1) commenced if any flight crewmember is incapacitated from performing duties by any cause such as injury, sickness, fatigue or the effects of alcohol or drugs; or
  - (2) continued beyond the nearest suitable aerodrome if a flight crewmember's capacity to perform functions is significantly reduced by impairment of faculties from causes such as fatigue, sickness or lack of oxygen.

**10.175 USE OF NARCOTICS, DRUGS OR INTOXICATING LIQUOR**

- (a) No person may act or attempt to act as a crewmember of, or perform maintenance on, a civil aircraft —
  - (1) within 8 hours after the consumption of any alcoholic beverage;
  - (2) while under the influence of alcohol; or
  - (3) while using any drug that might render them unable to safely and properly exercise their duties.
- (b) A crewmember or any person responsible for the operation or maintenance of aircraft shall, on request of a law enforcement officer or the Authority, submit to a test to indicate the presence of alcohol or narcotic drugs in the blood at any time—
  - (1) up to 8 hours before acting as a crewmember or person responsible for the operation or maintenance of aircraft;
  - (2) immediately after attempting to act as a crewmember or person responsible for the operation or maintenance of aircraft; or
  - (3) immediately after acting as a crewmember or person responsible for the operation or maintenance of aircraft.
- (c) No crewmember of a civil aircraft may engage in any problematic use of substances.

*(See Appendix 1 to 10.175 for specific requirements pertaining to testing for alcohol or narcotics.)*

**10.179 CREWMEMBER LANGUAGE ABILITY**

Operators shall ensure that flight crewmembers demonstrate the ability to speak and understand the English language used for aeronautical radiotelephony communications.

TENTH SCHEDULE, *contd.***10.180 CREWMEMBER USE OF SEAT BELTS AND SHOULDER HARNESSSES**

- (a) Each crewmember shall have his or her seat belts fastened during takeoff and landing and all other times when seated at his or her station.
- (b) Each crewmember occupying a station equipped with a shoulder harness shall fasten that harness during takeoff and landing.
- (c) Each 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 that occupant during takeoff and landing and be able to properly perform assigned duties.
- (d) At each unoccupied seat, the safety belt and shoulder harness, if installed, shall be secured so as not to interfere with crewmembers in the performance of their duties or with the rapid egress of occupants in an emergency.

**10.185 FLIGHT CREWMEMBERS AT DUTY STATIONS**

- (a) Each required flight crewmember shall remain at the assigned duty station during take-off and landing and critical phases of flight.
- (b) Each flight crewmember shall remain at his or her station during all other phases of flight unless —
  - (1) absence is necessary for the performance of his or her duties in connection with the operation;
  - (2) absence is necessary for physiological needs, provided one qualified pilot remains at the controls at all times; or
  - (3) the crewmember is taking a rest period and a qualified relief crewmember replaces him or her at the duty station.

*(See Appendix 1 to 10.185 for specific requirement pertaining to qualified relief crewmembers.)*

**10.190 REQUIRED CREWMEMBER EQUIPMENT**

- (a) Each crewmember involved in night operations shall have a flashlight at his or her station.
- (b) Each pilot crewmember shall have at his or her station an aircraft checklist containing at least the pre-takeoff, after takeoff, before landing and emergency procedures.
- (c) Each pilot crewmember shall have at his or her 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.

**10.191 REQUIRED CORRECTIVE LENSES**

- (a) Each flight crewmember assessed as fit to exercise the privileges of a licence subject to the use of suitable correcting lenses, shall use those lenses or have them immediately available when performing as a required crewmember.
- (b) Each flight crewmember assessed as fit to exercise the privileges of a licence subject to the use of suitable correcting lenses, shall have a spare set of the correcting spectacles readily available when performing as a required crewmember in commercial air transport.
- (c) If near correction for distances other than those tested for the medical certificate are necessary for visual flight deck tasks relevant to the types of aircraft in which the applicant is likely to function, the applicant shall obtain and use such lenses in the medical evaluation.

**10.195 COMPLIANCE WITH CHECKLISTS**

- (a) The PIC shall ensure that the flight crew complies with the approved checklist procedures in detail when operating the aircraft.
- (b) All members of the flight crew shall use the checklists prior to, during and after all phases of operations and in an emergency to ensure compliance with the —
  - (1) operating procedures contained in the aircraft operating manual; and

TENTH SCHEDULE, *contd.*

- (2) the flight manual; or
- (3) other documents associated with the Certificate of Airworthiness; and
- (4) otherwise in the operations manual.

**10.200 SEARCH AND RESCUE INFORMATION**

- (a) For all international flights, the PIC 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.
- (b) This information shall contain the air-ground signals for search and rescue.

**10.205 PRODUCTION OF AIRCRAFT AND FLIGHT DOCUMENTATION**

The PIC shall, within a reasonable time of being requested to do so by a person authorized by the Authority, produce to that person the documentation required to be carried on the aircraft.

**10.210 LOCKING OF FLIGHT DECK COMPARTMENT DOOR: COMMERCIAL AIR TRANSPORT**

- (a) The crew shall insure that the crew compartment door is 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 authorized persons.
- (b) The pilots shall use the means that the AOC holder shall provide 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.
- (c) The operator shall develop a means by which cabin crew can discreetly notify the flight crew in the event of suspicious activity or security breaches in the cabin.

**10.215 ADMISSION TO THE FLIGHT DECK: COMMERCIAL AIR TRANSPORT**

- (a) No person may admit any person to the flight deck of an aircraft engaged in commercial air transport operations unless the person being admitted is —
  - (1) an operating crewmember;
  - (2) a representative of the Authority responsible for certification, licensing or inspection, if this is required for the performance of his or her official duties; or
  - (3) permitted by and carried out in accordance with instructions contained in the Operations Manual.
- (b) The PIC shall ensure that —
  - (1) in the interest of safety, admission on the flight deck does not cause distraction and/or interference with the flight's operations; and
  - (2) all persons carried on the flight deck are made familiar with the relevant safety procedures.

**10.218 USE OF FLIGHT DECK JUMP SEATS AND CABIN ATTENDANT SEATS**

No air operator shall permit a flight deck jump seat or flight attendant seat to be occupied by a person other than a required crewmember except in accordance with the procedures and conditions specified in the air operator's Operations Manual.

*(See Appendix 1 to 10.218 for specific requirements pertaining to the use of flight deck jump seats and cabin attendant seats.)*

**10.220 ADMISSION OF INSPECTOR TO THE FLIGHT DECK**

Whenever, in performing the duties of conducting an inspection, an inspector from the Authority presents an Aviation Safety Inspector's Credential issued by Jamaica [CAA] to the PIC, the PIC shall give the inspector free and uninterrupted access to the flight deck of the aircraft.

**10.225 DUTIES DURING CRITICAL PHASES OF FLIGHT: COMMERCIAL AIR TRANSPORT**

- (a) No flight crewmember may perform any duties during a critical phase of flight except those required for the safe operation of the aircraft.

TENTH SCHEDULE, *contd.*

- (b) No PIC may permit a flight crewmember to engage in any activity during a critical phase of flight which could distract or interfere with the performance of their assigned duties.

**10.227 FLIGHT DECK COMMUNICATIONS**

Each required flight crewmember shall use a boom or throat microphone to communicate with each other and air traffic service below the transition area or 10,000 feet, whichever is lower.

**10.230 MANIPULATION OF THE CONTROLS: COMMERCIAL AIR TRANSPORT**

- (a) No PIC may allow an unqualified person to manipulate the controls of an aircraft during commercial air transport operations.
- (b) No person may manipulate the controls of an aircraft during commercial air transport operations unless he or she is qualified to perform the applicable crewmember functions and is authorized by the AOC holder.

**10.235 SIMULATED ABNORMAL SITUATIONS IN FLIGHT: COMMERCIAL AIR TRANSPORT**

No person may cause or engage in simulated abnormal or emergency situations or the simulation of IMC by artificial means during commercial air transport operations.

**10.238 RESPONSIBILITY FOR REQUIRED DOCUMENTS**

- (a) The PIC shall ensure that all documents required for the specific flight operations by Subsections 10.050, 10.051 and/or 10.055 are carried on board the aircraft.
- (b) For all international flights, the PIC shall ensure the completion, safekeeping and delivery of the General Declaration.

**10.240 COMPLETION OF AIRCRAFT LOGBOOKS: ALL OPERATIONS**

The PIC shall ensure that all appropriate portions of the aircraft journey logbook and aircraft technical logbook, if separate, are completed at the appropriate points before, during and after flight operations.

**10.245 REPORTING MECHANICAL IRREGULARITIES**

- (a) At the termination of the flight, the PIC shall ensure that all known or suspected defects discovered in flight are —
- (1) for general aviation operations, reported in writing to the operator of the aircraft;
  - (2) for commercial air transport operations, entered in the aircraft technical log of the aircraft.
- (b) No person may allow or participate in the operation of an aircraft unless these defects are properly corrected or deferred in accordance with an approved MEL or manufacturer's technical data prior to the flight.

**10.250 REPORTING OF FACILITY AND NAVIGATION AIR INADEQUACIES**

Each crewmember shall report, without delay, any inadequacy or irregularity of a facility or navigational aid observed in the course of operations to the person responsible for that facility or navigational aid.

**10.255 REPORTING OF HAZARDOUS CONDITIONS**

The PIC shall report to the appropriate ATC facility, without delay and with enough detail to be pertinent to the safety of other aircraft, any hazardous flight conditions encountered enroute, including those associated with meteorological conditions.

**10.260 REPORTING OF INCIDENTS**

- (a) Air traffic report. The PIC shall submit, without delay, an air traffic incident report whenever an aircraft in flight has been endangered by —
- (1) a near collision with another aircraft or object;
  - (2) faulty air traffic procedures or lack of compliance with applicable procedures by ATC or by the flight crew; or
  - (3) a failure of ATC facilities.

TENTH SCHEDULE, *contd.*

- (b) Birds. In the event a bird constitutes an in-flight hazard or an actual bird strike the PIC shall, without delay —
  - (1) inform the appropriate ground station whenever a potential bird hazard is observed; and
  - (2) submit a written bird strike report after landing.
- (c) Dangerous Goods. The PIC shall inform the appropriate ATC facility, if the situation permits, when an in-flight emergency occurs involving dangerous goods on board.
- (d) Unlawful Interference. The PIC shall submit a report to the local authorities and to the Authority, without delay, following an act of unlawful interference with the crewmembers on board an aircraft.
- (e) Operational Incidents. All crewmembers shall submit a report to the local authorities, if outside Jamaica, and to the Authority, without delay, following any incident that posed a threat, or potentially posed a threat to the safety, welfare and security of the passengers and/or crew on board an aircraft, or to the aircraft itself.

**10.265 ACCIDENT NOTIFICATION**

- (a) The PIC shall notify the nearest appropriate authority, by the quickest available means, of any accident involving his or her aircraft that results in serious injury or death of any person, or substantial damage to the aircraft or property.
- (b) The PIC shall submit a report to the Authority of any accident which occurred while he or she was responsible for the flight.

**10.270 OPERATION OF FLIGHT DECK VOICE AND FLIGHT DATA RECORDERS**

- (a) The PIC shall ensure that whenever an aircraft has flight recorders installed, those recorders are operated continuously from the instant —
  - (1) for a flight data recorder, the aircraft begins its takeoff roll until it has completed the landing roll, and
  - (2) for a flight deck voice recorder, the initiation of the pre-start checklist until the end of the securing aircraft checklist.
- (b) The PIC may not permit a flight data recorder or flight deck voice recorder to be disabled, switched off or erased during flight, unless necessary to preserve the data for an accident or incident investigation.
- (c) In event of an accident or incident, the PIC shall act to preserve the recorded data for subsequent investigation.

**10.275 CREWMEMBER OXYGEN: MINIMUM SUPPLY AND USE**

- (a) The PIC shall ensure that breathing oxygen and masks are available to crewmembers in sufficient quantities for all flights at such altitudes where a lack of oxygen might result in impairment of the faculties of crewmembers.
- (b) In no case shall the minimum supply of oxygen on board the aircraft be less than that prescribed by the Authority.  
*(Note: The requirements for oxygen supply and use are prescribed in the Seventh Schedule.)*
- (c) The PIC shall ensure that all flight crewmembers, when engaged in performing duties essential to the safe operation of an aircraft in flight, use breathing oxygen continuously at cabin altitudes exceeding 10,000 ft for a period in excess of 30 minutes and whenever the cabin altitude exceeds 13,000 ft.
- (d) One pilot at the controls of a pressurized aircraft in flight shall wear and use an oxygen mask —
  - (1) for general aviation operations, at flight levels above 350, if there is no other pilot at their duty station;
  - (2) for commercial air transport operations, at flight levels above 250, if there is no other pilot at their duty station and a quick-donning oxygen mask is not available; and



TENTH SCHEDULE, *contd.*

- (3) for commercial air transport operations, at flight levels above 410.

**10.280 PORTABLE ELECTRONIC DEVICES**

No PIC or SCA may permit any person to use, nor may any person use a portable electronic device on board an aircraft that may adversely affect the performance of aircraft systems and equipment unless—

- (1) for IFR operations other than commercial air transport, the PIC allows the use of such a device prior to entering IMC conditions; or
- (2) for commercial air transport operations, the AOC holder makes a determination of acceptable devices and publishes that information in the Operations Manual for the crewmembers' use; and
- (3) the PIC informs passengers of the permitted use.

*(See Appendix 1 to 10.280 for requirements concerning portable electronic devices.)*

**10.282 CARRIAGE OF DANGEROUS GOODS**

No person shall load or cause to load any goods on an aircraft which that person knows or ought to know or suspect to be dangerous goods, unless this act is in conformance with the requirements of the Eighteenth Schedule regarding carriage of dangerous goods by air.

**SUBPART E: ALL PASSENGER CARRYING OPERATIONS****10.285 APPLICABILITY**

- (a) This Subpart applies to all passenger-carrying operations in civil aircraft.
- (b) Operators of large aircraft and AOC holders are also required to comply with the additional requirements contained in the Thirteenth Schedule.

**10.287 UNACCEPTABLE CONDUCT**

- (a) No person on board may interfere with a crewmember in the performance of his or her duties.
- (b) Each passenger shall fasten his or her seat belt and keep it fastened while the seat belt sign is lighted.
- (c) No person on board an aircraft shall recklessly or negligently act or omit to act in such a manner as to endanger the aircraft or persons and property therein.
- (d) No person may secrete himself or herself nor secrete cargo on board an aircraft.
- (e) No person may smoke on board an aircraft involved in commercial air transport operations or while the No-Smoking sign is on.
- (f) No person may smoke in any aircraft lavatory.
- (g) No person may tamper with, disable or destroy any smoke detector installed in any aircraft lavatory.

**10.290 REFUELLING WITH PASSENGERS ON BOARD**

- (a) No PIC may allow an aeroplane to be refuelled when passengers are embarking, on board or disembarking unless —
  - (1) the aircraft is manned by qualified personnel ready to initiate and direct an evacuation; and
  - (2) two-way communication is maintained between the qualified personnel in the aircraft and the ground crew supervising the refuelling.

*(See Appendix 1 to 10.290 for specific requirements to refuel aeroplanes with passengers on board.)*

- (b) Helicopters. Unless specifically authorized by the Authority, no person will allow a helicopter to be refuelled when —

TENTH SCHEDULE, *contd.*

- (1) passengers are embarking, on board or disembarking; or
- (2) the rotors are turning.

**10.295 PASSENGER SEATS, SAFETY BELTS AND SHOULDER HARNESES**

- (a) The PIC shall ensure that each person on onboard occupies an approved seat or berth with their own individual safety belt and shoulder harness (if installed) properly secured about them during movement on the surface, takeoff and landing.
- (b) Each passenger shall have his or her seatbelt securely fastened at any other time the PIC determines it is necessary for safety, especially during turbulence or emergency.
- (c) A safety belt provided for the occupant of a seat may not be used during takeoff and landing by more than one person who has reached his or her second birthday.  
*(Note: When cabin attendants are required in a commercial air transport operation, the PIC may delegate this responsibility, but shall ascertain that the proper briefing has been conducted prior to takeoff.)*
- (d) Notwithstanding the preceding requirements, a child may –
  - (1) be held by an adult who is occupying an approved seat or berth and the child does not occupy or use any restraining device; or
  - (2) occupy an approved child restraint system furnished by the certificate holder or by a parent, guardian, or attendant designated by the child's parent or guardian to attend to the safety of the child during the flight and the child is accompanied by one of those persons.

*(See Appendix 1 to 10.295 for child restraint system requirements.)*

**10.300 PASSENGER BRIEFING**

- (a) The PIC shall ensure that crewmembers and passengers are made familiar, by means of an oral briefing or by other means, with the location and use of the following items, if appropriate—
  - (1) seat belts;
  - (2) emergency exits;
  - (3) life jackets;
  - (4) oxygen dispensing equipment; and
  - (5) other emergency equipment provided for individual use, including passenger emergency briefing cards.
- (b) The PIC shall ensure that all persons on board are aware of the locations and general manner of use of the principal emergency equipment carried for collective use.

*(Note: When cabin attendants are required in a commercial air transport operation, the PIC may delegate this responsibility, but shall ascertain that the proper briefing has been conducted prior to takeoff.)*

*(See Appendix 1 to 10.300 for the contents of the safety briefing for commercial air transport operations. The contents of the briefing shall be included in the pertinent Operations Manual and be designed for the specific operations conducted.)*

**10.301 CREWMEMBER BRIEFING**

The PIC shall ensure that, prior to each flight or series of flight segments, the crewmembers of the aircraft are given a pre-flight briefing that meets the requirements of the Authority.

*(See Appendix 1 to 10.301 for the contents of the crewmember briefing for commercial air transport operations.)*

TENTH SCHEDULE, *contd.***10.305 IN-FLIGHT EMERGENCY INSTRUCTION**

In an emergency during flight, the PIC shall ensure that all persons on board are instructed in such emergency action as may be appropriate to the circumstances.

*(See Appendix 1 to 10.305 for the contents of the In-Flight Emergency Instruction for commercial air transport operations.)*

*(Note: When cabin attendants are required in a commercial air transport operation, the PIC may delegate this responsibility, but shall ascertain that the proper briefing has been conducted.)*

**10.310 PASSENGER OXYGEN: MINIMUM SUPPLY AND USE**

- (a) The PIC 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.
- (b) The PIC shall ensure that the minimum supply of oxygen prescribed by the Authority is on board the aircraft.

*(Note: The requirements for oxygen storage and dispensing apparatus are prescribed in the Seventh Schedule)*

- (c) The PIC shall require all passengers to use oxygen continuously at cabin pressure altitudes above 13,000 feet.

**10.315 ALCOHOL OR DRUGS**

No person may permit the boarding or serving of any person who appears to be intoxicated or who demonstrates, by manner or physical indications, that that person is under the influence of drugs (except a medical patient under proper care).

**10.316 EMERGENCY EQUIPMENT: INTERFERENCE WITH AIRCRAFT EQUIPMENT**

No person shall interfere with or block access to stowed emergency equipment on board any aircraft.

**10.317 STOWAGE OF WASTE IN LAVATORIES**

- (a) No person shall use the lavatory for stowage of waste material in a passenger carrying aircraft unless the waste consists of "low density material" which is stored in heavy duty transparent or fire containment bags. For the purpose of this Schedule, "eligible inflight waste material" which meets the low density criteria are items such as styrofoam, plastic cups and glasses, empty cans, foil meal trays, foil meal coverings, paper napkins, plastic cutlery and cutlery wrappings, food wrappings, empty plastic water and soda bottles, used newspapers (not bundled) and other passenger paper waste material generated during flight.
- (b) Disposable in-flight service waste bags may be used for the stowage of eligible low density waste material in aircraft lavatories under the following circumstances -
  - (1) Flight Attendant(s) must verify the content of each disposable in-flight service waste bag prior to placement in the lavatory to ensure the contents are in an acceptable state (i.e. no smoldering material);
  - (2) only lavatories next to Flight Attendant stations can be used for this purpose;
  - (3) disposable in-flight service waste bag(s) is/are stowed in a lavatory only after all other means of stowage have been utilized. The stowage of the bag in the lavatory is done during the final phase of flight; that is, after the "Fasten Seat Belt" sign has been illuminated to indicate descent in preparation for landing;
  - (4) the disposable in-flight service waste bag or combination of bags, must not surpass the height of the lavatory sink;
  - (5) the lavatory door is properly closed and locked to prevent passenger access;
  - (6) the lavatory:
    - (i) has an operational smoke detector;
    - (ii) has an operative door locking mechanism;

TENTH SCHEDULE, *contd.*

- (iii) can be locked and unlocked externally; and
  - (iv) is not used for the stowage of any other items such as crew bags, headset containers, linen or other fabric items, glass, galley rotables such as carafes, bundled newspapers, or carry-on baggage; and
- (7) disposable in-flight service waste bags that were stowed in lavatory(ies) prior to landing must be removed from the aircraft after each landing
- (c) The air operator shall establish procedures in its Flight Attendant Manual, Operations Manual and Flight Attendant training programme covering the requirements specified in paragraph (b) of this Subsection.

**SUBPART F: FLIGHT PLANS****10.325 SUBMISSION OF A FLIGHT PLAN**

- (a) Except as provided in paragraph (b) of this Subsection, a pilot shall file a VFR or IFR flight plan, as applicable, prior to operating one of the following —
- (1) any flight (or portion thereof) to be provided with air traffic control service;
  - (2) any flight to be conducted under IFR or in IMC;
  - (3) any flight to be conducted under VFR that will be flown more than 25nm from the departure point;
  - (4) any flight within or into designated areas, or along designated routes, when so required by the appropriate ATC authority to facilitate the provision of flight information, alerting and search and rescue services;
  - (5) any flight within or into designated areas, or along designated routes, when so required by the appropriate ATC authority to facilitate co-ordination with appropriate military units or with ATC facilities in adjacent states in order to avoid the possible need for interception for the purpose of identification; and
  - (6) any flight across international borders.
- (b) The PIC shall submit a flight plan before departure or during flight, to the appropriate ATC facility, unless arrangements have been made for submission of repetitive flight plans.
- (c) Unless otherwise prescribed by the appropriate ATC authority, a pilot should submit a flight plan to the appropriate ATC facility —
- (1) at least sixty minutes before departure; or
  - (2) if submitted during flight, at a time which will ensure its receipt by the appropriate ATC 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.

**10.330 AIR TRAFFIC CONTROL FLIGHT PLAN: COMMERCIAL AIR TRANSPORT**

No person may take off an aircraft in commercial air transport if an ATC flight plan has not been filed, except as authorized by the Authority.

**10.335 CONTENTS OF A FLIGHT PLAN**

Each person filing an IFR or VFR flight plan shall include in it the following information —

- (1) aircraft identification;
- (2) flight rules and type of flight;
- (3) number and type(s) of aircraft and wake turbulence category;
- (4) equipment;
- (5) departure aerodrome and alternate (if required);
- (6) estimated off-block time;
- (7) cruising speed(s);
- (8) cruising level(s);

TENTH SCHEDULE, *contd.*

- (9) route to be followed;
- (10) destination aerodrome and alternate (if required);
- (11) fuel endurance;
- (12) total number of persons on board;
- (13) emergency and survival equipment; and
- (14) other information.

*(Note: Whatever the purpose for which it is submitted, a flight plan shall contain information, as applicable, on relevant items up to and including "alternate aerodrome(s)" regarding the whole route or the portion thereof for which the flight plan is submitted.)*

**10.340 PLANNED RECLEARANCE**

- (a) If during flight planning a person determines that there is a possibility, depending on fuel endurance, that a flight may be able to change destinations and still comply with minimum fuel supply planning requirements, that person shall notify the appropriate ATC facility of this possibility when the flight plan is submitted.

*(Note: The intent of this provision is to facilitate a new clearance to a revised destination, normally beyond the filed destination aerodrome.)*

- (b) An AOC holder shall submit all pre-planned reclearance rationale to the Authority for approval in accordance with Twelfth Schedule.

**10.345 CHANGES TO A FLIGHT PLAN**

- (a) When a change is required to a flight plan submitted for an IFR flight or a VFR flight operated as a controlled flight, the pilot or the person responsible for operational control shall, if possible, co-ordinate the change with ATC prior to executing the change. In cases where this is not possible, the change shall be reported as soon as practicable to the appropriate ATC facility.
- (b) For VFR flights other than those operated as controlled flight, the PIC shall report significant changes to a flight plan as soon as practicable to the appropriate ATC facility.

*(Note: Information submitted prior to departure regarding fuel endurance or total number of persons carried on board, if incorrect at time of departure, constitutes a significant change and shall be reported.)*

**10.350 CLOSING A FLIGHT PLAN**

- (a) The PIC shall make a report of arrival either in person or by radio to the appropriate ATC facility at the earliest possible moment after landing at the destination aerodrome, unless ATC automatically closes a flight plan.
- (b) When 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 enroute with the appropriate ATC facility.
- (c) When no ATC facility exists at the arrival aerodrome, the pilot shall contact the nearest ATC facility to close the flight plan as soon as practicable after landing and by the quickest means available.
- (d) Pilots shall include the following elements of information in their arrival reports —
  - (1) aircraft identification;
  - (2) departure aerodrome;
  - (3) destination aerodrome (only in the case of a diversionary landing);
  - (4) arrival aerodrome; and
  - (5) time of arrival.

TENTH SCHEDULE, *contd.***SUBPART G: FLIGHT PLANNING AND PREPARATION****10.355 AIRCRAFT AIRWORTHINESS AND SAFETY PRECAUTIONS**

The PIC may not commence a flight in a civil aircraft in flight until satisfied that —

- (1) the aircraft is airworthy, duly registered and the appropriate certificates are aboard the aircraft;
- (2) the instruments and equipment installed in the aircraft are appropriate, taking into account the expected flight conditions; and
- (3) any necessary maintenance has been performed and a Certificate of Release to Service, if applicable, has been issued in respect to the aircraft.

**10.360 ADEQUACY OF OPERATING FACILITIES**

- (a) No person may commence a flight unless it has been determined by every reasonable means available that the ground and/or water areas and facilities available and directly required for such flight and for the safe operation of the aircraft, are adequate, including communication facilities and navigation aids.

*(Note: "Reasonable means" denotes use, at the point of departure, of information available to the PIC either through official information published by the aeronautical information services or readily obtainable in other sources.)*

- (b) No person may commence a flight unless it has been determined by every reasonable means available that all takeoff, destination and alternate aerodromes are continuously available for flight operations during their published hours of operations, irrespective of weather conditions.

**10.362 SELECTION OF VFR LANDMARKS**

No person may commence a flight under VFR that will depart Jamaica unless —

- (1) it has been determined that the flight can be conducted by visual reference to landmarks spaced no greater than 110 km (60 nautical miles) apart; or
- (2) the PIC holds a pilot licence endorsed with an IR or has satisfactorily demonstrated to the Authority in the preceding 24 months, the ability to maintain a navigation track through the use of navigation aids or GPS, and carries the results of that demonstration at all times during such flights.

**10.365 WEATHER REPORTS AND FORECASTS**

- (a) Before commencing a flight, the PIC shall be familiar with all available meteorological information appropriate to the intended flight.
- (b) The PIC shall include, during preparation for a flight away from the vicinity of the place of departure and for every flight under instrument flight rules —
- (1) a study of available current weather reports and forecasts; and
  - (2) the planning of an alternative course of action to provide for the eventuality that the flight cannot be completed as planned because of weather conditions.

**10.370 WEATHER LIMITATIONS FOR VFR FLIGHTS**

No person may commence a flight to be conducted in accordance with VFR unless available 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 under VFR, will, at the appropriate time, allow VFR operations.

**10.375 IFR DESTINATION AERODROMES**

For IFR flight planning purposes, no person may commence an IFR flight unless the available information indicates that the weather conditions at the aerodrome of intended landing and, if required, at least one suitable alternate at the estimated time of arrival, will be at or above the —

TENTH SCHEDULE, *contd.*

- (1) minimum ceiling and visibility values for the standard instrument approach procedure to be used; or
- (2) minimum operating altitude, if no instrument approach procedure is to be used, that would allow a VMC descent to the aerodrome.

*(Note: A partial exception is granted for commercial air transport IFR flight planning, to the effect that the weather at the destination does not have to be at or above the approach minima to release and commence a flight, as long as the designated alternate aerodrome meets the IFR weather selection criteria.)*

**10.380 IFR DESTINATION ALTERNATE REQUIREMENT**

- (a) No person may commence an IFR flight in an aircraft without at least one destination alternate aerodrome listed in the flight plan unless —
  - (1) there is a standard instrument approach procedure prescribed for the aerodrome of intended landing by the jurisdictional authorities;
  - (2) the aerodrome of intended landing is isolated and there is no suitable destination alternate aerodrome;
  - (3) the aerodrome of intended landing is located no longer than 6 hours flying time from the last point of departure; and
  - (4) available current meteorological information indicates that the following meteorological conditions will exist at the aerodrome of intended landing from two hours before to two hours after the estimated time of arrival —
    - (i) a cloud base of at least 300 meters (1,000 feet) above the minimum associated with the instrument approach procedure; and
    - (ii) visibility of at least 5.5 km (3.4 sm) or of 4 km (2.5 sm) more than the minimum associated with the procedure.
- (b) The ceiling and visibility requirements of paragraph (a) of this Subsection may be reduced upon approval of the Authority for —
  - (1) helicopters; or
  - (2) commercial air transport where no suitable destination alternate exists.

**10.385 IFR ALTERNATE AERODROME SELECTION CRITERIA**

- (a) If alternate minimums are published, no PIC may designate an alternate aerodrome in an IFR flight plan unless the current available forecast indicates that the meteorological conditions at that alternate at the ETA will be at or above those published alternate minimums.
- (b) If alternate minimums are not published, and if there is no prohibition against using the aerodrome as an IFR planning alternate, each PIC shall ensure that the meteorological conditions at that alternate at the ETA will be at or above—
  - (1) for a precision approach procedure, a ceiling of at least 600 feet and visibility of not less than 2 statute miles; or
  - (2) for a non-precision approach procedure, a ceiling of at least 800 feet and visibility of not less than 2 statute miles.

**10.390 OFF-SHORE ALTERNATES FOR HELICOPTER OPERATIONS**

- (a) No person may designate an offshore alternate landing site when it is possible to carry enough fuel to have an on-shore alternate landing site.
 

*(Note: The selection of offshore alternates should be exceptional cases, the details of which have been approved by the Authority, and should not include payload enhancement in IMC.)*
- (b) Each person selecting an off-shore alternate landing site shall consider the following:
  - (1) until the point of no return, using an on-shore alternate. The offshore alternate may be used only after a point of no return.

TENTH SCHEDULE, *contd.*

- (2) attaining one engine inoperative performance capability prior to arrival at the alternate.
- (3) guaranteeing helideck availability.
- (4) the weather information at the helideck shall be available from a source approved by the Authority.
- (5) for IFR operations, an instrument approach procedure shall be prescribed and available.

*(Note: The landing technique specified in the flight manual following control system failure may preclude the selection of certain helidecks as alternate aerodromes. The mechanical reliability of critical control systems shall be taken into account when determining the suitability and necessity for an offshore alternate.)*

**10.395 TAKEOFF ALTERNATE AERODROMES: COMMERCIAL AIR TRANSPORT OPERATIONS**

- (a) No person may commence a flight without a suitable takeoff alternate specified in the flight release if it would not be possible to return to the aerodrome of departure.
- (b) Each operator shall ensure that each takeoff alternate specified shall be located within —
  - (1) for two-engine aircraft, one hour flight time at single-engine cruise speed; or
  - (2) for three or four-engine aircraft, two hours flight time at one engine out cruise speed.

*(Note: All calculations are based on the one-engine-inoperative cruising speed according to the AFM in still air conditions based on the actual takeoff mass.)*

**10.400 MAXIMUM DISTANCE FROM AN ADEQUATE AERODROME WITHOUT AN ETOPS APPROVAL**

Unless specifically approved by the Authority (ETOPS Approval), an AOC holder shall not operate a twin-engine aeroplane over a route that contains a point further from an adequate aerodrome than, in the case of —

- (1) turbine engine powered aeroplanes conducting commercial air transport operations, the distance flown in 60 minutes at the one-engine-inoperative cruise speed determined in accordance with appendix 1 to 10.400; or
- (2) reciprocating engine powered aeroplanes conducting commercial air transport operations—
  - (i) the distance flown in 60 minutes at the one-engine-inoperative cruise speed determined in accordance with Appendix 1 to 10.400; or
  - (ii) 300 nautical miles, whichever is less.

*(See Appendix 1 to 10.400 for the determination of diversion speeds.)*

**10.405 EXTENDED RANGE OPERATIONS WITH TWIN-ENGINED AEROPLANES**

- (a) No person may conduct operations beyond the threshold distance determined in accordance with Subsection 10.400 unless approved to do so by the Authority.
- (b) Prior to commencing an ETOPS flight, the persons exercising operational control shall ensure that a suitable ETOPS enroute alternate is available, within either the approved diversion time or a diversion time based on MEL generated serviceability status of the aeroplane, whichever is shorter.

**10.410 ENROUTE ALTERNATE AERODROMES: ETOPS OPERATIONS**

- (a) The PIC shall ensure that the required enroute alternates for ETOPS are selected and specified in ATC flight plans in accordance with the ETOPS diversion time approved by the Authority.
- (b) No person shall select an aerodrome as an ETOPS enroute alternate aerodrome unless the appropriate weather reports or forecasts, or any combination thereof, indicate that during a period commencing 1 hour before and ending 1 hour after the expected time of arrival at the aerodrome, the weather conditions will be at or above the planning minima prescribed by the Authority and in accordance with the operator's ETOPS approval.

*(See Appendix 1 to 10.410 for the ETOPS alternate planning chart.)*



TENTH SCHEDULE, *contd.***10.415 FUEL, OIL AND OXYGEN PLANNING AND CONTINGENCY FACTORS**

- (a) No person may commence a flight unless he or she takes into account the fuel, oil and oxygen needed to ensure the safe completion of the flight, including any reserves to be carried for contingencies.
- (b) Each person computing the required minimum fuel supply 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 —
  - (1) expected winds or other meteorological conditions;
  - (2) possible variations in ATC routings;
  - (3) anticipated traffic delays;
  - (4) a complete instrument approach procedure and possible missed approach at destination;
  - (5) loss of pressurisation enroute;
  - (6) loss of one power-unit enroute; and
  - (7) any other conditions that may delay landing of the aircraft or increase fuel and oil consumption.

**10.420 MINIMUM FUEL SUPPLY FOR VFR FLIGHTS**

- (a) No person may commence a flight in an aeroplane under VFR 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, for at least 45 minutes thereafter.
- (b) No person may commence a flight in a helicopter under VFR 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 —
  - (1) for 20 minutes thereafter; or
  - (2) for international flights, for at least an additional 10% of the total flight time calculated.

**10.425 MINIMUM FUEL SUPPLY FOR IFR FLIGHTS**

- (a) Except as provided in paragraph (b) of this Subsection, no person may commence a flight under IFR unless there is enough fuel supply, considering weather reports and forecasts, to —
  - (1) fly to the first point of intended landing and execute an instrument approach; execute a missed approach and fly from that aerodrome to the most critical (in terms of fuel consumption) alternate aerodrome, if required; and
  - (2) fly thereafter at normal cruising speed —
    - (i) in a propeller-driven aeroplane, for 45 minutes plus 15 per cent of the flight time planned to be spent at cruising level, or two hours, whichever is less;
    - (ii) in a rotorcraft, turbojet or turbofan aeroplane —
      - (A) for 30 minutes in a holding pattern at 450 meters (1,500 ft) above the alternate aerodrome under standard temperature conditions and approach and land, plus a reserve for contingencies specified by the operator and approved by the Authority; or
      - (B) for 30 minutes in a holding pattern at 450 meters (1,500 ft) above the alternate aerodrome, due provision having been made for an additional amount of fuel sufficient to provide for the increased consumption on the occurrence of any of the potential contingencies specified by the operator provided that the fuel shall not be less than the amount of fuel required to fly to the aerodrome to which the flight is planned and thereafter for two hours at normal cruise consumption.
- (b) No person may commence a flight under IFR when an alternate is not required unless there is enough fuel supply, considering weather reports and forecasts, to —
  - (1) fly to the point of intended landing and execute an instrument approach;
  - (2) execute a missed approach and fly thereafter —

TENTH SCHEDULE, *contd.*

- (i) if the destination aerodrome weather meets the requirements specified in Subsection 10.380(a)(4) –
  - (A) in a propeller-driven airplane, for 45 minutes; or
  - (B) in a rotorcraft, turbojet or turbofan airplane for 30 minutes in a holding pattern at 450m (1,500 ft) above the aerodrome under standard temperature conditions and to have an additional amount of fuel, sufficient to provide for any other foreseeable conditions as specified by the operator and approved by the Authority; or
- (ii) if the destination aerodrome is isolated and there is no suitable alternate destination –
  - (A) in a propeller-driven airplane, for 45 minutes plus 15 per cent of the flight time planned to be spent at cruising level(s), or two hours, whichever is less; or
  - (B) in a rotorcraft, turbojet or turbofan airplane for a period of 2 hours at normal cruise consumption.

**10.430 AIRCRAFT LOADING, MASS AND BALANCE**

- (a) No person may commence a flight unless all loads carried are properly distributed and safely secured, taking into consideration the effect of the mass on centre of gravity and floor loading limitations.
- (b) No person may commence a flight unless the calculations for the mass of the aircraft and centre of gravity location indicate that the flight can be conducted safely and in accordance with the aircraft limitations, taking into account the flight conditions expected.

*(Note: When load masters, load planners or other qualified personnel are provided by the AOC holder in a commercial air transport operation, the PIC may delegate these responsibilities, but shall ascertain that proper loading procedures are followed.)*

- (c) Unless otherwise authorized by the Authority, the computations for the mass and balance shall be based on the AFM or RFM method for determination of the CG and the mass values used for these computations shall be based on the –
  - (1) aircraft empty mass derived through a periodic weighing of the aircraft;
  - (2) actual mass of the required crew, their equipment and baggage;
  - (3) actual mass of the passengers, their baggage and cargo; and
  - (4) actual mass of the usable fuel boarded.
- (d) For commercial air transport operations, no person may commence a flight unless these mass and balance computations are accomplished by qualified persons and are in conformance with the additional mass and balance requirements of the Seventeenth Schedule for AOC holders.

**10.435 AIRCRAFT PERFORMANCE AND OPERATING LIMITATIONS**

- (a) The detailed and comprehensive performance code acceptable to the State of Registry pursuant to the Seventeenth Schedule, Subpart B, shall be the basis for any determination of aircraft performance.
- (b) No person may commence a flight unless the calculations for the performance of the aircraft in all phases of flight indicate that the flight can be conducted safely and in accordance with the aircraft's designed performance limitations for any operation, taking into account the flight conditions expected.

*(Note: When applying performance data, each person performing calculations shall account for the aircraft configuration, environmental conditions and the operation of any system or systems that may have an adverse effect on performance.)*

- (c) No person may commence a flight that, given the aircraft's mass and assuming normal engine operation, cannot safely clear all obstacles during all phases of flight, including all points along the intended enroute path or any planned diversions.

TENTH SCHEDULE, *contd.*

- (d) No person may commence a flight without ensuring that the maximum allowable mass for a flight does not exceed the maximum allowable takeoff or landing mass or any applicable enroute performance or landing distance limitation considering the —
- (1) condition of the takeoff and landing areas to be used;
  - (2) gradient of runway to be used (landplanes only);
  - (3) pressure altitude;
  - (4) ambient temperature;
  - (5) current and forecast winds; and
  - (6) any known conditions (e.g., atmospheric and aircraft configuration), such as density altitude, which may adversely affect performance.
- (e) For commercial air transport operations, no person may commence a flight unless the performance computations are accomplished by qualified persons and are in conformance with the additional performance requirements of the Seventeenth Schedule for AOC holders.

**10.440 FLIGHT RELEASE REQUIRED: COMMERCIAL AIR TRANSPORT**

- (a) No person may commence a flight under a flight following system without specific authorization from the person authorized by the AOC holder to exercise operational control over the flight.
- (b) No person may commence a passenger-carrying flight in commercial air transport, unless a qualified person authorized by the AOC holder to perform operational control functions has issued a flight release for that specific operation or series of operations.

**10.445 OPERATIONAL FLIGHT PLAN: COMMERCIAL AIR TRANSPORT**

- (a) No person may commence a flight unless the OFP has been signed by the PIC and, where the OFP has been prepared by a person responsible for operational control, by that person.
- (b) A PIC shall sign the OFP only when the PIC and the person authorized by the operator to exercise operational control have determined that the flight can be safely completed.

*(Note: The operational flight plan 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.)*

- (c) The PIC signing the OFP shall have access to the applicable flight planning information for fuel supply, destination and alternate aerodromes, weather reports and forecasts and NOTAMs for the routing and destination and any alternate aerodromes.
- (d) No person may continue a flight from an intermediate aerodrome without a new OFP if the aircraft has been on the ground more than 4 hours.

*(See Appendix 1 to 10.445 for OFP requirements.)*

**10.450 FLIGHT PLANNING DOCUMENT DISTRIBUTION AND RETENTION: COMMERCIAL AIR TRANSPORT**

- (a) For commercial air transport operations, the PIC shall complete or review and sign the flight release form before commencing a flight indicating that he/she is satisfied with—
- (1) the OFP, including NOTAMs and weather pertinent to the flight planning decisions regarding minimum fuel supply, enroute performance and destination and alternate aerodromes;
  - (2) the load manifest, showing the distribution of the load, centre of gravity, takeoff and landing mass and compliance with maximum operating mass limitations, and performance analysis;
  - (3) the applicable aircraft technical log page, if mechanical irregularities were entered after a previous flight, maintenance or inspection functions were performed or a maintenance release was issued at the departure aerodrome;
  - (4) that the instruments and equipment prescribed for the particular type of operation to be undertaken, are installed and sufficient for the flight;
  - (5) that the load is safely secured; and

TENTH SCHEDULE. *contd.*

- (6) that a check has been completed indicating that the operating limitations for the aircraft in use can be complied with for the flight.
- (b) No person may take off an aircraft unless a copy of all flight preparation documents, signed by the PIC, are retained and available with a company representative at the point of departure, unless a different retention method has been approved by the Authority.
- (c) The PIC shall carry a copy of the documents specified in paragraph (a) of this Subsection on the aircraft to the destination aerodrome.
- (d) These documents will be retained by the AOC holder for at least 3 months.

*(Note: These documents are in addition to those specified in Subpart B for all aircraft operations.)*

*(Note: The Authority may approve a different retention location where all documents can be available for subsequent review.)*

**SUBPART H: FLIGHT RULES FOR ALL OPERATIONS****10.470      APPLICABILITY**

- (a) The flight rules of this Subpart are applicable in the airspace of Jamaica.
- (b) The holders of airman licences issued by Jamaica will comply with these rules when flying outside Jamaica, except where these rules may differ with the other State, in which case compliance with the rules of the State being overflown is required.

**10.471      AIRSPACE STRUCTURE**

- (a) Jamaican airspace consists of controlled and uncontrolled airspace.
- (b) Controlled airspace consists of the following types of airspace –
  - (1) upper control areas;
  - (2) control areas;
  - (3) terminal control areas;
  - (4) control zones;
  - (5) high level ATS routes;
  - (6) low level ATS routes;
  - (7) prohibited areas;
  - (8) danger areas;
  - (9) restricted areas; and
  - (10) warning areas.
- (c) Uncontrolled airspace consists of the following types of airspace –
  - (1) restricted areas;
  - (2) danger areas;
  - (3) warning areas; and
  - (4) prohibited areas.
- (d) The horizontal and vertical limits of any airspace of a type referred to in paragraph (a) or (b) of this Subsection shall be as specified in the *AIP, Jamaica*, or by NOTAM.
- (e) The geographical locations and the horizontal and vertical limits of the following areas, zones, regions and points are as specified in the *AIP, Jamaica* or by NOTAM –
  - (1) altimeter setting regions;
  - (2) standard pressure regions;
  - (3) mountainous regions;
  - (4) holding points;
  - (5) reporting points;
  - (6) intersections control towers; and

TENTH SCHEDULE, *contd.*

(7) flight information regions.

**10.472 AIRSPACE CLASSIFICATION AND OPERATING RULES**

- (a) The class of any controlled airspace of a type referred to in Subsection 10.470 (a) shall be one of the following, as specified in the *AIP Jamaica* –
- (1) Class A in which only IFR flights are permitted and all flights are subject to air traffic control service and are separated from each other;
  - (2) Class B in which IFR and VFR flights are permitted and all flights are subject to air traffic control services and are separated from each other;
  - (3) Class C in which IFR and VFR flights are permitted and –
    - (i) all flights are subject to air traffic control services;
    - (ii) IFR flights are separated from other IFR flights and from VFR flights; and
    - (iii) VFR flights are separated from IFR flight and receive traffic information in respect of the other VFR flights;
  - (4) Class D in which –
    - (i) IFR and VFR flights are permitted and all flights are subject to air traffic control services;
    - (ii) IFR flights are separated from other IFR flights and receive traffic information in respect of the VFR flights; and
    - (iii) VFR flights receive traffic information in respect of all other flights;
  - (5) Class E in which –
    - (i) IFR and VFR flights are permitted;
    - (ii) IFR flights are subject to air traffic control service and are separated from other IFR flights; and
    - (iii) all flights receive traffic information as far as is practical;
  - (6) Class F: Special Use Restricted; or
  - (7) Class F: Special Use Advisory.
- (b) The class of any uncontrolled airspace of a type referred to in Subsection 10.470 (a) shall be one of the following specified in the *AIP, Jamaica* –
- (1) Class F: Special Use Restricted;
  - (2) Class F: Special Use Advisory; or
  - (3) Class G: VFR flights only are permitted.
- (c) Transponder airspace consists of –
- (1) all Class A, B and C airspace; and
  - (2) any Class D or E airspace specified as transponder airspace in the *AIP Jamaica*.
- (d) The procedures for the operation of aircraft in Class F: Special Use Restricted airspace and Class F: Special Use Advisory airspace are those specified in the *AIP, Jamaica* or by NOTAM.
- (e) A person shall not operate an aircraft in Class F Special Use Restricted airspace unless authorized to do so by the person specified for that purpose in the *AIP Jamaica*.
- (f) For the purposes of paragraph (b), a person specified in the *AIP, Jamaica* may authorize the operation of an aircraft where activities on the ground or in the airspace are not hazardous to aircraft operating in that airspace and access by aircraft to that airspace does not jeopardize the interests of defence or public safety.

**10.475 COMPLIANCE WITH LOCAL REGULATIONS**

- (a) All pilots shall be familiar with the laws, regulations and procedures pertinent to the performance of their duties, prescribed for the –
- (1) areas to be traversed,
  - (2) the aerodromes to be used; and

TENTH SCHEDULE, *contd.*

- (3) the air navigation facilities relating to them.
- (b) All other members of the crew shall be familiar with the laws, regulations and procedures as are pertinent to the performance of their respective duties in the operation of the aircraft.

**10.478 OPERATION OF AIRCRAFT ON THE GROUND**

- (a) No person may taxi an aircraft on the movement area of an aerodrome unless the person at the controls—
- (1) has been authorized by the owner, the lessee or a designated agent;
  - (2) is fully competent to taxi the aircraft;
  - (3) is qualified to use the radio if radio communications are required; and
  - (4) has received instruction from a competent person in respect of aerodrome layout, and where appropriate, information on routes, signs, marking, lights, ATC signals and instructions, phraseology and procedures, and is able to conform to the operational standards required for safe aircraft movement at the aerodrome.
- (b) No person shall cause a helicopter rotor to be turned under power unless there is a qualified pilot at the controls.

**10.480 NIGHT OPERATIONS**

No person may operate the following aircraft at night within the airspace of Jamaica—

- (1) gliders, or
- (2) free balloons.

**10.481 SINGLE PILOT OPERATIONS IN IFR AND/OR AT NIGHT**

- (a) Except as provided in paragraph (b) of this Subsection, no person may operate an aircraft in commercial operations under IFR or at night with a single pilot.
- (b) Single pilot operations in commercial operations under IFR or at night may be approved by the Authority provided—
- (1) the flight manual does not require a flight crew of more than one;
  - (2) the aircraft is propeller-driven;
  - (3) the maximum approved passenger seating configuration is not more than nine;
  - (4) the maximum certificated take-off mass does not exceed 5,700 kilograms (12,500 pounds);
  - (5) the aeroplane is equipped as required in the Seventh Schedule, Subpart B for IFR and night operations;
  - (6) the pilot meets the following experience and recency requirements—
    - (i) has met the instrument, cross country and night experience requirements for an ATPL;  
*(See the Eighth Schedule, Appendix 1 to 8.275 for these requirements.)*
    - (ii) has met the day, night and IFR currency requirements, as applicable, as specified in this Schedule in the class of aircraft flown;  
*(See Subsections 10.105 and 10.110 for these requirements.)*
  - (7) the pilot has received training, in addition to the training required by the Fourteenth Schedule, with respect to emergency evacuation, autopilot management and the use of simplified inflight documentation;
  - (8) the pilot has met the route and aerodrome qualification requirements specified in the Fourteenth Schedule, Subsection 14.160; and
  - (9) the pilot has passed a pilot proficiency check within the preceding 6 months as the only pilot involved in operating the aircraft.

*(See Subsection 10.718 for additional requirements associated with single-engine IFR/night operations.)*

TENTH SCHEDULE, *contd.*

*(Note: AOC holders will be issued an Operations Specification authorizing single pilot IFR and/or night operations.)*

**10.482 PRE-TAKEOFF INSPECTIONS**

No person may take off an aircraft unless they have completed an inspection of the aircraft, in accordance with a published checklist, of the —

- (1) exterior for airworthiness, including the quantity and quality of the fuel onboard;
- (2) passenger cabin readiness and required equipment;
- (3) interior flight deck equipment, instruments and documents on the aircraft; and
- (4) pre-takeoff setup of the flight deck instruments and controls.

**10.484 TAKEOFF AND LANDING**

- (a) No person shall cause an aircraft to take off or land at an aerodrome or heliport within Jamaica that is not licensed by the Government or, unless permission for use has been received, a non-licensed airport, if the purpose of the flight operation is —
  - (1) commercial air transport with passengers;
  - (2) flight instruction; or
  - (3) solo flight by a student pilot.
- (b) No person shall cause an aircraft to take off or land at an aerodrome or heliport at night within Jamaica for the purpose of commercial air transport carrying passengers, unless there is adequate lighting to—
  - (1) determine the landing direction, and
  - (2) make a safe approach and landing.
- (c) No person shall cause an aircraft to take off or land at an aerodrome or heliport within Jamaica for the purpose of commercial air transport carrying passengers, unless there is —
  - (1) for aircraft certificated with a passenger capacity of 20 or more passengers, current runway analysis for obstacle clearance and stopping distance; and
  - (2) established communications with a qualified person on the surface, or by some other means suitable to the Authority, to determine the —
    - (i) prevailing approach and landing conditions; and
    - (ii) status of runway surface.

**10.485 TAKEOFF CONDITIONS**

- (a) No person may take off an aircraft, unless —
  - (1) 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 takeoff and departure; and
  - (2) the RVR or visibility in the takeoff direction of the aircraft is equal to or better than the applicable minimum.
- (b) No person may take off an aircraft unless, in determining the length of the runway required and available, the loss, if any, of runway length due to alignment of the aeroplane prior to takeoff has been determined.

**10.487 NOISE ABATEMENT**

- (a) No person may use a different departure procedure at an aerodrome where a noise abatement departure is applicable to the aircraft, unless this action would not be considered safe or practical considering the existing conditions or performance limitations.
- (b) Unless otherwise required by special circumstances at an aerodrome, each person shall use, for any one aircraft type, the same noise abatement procedure and profiles at all aerodromes.
- (c) No person may take off or land an aircraft at a mass that exceeds the maximum demonstrated for that aircraft to comply with the noise certification standards, unless authorized by the competent

TENTH SCHEDULE, *contd.*

authority of the State for a specific aerodrome or runway where there is no noise disturbance problem.

**10.490 FLIGHT INTO KNOWN OR EXPECTED ICING**

- (a) No person may take off an aircraft or continue to operate an aircraft enroute 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.
- (b) No person may 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, which might adversely affect the performance, or controllability of the aircraft.
- (c) For commercial air transport operations, no person may 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 AOC holder by the Authority are followed to ensure ground de-icing and anti-icing is accomplished.

**10.493 AIRCRAFT OPERATING LIMITATIONS**

No person may operate a civil aircraft within or over Jamaica without complying with the terms of its certificate of airworthiness, the operating limitations specified in the approved AFM or RFM, markings and placards, or as otherwise prescribed by the certifying authority for the State of Registry.

**10.495 ALTIMETER SETTINGS**

Each person operating an aircraft shall maintain the cruising altitude or flight level by reference to an altimeter set —

- (1) below the applicable transition altitude for the area being flown to —
  - (i) the current reported altimeter setting of a station along the route and within 100 nautical miles of the aircraft;
  - (ii) the current reported altimeter setting of a nearby station, if there is not a station along the route; or
  - (iii) in the case of an aircraft not equipped with a radio, the elevation of the departure aerodrome or an appropriate altimeter setting available before departure; or
- (2) at or above the applicable transition altitude for the area being flown to 29.92" Hg (1013.2 mb).

*(See Appendix 1 to 10.495 for a table to determine the lowest usable flight level for regions using 18,000 feet as the transition altitude.)*

**10.500 MINIMUM SAFE ALTITUDES: GENERAL**

- (a) Except as provided in paragraph (b) of this Subsection or when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:
  - (1) Anywhere. An altitude allowing, if a power unit fails, continuation of flight or an emergency landing without undue hazard to persons or property on the surface.
  - (2) Over congested areas. Over any congested area of a city, town, or settlement, or over any open-air assembly of persons, an altitude of 300m (1,000 feet) above the highest obstacle within a horizontal radius of 600m (2,000 feet) of the aircraft.
  - (3) Over other than congested areas. An altitude of 150m (500 feet) above the surface, except over open water or sparsely populated areas where the aircraft may not be operated closer than 150m (500 feet) to any person, vessel, vehicle or structure.
  - (4) Helicopters. Pilots of helicopters are not subject to the proximity restrictions provided they are operated in a manner that is not hazardous to persons and property on the surface. The PIC of a helicopter shall comply with any routes or altitudes for the area that are prescribed for helicopters by the Authority.



TENTH SCHEDULE, *contd.*

- (b) Paragraph (a) (3) of this Subsection does not apply to any aircraft when it is flying under or in accordance with the terms of an Aerial Work Operator Certificate.

**10.505 MINIMUM SAFE VFR ALTITUDES: COMMERCIAL AIR TRANSPORT OPERATIONS**

- (a) No person may operate an aeroplane in commercial air transport during the day, under VFR, at an altitude less than 300 meters (1,000 feet) above the surface or within 300 meters (1,000 feet) feet of any mountain, hill or other obstruction to flight.
- (b) No person may operate an aeroplane in commercial air transport at night, under VFR, at an altitude less than -
- (1) 300 meters (1,000 feet) above the highest obstacle within a horizontal distance of five miles from the centre of the intended course; or
  - (2) in designated mountainous areas, less than 600 meters (2,000 feet) feet above the highest obstacle within a horizontal distance of five miles from the centre of the intended course.

**10.507 MAXIMUM AIRSPEEDS**

- (a) Subject to paragraphs (c) and (d) of this Subsection, a person shall not operate an aircraft below 3,000 meters (10,000 feet) ASL at an indicated airspeed of more than 250 knots.
- (b) Subject to paragraphs (c) and (d) of this Subsection, a person shall not operate an aircraft below 900 meters (3,000 feet) AGL within 10 nautical miles of a controlled airport at an indicated airspeed of more than 200 knots unless authorized to do so in an air traffic control clearance.
- (c) A person may operate an aircraft at an indicated airspeed greater than the airspeeds referred to in paragraphs (a) and (b) of this Subsection, where the aircraft is being operated within Class "C" airspace and the airspeed has been authorized by the responsible air traffic control unit.
- (d) Where the minimum safe airspeed for the flight configuration of an aircraft is greater than the airspeed referred to in paragraph (a) and (b) of this Subsection, the PIC shall advise the responsible air traffic control unit which shall authorize the PIC to operate the aircraft at the minimum safe speed advised by the PIC.
- (e) No person shall operate an aircraft in an assigned holding pattern at a speed greater than 210 knots unless authorized by ATC.

**10.510 INSTRUMENT APPROACH OPERATING MINIMA**

No person may operate 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 that operation.

**10.515 DIVERSION DECISION**

- (a) Except as provided in paragraph (b) of this Subsection, the PIC shall land the 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.
- (b) If not more than one engine of an aeroplane having three or more engines fails, or its rotation is stopped, the PIC may proceed to an aerodrome if he or she decides that proceeding to that aerodrome is as safe as landing at the nearest suitable aerodrome after considering the —
- (1) nature of the malfunction and the possible mechanical difficulties that may occur if flight is continued;
  - (2) altitude, mass and usable fuel at the time of engine stoppage;
  - (3) weather conditions enroute and at possible landing points;
  - (4) air traffic congestion;
  - (5) kind of terrain; and
  - (6) familiarity with the aerodrome to be used.

TENTH SCHEDULE, *contd.***10.520 OPERATING NEAR OTHER AIRCRAFT**

- (a) No person may operate an aircraft so close to another aircraft as to create a collision hazard.
- (b) No person may operate an aircraft in formation flight except by arrangement with the PIC of each aircraft in the formation.
- (c) No person may operate an aircraft carrying passengers for hire in formation flight.

**10.525 RIGHT-OF-WAY RULES: EXCEPT WATER OPERATIONS**

- (a) General.
  - (1) each pilot shall maintain vigilance so as to see and avoid other aircraft; and
  - (2) when a rule of this Subsection gives another aircraft the right-of-way, the pilot shall give way to that aircraft and may not pass over, under or ahead of it unless well clear.
- (b) In distress. An aircraft in distress has the right-of-way over all other air traffic.
- (c) Converging.
  - (1) when aircraft of the same category are converging at approximately the same altitude (except head-on or nearly so), the aircraft to the other's right has the right-of-way.
  - (2) if the converging aircraft are of different categories—
    - (i) a balloon has the right-of-way over any other category of aircraft;
    - (ii) a glider has the right-of-way over an airship, aeroplane or rotorcraft; and
    - (iii) an airship has the right-of-way over an aeroplane or rotorcraft.
- (d) Towing or refuelling. An aircraft towing or refuelling other aircraft has the right-of-way over all other engine-driven aircraft, except aircraft in distress.
- (e) Approaching head-on. When aircraft are approaching each other head-on, or nearly so, each pilot of each aircraft shall alter course to the right.
- (f) Overtaking. Each aircraft that is being overtaken has the right-of-way and each pilot of an overtaking aircraft shall alter course to the right to pass well clear.
- (g) Landing. Aircraft, while on final approach to land or while landing, have the right-of-way over other aircraft in flight or operating on the surface.

*(Note: The PIC may not take advantage of this rule to force an aircraft off the runway surface which has already landed and is attempting to make way for an aircraft on final approach.)*

- (h) More than one landing aircraft. When two or more aircraft are approaching an aerodrome for the purpose of landing, the aircraft at the lower altitude has the right-of-way.

*(Note: The PIC will not take advantage of this rule to cut in front of another which is on final approach to land or to overtake that aircraft.)*

**10.530 RIGHT-OF-WAY RULES: WATER OPERATIONS**

- (a) General. Each person operating an aircraft on the water shall, insofar 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 any rule of this Subsection.
- (b) Crossing. When aircraft, or an aircraft and a vessel, are on crossing courses, the aircraft or vessel to the other's right has the right-of-way.
- (c) Approaching head-on. When aircraft, or an aircraft and a vessel, are approaching head-on, or nearly so, each shall alter its course to the right to keep well clear.
- (d) Overtaking. Each aircraft or vessel that is being overtaken has the right-of-way, and the one overtaking shall alter course to keep well clear.

TENTH SCHEDULE, *contd.*

- (e) Special circumstances. When aircraft, or an aircraft and a vessel, approach so as to involve risk of collision, each aircraft or vessel shall proceed with careful regard to existing circumstances, including the limitations of the respective craft.

**10.535 USE OF AIRCRAFT LIGHTS**

- (a) If an aircraft has red rotating beacon lights installed, the pilot shall switch those lights on prior to starting engines and display those lights at all times the engines are running.
- (b) No person may operate an aircraft between the period from sunset to sunrise unless —
- (1) it has lighted navigation lights; and
  - (2) if anticollision lights are installed, those lights are lighted.

*(Note: A pilot is permitted to switch off or reduce the intensity of any flashing lights if they do or are likely to adversely affect the satisfactory performance of duties or to subject an outside observer to harmful dazzle).*

- (c) No person may park or move an aircraft at night in, or in a dangerous proximity to, a movement area of an aerodrome, unless the aircraft —
- (1) is clearly illuminated;
  - (2) has lighted navigation lights, or
  - (3) is in an area that is marked by obstruction lights.
- (d) No person may anchor an aircraft unless that aircraft —
- (1) has lighted anchor lights; or
  - (2) is in an area where anchor lights are not required on vessels.

**10.540 SIMULATED INSTRUMENT FLIGHT**

No person may operate an aircraft in simulated instrument flight unless —

- (1) that aircraft has fully functioning dual controls;
- (2) the other control seat is occupied by a safety pilot who holds at least a Private Pilot Licence with category and class ratings appropriate to the aircraft being flown; and
- (3) the safety pilot has adequate vision forward and to each side of the aircraft or a competent observer in the aircraft adequately supplements the vision of the safety pilot.

**10.545 INFLIGHT SIMULATION: COMMERCIAL AIR TRANSPORT**

- (a) No person may engage in simulated instrument flight conditions during commercial air transport operations.
- (b) No person may simulate an abnormal or emergency situation during commercial air transport operations.

**10.550 DROPPING, SPRAYING, TOWING**

Except under conditions prescribed by the Authority in Eleventh Schedule, no pilot may take the following actions —

- (1) dropping, dusting or spraying from an aircraft;
- (2) towing of aircraft or other objects; or
- (3) unless otherwise authorized by the Authority, allowing parachute descents.

**10.555 AEROBATIC FLIGHT**

- (a) No person may operate an aircraft in aerobatic flight —
- (1) over any city, town or settlement;
  - (2) over an open air assembly of persons;
  - (3) within the lateral boundaries of the surface areas of Class B, C, D or E airspace designated for an aerodrome;
  - (4) below an altitude of 450 meters (1,500 feet) above the surface; or

TENTH SCHEDULE, *contd.*

(5) when the flight visibility is less than 3 statute miles.

- (b) No person may operate an aircraft in manoeuvres exceeding a bank of 60 degrees or pitch of 30 degrees from level flight attitude unless all occupants of the aircraft are wearing parachutes packed by a qualified parachute rigger in the past 12 calendar months.

**10.560 FLIGHT TEST AREAS**

No person may flight-test an aircraft except over open water or sparsely populated areas having light traffic.

**10.565 PROHIBITED AREAS AND RESTRICTED AREAS**

No person may operate an aircraft in a danger area, restricted area or prohibited area, the particulars of which have been duly published, except in accordance with the conditions of the restrictions or by permission of the State over whose territory the areas are established.

**10.570 OPERATIONS IN MNPS OR RVSM AIRSPACE**

- (a) No person may operate a civil aircraft of Jamaica registry in the North Atlantic airspace designated as MNPS airspace or in airspace designated as RVSM without a written authorization issued by the Authority.
- (b) No person may operate an aircraft in MNPS or RVSM airspace, except in accordance with the conditions of the procedures and restrictions required for this airspace.

*(See the Seventh Schedule for requirements regarding instruments and equipment required for operations in MNPS and RVSM airspace.)*

**10.575 OPERATIONS ON OR IN THE VICINITY OF AN UNCONTROLLED AERODROME**

- (a) When approaching to land at an aerodrome without an operating control tower, each pilot of —
- (1) an aeroplane shall make all turns of that aeroplane to the left; or to the right, if appropriately indicated by the authorities having jurisdiction over that aerodrome;
  - (2) a helicopter shall avoid the flow of aeroplanes.
- (b) When departing an aerodrome without an operating control tower, each pilot of an aircraft shall comply with any traffic patterns established by the authorities having jurisdiction over that aerodrome.
- (c) Each pilot of an aircraft shall land and take off into the wind unless safety, the runway configurations or traffic considerations determine that a different direction is preferable.

**10.577 OPERATIONS IN CERTAIN AIRSPACE**

- (a) No person may operate an aircraft in Class A airspace unless they are operating under IFR in accordance with an ATC clearance.
- (b) No person may operate an aircraft in Class B, C, D or E airspace unless they establish two-way radio communications with the controlling ATC facility prior to entering and, while operating in that airspace —
- (1) operate on an ATC clearance, and
  - (2) maintain two-way communications.

**10.580 AERODROME TRAFFIC PATTERN ALTITUDES: TURBOJET, TURBOFAN OR LARGE AIRCRAFT**

- (a) When arriving at an aerodrome, the PIC of a turbojet, turbofan or large aircraft shall enter the traffic pattern at least 1,500 feet AGL until further descent is required for landing.
- (b) When departing, the PIC of a turbojet, turbofan or large aircraft shall climb to 1,500 AGL as rapidly as practicable.

TENTH SCHEDULE. *contd.***10.585 COMPLIANCE WITH VISUAL AND ELECTRONIC GLIDE SLOPES**

- (a) The PIC of an aeroplane 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.
- (b) The PIC of a turbojet, turboprop or large aeroplane approaching to land on a runway served by an ILS shall fly that aeroplane at or above the glide slope from the point of interception to the decision height.

**10.587 STABILIZED FINAL APPROACH**

The PIC of an aeroplane on final approach for landing will ensure the aircraft is in the landing configuration:

- (1) in instrument meteorological conditions, at or before 300 meters (1000 feet) above the elevation of the runway touchdown zone and maintain a stabilized configuration until the landing flare; and
- (2) in visual meteorological conditions, at or before 150 meters (500 feet) above the elevation of the runway touchdown zone and maintain a stabilized configuration until the landing flare.

*(See Appendix 1 to 10.587 for the criteria associated with a stabilized approach.)*

**10.590 RESTRICTION OR SUSPENSION OF OPERATIONS: COMMERCIAL AIR TRANSPORT**

If a PIC or an AOC holder knows of conditions, including aerodrome and runway conditions, that are a hazard to safe operations, that person shall restrict or suspend all commercial air transport operations to such aerodromes and runways as necessary until those conditions are corrected.

**10.595 CONTINUATION OF FLIGHT -- COMMERCIAL AIR TRANSPORT**

- (a) No PIC may continue a flight toward a destination aerodrome unless the latest available information indicates that the weather at the estimated time of arrival at that aerodrome or the alternate aerodrome will allow an approach and landing in accordance with the operating minima contained in the operations specifications.
- (b) No PIC may allow a flight to continue toward any aerodrome of intended landing where commercial air transport operations have been restricted or suspended, unless —
  - (1) in the opinion of the PIC, the conditions that are a hazard to safe operations may reasonably be expected to be corrected by the estimated time of arrival; or
  - (2) there is no safer procedure.

**10.600 INTERCEPTION**

- (a) No pilot may conduct an international flight unless the procedures and signals relating to interception of aircraft are readily available on the flight deck.
- (b) When intercepted by a military or government aircraft, each PIC shall comply with the international standards when interpreting and responding to visual signals as specified in the implementing standards.

*(See Appendix 1 to 10.600 for signals applicable to interception.)*

**SUBPART I: OPERATIONS IN CONTROLLED FLIGHT****10.605 ATC CLEARANCES**

- (a) Each PIC shall obtain an ATC clearance prior to operating a controlled flight, or a portion of a flight as a controlled flight.
- (b) Each PIC shall request an ATC clearance through the submission of a flight plan to an ATC facility.

TENTH SCHEDULE, *contd.*

- (c) Whenever an aircraft has requested a clearance involving priority, each PIC shall submit a report explaining the necessity for such priority, if requested by the appropriate ATC facility.
- (d) No person operating an aircraft on a controlled aerodrome may taxi on the manoeuvring area or any runway without clearance from the aerodrome control tower.

**10.610 ADHERENCE TO ATC CLEARANCES**

- (a) When an ATC clearance has been obtained, no PIC may deviate from the clearance, except in an emergency, unless he or she obtains an amended clearance.

*(Note: Paragraph (a) of this Subsection does not prohibit a pilot from cancelling an IFR clearance when operating in VMC conditions or cancelling a controlled flight clearance when operating in airspace that does not require controlled flight. However, the pilot must refile a VFR flight plan from that point unless within 25 nm of the intended aerodrome of landing.)*

- (b) When operating in airspace requiring controlled flight, no PIC may operate contrary to ATC instructions, except in an emergency.
- (c) Each PIC who deviates from an ATC clearance or instruction in an emergency, shall notify ATC of that deviation as soon as possible.

**10.615 COMMUNICATIONS**

Each person 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 ATC facility.

*(Note: More specific procedures may be prescribed by the appropriate ATC authority in respect of aircraft forming part of aerodrome traffic at a controlled aerodrome.)*

*(Note: Automatic signalling devices may be used to satisfy the requirement to maintain a continuous listening watch, if authorized by the Authority.)*

**10.620 ROUTE TO BE FLOWN**

- (a) Unless otherwise authorized or directed by the appropriate ATC facility, the PIC of a controlled flight shall, insofar as practicable —
  - (1) when on an established ATC route, operate along the defined centre line of that route; or
  - (2) when on any other route, operate directly between the navigation facilities and/or points defining that route.
- (b) The PIC of a controlled flight operating along an ATC route defined by reference to VORs 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.

*(Note: These requirements do not prohibit manoeuvring the aircraft to pass well clear of other air traffic or the manoeuvring of the aircraft in VFR conditions to clear the intended flight path both before and during climb or descent.)*

**10.625 INADVERTENT CHANGES**

A PIC shall take the following action in the event that a controlled flight inadvertently deviates from its current flight plan -

- (1) Deviation from track. If the aircraft is off track, the PIC shall adjust the heading of the aircraft to regain track as soon as practicable.
- (2) Variation in true airspeed. Each PIC shall inform the appropriate ATC facility if 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 5 per cent of the true airspeed or plus or minus .01 mach.

TENTH SCHEDULE, *contd.*

- (3) Change in time estimate. Each PIC shall notify the appropriate ATC facility and give a revised estimated time as soon as possible if the time estimate for a reporting point, flight information region boundary or destination aerodrome, whichever comes first, is found to be in excess of three minutes from that notified to ATC, or such other period of time as is prescribed by the appropriate ATC authority or on the basis of air navigation regional agreements.

**10.630 ATC CLEARANCE: INTENDED CHANGES**

Requests for flight plan changes shall include the following information -

- (1) Change of cruising level. Aircraft identification, requested new cruising level and cruising speed at this level and revised time estimates, when applicable, at subsequent flight information region boundaries.
- (2) Change of route —
  - (i) Destination unchanged. Aircraft identification, flight rules under which the flight is to be operated, description of 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.
  - (ii) Destination change. Aircraft identification, flight rules under which the flight is to be operated, description of revised route of flight to revised destination aerodrome including related flight plan data, beginning with the position from which requested change of route is to commence, revised time estimates, alternate aerodrome(s) and any other pertinent information.

**10.635 POSITION REPORTS**

- (a) Each pilot of a controlled flight shall report to the appropriate ATC facility, as soon as possible, the time and level of passing each designated compulsory reporting point, together with any other required information, unless exempted from this requirement by the appropriate ATC authority.
- (b) Each pilot of a controlled flight shall make position reports in relation to additional points or intervals when requested by the appropriate ATC facility

**10.640 OPERATIONS ON OR IN THE VICINITY OF A CONTROLLED AERODROME**

- (a) No person may operate an aircraft 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.
- (b) On arrival, each PIC shall establish communications required by paragraph (a) of this Subsection prior to 4 nautical miles from the aerodrome when operating from the surface up to and including 750 meters (2,500 feet).
- (c) On departure, each PIC shall establish communications with the control tower prior to taxi.
- (d) Takeoff, landing, taxi clearance. No person may, 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 by ATC.

*(Note: A clearance to "taxi to" the takeoff runway is not a clearance to cross or taxi onto that runway. It does authorize the PIC to cross other runways during the taxi to the assigned runway. A clearance to "taxi to" any other point on the aerodrome is a clearance to cross all runways that intersect the taxi route to the assigned point.)*

- (e) Communications failure. If the radio fails or two-way communication is lost, a PIC may continue a VFR flight operation and land if —
  - (1) the weather conditions are at or above basic VFR minimums; and
  - (2) clearance to land is received by light signals.

*(Note: During IFR operations, the two-way communications failure procedures will apply.)*

TENTH SCHEDULE, *contd.***10.645 UNLAWFUL INTERFERENCE**

A PIC shall, when and if possible, notify the appropriate ATC facility when an aircraft is being subjected to unlawful interference, including —

- (1) any significant circumstances associated with the unlawful interference; and
- (2) any deviation from the current flight plan necessitated by the circumstances.

**10.650 TIME CHECKS**

- (a) Each PIC shall use Co-ordinated Universal Time (UTC), expressed in hours and minutes of the 24-hour day beginning at midnight, in flight operations.
- (b) Each PIC shall obtain a time check prior to operating a controlled flight and at such other times during the flight as may be necessary.

**10.655 UNIVERSAL SIGNALS**

- (a) Upon observing or receiving any of the designated universal aviation signals, each person operating an aircraft shall take such action as may be required by the interpretation of the signal.
- (b) Universal signals shall have only the meanings designated.
- (c) Each person using universal signals in the movement of aircraft shall only use them for the purpose indicated.
- (d) No person may use signals likely to cause confusion with universal aviation signals.

*(See Appendix 1 to 10.655 for a list of universal aviation signals.)*

**SUBPART J: VFR FLIGHT RULES****10.659 APPLICABILITY**

- (a) The VFR rules of this Subpart are applicable in the airspace of Jamaica.
- (b) The holders of airman licences issued by Jamaica will comply with these rules when flying outside Jamaica, except where these rules may differ with the other State, in which case compliance with the rules of the State being overflown is required.

**10.660 VISUAL METEOROLOGICAL CONDITIONS**

No person may operate an aircraft under VFR when the flight visibility is less than, or at a distance from the clouds that is less than that prescribed, or the corresponding altitude and class of airspace prescribed by the International Civil Aviation Organization (ICAO) in Annex 2 – Rules of the Air.

*(See Appendix 1 to 10.660 for the table outlining the airspace and visual meteorological minimums specified in Annex 2)*

**10.665 VFR WEATHER MINIMUMS FOR TAKEOFF AND LANDING**

- (a) No person may enter the traffic pattern, land or take off an aircraft under VFR from an aerodrome located in Class B, Class C, Class D or Class E airspace unless the —
  - (1) reported ceiling is at least 300 meters (1,000 feet); and
  - (2) reported ground visibility is at least 3 statute miles, if reported.
- (b) If the ground visibility is not reported, the pilot shall maintain 3 statute miles flight visibility.
- (c) Class G Airspace. No person may enter the traffic pattern, land or take off an aircraft under VFR from an aerodrome located in Class G airspace below 360 meters (1,200 feet) AGL unless —
  - (1) For aeroplanes. The visibility is at least 1 statute mile and the aircraft can be operated clear of clouds within one-half mile of the runway; or
  - (2) For helicopters. The helicopter 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.



TENTH SCHEDULE. *contd.*

*(Note: The only exception to the required weather minimums of this Subsection is during a Special VFR operation.)*

**10.669 VFR OVER-THE-TOP (OTT)**

Notwithstanding Subsection 10.660, an aircraft may be operated in VFR OTT flight during the cruise portion of the flight during the day if —

- (1) the aircraft is operated at a vertical distance from cloud of at least 1,000 feet;
- (2) where the aircraft is operated between two cloud layers, the vertical distance between the layers is at least 5,000 feet;
- (3) flight visibility at the cruising altitude of the aircraft is at least five miles; and
- (4) the weather at the aerodrome of destination is forecast to have a sky condition of scattered cloud or clear and a ground visibility of five miles or greater with no forecast of precipitation, fog, thunderstorms or blowing snow, and those conditions are forecast to exist —
  - (i) where the forecast is an aerodrome forecast (TAF), for the period from one hour before to two hours after the estimated time of arrival; and
  - (ii) where an aerodrome forecast (TAF) is not available and the forecast is an area forecast (FA), for the period from one hour before to three hours after the estimated time of arrival.

*(See Appendix 1 to 10.669 for additional requirements for VFR OTT flight applicable to commercial air transport operations.)*

**10.670 SPECIAL VFR OPERATIONS**

- (a) No person may conduct a Special VFR flight operation to enter the traffic pattern, land or take off an aircraft under Special VFR from an aerodrome located in Class B, Class C, Class D or Class E airspace unless —
  - (1) authorized by an ATC clearance;
  - (2) the aircraft remains clear of clouds; and
  - (3) the flight visibility is at least 1 statute mile.
- (b) No person may conduct a Special VFR flight operation in an aircraft between sunset and sunrise unless —
  - (1) the PIC is current and qualified for IFR operations; and
  - (2) the aircraft is qualified to be operated for IFR flight.

**10.671 OVER WATER VFR OPERATIONS — SINGLE-ENGINE COMMERCIAL AIR TRANSPORT AIRCRAFT**

No person may conduct single-engine, passenger-carrying commercial air transport operations in VFR flight over water beyond gliding distance from a shoreline.

**10.673 LIMITATION TO VFR NAVIGATION BY VISUAL REFERENCE**

Except as provided in Subsection 10.362 (b), no person may operate a flight under VFR navigating only by visual reference to landmarks unless the distance between each succeeding landmark is less than 110 km (60 nautical miles).

**10.675 VFR CRUISING ALTITUDES**

- (a) Each person operating an aircraft in level cruising flight under VFR at altitudes above 900 meters (3,000 ft) from the ground or water, shall maintain:
  - (1) for magnetic courses from zero degrees to 179 degrees, any odd thousand MSL altitude or flight level plus 150 meters (500 feet) (such as 3,500, 5,500 or FL 215).
  - (2) for magnetic courses from 180 degrees to 359 degrees, any even thousand MSL altitude or flight level plus 150 meters (500 feet) (such as 4,500, 6,500 or FL 225).
- (b) Exception: Paragraph (a) of this Subsection does not apply when otherwise authorized by ATC, when operating in a holding pattern or during manoeuvring in turns.

TENTH SCHEDULE, *contd.***10.680 ATC CLEARANCES FOR VFR FLIGHTS**

Each pilot of a VFR flight shall obtain and comply with ATC clearances and maintain a listening watch before and during operations —

- (1) within Classes B, C and D airspace;
- (2) as part of aerodrome traffic at controlled aerodromes; and
- (3) under Special VFR.

**10.685 VFR FLIGHTS REQUIRING ATC AUTHORIZATION**

Unless authorized by the appropriate ATC authority, no pilot may operate a VFR flight at transonic or supersonic speeds.

*(Note: ATC authorization for VFR flights may not be granted in areas where a vertical separation minimum of only 300m (1,000 ft) applied above FL 290.)*

**10.690 WEATHER DETERIORATION BELOW VMC**

Each pilot of a VFR flight operated as a controlled flight shall, when he or she finds it is not practical or possible to maintain flight in VMC in accordance with the ATC flight plan —

- (1) request an amended clearance enabling the aircraft to continue in VMC to its destination or to an alternative aerodrome or to leave the airspace within which an ATC clearance is required;
- (2) if no clearance can be obtained, continue to operate in VMC and notify the appropriate ATC facility of the action being taken either to leave the airspace concerned or to land at the nearest suitable aerodrome;
- (3) when operating within a control zone, request authorization to operate as a special VFR flight; or
- (4) request clearance to operate in IFR, if currently rated for IFR operations.

**10.695 CHANGING FROM VFR TO IFR**

Each pilot operating in VFR who wishes to change to IFR shall—

- (1) if a flight plan was submitted, communicate the necessary changes to be effected to the current flight plan; or
- (2) submit a flight plan to the appropriate ATC facility and obtain a clearance prior to proceeding IFR when in controlled airspace.

**10.700 TWO-WAY RADIO COMMUNICATION FAILURE IN VFR**

If radio failure occurs in VFR while under ATC control, or if VFR conditions are encountered after the failure, each pilot shall —

- (1) continue the flight under VFR;
- (2) land at the nearest suitable aerodrome; and
- (3) report arrival to ATC by the most expeditious means possible.

**SUBPART K: IFR FLIGHT RULES****10.703 APPLICABILITY**

- (a) The IFR rules of this Subpart are applicable in the airspace of Jamaica.
- (b) The holders of airman licences issued by Jamaica will comply with these rules when flying outside Jamaica, except where these rules may differ with the other State, in which case compliance with the rules of the State being overflown is required.

**10.705 IFR IN CONTROLLED AIRSPACE**

No person may operate an aircraft in controlled airspace under IFR unless that person has —

- (1) filed an IFR flight plan; and

TENTH SCHEDULE. *contd.*

(2) received an appropriate ATC clearance.

**10.710 IFR FLIGHTS OUTSIDE CONTROLLED AIRSPACE**

- (a) Each PIC of an IFR flight operating outside controlled airspace but within or into areas or along routes designated by the appropriate ATC authority, shall maintain a listening watch on the appropriate radio frequency and establish two-way communication, as necessary, with the ATC facility providing flight information service.
- (b) Each PIC of an IFR flight operating outside controlled airspace that is required to comply with (a) shall report position using the same phraseology and sequencing as specified for controlled flights.

**10.715 IFR TAKEOFF MINIMUMS FOR COMMERCIAL AIR TRANSPORT**

- (a) Unless otherwise approved by the Authority, no pilot operating an aircraft in commercial air transport operations may accept a clearance to take off from an aerodrome under IFR unless weather conditions are at or above the aerodrome operating minima or ½ statute mile visibility (RVR 2600 feet or 680 meters), whichever is higher.
- (b) Except as provided in paragraph (c) of this Subsection, no pilot operating an aircraft in commercial air transport operations may take off from an aerodrome under IFR if the weather conditions are at or above the takeoff minima but below the landing minima for the runway to be used, unless –
- (1) the aircraft is certificated for a maximum takeoff mass of 5,700 kg or greater;
  - (2) an alternate aerodrome is specified in the operational flight plan; and
  - (3) that aerodrome is located –
    - (i) in the case of a twin-engine aircraft, within the distance that can be flown in 60 minutes at the one-engine inoperative cruise speed; or
    - (ii) in the case of three or four engine aircraft, or where an air operator is authorized in its AOC to conduct ETOPS with the aircraft operated, within the distance that can be flown in 120 minutes at the one-engine inoperative cruise speed.
- (c) A person may conduct a takeoff in an aircraft under IFR if the weather conditions are at or above the takeoff minima but below the landing minima for the runway to be used, if the weather conditions are at or above the landing minima for another suitable runway at that aerodrome, taking into account the aircraft performance operating limitations for that aircraft.

*(Note: For the purpose of this Regulation, the landing minima are the decision height or minimum descent altitude and the visibility published for the approach.)*

*(See Appendix 1 to 10.715 for takeoff visibility determinations.)*

**10.718 IFR OR NIGHT OPERATIONS – SINGLE-ENGINE COMMERCIAL AIR TRANSPORT OPERATIONS**

Except for an AOC holder with the appropriate Operations Specifications, no person may operate a single-engine aircraft in IFR flight or at night while engaged in commercial air transport operations.

*(See Appendix 1 to 10.718 for the requirements associated with single-engine IFR/night flight.)*

**10.720 MINIMUM ALTITUDES FOR IFR OPERATIONS**

- (a) Operation of aircraft at minimum altitudes. Except when necessary for takeoff or landing, no person may operate an aircraft under IFR below –
- (1) the applicable minimum altitudes prescribed by the authorities having jurisdiction over the airspace being overflown; or
  - (2) if no applicable minimum altitude is prescribed by the authorities –
    - (i) over high terrain or in mountainous areas, at a level which is at least 600 meters (2,000 ft) above the highest obstacle located within 8 km (5 sm) of the estimated position of the aircraft; and
    - (ii) elsewhere than as specified in paragraph (a) (2) (i) of this Subsection, at a level which is at least 300 meters (1,000 ft) above the highest obstacle located within 8 km (5 sm) of the estimated position of the aircraft.

TENTH SCHEDULE, *contd.*

- (3) if an MEA and a MOCA are prescribed for a particular route or route segment, a person may operate an aircraft below the MEA down to, but not below, the MOCA when within 22 nautical miles of the VOR concerned.
- (b) Climb for obstacle clearance. If unable to communicate with ATC each pilot shall climb to a higher minimum IFR altitude immediately before passing the point beyond which that minimum altitude applies.

**10.725 MINIMUM ALTITUDES FOR USE OF AN AUTOPILOT**

- (a) For enroute operations, no person may use an autopilot at an altitude above the terrain —
  - (1) that is less than 150 meters (500 feet); or
  - (2) if the maximum altitude loss specified in the AFM for a malfunction under cruise conditions when multiplied by two is more than 150 meters (500 feet), then the derived figure becomes the controlling minimum altitude for use of the autopilot.
- (b) For instrument approach operations, no person may use an autopilot at an altitude above the terrain —
  - (1) that is more than 15 m (50 feet) below the MDA or DH; or
  - (2) if the maximum altitude loss specified in the AFM for a malfunction under approach conditions when multiplied by two is more than 15 m (50 feet), the extent to which that figure exceeds 15 m (50 feet) will be added to the minimum altitude determined for paragraph (b) (1) of this Subsection and then becomes the controlling minimum altitude for use of the autopilot.
- (c) For Category III approaches, the Authority may approve the use of a flight control guidance system with automatic capability to touchdown.

**10.730 IFR CRUISING ALTITUDE OR FLIGHT LEVEL IN CONTROLLED AIRSPACE**

- (a) Each person operating an aircraft under IFR in level cruising flight in controlled airspace shall maintain the altitude or flight level assigned that aircraft by ATC.
- (b) If the ATC clearance assigns "VFR conditions on-top," each person shall maintain a VFR cruising altitude in VMC.

**10.735 IFR CRUISING ALTITUDE OR FLIGHT LEVEL IN UNCONTROLLED AIRSPACE**

- (a) Each person operating an aircraft in level cruising flight under IMC at altitudes above 900 meters (3,000 ft) from the ground or water, shall maintain —
  - (1) for magnetic courses from zero degrees to 179 degrees, any odd thousand MSL altitude or flight level, such as 5,000, 7,000, or FL 210; and
  - (2) for magnetic courses from 180 degrees to 359 degrees, any even thousand MSL altitude or flight level, such as 4,000, 6,000 or FL 220.
- (b) Unless authorized for RVSM operations, each person operating an aircraft in level cruising flight under IMC shall maintain —
  - (1) up to and including FL290, the magnetic courses specified in paragraph (a) of this Subsection;
  - (2) at altitudes above FL 290, for magnetic courses from zero degrees to 179 degrees, flight levels every four thousand feet above FL290, such as FL 330, FL 370 or FL 410; and
  - (3) at altitudes above FL 290, for magnetic courses from 180 degrees to 359 degrees, beginning with FL 310, flight levels every four thousand feet above FL310, such as FL 350, FL 390 or FL 430 (FL 300 is not available for flight planning purposes).
- (c) A person may deviate from the cruising altitudes specified in paragraph (a) of this Subsection only when —
  - (1) authorized by ATC;
  - (2) operating in a holding pattern; or
  - (3) manoeuvring in turns.

TENTH SCHEDULE, *contd.***10.740 IFR RADIO COMMUNICATIONS**

Each PIC of an aircraft operated under IFR in controlled airspace shall have a continuous watch maintained on the appropriate frequency and shall report by radio as soon as possible —

- (1) the time and altitude of passing each designated reporting point, or the reporting points specified by ATC, except that while the aircraft is under radar control, only the passing of those reporting points specifically requested by ATC need be reported;
- (2) the next reporting point and its ETA and the successive reporting point;
- (3) any unforecast weather conditions encountered; and
- (4) any other information relating to the safety of flight, such as hazardous weather or abnormal radio station indications.

**10.745 OPERATION UNDER IFR IN CONTROLLED AIRSPACE: MALFUNCTION REPORTS**

- (a) The PIC of each aircraft operated in controlled airspace under IFR shall report as soon as practical to ATC any malfunctions of navigational, approach or communication equipment occurring in flight.
- (b) In each report specified in paragraph (a) of this Subsection, the PIC shall include the —
  - (1) aircraft identification;
  - (2) equipment affected;
  - (3) degree to which the capability of the pilot to operate under IFR in the ATC system is impaired; and
  - (4) nature and extent of assistance desired from ATC.

**10.750 COMMENCEMENT AND CONTINUATION OF IFR FLIGHT TOWARD A DESTINATION**

No pilot may commence or continue an IFR 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.

**10.755 INSTRUMENT APPROACHES TO AERODROMES**

- (a) Each person operating a civil aircraft shall use a standard instrument approach procedure prescribed by the State having jurisdiction over the aerodrome, unless otherwise authorized by the Authority.
- (b) No person may make an instrument approach at an airport except in accordance with the published instrument approach procedures and the associated IFR weather minimums.
- (c) *Authorized DH or MDA.* For the purpose of this Subsection, when the approach procedure being used provides for and requires the use of a DH or MDA, the authorized DH or MDA is the highest of the following -
  - (1) the DH or MDA prescribed by the approach procedure;
  - (2) the DH or MDA prescribed for the PIC; or
  - (3) the DH or MDA for which the aircraft is equipped.

**10.757 RUNWAY VISUAL RANGE (RVR) MINIMUMS**

- (a) No person may operate an aircraft for the purpose of the following landing or takeoff operations at an aerodrome unless adequate landing and rollout Runway Visual Range (RVR) information is available —
  - (1) takeoff, approach and landing operations with reported visibility less than 780 meters (2600 feet); and
  - (2) category II and III Approaches.
- (b) Where RVR is used, the controlling RVR is the touchdown RVR, unless otherwise specified by the Authority.

TENTH SCHEDULE, *contd.***10.760 APPROVAL REQUIRED: CATEGORY II OR III APPROACHES**

No person may operate a civil aircraft of Jamaica registry or under a Jamaica AOC to the instrument approach minimums for Category II or III approaches without the written approval of the Authority.

**10.765 COMMENCING AN INSTRUMENT APPROACH: ALL OPERATIONS**

- (a) Except as provided in paragraph (b) of this Subsection, no pilot may continue an approach past the final approach fix, or where a final approach fix is not used, begin the final approach segment of an instrument approach procedure, at any aerodrome unless —
- (1) a source approved by the Authority issues a weather report for that aerodrome; and
  - (2) the latest weather report for that aerodrome reports the visibility to be equal to or more than the visibility minimums prescribed for that procedure.
- (b) A pilot may continue an approach past the final approach fix, or where a final approach fix is not used, begin the final approach segment of an instrument approach procedure, if —
- (1) when the visibility report is received, the aircraft —
    - (i) has passed the outer marker or the fix that serves as the outer marker; and
    - (ii) is in descent to the runway;
  - (2) the aircraft is on a training flight where a landing is not intended and the appropriate air traffic control unit is informed that a missed approach procedure will be initiated at or above the decision height or the minimum descent altitude, as appropriate; or
  - (3) the visibility is fluctuating above and below the minimum visibility specified for the approach.

*(Note: For the purpose of this Subsection, the final approach segment begins at the final approach fix or facility prescribed in the instrument approach procedure. When a final approach fix is not prescribed for a procedure that includes a procedure turn, the final approach segment begins at the point where the procedure turn is completed and the aircraft is established inbound toward the aerodrome on the final approach course within the distance prescribed in the procedure.)*

**10.770 OPERATION BELOW DH OR MDA**

Where a DH or MDA is applicable, no pilot may operate a civil aircraft at any aerodrome or heliport below the authorized MDA or continue an approach below the authorized DH unless —

- (1) 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;
- (2) for commercial air transport operations, a descent rate will allow touchdown to occur within the touchdown zone of the runway of intended landing;
- (3) the flight visibility is not less than the visibility prescribed in the standard instrument approach being used; and
- (4) 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 may 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.

TENTH SCHEDULE, *contd.*

*(Note: These visual references do not apply to Category II and III operations. The required visual references under Category II and III operations are provided in the AOC holder's operations specifications or a special authorization prescribed by the Authority.)*

**10.780 EXECUTION OF A MISSED APPROACH PROCEDURE**

Each pilot operating a civil aircraft shall immediately execute an appropriate missed approach procedure when either of the following conditions exist -

- (1) whenever the required visual reference criteria is not met in the following situations -
  - (i) when the aircraft is being operated below MDA; or
  - (ii) upon arrival at the missed approach point, including a DH where a DH is specified and its use is required, and at any time after that until touchdown.
- (2) whenever an identifiable part of the aerodrome is not distinctly visible to the pilot during a circling manoeuvre at or above MDA, unless the inability to see an identifiable part of the aerodrome results only from a normal bank of the aircraft during the circling approach.

**10.785 CHANGE FROM IFR FLIGHT TO VFR FLIGHT**

- (a) A pilot electing to change from IFR flight to VFR flight shall notify the appropriate ATC facility specifically that the IFR flight is cancelled and then communicate the changes to be made to his or her current flight plan.
- (b) When a pilot operating under IFR encounters VMC, he or she may not cancel the IFR flight unless it is anticipated, and intended, that the flight will be continued in uninterrupted VMC to destination.

**10.790 TWO-WAY RADIO COMMUNICATIONS FAILURE IN IFR**

- (a) If two-way radio communication failure occurs in IFR conditions and flight in VFR is possible, proceed in VMC and land at the nearest suitable aerodrome.
- (b) If two-way radio communication failure occurs in IFR conditions and flight in VFR is judged not feasible, each pilot shall continue the flight according to the following -
  - (1) Route.
    - (i) by the route assigned in the last ATC clearance received;
    - (ii) if being radar vectored, by the direct route from the point of radio failure to the fix, route or airway specified in the vector clearance;
    - (iii) in the absence of an assigned route, by the route that ATC has advised may be expected in a further clearance; or
    - (iv) in the absence of an assigned route or a route that ATC has advised may be expected in a further clearance, by the route filed in the flight plan.
  - (2) Altitude. At the highest of the following altitudes or flight levels for the route segment being flown -
    - (i) the altitude or flight level assigned in the last ATC clearance received;
    - (ii) the minimum altitude (converted, if appropriate, to minimum flight level for IFR operations); or
    - (iii) the altitude or flight level ATC advised may be expected in a further clearance.
  - (3) Leave clearance limit.
    - (i) when the clearance limit is at a fix from which an approach begins, commence descent or descent and approach -
      - (A) as close as possible to the expected-further-clearance time if one has been received; or
      - (B) if one has not been received, as close as possible to the estimated time of arrival as calculated from the filed or amended (with ATC) estimated time enroute.
    - (ii) if the clearance limit is not a fix from which an approach begins -

TENTH SCHEDULE, *contd.*

- (A) leave the clearance limit at the expected-further-clearance time if one has been received, or if none has been received, upon arrival over the clearance limit;
- (B) proceed to a fix from which an approach begins; and
- (C) commence descent or descent and approach as close as possible to the ETA as calculated from the filed or amended with ATC estimated time enroute.

**SUBPART L: LIABILITY INSURANCE****10.795 CURRENCY OF FUNDS**

The funds referred to in this Subpart are in United States denominations.

**10.800 APPLICABILITY**

This regulation applies to every owner or operator of an aircraft that is registered in Jamaica, or registered pursuant to the laws of a foreign State and operated in Jamaica.

**10.805 DUTY TO INSURE RISK OF INJURY TO OR DEATH OF PASSENGERS**

Subject to Subsection 10.810, none of the following aircraft owners shall operate an aircraft unless, in respect of every incident related to the operation of the aircraft, the owner has subscribed for liability insurance covering risks of injury to or death of passengers in an amount that is not less than the amount determined by multiplying \$120,000 by the number of passengers on board the aircraft –

- (1) an air operator certified pursuant to Parts IX and X of these Regulations;
- (2) the holder of a flight training organization or unit certificate issued pursuant to Regulation 49;
- (3) the operator of any aircraft where fare-paying passengers are carried on board; or
- (4) an aircraft not referred to in (1), (2) or (3), where the MCTOW (or the maximum total weight authorized) of the aircraft exceeds 1043kg (2,300 pounds).

**10.810 PASSENGERS NOT COVERED**

The insurance coverage referred to in Subsection 10.805 need not extend to any passenger who–

- (1) is an employee of an owner referred to in paragraph 10.805 if workers' compensation legislation governing a claim for damages against the owner by the employee is applicable; or
- (2) is carried on board the aircraft for the purpose of conducting a parachute descent, where the air operator has posted a readily visible notice to inform passengers, before embarking, that there is no insurance coverage for parachutists.

**10.815 DUTY TO INSURE RISK OF PUBLIC LIABILITY**

No aircraft owner referred to in Subsection 10.805 shall operate an aircraft unless, in respect of every incident related to the operation of the aircraft, the owner has subscribed for liability insurance covering risks of public liability in an amount not less than –

- (1) \$500,000, where the maximum permissible take-off weight of the aircraft is not greater than 3402 kg (7,500 pounds);
- (2) \$100,000,000, where the maximum permissible take-off weight of the aircraft is greater than 3402 kg (7,500 pounds) but not greater than 8165 kg (18,000 pounds),
- (3) \$100,000,000 plus an amount determined by multiplying \$50 by the number of kilograms by which the maximum permissible take-off weight of the aircraft exceeds 8165 kg (18,000 pounds).

**10.820 OTHER AIRCRAFT DUTY TO INSURE RISK OF PUBLIC LIABILITY**

No aircraft owner not referred to in paragraph 10.805 shall operate an aircraft unless, in respect of every incident related to the operation of the aircraft, the owner has subscribed for liability insurance covering risks of public liability in an amount that is not less than \$100,000.



TENTH SCHEDULE, *contd.***10.825 No EXCLUSION OR WAIVER**

No aircraft owner referred to in this Subpart shall, in order to comply with Subsections 10.805, 10.815 or 10.820, subscribe for any liability insurance that contains an exclusion or waiver provision that reduces the insurance coverage for any incident below the applicable minimum determined pursuant to those Subsections, unless that provision-

- (1) is a standard exclusion clause adopted by the international aviation insurance industry that applies in respect of -
  - (i) war, hijacking and other perils;
  - (ii) noise, pollution and other perils;
  - (iii) radioactive contamination;
- (2) is in respect of a chemical drift;
- (3) includes a statement that the insurance does not apply in respect of liability assumed by the owner under any contract or agreement unless the liability would have attached to the owner even in the absence of such a contract or agreement; or
- (4) includes a statement that the policy is void if the owner has concealed or misrepresented any material fact or circumstances concerning the insurance or the subject thereof or if there is any fraud, attempted fraud or false statement by the owner touching any matter relating to the insurance or the subject thereof, either before or after the incident.

**10.830 OPTION FOR COMPREHENSIVE SINGLE LIMIT INSURANCE**

An aircraft owner referred to in Subsection 10.805 may comply with Subsections 10.805, 10.815 and 10.820 by subscribing for comprehensive single limit liability insurance consisting of a single policy or a combination of primary and supplementary policies.

**10.835 VISIBLE SIGN INDICATING LACK OF INSURANCE**

Where an owner of an aircraft is not required to carry passenger liability insurance pursuant to Subsection 10.805, the owner shall display a placard, attached to the aircraft in a location that is clearly visible to any passenger on board the aircraft, stating that the operator of the aircraft is not insured for injury to a passenger resulting from an accident while on board the aircraft.

**10.840 ON-BOARD PROOF OF INSURANCE**

Subject to Subsection 10.845 -

- (1) no operator of an aircraft operated pursuant to sub-paragraph (1), (2) or (3) of Subsection 10.805; and
- (2) no owner of an aircraft operated pursuant to Subsection 10.805(4) or 10.820, shall operate the aircraft unless there is carried on board the aircraft proof that liability insurance is subscribed for in accordance with this regulation.

**10.845 OFF-AIRCRAFT PROOF OF INSURANCE**

A balloon may be operated without the proof of insurance referred to in Subsection 10.840 being carried on board if that proof is immediately available to the pilot-in-command -

- (1) prior to commencing a flight; and
- (2) on completion of a flight.

**SUBPART M: ULTRA LIGHT AEROPLANE OPERATIONS****10.850 OPERATION OF AN ULTRA LIGHT AEROPLANE**

- (a) No person may operate as pilot-in-command of an ultra-light aeroplane in Jamaica unless that person is in possession of a Pilot Permit - Ultra-light Aeroplane issued by the Jamaica Civil Aviation Authority.
- (b) No person may give instruction in an ultra-light aeroplane in Jamaica unless that person is in possession of a Pilot Permit - Ultra-light Aeroplane, issued by the Authority and endorsed with a Flight Instructor - Ultra-light Aeroplane rating.

TENTH SCHEDULE, *contd.*

- (c) No person may operate an ultra-light aeroplane in Jamaica unless the aeroplane is registered in Jamaica and the pilot is in possession of a Flight Permit issued by the Authority.

**10.855 INSTRUMENTS AND EQUIPMENT**

No person may conduct a take-off in an advanced ultra-light aeroplane unless it is equipped with -

- (1) where the aircraft is operated in controlled airspace, a sensitive altimeter adjustable for barometric pressure;
- (2) an airspeed indicator;
- (3) a magnetic compass or a magnetic direction indicator that operates independently of the aircraft electrical generating system;
- (4) a tachometer for each engine and for each propeller that has limiting speeds established by the manufacturer;
- (5) an oil pressure indicator for each engine employing an oil pressure system;
- (6) a coolant temperature indicator for each liquid-cooled engine;
- (7) an oil temperature indicator for each air-cooled engine having a separate oil system;
- (8) a cylinder head temperature gauge;
- (9) a manifold pressure gauge for each -
  - (i) reciprocating engine equipped with a variable-pitch propeller;
  - (ii) supercharged engine; and
  - (iii) turbocharged engine;
- (10) a means for the flight crew, when seated at the flight controls, to determine -
  - (i) the fuel quantity in each main fuel tank; and
  - (ii) if the aircraft employs retractable landing gear, the position of the landing gear; and
- (11) where the aircraft is operated for flight instructional purposes, a radio communication system adequate to permit two-way communication on the appropriate frequency when the aircraft is operated within Class "C", Class "E", or Class "E -" airspace.

**10.860 OPERATION OF AN ULTRA-LIGHT AEROPLANE**

- (a) No person may operate an ultra-light aeroplane -
- (1) at night;
  - (2) in IFR flight;
  - (3) within 100 m (330 ft) of any boat, ship or vessel.
  - (4) within 610 m (2,000 ft) of any congested area; or
  - (5) subject to paragraph (e) of this Subsection, in controlled airspace.
- (b) No person may take off from, land on or operate an ultra-light aeroplane on water unless that person has a Pilot Permit – Ultra-light Aeroplane issued by the Authority, endorsed with a Sea Class Rating.
- (c) No person may operate an ultra-light aeroplane unless the aircraft is equipped with -
- (1) a suitable means of restraint for each occupant that is attached to the primary structure of the aircraft;
  - (2) for aeroplanes operated from, or over water, a suitable life jacket for each occupant; and
  - (3) a placard that is affixed to a surface in plain view of any occupant seated in the aeroplane that states -
 

"THIS AEROPLANE IS OPERATING WITHOUT A CERTIFICATE OF AIRWORTHINESS"
- (d) No person shall operate an ultra-light aeroplane unless each person on board -
- (1) is secured by means of the restraint referred to in subparagraph (c) (i); and
  - (2) where the aircraft is not an advanced ultra-light aeroplane, is wearing a protective helmet.
- (e) A person may operate an ultra-light aeroplane in controlled airspace -

TENTH SCHEDULE, *contd.*

- (1) within five nautical miles from the centre of an airport or within a control zone of an uncontrolled airport where the person has obtained permission from the airport operator;
  - (2) within a control zone of a controlled airport where the person has obtained an air traffic control clearance by two-way radio voice communication from the air traffic control unit of the airport; or
  - (3) where the aircraft is an advanced ultra-light aeroplane, if the aeroplane is equipped in accordance with the Tenth Schedule, Subsection 10.855 (a).
- (f) No person may carry a passenger in an ultra-light aeroplane in Jamaica unless the aeroplane has no restrictions against carrying another person and -
- (1) the pilot is a holder of a Pilot Permit – Ultra-light Aeroplane endorsed with a Passenger-carrying Rating or Flight Instructor Rating issued by the Jamaica Civil Aviation Authority; or
  - (2) the pilot is a holder of a Pilot Permit – Ultra-light Aeroplane issued by the Authority and the other person is a holder of a Pilot Licence or Permit, other than a Student Pilot Licence or Permit, which allows that person to act as pilot-in-command of an ultra-light aeroplane.
- (g) No person may carry a passenger for hire or reward in an ultra-light aeroplane in Jamaica unless -
- (1) the aircraft is registered as an advanced ultra-light aeroplane and is listed on the Transport Canada *Approved List of Advanced Ultra-light Aeroplanes* or on an equivalent document issued by the United States' FAA or the European Union;
  - (2) the carriage is for the sole purpose of flight instruction and the pilot is a holder of a Pilot Permit – Ultra-light Aeroplane endorsed with a Flight Instructor Rating issued by the Authority;
  - (3) the advanced ultra-light aeroplane is maintained in accordance with the manufacturer's specified maintenance programme, or as approved by the JCAA;
  - (4) the owner of the advanced ultra-light aeroplane has complied with any mandatory actions specified by the manufacturer; and
  - (5) the advanced ultra-light aeroplane has not been modified without written approval from the manufacturer.

**10.865 PILOT QUALIFICATIONS AND PRIVILEGES**

- (a) An applicant for a Student Pilot Permit – Ultra-light Aeroplanes shall meet the following requirements -
- (1) Age. Be at least 17 years of age.
  - (2) Medical Fitness. Hold a valid Class 2 or higher medical certificate.
  - (3) Knowledge. Provide a statement of assurance from the holder of a Flight Instructor Rating – Ultra-Light Aeroplane or a Flight Instructor Rating – Aeroplane that the applicant has obtained at least 90%, corrected to 100%, on an examination of the following subjects -
    - (i) air Traffic Control (ATC) clearances and instructions including ATC VFR rules and procedures;
    - (ii) ATC rules and procedures at controlled and uncontrolled aerodromes and airports;
    - (iii) information Circulars and NOTAMs;
    - (iv) basic aerodynamics applicable to the type of ultra-light being used for the training;
    - (v) meteorological phenomena as applicable, including VFR and Special VFR weather limits;
    - (vi) human factors, including pilot decision-making; and
    - (vii) emergency procedures, including stall recognition and recovery procedures.
  - (4) Experience and Skill. Once the citizenship, age, medical fitness and knowledge requirements have been met and evidence thereof presented to the Authority, a Student Pilot Permit in the category applied for shall be issued. The instructor shall be responsible for ensuring that the applicant has reached a satisfactory standard of experience and skill to complete solo flight before authorizing the first solo flight.
- (b) An applicant for a Pilot Permit – Ultra-light Aeroplane shall meet the following requirements:

TENTH SCHEDULE, *contd.*

- (1) Age. Be at least 17 years of age.
  - (2) Medical Fitness. Hold a valid Class 2 or higher medical certificate.
  - (3) Knowledge. Have completed a minimum of 20 hours of ultra-light pilot ground school instruction on the following subjects and obtained at least 80%, corrected to 100%, on an examination covering these subjects -
    - (i) aviation Law – regulations, rules, orders, air traffic services practices and procedures and licensing requirements relevant to the permit;
    - (ii) navigation – VFR navigation techniques;
    - (iii) meteorology;
    - (iv) aeronautics – general knowledge of airframes, engines and systems, theory of flight, flight instruments, flight operations and human factors, including pilot decision-making; and
    - (v) emergency procedures, including stall recognition and recovery procedures.
  - (4) Experience. Have completed at least 30 take-offs and landings in ultra-light aeroplanes, including a minimum of 10 as sole occupant of the aeroplane, and a minimum of 10 hours pilot flight training under the direction of an appropriately qualified flight instructor of which-
    - (i) a minimum of 5 hours shall have been dual instruction flight time;
    - (ii) a minimum of 2 hours shall have been solo flight time; and
    - (iii) if a Sea Class Rating is sought, a minimum of 10 take-offs and landings shall have been accomplished from water.
  - (5) Skill. Within the 24 months preceding the date of application for the Permit, an applicant shall submit a letter from the holder of a Flight Instructor Rating – Ultra-light Aeroplane certifying that the applicant has demonstrated the ability to perform both normal and emergency manoeuvres appropriate to the ultra-light aeroplane used for the training programme, and with a degree of competency appropriate to that of the holder of a Pilot Permit – Ultra-light Aeroplane.
- (c) An applicant for the addition of a Passenger-carrying Rating to a Pilot Permit – Ultra-light Aeroplane shall meet the following requirements -
- (1) Age. Be at least 18 years of age.
  - (2) Experience. Have completed a minimum of 25 hours pilot flight training under the direction of an appropriately qualified flight instructor of which -
    - (i) a minimum of 15 hours shall have been dual instruction flight time; and
    - (ii) a minimum of 5 hours shall have been solo flight time.
  - (3) Recency of experience. Have completed a minimum of 10 hours in ultra-light aeroplanes within the preceding 12 months, including at least 5 take-offs and landings on the type of surface from which the ultra-light aeroplane will be operating.
  - (4) Skill. Within the preceding 24 months prior to the application have successfully completed a flight test conducted by the Authority or a holder of an ultra-light Flight Instructor Rating authorized by the Authority.
- (d) An applicant for the addition of a Flight Instructor Rating to a Pilot Permit – Ultra-light Aeroplane shall meet the following requirements -
- (1) Age. Be a minimum of eighteen (18) years of age.
  - (2) Medical fitness. Hold at least a Class 2 Medical Certificate.
  - (3) Knowledge. Have attained a mark of at least 90% on the knowledge examination specified in paragraph (b) (3) of this Subsection and have completed training in instructional techniques which shall not be less than 10 hours and shall include -
    - (i) the practical application of the basic principles of learning and learning factors with emphasis on the preparation and use of lesson plans;
    - (ii) preparatory ground instruction;

TENTH SCHEDULE, *contd.*

- (iii) pre-flight, in-flight instruction and post-flight briefing; and
- (iv) flight safety.
- (4) Experience. Have acquired in ultra-light aeroplanes a minimum of 50 hours flight time, including a minimum of -
  - (i) 15 hours of dual instruction flight time;
  - (ii) 5 hours of dual flight time on instructional techniques; and
  - (iii) 25 hours solo flight time.
- (5) Skill. Have successfully completed a flight test conducted by the Authority within the preceding 24 months prior to the application.
- (6) Credits.
  - (i) an applicant for a Pilot Permit – Ultra-light Aeroplane who holds or has held within the preceding 5 years a Pilot Licence, other than a Student Pilot Licence, in any other category of aircraft shall be deemed to have met the knowledge and examination requirement specified in paragraph (b) (3) of this Subsection. That person shall also have the experience requirements reduced to a minimum of 5 hours of flight time in ultra-light aeroplanes, including a minimum of 2 hours dual instruction flight time and a minimum of 2 hours solo flight time. The flight time shall include a minimum of 20 takeoffs, full circuits and landings, including a minimum of 10 as sole occupant;
  - (ii) an applicant for a Pilot Permit – Ultra-light Aeroplane who holds a Pilot Licence – Aeroplane, other than a Student Pilot Licence, shall be deemed to have met the skill requirements for ultra-light aeroplanes.
  - (iii) an applicant for a Pilot Permit – Ultra-light Aeroplane who holds a permit or licence issued by or accepted in a Contracting State authorizing that person to operate ultra-light aeroplanes shall be deemed to have met the knowledge, experience and skill requirements for a Pilot Permit – Ultra-light Aeroplane, provided evidence thereof is submitted to the Authority.
  - (iv) an applicant for a Flight Instructor Rating – Ultra-light Aeroplanes who is the holder of, or has held a Pilot Licence – Aeroplane, other than a Student Pilot Licence, within the preceding 5 years shall have the experience requirement specified in paragraph (d) (4) of this Subsection reduced to a minimum of 20 hours of flight time in ultra-light aeroplanes, including a minimum of 2 hours dual instruction flight time and a minimum of 10 hours solo flight time.
  - (v) the knowledge and skill requirements shall be deemed to have been met for an applicant for a Flight Instructor Rating – Ultra-light Aeroplanes if the applicant holds, or has held within the preceding two years, a Flight Instructor Rating – Aeroplane or Helicopter.
  - (vi) an applicant for a Flight Instructor Rating – Ultra-light Aeroplanes who holds a permit or licence issued by or accepted in a Contracting State authorizing that person to instruct in ultra-light aeroplanes shall be deemed to have met the knowledge and experience requirements for a Flight Instructor Rating – Ultra-light Aeroplane, provided evidence thereof is submitted to the Authority.
  - (vii) the skill requirement for a Flight Instructor Rating – Ultra-light Aeroplane shall be deemed to have been met by a successful instructor initial or renewal flight test in an aeroplane or helicopter category aircraft.
- (7) Period of Validity.
  - (i) a Pilot Permit – Ultra-light Aeroplanes shall be valid to the first day of the sixty-first month following the month in which the Permit was issued.
  - (ii) a Passenger-carrying Rating shall be valid to the first day of the sixty-first month following the month in which the Permit was issued provided the recency of experience requirements specified in paragraph (c) (3) of this Subsection are maintained. In the event that the recency of experience is not maintained, the holder of the Rating shall regain currency by completing 5 take-offs and landings with a Jamaican Flight Instructor – Ultra-light Aeroplane or with an Inspector from the Authority.

TENTH SCHEDULE, *contd.*

- (iii) a Flight Instructor Rating – Ultra-light Aeroplane shall be valid to the first day of the twenty-fifth month following the month in which the Rating was issued. The Rating may be renewed following successful completion of a flight test conducted by the Authority.
- (e) Privileges: The holder of a Pilot Permit – Ultra-light Aeroplane may -
- (1) act as pilot-in-command of an ultra-light aeroplane in which no passengers are carried on board;
  - (2) act as pilot-in-command of an ultra-light aeroplane with another person on board if the ultra-light aeroplane has no restrictions against carrying another passenger and -
    - (i) the holder's Permit is endorsed with a Passenger-carrying Rating; or
    - (ii) the other person is a holder of a Pilot Licence or Permit, other than a Student Pilot Licence or Permit, that allows that person to act as pilot-in-command of an ultra-light aeroplane; and
    - (iii) act as pilot-in-command of an ultra-light aeroplane for the sole purpose of the holder's flight test.
- (f) The holder of a Pilot Permit – Ultra-light Aeroplane endorsed with a Flight Instructor Rating may:
- (1) operate an ultra-light aeroplane with another person on board if the holder has not less than 10 hours of flight time as a pilot of an ultra-light aeroplane with the same control configuration and the flight is for the sole purpose of providing dual flight instruction for:
    - (i) the issuance of a Pilot Permit – Ultra-light Aeroplane (Land) or, if the instructor's Permit is endorsed with a Sea Class Rating, Pilot Permit – Ultra-light Aeroplane (Sea);
    - (ii) the endorsement of a Pilot Permit – Ultra-light Aeroplane with a Passenger-carrying Rating; or
    - (iii) the endorsement of a Pilot Permit – Ultra-light Aeroplane with a Flight Instructor Rating;
    - (iv) authorize the holder of a Student Pilot Permit – Ultra-light Aeroplane to conduct solo flight in an ultra-light aeroplane;
    - (v) conduct ground school instruction for a Pilot Permit – Ultra-light Aeroplane and for the endorsement of a Pilot Permit – Ultra-light Aeroplane with a Flight Instructor Rating;
    - (vi) certify that an applicant has demonstrated the ability to meet the level of competency required for issuance of a Pilot Permit – Ultra-light Aeroplane; and
    - (vii) recommend an applicant for -
      - (A) the endorsement of a Pilot Permit – Ultra-light Aeroplane with a Passenger-carrying Rating; or
      - (B) the endorsement of a Pilot Permit – Ultra-light Aeroplane with a Flight Instructor Rating.

**10.870**      **LIABILITY INSURANCE**

- (a) No person may operate an ultra-light aeroplane in Jamaica unless in respect of every incident related to the operation of the aircraft, the owner has subscribed for liability insurance covering risks of injury to or death of passengers in an amount that is not less than the amount determined by multiplying US\$120,000 by the number of passengers on board the aircraft.
- (b) No person referred to in paragraph (a) of this Subsection shall operate an aircraft unless, in respect of every incident related to the operation of the aircraft, the owner has subscribed for liability insurance covering risks of public liability in an amount not less than US\$100,000.
- (c) No person referred to in paragraph (a) of this Subsection shall subscribe for any liability insurance that contains an exclusion or waiver provision that reduces the insurance coverage for any incident below the applicable minimum determined pursuant to this Subsection, unless that provision:

TENTH SCHEDULE, *contd.*

- (1) is a standard exclusion clause adopted by the international aviation insurance industry that applies in respect of -
    - (i) War, hijacking and other perils;
    - (ii) Noise, pollution and other perils; and
    - (iii) Radioactive contamination;
  - (2) is in respect of a chemical drift;
  - (3) includes a statement that the insurance does not apply in respect of liability assumed by the owner under any contract or agreement unless the liability would have attached to the owner even in the absence of such a contract or agreement; or
  - (4) includes a statement that the policy is void if the owner has concealed or misrepresented any material fact or circumstances concerning the insurance or the subject thereof or if there is any fraud, attempted fraud or false statement by the owner touching any matter relating to the insurance or the subject thereof, either before or after the incident.
- (d) A person referred to in paragraph (a) of this Subsection may comply with paragraphs (a) and (b) by subscribing for comprehensive single limit liability insurance consisting of a single policy or a combination of primary and supplementary policies.

**10.875 MAINTENANCE REQUIREMENTS**

- (a) The operator of an ultra-light aeroplane shall ensure that all maintenance requirements published by the aircraft manufacturer, as well as all items listed in paragraph (b) below are complied with.
- (b) If no specific maintenance requirements are issued by the aircraft manufacturer, then the operator shall submit a maintenance program to the Authority for approval which shall include as a minimum:
  - (1) a visual inspection of the aircraft and its power plant by the pilot prior to the first flight of each day;
  - (2) a visual inspection of the aircraft and its power plant by an Aircraft Maintenance Engineer at least once every twelve calendar months; and
  - (3) a maintenance schedule for the engine published by the manufacturer of that engine.
- (c) The inspection required in paragraph (b) (2) may be completed and certified by any "M" Licensed aircraft maintenance engineer or by the holder of a foreign AME Licence approved to do so by the Authority.

**APPENDICES****APPENDIX 1 TO 10.035: INOPERATIVE INSTRUMENTS AND EQUIPMENT**

- (a) This implementing standard authorizes flight operations with inoperative instruments and equipment installed in situations where no master minimum equipment list (MMEL) is available and no MEL is required for the specific aircraft operation under this Schedule.
- (b) The inoperative instruments and equipment may not be —
  - (1) part of the VFR-day instruments and equipment prescribed in the Seventh Schedule ;
  - (2) required on the aircraft's equipment list or the operations equipment list for the kind of flight operation being conducted;
  - (3) required by the Seventh Schedule or the specific kind of flight operation being conducted; or
  - (4) required to be operational by an Airworthiness Directive.
- (c) To be eligible for these provisions, the inoperative instruments and equipment shall be —
  - (1) determined by the PIC and a qualified maintenance person not to be a hazard to safe operation;
  - (2) deactivated and placarded "*Inoperative*"; and

TENTH SCHEDULE, *contd.*

*(Note: If deactivation of the inoperative instrument or equipment involves maintenance, it must be accomplished and recorded in accordance with the Fifth Schedule.)*

- (3) removed from the aircraft, the flight deck control placarded and the maintenance recorded in accordance with the Fifth Schedule .
- (d) The following instruments and equipment may not be included in the MEL –
- (1) 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;
  - (2) instruments and equipment required to be in operable condition by an Airworthiness Directive, unless the Airworthiness Directive provides otherwise; and
  - (3) instruments and equipment required for specific operations.

*(Note: The required instruments and equipment for specific operations are listed in the Seventh Schedule.)*

**APPENDIX 1 TO 10.102: PILOT-IN-COMMAND UNDER SUPERVISION**

- (a) To be eligible for a credit of pilot-in-command under supervision flight time –
- (1) the pilot shall be employed by an AOC holder who has an approved PIC under supervision training programme,
  - (2) The air operator's approved training programme shall include the procedures and requirements for training SICs to become PICs, and
  - (3) The air operator shall designate supervisory pilots who will conduct the PIC under supervision training.
- (b) Only the flight time accumulated by the PIC under supervision with a supervisory or training pilot may be credited.
- (c) The PIC under supervision flight time may be acquired in the SIC seat provided all PIC functions, with the exception of taxiing, can be accomplished in that seat. If all the PIC functions except taxiing cannot be completed in the co-pilot seat, the PIC under supervision flight time must include a minimum of ten (10) hours in the PIC seat.
- (d) The maximum cross country flight time that may be credited under this programme towards an ATPL is 100 hours.
- (e) A pilot undergoing PIC under supervision training shall acquire a minimum of one take-off and landing for each 10 hours of flight time.
- (f) A pilot undergoing PIC under supervision training shall record one-half of the flight time so accumulated as PIC time and the other one-half as SIC time.
- (g) A pilot wishing to be credited with PIC under supervision flight time shall include with his/her application for a licence, a personal log or other reliable record that contains a summary of the PIC under supervision flight time and a letter from the applicant's air operator certifying that the time being claimed was attained while participating in the PIC under supervision training programme.

**APPENDIX 1 TO 10.175: USE OF NARCOTICS, DRUGS OR INTOXICATING LIQUOR**

- (a) Whenever there is a reasonable basis to believe that a person may not be in compliance with Subsection 10.175 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 crewmember.
- (b) Any test information provided to the Authority under the provisions of this section may be used as evidence in any legal proceeding.



TENTH SCHEDULE, *contd.***APPENDIX 1 TO 10.185: FLIGHT CREWMEMBERS AT DUTY STATIONS**

A required flight crewmember may leave the assigned duty station if the crewmember is taking a rest period and relief is provided —

- (1) for the assigned PIC during the enroute 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 PIC or SIC, and is qualified as PIC of that aircraft during the enroute cruise portion of the flight; and
- (2) in the case of the assigned SIC, by a pilot qualified to act as PIC or SIC of that aircraft during enroute operations.

**APPENDIX 1 TO 10.218: USE OF FLIGHT DECK JUMP SEATS AND CABIN ATTENDANT SEATS**

(a) The air operator may permit persons other than operating crewmembers or a representative of the Authority to occupy an available jump seat on the flight deck if there are no passenger seats available provided the person is employed by the air operator and -

- (1) the person is wearing the company uniform or is appropriately identified and authorized in accordance with the procedures specified in the Operations Manual; and
- (2) the person is briefed on -
  - (i) the operation and use of the flight deck jump-seat and restraint system;
  - (ii) the location and use of the oxygen system, where applicable;
  - (iii) the location and use of the life jacket; and
  - (iv) the person's responsibilities and actions during an emergency.

(b) A crewmember employed by the air operator but not assigned as a member of the operating crew for the flight in question may occupy an available flight attendant seat when -

- (1) there are no passenger seats available; and
- (2) the person is wearing the company uniform, or is appropriately identified and is briefed on -
  - (i) the operation and use of the flight attendant seat and restraint system;
  - (ii) the location and use of the oxygen system at the flight attendant seat where applicable;
  - (iii) the location and use of the life jacket; and
  - (iv) the person's responsibilities and actions during an emergency.

(c) A Cabin Safety Inspector carrying out an in-flight cabin inspection may occupy an available flight attendant seat only when -

- (1) an inaccurate load forecast for a multi-sector flight results in the displacement of the Inspector by a revenue passenger; or
- (2) in extenuating circumstances when the completion of the in-flight cabin inspection is mandatory and alternate seating is not available; and
- (3) the Inspector has been briefed on -
  - (i) the operation and use of the flight attendant seat and restraint system;
  - (ii) the location and use of the oxygen system at the flight attendant seat, where applicable;
  - (iii) the location and use of the life jacket; and
  - (iv) the person's responsibilities and actions during an emergency.

**APPENDIX 1 TO 10.280: PORTABLE ELECTRONIC DEVICES**

(a) Prohibited devices, permitted devices without restrictions and permitted devices with restrictions are defined as follows, and are to be used in accordance with the stated requirements as applicable —

- (1) **Prohibited Devices.** A transmitting device that has an inherent characteristic of radiating radio frequency signals;
- (2) **Permitted Devices Without Restrictions.**
  - (i) hearing aids;

TENTH SCHEDULE, *contd.*

- (ii) heart pacemakers;
  - (iii) electronic watches; and
  - (iv) properly certificated air operator installed equipment;
- (3) Permitted Devices with Restrictions.
- (i) personal life support systems, provided the device does not cause interference with the aircraft's systems or equipment;
  - (ii) portable two-way radio communication devices may be used under the following conditions:
    - (A) use is prohibited at all times when the aircraft engines are running (excluding auxiliary power unit);
    - (B) use is terminated during the delivery of the pre-flight safety briefing and demonstration; and
    - (C) the Company Operations Manual contains procedures to control use and stowage.
  - (iii) other portable electronic devices may be used, except during take-off, climb, approach and landing.
- (b) Passengers shall be informed of the air operator's policy pertaining to the use of portable electronic devices and those devices that are prohibited from use during the delivery of the pre-flight safety briefing and demonstration.
- (c) When interference with the aircraft's systems or equipment is suspected from use of a portable electronic device, crewmembers shall –
- (1) identify passenger using portable electronic device(s),
  - (2) instruct passenger(s) to terminate the use of portable electronic device(s), and
  - (3) confirm by checks that the aircraft's systems and equipment are no longer affected.
- (d) The PIC shall report incidents of portable electronic device interference to the company Operations Manager and/or Safety Programme Manager and include the following information in the report –
- (1) flight information - aircraft type, registration, date and UTC time of incident, aircraft location (VOR bearing/distance or Lat/Long), altitude, weather conditions, pilot name and telephone number;
  - (2) description of interference - description of effects on cockpit indicators, audio or other systems, including radio frequency, identification, duration, severity and other pertinent information;
  - (3) action taken by pilot/crew to identify cause or source of interference;
  - (4) identification of portable electronic device - description of device, brand name, model, serial number, mode of operation (i.e. FM radio), device location (seat location) and regulatory approval number (FCC/other);
  - (5) identification of user - name and telephone number of passenger operating the device; and
  - (6) additional information - as determined pertinent by the crew.
- (e) An air operator shall report incidents of portable electronic device interference, to include the above noted information, to the Jamaican Civil Aviation Authority, Director Flight Safety, 4 Winchester Road., Kingston 10, Jamaica.

**APPENDIX 1 TO 10.290: REFUELLING WITH PASSENGERS ON BOARD**

Aeroplanes may be fuelled with passengers embarking, disembarking, or on board under the following conditions –

- (1) in order to ensure that crewmembers receive prompt notification of a situation threatening safety such as major fuel spill or a fire, two way communication is maintained between the ground crew supervising the fuelling and the qualified personnel on board the aeroplane so that the aeroplane can be deplaned or evacuated as necessary;

TENTH SCHEDULE, *contd.*

- (2) a means of communication among the qualified personnel on board the aeroplane, ground/maintenance crews and fuelling agencies is determined and established and the procedures are provided to the appropriate personnel;
- (3) the aeroplane engines are not running unless the aircraft incorporates a propeller brake and the brake is set. The AFM must refer to the propeller brake/engine as an auxiliary power unit (APU);
- (4) during the fuelling process –
  - (i) aeroplane ground power generators or other electrical ground power supplies are not being connected or disconnected,
  - (ii) combustion heaters installed on the aeroplane (e.g. wing and tail surface heaters, integral cabin heaters) are not operated,
  - (iii) known high energy equipment such as High Frequency (HF) radios are not operated, unless in accordance with the aeroplane manufacturer's approved flight manual where the manual contains procedures for the use of this equipment during fuelling,
  - (iv) weather-mapping radar equipment in the aeroplane is not operated unless in accordance with the manufacturer's approved aeroplane flight manual where the manual contains procedures for use during fuelling,
  - (v) aeroplane batteries are not being removed or installed,
  - (vi) external battery chargers are not being connected, operated or disconnected,
  - (vii) aeroplane-borne auxiliary power units which have an efflux discharging into the zone are not started after filler caps are removed or fuelling connections are made,
  - (viii) if an auxiliary power unit (APU) is stopped for any reason during fuelling it shall not be restarted until the flow of fuel has ceased and there is no risk of igniting fuel vapours. however, the APU may be operated in accordance with the manufacturer's approved AFM if the manual contains procedures for starting the APU during fuelling,
  - (ix) electric tools or similar tools likely to produce sparks or arcs are not being used, and
  - (x) photographic equipment is not used within 10 ft. (3m) of the fuelling equipment or the fill or vent points of the aeroplane fuel systems;
- (5) aerodrome; Fuelling is immediately suspended when there are lightning discharges within 8 km of the
- (6) the aeroplane is fuelled in accordance with manufacturer's procedures for that type of aeroplane;
- (7) the aeroplane emergency lighting system is armed or on;
- (8) "No Smoking" signs on board the aeroplane are illuminated, as applicable;
- (9) procedures are established to ensure that passengers do not smoke, operate portable electronic devices or otherwise produce sources of ignition;
- (10) for aircraft with a passenger seating capacity of more than 19 seats, a minimum of two exits are designated as evacuation exits during fuelling; one of which must be the entry door through which the passengers embarked;
- (11) the designated evacuation exits during fuelling are identified by aeroplane type and published in the company operations manual, and are clear and available for immediate use by passengers and crewmembers should an evacuation be required;
- (12) the air operator has procedures in place to ensure that there is a ready escape route from each designated evacuation exit during fuelling and that designated evacuation exits that are equipped with slides have the slides armed or a crewmember is in the immediate vicinity to arm the slides if required;
- (13) unless the designated evacuation exits are at ground level, a means of evacuation such as a deployed integral stair, a loading stair or stand, a loading bridge or a passenger transfer vehicle (PTV) is in place at the aeroplane door used for the embarking and disembarking of passengers and is free of obstruction and available for immediate use by the aeroplane occupants if necessary;
- (14) for aeroplanes requiring a minimum cabin crew of one, a qualified person trained in the operation and use of emergency exits and in emergency evacuation procedures who is ready to initiate and direct an evacuation is at or near the passenger entry door;

TENTH SCHEDULE, *contd.*

- (15) for aeroplanes requiring a minimum cabin crew of more than one, at least the minimum number of flight attendants for the aeroplane type or the number of passengers on board, whichever is greater, are on board and positioned at or near each designated evacuation exit during fuelling. Cabin attendants may be replaced by an equivalent number of other staff provided that they have successfully completed the air operator's approved emergency evacuation procedures training for that aeroplane type;
- (16) flight crewmembers inform the in-charge cabin attendant when they are leaving the aeroplane;
- (17) where desirable for climatic reasons, and provided a flight crewmember is on board or a means of communication is available to the cabin attendants, an aeroplane embarking door, that is inward opening or that can be fully opened to the exterior without repositioning of loading stairs or stand, may be closed and latched if necessary to keep it closed, but may not be locked; and
- (18) procedures are established to ensure that cabin attendants or qualified persons replacing cabin attendants in accordance with paragraph (15) are made aware of when fuelling will take place.

**APPENDIX 1 TO 10.295: CHILD RESTRAINT SYSTEMS**

- (a) An approved child restraint system shall bear one or more labels as follows –
  - (1) seats manufactured to U.S. standards between January 1, 1981, and February 25, 1985, must bear the label: "This child restraint system conforms to all applicable Federal motor vehicle safety standards.";
  - (2) seats manufactured to U.S. standards on or after February 26, 1985, must bear two labels–
    - (i) "This child restraint system conforms to all applicable Federal motor vehicle safety standards"; and
    - (ii) "THIS RESTRAINT IS CERTIFIED FOR USE IN MOTOR VEHICLES AND AIRCRAFT" in red lettering; or
  - (3) seats that do not qualify under paragraphs (a) (1) and (2) of this Appendix must bear either a label showing approval of a foreign government or a label showing that the seat was manufactured under the standards of the United Nations;
- (b) Notwithstanding any other provisions of this Appendix, booster-type child restraint systems (as defined in US Federal Motor Vehicle Standard No. 213 (49 CFR 571.213) or foreign equivalent), vest- and harness-type child restraint systems, and lap held child restraints are not approved for use in aircraft.
- (c) The AOC holder shall comply with the following requirements –
  - (1) the restraint system must be properly secured to an approved forward facing seat or berth;
  - (2) the child must be properly secured in the restraint system and must not exceed the specified weight limit for the restraint system; and
  - (3) the restraint system must bear the appropriate label(s).
- (d) Except as provided in paragraph (e) of this Appendix, no AOC holder may permit a child, in an aircraft, to occupy a booster-type child restraint system, a vest-type child restraint system, a harness-type child restraint system or a lap held child restraint system during take off, landing and movement on the surface.
- (e) Paragraph (d) of this Appendix does not prohibit the AOC holder from providing child restraint systems authorized by this Appendix or, consistent with safe operating practices, determining the most appropriate passenger seat location for the child restraint system.
- (f) No operator of an aircraft shall permit the use of a child restraint system on board the aircraft unless -
  - (1) the person using the child restraint system is accompanied by a parent or guardian who will attend to the safety of the person during the flight;

TENTH SCHEDULE, *contd.*

- (2) the weight and height of the person using the child restraint system are within the range specified by the manufacturer;
  - (3) the child restraint system bears a legible label indicating the applicable design standards and date of manufacture;
  - (4) the child restraint system is properly secured by the safety belt of a forward-facing seat that is not located in an emergency exit row and does not block access to an aisle; and
  - (5) the tether strap is used according to the manufacturer's instructions or, where subparagraph (2) applies, secured so as not to pose a hazard to the person using the child restraint system or to any other person.
- (g) Where a seat incorporates design features to reduce occupant loads, such as the crushing or separation of certain components, and the seat is in compliance with the applicable design standards, no person shall use the tether strap on the child restraint system to secure the system.
- (h) Every passenger who is responsible for a person who is using a child restraint system on board an aircraft shall be -
- (1) seated in a seat adjacent to the seat to which the child restraint system is secured;
  - (2) familiar with the manufacturer's installation instructions for the child restraint system; and
  - (3) familiar with the method of securing the person in the child restraint system and of releasing the person from it.

**APPENDIX 1 TO 10.300: PASSENGER BRIEFING**

- (a) **Standard Safety Briefing.** The standard safety briefing shall consist of an oral briefing provided by a crewmember or by audio or audio-visual means in English which includes the following information as applicable to the aeroplane, equipment and operation -
- (1) Prior to take-off -
    - (i) when, where, why and how carry-on baggage is required to be stowed;
    - (ii) the fastening, unfastening, adjusting and general use of safety belts or safety harnesses;
    - (iii) when seat backs must be secured in the upright position and chair tables must be stowed;
    - (iv) the location of the passenger briefing cards;
    - (v) the location of emergency exits;
    - (vi) the Floor Proximity Emergency Escape Path lighting system, if applicable;
    - (vii) the location, purpose of, and advisability of reading the safety features card;
    - (viii) the regulatory requirement to obey crew instructions regarding safety belts, Fasten Seat Belt signs and No Smoking signs and the location of these signs;
    - (ix) where flight attendants are not required, the location of any emergency equipment the passenger may have a need for in an emergency situation such as the ELT, fire extinguisher, survival equipment (including the means to access if in a locked compartment), first aid kits and life rafts;
    - (x) the use of passenger operated portable electronic devices;
    - (xi) for flights to be operated above 14,000 feet, the location, and operation of the fixed passenger oxygen system, including the location and presentation of the masks; the actions to be performed by the passenger in order to obtain the mask, activate the flow of oxygen and correctly don and secure the mask. This will include a demonstration of their location, method of donning including the use of elastic band, and operation, and instruction on the priority for persons assisting others. This briefing may be completed after take-off but prior to reaching 25,000 feet;
    - (xii) the location and use of life jackets, including how to remove from stowage/packaging and a demonstration of their location, method of donning and inflation and when to inflate life jackets. This briefing may be completed after take-off prior to the over water portion of the flight;
    - (xiii) the fact that passengers may draw to the attention of a cabin crewmember any concerns relating to safety;

TENTH SCHEDULE, *contd.*

- (xiv) the functions required of a passenger seated in an exit row in the event of an emergency in which a crewmember is not available to assist, including:
  - (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) stow or secure the emergency exit door so that it will not impede use of the exit;
  - (G) pass expeditiously through the emergency exit; and
  - (H) assess, select and follow a safe path away from the emergency exit; and
- (xv) a request that a passenger seated in an exit row 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;
  - (D) does not wish to perform those functions; or
  - (E) lacks the ability to read, speak or understand the language or the graphic form in which instructions are provided by the AOC holder.
- (2) After take-off -
  - (i) that smoking is prohibited; and
  - (ii) the advisability of using safety-belts or safety harnesses during flight;
- (3) In-flight when the "Fasten Seat Belt" sign has been turned on for reasons of turbulence -
  - (i) when the use of seat belts is required; and
  - (ii) when the level of turbulence is anticipated to exceed light, the requirement to stow carry-on baggage;
- (4) Prior to landing -
  - (i) carry on baggage stowage requirements;
  - (ii) correct seat back and chair table positioning;
  - (iii) on flights scheduled for four hours duration or more, the location of emergency exits; and
  - (iv) the seat belt requirement;
- (5) Prior to passenger disembarkment -
  - (i) the no smoking requirement,
  - (ii) the safest direction and most hazard-free route for passenger movement away from the aeroplane following disembarkment; and
  - (iii) any dangers associated with the aeroplane type such as pitot tube locations, propellers, or engine intakes.

*(Note: The safety message of the briefing may not be diluted by the inclusion of any service information or advertising that would affect the integrity of the safety briefing.)*

- (b) Individual Safety Briefing. The individual safety briefing shall include -
  - (1) any information contained in the standard safety briefing and the safety features card that the passenger would not be able to receive during the normal conduct of that safety briefing; and
  - (2) additional information applicable to the needs of that person as follows -
    - (i) the most appropriate brace position for that passenger in consideration of his/her condition, injury, stature, and/or seat orientation and pitch;
    - (ii) the location to place any service animal that accompanies the passenger;

TENTH SCHEDULE, *cond.*

- (iii) for a mobility restricted passenger who needs assistance in moving expeditiously to an exit during an emergency -
  - (A) a determination of what assistance the person would require to get to an exit;
  - (B) the route to the most appropriate exit;
  - (C) the most appropriate time to begin moving to that exit; and
  - (D) a determination of the most appropriate manner of assisting the passenger;
- (3) for a visually impaired person -
  - (i) detailed information of and facilitating a tactile familiarization with the equipment that he/she may be required to use;
  - (ii) advising the person where to stow his/her cane if applicable;
  - (iii) the number of rows of seats between his/her seat and his/her closest exit and alternate exit;
  - (iv) an explanation of the features of the exits; and
  - (v) if requested, a tactile familiarization of the exit;
- (4) for a comprehension restricted person: while using the safety features card, pointing out the emergency exits and alternate exits to use, and any equipment that he/she may be required to use;
- (5) for persons with a hearing impairment -
  - (i) While using the safety features card, point out the emergency exits and alternate exits to use, and any other equipment that the person may be required to use;
  - (ii) Communicating detail information by pointing, face-to-face communication permitting speech reading, pen and paper, through an interpreter or through their attendant;
- (6) For a passenger who is responsible for another person on board, information pertinent to the needs of the other person as applicable -
  - (i) in the case of an infant -
    - (A) seat belt instructions;
    - (B) method of holding infant for take-off and landing;
    - (C) instructions pertaining to the use of a child restraint system;
    - (D) oxygen mask donning instructions;
    - (E) recommended brace position; and
    - (F) location and use of life preservers, as required.
  - (ii) in the case of any other person -
    - (A) oxygen mask donning instructions;
    - (B) instructions pertaining to the use of a child restraint system; and
    - (C) evacuation responsibilities;
  - (iii) for an unaccompanied minor, instructions to pay close attention to the normal safety briefing and to follow all instructions.

*(Note: A passenger that has been provided with an individual safety briefing need not be re-briefed following a change in crew if the crewmember that provided the individual safety briefing has advised a member of the new crew of the contents of that briefing including any information respecting the special needs of that passenger. A passenger may decline an individual safety briefing.)*
- (c) Passenger Preparation for Emergency Landing. The emergency briefing provided in the event of an emergency where time and circumstance permit shall consist of instructions pertaining to -
  - (1) safety belts/safety harnesses
  - (2) seatbacks and chair tables;
  - (3) carry-on baggage;
  - (4) safety features cards;
  - (5) brace position (how to brace, when to assume position, how long to remain);
  - (6) location of exits
  - (7) if applicable, life preservers; and

TENTH SCHEDULE, *contd.*

- (8) if applicable, evacuation procedures for an occupant of a child restraint system.

**APPENDIX 1 TO 10.301: CREWMEMBER BRIEFING**

- (a) The pre-flight crewmember briefing shall consist of a joint crewmember briefing involving all crewmembers or a briefing from the pilot-in-command to the in-charge flight attendant and from the in-charge flight attendant to other cabin crewmembers. Where the flight involves only one flight attendant the pilot-in-command shall brief that flight attendant as per paragraph (a).
- (b) Pre-flight Briefing - All Crewmembers. The contents of the pre-flight crewmember briefing that involves all crewmembers shall include the following as appropriate:
- (1) anticipated weather;
  - (2) anticipated flying conditions;
  - (3) flight time;
  - (4) altitudes;
  - (5) review of selected communication procedures;
  - (6) review of selected emergency procedures;
  - (7) review of selected safety procedures; and
  - (8) any additional information necessary for the flight including information respecting unserviceable equipment or abnormalities that may affect passengers.
- (c) Pre-flight Briefing - PIC to In-charge Flight Attendant. The contents of a pre-flight pilot-in-command to the in-charge flight attendant briefing shall include the following:
- (1) anticipated weather;
  - (2) anticipated flying conditions;
  - (3) flight time;
  - (4) altitudes; and
  - (5) any additional information necessary for the flight including information respecting unserviceable equipment or abnormalities that may affect passengers.
- (d) Pre-flight Briefing - In-charge to Cabin Crew. The contents of a pre-flight in-charge flight attendant to cabin crew briefing shall include the following:
- (1) anticipated weather;
  - (2) anticipated flying conditions;
  - (3) flight time;
  - (4) altitudes;
  - (5) review of selected communication procedures;
  - (6) review of selected emergency procedures;
  - (7) review of selected safety procedures; and
  - (8) any additional information necessary for the flight including information respecting unserviceable equipment or abnormalities that may affect passengers.

**APPENDIX 1 TO 10.305: IN-FLIGHT EMERGENCY INSTRUCTION**

The in-flight emergency instruction provided in the event of an emergency where time and circumstances permit shall consist of instructions pertaining to:

- (1) safety belts/safety harnesses;
- (2) seat backs and chair tables;
- (3) carry-on baggage;
- (4) safety features cards;
- (5) brace position (how to brace, when to assume position, how long to remain);
- (6) if applicable, life preservers;
- (7) location of exits; and
- (8) if applicable, evacuation procedures for an occupant of a child restraint system.



TENTH SCHEDULE, *contd.***APPENDIX 1 TO 10.400: DETERMINATION OF FLIGHT PLANNING SPEED – ETOPS**

- (a) An AOC holder shall determine a speed for the calculation of the maximum distance to an adequate aerodrome for each twin-engine aeroplane type or variant operated, not exceeding  $V_{mo}$  based upon the true airspeed that the aeroplane can maintain with one-engine-inoperative under the following conditions–
- (1) International Standard Atmosphere;
  - (2) level flight –
    - (i) for turbine engined powered aeroplanes at –
      - (A) FL 170; or
      - (B) at 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 AFM, whichever is less.
    - (ii) for propeller driven aeroplanes –
      - (A) FL 80; or
      - (B) at 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 AFM, whichever is less.
  - (3) maximum continuous thrust or power on the remaining operating engine;
  - (4) 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 Subsection 10.400 (a);
    - (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 Subsection 10.400 (a); and
    - (iii) all engines cruise at the long range cruise speed at this altitude until the time elapsed since take-off is equal to the applicable threshold prescribed in Subsection 10.400 (a).
- (b) An AOC holder shall ensure that the following data, specific to each type or variant, is included in the Operations Manual:
- (1) the one-engine-inoperative cruise speed determined in accordance with paragraph (a) of this Appendix; and
  - (2) the maximum distance from an adequate aerodrome determined in accordance with this Appendix.

*(Note: The speeds and altitudes (flight levels) specified above are only intended to be used for establishing the maximum distance from an adequate aerodrome.)*

**APPENDIX 1 TO 10.410: ETOPS ALTERNATE PLANNING**

The alternate weather minima specified in the table below are those required for planning purposes and must be forecast to exist for the period commencing one hour before the established earliest time of landing and ending one hour after the established earliest time of landing at the aerodrome. In addition, for the same period of time based on estimated landing time, the forecast crosswind, including gusts, for the landing runway expected to be used shall not exceed aircraft limitations.

TENTH SCHEDULE. *contd.*

Type of Approach	Planning Minima (Ceiling/visibility or RVR required)	
	Aerodrome with:	
	At least 2 separate approach procedures based on 2 separate aids serving 2 separate runways (See note)	At least 1 approach procedure based on 1 aid serving 1 runway
Precision Approach Cat II, III (ILS, GPS)	Precision Approach Cat I Minima	Non-Precision Approach Minima
Precision Approach Cat I (ILS, GPS)	Non-Precision Approach Minima	Circling minima or, if not available, non-precision approach minima plus 200 ft/1000m
Non-Precision Approach	The lower of non-precision approach minima plus 200 ft/1000 m or circling minima	The higher of non-precision approach minima plus 200 ft/1000 m or 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.)

**APPENDIX 1 TO 10.445: OPERATIONAL FLIGHT PLAN REQUIREMENTS**

The following table outlines the requirements of an OFP –

	VFR	IFR	INT'L
Copy of ATC Flight Plan			X
Operators name	X	X	X
Date*	X	X	X
Aircraft type/registration*	X	X	X
Flight number (if applicable)*	X	X	X
Names of PIC, dispatcher and crewmembers*	X	X	X
Departure aerodrome*	X	X	X
Destination aerodrome*	X	X	X
Routing to destination, including tracks and distances	X	X	X
Alternate aerodromes		X	X
Routing to alternate aerodrome, including tracks and distances			X
Planned cruising altitude*		X	X
Wind at cruising altitude (velocity and direction)			X
Planned cruising airspeed and ground speed		X	X
Estimated time enroute*	X	X	X
Estimated time to alternate		X	X
Estimated fuel to destination and alternate*		X	X
Reserve and contingency fuel*		X	X
Total fuel and fuel on board*	X	X	X
Zero fuel mass (if applicable)	X	X	X
Mass of baggage, equipment and cargo*	X	X	X
Number of passengers on board and total mass of passengers and crewmembers*	X	X	X
Copy of mass and balance report*	X	X	X
Signature of PIC and dispatcher (if applicable)*	X	X	X

TENTH SCHEDULE. *contd.***APPENDIX 1 TO 10.495: ALTIMETER SETTINGS APPROPRIATE TO A TRANSITION ALTITUDE OF 5,400 METERS (18,000 FEET)**

The lowest usable flight level is determined by the atmospheric pressure in the area of operation as shown in the following table.

Current Altimeter Setting	Lowest Usable Flight Level
29.92 (or higher)	180
29.91 through 29.42	185
29.41 through 28.92	190
28.91 through 28.42	195
28.41 through 27.92	200
27.91 through 27.42	205
27.41 through 26.92	210

**Appendix 1 to 10.587: Criteria for a Stabilized Approach**

- (a) An approach is stabilized when all the following criteria are met –
- (1) the aircraft is on the correct flight path within tolerances for the approach (ie. azimuth and vertical guidance);
  - (2) only small changes in heading are required to maintain the correct flight path;
  - (3) the aircraft speed is not more than  $V_{REF}$  plus 20 knots indicated airspeed and not less than  $V_{REF}$ ;
  - (4) the aircraft is in the landing configuration;
  - (5) sink rate is no greater than 1,000 ft per minute, unless otherwise briefed in special circumstances;
  - (6) power setting is appropriate for the aircraft configuration and is not below the minimum power for approach as defined in the AFM/AOM; and
  - (7) all briefings and checklists have been completed.
- (b) An approach that becomes unstabilized below the altitudes specified in Subsection 10.587 requires an immediate go-around (overshoot).

**Appendix 1 to 10.600: Universal Interception Signals**

- (a) An aircraft which is intercepted by another aircraft shall immediately:
- (1) follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with the specifications in Appendix 1;
  - (2) notify, if possible, the appropriate air traffic services unit;
  - (3) 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;
  - (4) if equipped with SSR transponder, select Mode A, Code 7700, 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.
- (d) Radio communication during interception –

TENTH SCHEDULE, *contd.*

- (1) 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 ATC information by using the phrases and pronunciations in the following table and transmitting each phrase twice:

Phrases for use by INTERCEPTING aircraft			Phrases for use by INTERCEPTED aircraft		
Phrase	Pronunciation	Meaning	Phrase	Pronunciation <sup>1</sup>	Meaning
CALL SIGN	KOL SA-IN	What is your call sign?	CALL SIGN (call sign) <sup>2</sup>	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 <sup>3</sup>	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 radiotelephone, communications with air traffic services corresponding to the aircraft identification in the flight plan.  
3. Circumstances may not always permit, nor make desirable, the use of the phrase "HIJACK".

- (2) Signals initiated by intercepted aircraft and responses by intercepting 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. <i>Note 1. — Meteorological conditions or terrain may require the intercepting aircraft to reverse the positions and direction of turn given above in Series 1.</i> <i>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 race-track patterns and to rock the aircraft each time it passes the intercepted aircraft.</i>	You have been intercepted. Follow me.	DAY or NIGHT - Rocking aircraft, flashing navigational lights at irregular intervals and following.	Understood Will comply.
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	Land at this	DAY or NIGHT - Lowering	Understood

TENTH SCHEDULE, *contd.*

Series	INTERCEPTING Aircraft Signals	Meaning	INTERCEPTED Aircraft Responds	Meaning
	fitted), showing steady landing lights and overflying 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.	aerodrome.	landing gear (if fitted), showing steady landing lights and following the intercepting aircraft and, if, after overflying the runway in use or helicopter landing area, landing is considered safe, proceeding to land.	Will comply.
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 meters (1,000 ft) but not exceeding 600 meters (2,000 ft) (in the case of a helicopter, at a height exceeding 50 meters (170 ft) but not exceeding 100 meters (330 ft) 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 the Series 1 signals prescribed for intercepting aircraft.  If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals prescribed for intercepting aircraft.	Understood  Follow me.  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

## APPENDIX 1 TO 10.655: UNIVERSAL AVIATION SIGNALS FOR DISTRESS

- (a) Distress signals. The following signals, used either together or separately, mean that grave and imminent danger threatens, and immediate assistance is requested:

*(Note: None of the provisions in this section 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.)*

*(Note: For full details of telecommunication transmission procedures for the distress and urgency signals, see ICAO Annex 10, Volume II, Chapter 5.)*

*(Note: For details of the search and rescue visual signals, see ICAO Annex 12.)*

- (1) a signal made by radiotelegraphy or by any other signalling method consisting of the group SOS

(••• — — —••• in the Morse Code);

- (2) a signal sent by radiotelephony consisting of the spoken word MAYDAY;  
(3) rockets or shells throwing red lights, fired one at a time at short intervals;  
(4) a parachute flare showing a red light.

*(Note: Article 41 of the ITU Radio Schedule (Nos. 3268, 3270 and 3271 refer) provides information on the alarm signals for actuating radiotelegraph and radiotelephone auto-alarm systems. 3268: The radiotelegraph alarm signal consists of a series of twelve dashes sent in one minute, the duration of each dash being four seconds and the duration of the interval between consecutive dashes one second. It may be transmitted by hand but its transmission by means of an automatic instrument is recommended.*

TENTH SCHEDULE, *contd.*

3270: *The radiotelephone alarm signal consists of two substantially sinusoidal audio frequency tones transmitted alternately. One tone shall have a frequency of 2200 Hz and the other a frequency of 1300 Hz, the duration of each tone being 250 milliseconds.*

3271: *The radiotelephone alarm signal, when generated by automatic means, shall be sent continuously for a period of at least thirty seconds but not exceeding one minute; when generated by other means, the signal shall be sent as continuously as practicable over a period of approximately one minute.)*

- (b) The following signals, used either together or separately, mean that an aircraft wishes to give notice of difficulties which compel it to land without requiring immediate assistance:
  - (1) the repeated switching on and off of the landing lights; or
  - (2) the repeated switching on and off of the navigation lights in such manner as to be distinct from flashing navigation lights.
- (c) The following signals, used either together or separately, mean 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 -
  - (1) a signal made by radiotelegraphy or by any other signalling method consisting of the group XXX.
  - (2) a signal sent by radiotelephony consisting of the spoken words PAN, PAN, PAN.

**APPENDIX 2 TO 10.655: UNIVERSAL AVIATION SIGNALS FOR AIRPORT TRAFFIC CONTROL**

- (a) Visual signals used to warn an unauthorized 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 unauthorized 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.
- (b) 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 10.1)	Steady green	<ul style="list-style-type: none"> <li>• Cleared to land</li> </ul>	Cleared for take-off/Cleared to taxi
	Steady red	<ul style="list-style-type: none"> <li>• Give way to other aircraft and continue circling</li> <li>• Return for landing*</li> </ul>	Taxi clear of landing area in use
	Series of green flashes	<ul style="list-style-type: none"> <li>• Aerodrome unsafe, do not land</li> <li>• Land at this aerodrome and proceed to apron*</li> <li>• Notwithstanding any previous instructions, do not land for the time being</li> </ul>	Return to starting point on the aerodrome
	Series of red flashes		
	Series of white flashes		
Red pyrotechnic			

\* Clearances to land and to taxi will be given in due course.

TENTH SCHEDULE, contd.

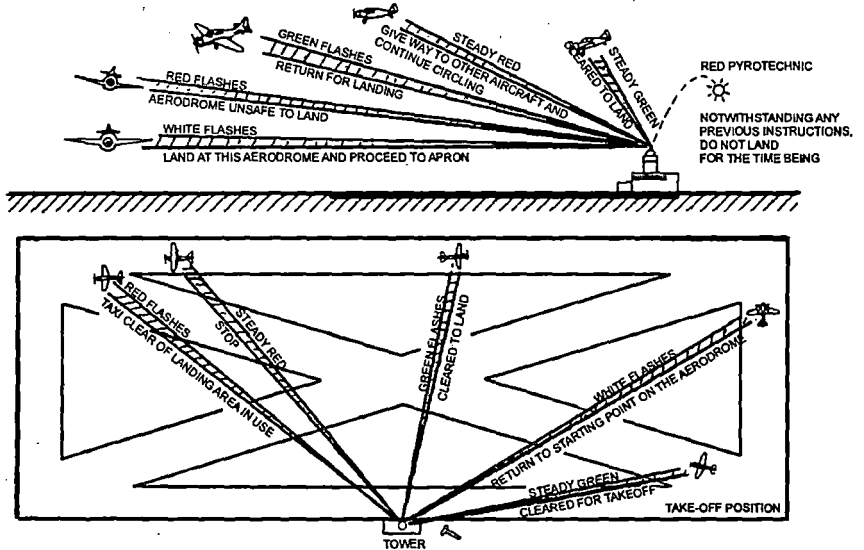


Figure 10.1

(c) Pilots shall acknowledge aerodrome controller signals as follows:

- (1) when in flight:
  - (i) during the hours of daylight by rocking the aircraft's wings;
 

(Note. - This signal should not be expected on the base and final legs of the approach.)
  - (ii) 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.
- (2) when on the ground:
  - (i) during the hours of daylight by moving the aircraft's ailerons or rudder;
  - (ii) 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

**APPENDIX 3 TO 10.655: UNIVERSAL AVIATION SIGNALS FOR AIRPORTS**

(a) Aerodrome authorities shall use the following visual ground signals shall be use during the following situations:

- (1) Prohibition of landing. A horizontal red square panel with yellow diagonals (Figure 10.2) when displayed in a signal area indicates that landings are prohibited and that the prohibition is liable to be prolonged.



Figure 10.2

TENTH SCHEDULE, *contd.*

- (2) Need for special precautions while approaching or landing. A horizontal red square panel with one yellow diagonal (Figure 10.3) when displayed in a signal area indicates that owing to the bad state of the manoeuvring area, or for any other reason, special precautions must be observed in approaching to land or in landing.



Figure 10.3

- (3) Use of runways and taxiways.

- (i) A horizontal white dumb-bell (Figure 10.4) when displayed in a signal area indicates that aircraft are required to land, take off and taxi on runways and taxiways only.

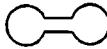


Figure 10.4

- (ii) The same horizontal white dumb-bell as in Figure 10.4, but with a black bar placed perpendicular to the shaft across each circular portion of the dumb-bell (Figure 10.5) 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 10.5

- (4) Closed runways or taxiways. Crosses of a single contrasting colour, yellow or white (Figure 10.6), displayed horizontally on runways and taxiways or parts thereof indicate an area unfit for movement of aircraft.



Figure 10.6

- (5) Directions for landing or take-off.

- (i) a horizontal white or orange landing T (Figure 10.7) 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 10.7

- (ii) A set of two digits (Figure 10.8) 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.



TENTH SCHEDULE, *contd.***09**

Figure 10.8

- (6) 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 10.9) indicates that turns are to be made to the right before landing and after take-off.



Figure 10.9

- (7) Air traffic services reporting office. The letter C displayed vertically in black against a yellow background (Figure 10.10) indicates the location of the air traffic services reporting office.



Figure 10.10

- (8) Glider flights in operation. A double white cross displayed horizontally (Figure 10.11) in the signal area indicates that the aerodrome is being used by gliders and that glider flights are being performed.

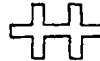


Figure 10.11

- (b) The following marshalling signals shall be used from a signalman to an aircraft.

*(Note: 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.)*

- (1) 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.

*(Note: The meaning of the relevant signals remains the same if bats, illuminated wands or flashlights are held.)*

*(Note: The aircraft engines are numbered, for the signalman facing the aircraft, from right to left (i.e. No. 1 engine being the port outer engine.)*

*(Note: Signals marked with an asterisk are designed for use to hovering helicopters.)*

- (2) 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.)*

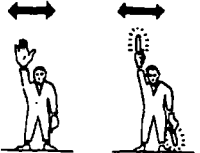
## APPENDIX 4 TO 10.655: UNIVERSAL AVIATION SIGNALS FOR AIRCRAFT GROUND HANDLING

- (a) Signals from a signalman to the pilot of an aircraft:

TENTH SCHEDULE, *contd.*


**To proceed under further guidance by signalman**

Signalman directs pilot if traffic conditions on aerodrome require this action.



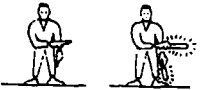
**2. This bay**

Arms above head in vertical position with palms facing inward.




**3. Proceed to next signalman**

Right or left arm down, other arm moved across the body and extended to indicate direction of next signalman.




**4. Move ahead**

Arms a little aside, palms facing backward and repeatedly moved upward-backward from shoulder height.




**5. Turn**

a) *Turn to your left:* right arm downward, left arm repeatedly moved upward-backward. Speed of arm movement indicating rate of turn.




TENTH SCHEDULE, *contd.*

*b) Turn to your right:*  
 left arm downward,  
 right arm repeatedly  
 moved upward-  
 backward. Speed of  
 arm movement  
 indicating rate of turn.




**6. Stop**

Arms repeatedly  
 crossed above head  
 (the rapidity of the  
 arm movement  
 should be related to  
 the urgency of the  
 stop, i.e. the faster  
 the movement the  
 quicker the stop).




**7. Brakes**

*a) Engage brakes.*  
 raise arm and hand,  
 with fingers extended,  
 horizontally in front of  
 body, then clench fist.

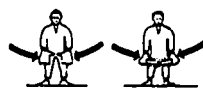


*b) Release brakes.*  
 raise arm, with fist  
 clenched, horizontally  
 in front of body, then  
 extend fingers.



**8. Chocks**

*a) Chocks inserted:*  
 arms down, palms  
 facing inwards, move  
 arms from extended  
 position inwards.



*b) Chocks removed:*  
 arms down, palms  
 facing outwards,  
 move arms outwards.



TENTH SCHEDULE, *contd.***9. Start engine(s)**

Left hand overhead with appropriate number of fingers extended, to indicate the number of the engine to be started, and circular motion of right hand at head level.

**10. Cut engines**

Either are and hand level with shoulder, hand across throat, palm downward. The hand is moved sideways with the arm remaining bent.

**11. Slow down**

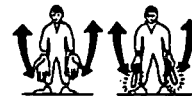
Arms down with palms toward ground, then moved up and down several times.

**12. Slow down engine(s) on indicated side**

Arms down with palms toward ground, then either *right or left* hand waved up and down indicating the *left or right* side engine(s) respectively should be slowed down.

**13. Move back**

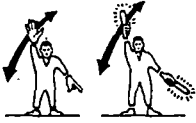
Arms by sides, palms facing forward, swept forward and upward repeatedly to shoulder height.




TENTH SCHEDULE, *contd.*

**14. Turns while backing**

a) *For tail to starboard:* point left arm down, and right arm brought from overhead, vertical position to horizontal forward position, repeating right arm movement.

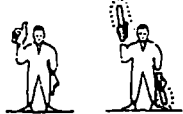


b) *For tail to port:* point right arm down, and left arm brought from overhead, vertical position to horizontal forward position, repeating left arm movement.



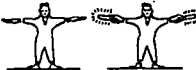
**15. All clear**

Right arm raised at elbow with thumb erect.



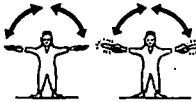
**16. Hover**

Arms extended horizontally sideways.




**\*17. Move upwards**

Arms extended horizontally to the side beckoning upwards, with palms turned up. Speed of movement indicates rate of ascent.

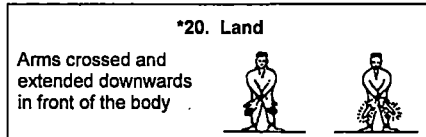
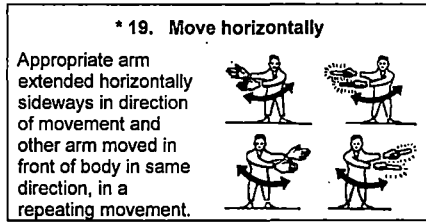


**\*18. Move downwards**

Arms extended horizontally to the side beckoning downwards, with palms turned down. Speed of movement indicates rate of descent.



TENTH SCHEDULE, *contd.*



(b) Signals from the pilot of an aircraft to a signalman.

- (1) The PIC or SIC shall use the following signals when communicating with a signalman:

*(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. 1 engine being the port outer engine.)*

- (2) Brakes engaged: raise arm and hand, with fingers extended, horizontally in front of face, then clench fist.
  - (3) Brakes released. raise arm, with fist clenched, horizontally in front of face, then extend fingers.
- (Note: The moment the fist is clenched or the fingers are extended indicates, respectively, the moment of brake engagement or release.)*
- (4) Insert chocks: arms extended, palms outwards, move hands inwards to cross in front of face.
  - (5) Remove chocks: hands crossed in front of face, palms outwards, move arms outwards.
  - (6) Ready to start engine(s). Raise the appropriate number of fingers on one hand indicating the number of the engine to be started.

**APPENDIX 1 TO 10.660: AIRSPACE AND VMC MINIMUMS**

	Airspace Class		
	B	C D E	F G
			Above 900m (3,000 ft) MSL or above 300m (1,000 ft) above terrain, whichever is higher
			At and below 900m (3,000 ft) MSL or 300m (1,000 ft) above terrain, whichever is higher
Distance from cloud	Clear of cloud	1,500m (5,000 ft) horizontally, 300m (1,000 ft) vertically	Clear of cloud and in sight of the surface
Flight visibility	8km at and above 3,000 m (10,000 ft) MSL, 5km below 3,000m (10,000 ft) MSL		5km
When the height of the transition altitude is lower than 3,000 m (10,000 ft) MSL, FL 100 should be used in lieu of 10,000 ft.			

TENTH SCHEDULE, *contd.***APPENDIX 1 TO 10.669: VFR OTT ADDITIONAL REQUIREMENTS – COMMERCIAL AIR TRANSPORTATION**

The following shall be complied with for commercial air transport flights operating VFR OTT –

- (1) the aircraft is operated as required by Subsection 10.669;
- (2) for multi-engine aeroplanes where the pilot holds a valid Instrument Rating, the flight shall be operated under conditions allowing descent under VMC or continuation of the flight under IFR or VMC if its critical engine fails; and
- (3) for multi-engine aeroplanes where the pilot does not hold a valid Instrument Rating, or that can not comply with (2) above, and for single-engine aeroplanes, the flight shall be operated under conditions allowing –
  - (i) for multi-engine aeroplanes, descent under VMC, or continuation of the flight under VMC conditions if its critical engine fails, or
  - (ii) for single-engine aeroplanes, descent under VMC if its engine fails.

**APPENDIX 1 TO 10.715: TAKEOFF VISIBILITY DETERMINATION**

The takeoff visibility is –

- (1) the RVR of the runway being used for takeoff;
- (2) the ground visibility at the aerodrome for the runway, if the RVR is not reported; or
- (3) the visibility of the runway as observed by the pilot-in-command, where neither the RVR nor the ground visibility is reported.

**APPENDIX 1 TO 10.718: SINGLE-ENGINE IFR AND NIGHT COMMERCIAL OPERATIONS**

(a) The airworthiness and operational requirements needed for approval to conduct IFR and/or night operations with single-engine, turbine-powered aircraft are as follows –

- (1) Turbine engine reliability. Turbine engine reliability shall be shown to have a power loss rate of less than 1 per 100,000 engine hours using the following guidance –
  - (i) the power loss rate shall be based on data from commercial operations supplemented by available data from private operations in similar theatres of operation. A minimum amount of service experience is needed on which to base the judgment, and this should include at least 20,000 hours on the actual aeroplane/engine combination unless additional testing has been carried out or experience on sufficiently similar variants of the engine is available;
  - (ii) in assessing turbine engine reliability, evidence should be derived from a world fleet database covering as large a sample as possible of operations considered to be representative, compiled by the manufacturers and reviewed with the States of Design and the operator. Since flight hour reporting is not mandatory for many types of operators, appropriate statistical estimates may be used to develop the engine reliability data. Data for individual operators approved for these operations, including trend monitoring and event reports, should also be monitored and reviewed by the Authority to ensure that there is no indication that the operator's experience is unsatisfactory.

*(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.)*

- (2) Trend monitoring programme. The operator shall establish an engine trend monitoring programme to include the following –
  - (i) an oil consumption monitoring programme based on the manufacturers' recommendations; and

TENTH SCHEDULE, *contd.*

- (ii) an engine condition monitoring programme describing the parameters to be monitored, the method of data collection and the corrective action process, which should be based on the manufacturer's recommendations. The monitoring is intended to detect turbine engine deterioration at an early stage to allow for corrective action before safe operation is affected.

*(Note: For aeroplanes for which the individual Certificate of Airworthiness is first issued on or after January 1, 2005, the trend monitoring system shall be automatic.)*

- (3) Reliability programme. A reliability programme should be established covering the engine and associated systems based on the following guidance –
  - (i) The engine programme should include engine hours flown in the period and the in-flight shutdown rate for all causes and the unscheduled engine removal rate, both on a 12-month moving average basis. The event reporting process should cover all items relevant to the ability to operate safely in IMC and/or at night. The data should be available for use by the operator, the Type Certificate Holder and the Authority so as to establish that the intended reliability levels are being achieved. Any sustained adverse trend should result in an immediate evaluation by the operator in consultation with the State and manufacturer with a view to determining actions to restore the intended safety level. The operator should develop a parts control programme with support from the manufacturer that ensures that the proper parts and configuration are maintained for single-engine turbine-powered aeroplanes approved to conduct these operations. The programme includes verification that parts placed on an approved single-engine turbine-powered aeroplane during parts borrowing or pooling arrangements, as well as those parts used after repair or overhaul, maintain the necessary configuration of that aeroplane for operations approved in accordance with Subsection 10.718;
  - (ii) power loss rate should be determined as a moving average over a specified period (e.g. a 12-month moving average if the sample is large). Power loss rate, rather than in-flight shut-down rate, has been used as it is considered to be more appropriate for a single-engine aeroplane. If a failure occurs on a multi-engine aeroplane that causes a major, but not total, loss of power on one engine, it is likely that the engine will be shut down as positive engine-out performance is still available, whereas on a single-engine aeroplane it may well be decided to make use of the residual power to stretch the glide distance;
  - (iii) the actual period selected should reflect the global utilization and the relevance of the experience included (e.g. early data may not be relevant due to subsequent mandatory modifications which affected the power loss rate). After the introduction of a new engine variant and while global utilization is relatively low, the total available experience may have to be used to try to achieve a statistically meaningful average.
- (4) Event reporting.
  - (i) An operator approved for operations by single-engine turbine-powered aeroplanes at IMC and/or in night shall report all significant failures, malfunctions or defects to the Authority who in turn will notify the State of Design.
  - (ii) The Authority 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 Authority will notify the appropriate Type Certificate Holder and State of Design of any major events or trends of particular concern.
- (5) To minimize the probability of in-flight engine failure, the engine shall be equipped with –



TENTH SCHEDULE, *contd.*

- (i) an ignition system that activates automatically, or is capable of being operated manually, for take-off, landing and during flight, in visible moisture;
  - (ii) 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
  - (iii) 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.
- (6) Systems and equipment. Single-engine turbine-powered aeroplanes approved to operate at night and/or in IMC shall meet the current type design standard for such operations and 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 –
- (i) two separate electrical generating systems, each one capable of supplying all probable combinations of continuous inflight electrical loads for instruments, equipment and systems required at night and/or in IMC;
  - (ii) a radio altimeter;
  - (iii) an emergency electrical supply system of sufficient capacity and endurance, following loss of all generated power, to, as a minimum –
    - (A) 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;
    - (B) lower the flaps and landing gear, if applicable;
    - (C) provide power to one pitot heater, which must serve an airspeed indicator clearly visible to the pilot;
    - (D) provide for operation of the landing light specified in (x) of this paragraph;
    - (E) provide for one engine restart, if applicable; and
    - (F) provide for the operation of the radio altimeter;
  - (iv) two attitude indicators, powered from independent sources;
  - (v) a means to provide for at least one attempt at engine re-start;
  - (vi) airborne weather radar;
  - (vii) 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;
  - (viii) 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;
  - (ix) 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;
  - (x) 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
  - (xi) an engine fire warning system.
- (7) Maintenance Control Manual. The operator's MCM shall include a statement of certification of the additional equipment required and details of the maintenance and reliability programme for such equipment, including the engine, and the details of the trend monitoring programme.
- (8) Minimum Equipment List. The operator shall provide in the aircraft's MEL the operating equipment required for IMC and/or night operations, and for day VMC operations.
- (9) Operations Manual. The operations manual should include all necessary information relevant to operations by single-engine turbine-powered aeroplanes at night and/or in IMC. This should include all of the additional equipment,

TENTH SCHEDULE, *contd.*

- (i) an ignition system that activates automatically, or is capable of being operated manually, for take-off, landing and during flight, in visible moisture;
  - (ii) 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
  - (iii) 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.
- (6) Systems and equipment. Single-engine turbine-powered aeroplanes approved to operate at night and/or in IMC shall meet the current type design standard for such operations and 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 –
- (i) two separate electrical generating systems, each one capable of supplying all probable combinations of continuous inflight electrical loads for instruments, equipment and systems required at night and/or in IMC;
  - (ii) a radio altimeter;
  - (iii) an emergency electrical supply system of sufficient capacity and endurance, following loss of all generated power, to, as a minimum –
    - (A) 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;
    - (B) lower the flaps and landing gear, if applicable;
    - (C) provide power to one pitot heater, which must serve an airspeed indicator clearly visible to the pilot;
    - (D) provide for operation of the landing light specified in (x) of this paragraph;
    - (E) provide for one engine restart, if applicable; and
    - (F) provide for the operation of the radio altimeter;
  - (iv) two attitude indicators, powered from independent sources;
  - (v) a means to provide for at least one attempt at engine re-start;
  - (vi) airborne weather radar;
  - (vii) 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;
  - (viii) 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;
  - (ix) 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;
  - (x) 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
  - (xi) an engine fire warning system.
- (7) Maintenance Control Manual. The operator's MCM shall include a statement of certification of the additional equipment required and details of the maintenance and reliability programme for such equipment, including the engine, and the details of the trend monitoring programme.
- (8) Minimum Equipment List. The operator shall provide in the aircraft's MEL the operating equipment required for IMC and/or night operations, and for day VMC operations.
- (9) Operations Manual. The operations manual should include all necessary information relevant to operations by single-engine turbine-powered aeroplanes at night and/or in IMC. This should include all of the additional equipment,

TENTH SCHEDULE, *contd.*

- procedures and training required for such operations, route and/or area of operation and aerodrome information (including planning and operating minima).
- (10) Aircraft Flight Manual information. The flight manual shall include limitations, procedures, approval status and other information relevant to operations by single-engine turbine-powered aeroplanes in IMC and/or at night.
- (11) Operator planning. Operator route planning shall take into account all relevant information in the assessment of intended routes or areas of operation, including –
- (i) 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;
  - (ii) weather information, including seasonal and other adverse meteorological influences that may affect the flight; and
  - (iii) specifying aerodromes or safe forced landing areas available for use in the event of an engine failure and programming these into the area navigation system.

*(Note: 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.)*

- (12) Flight crew experience, training and checking. The PIC of aircraft approved to conduct IFR and/or night flights shall meet at least the following requirements –
- (i) have met the instrument, cross country and night experience requirements for an ATPL;
- (See the Eighth Schedule, Appendix 1 to 8.275 for these requirements.)*
- (ii) have met the day, night and IFR currency requirements, as applicable, as specified in this Schedule in the class of aircraft flown;
- (See Subsections 10.105 and 10.110 for these requirements.)*
- (iii) have received single-engine turbine-powered aeroplane training in the preceding 12 month period and a proficiency check in the preceding 6 month period in night and IMC operations, covering normal, abnormal and emergency procedures and, in particular, engine failure, including descent to a forced landing in IMC and night conditions over both land and sea environments;
  - (iv) have met the route and aerodrome qualifications requirements specified in the Fourteenth Schedule, Subsection 14.160;
  - (v) have received training covering, in addition to the other requirements of the Fourteenth Schedule –
    - (A) the contents of the passenger safety briefing with emphasis on emergency evacuation, including life jacket donning and life raft deployment, if applicable;
    - (B) emergency evacuation and ditching, including life raft deployment, if applicable;
    - (C) autopilot management;
    - (D) the area navigation system installed in the aircraft; and
    - (E) the use of simplified inflight documentation at night.

- (13) Route limitations over water. Operations approved under this Subsection shall not be conducted further from a land mass than the time it would take to descend from cruise altitude to the surface following a failure of the engine plus 15 minutes.

*(Note: Operators must consider choosing routes in light of the requirements of the Seventh Schedule, Subsections 7.273, 7.275, 7.280, 7.285, and 7.290.)*

- (14) Operator certification. The operator shall demonstrate the ability to conduct operations by single-engine turbine-powered aeroplanes in IMC and/or at night through the normal certification process. In addition to the normal requirements

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TENTH SCHEDULE, *contd.*

for operator certification, the following items shall be addressed in relation to operations by single-engine turbine-powered aeroplanes—

- (i) proof of the achieved engine reliability of the aeroplane/engine combination;
  - (ii) submission of the Operations Manual original or amendment containing the required information;
  - (iii) completion of the required training and checking, including those to cover engine failure/malfunction after take-off or enroute and a descent to a forced landing from the normal cruising altitude;
  - (iv) submission of a maintenance programme which is extended to address the equipment and systems referred to in this Appendix, paragraph (6); and
  - (v) submission of a MEL modified to address the equipment and systems necessary for operations in IMC and/or at night.
- (b) The issuance of the Operations Specifications permitting single-engine turbine-powered IFR and/or night operations shall include the particular airframe/engine combinations, the specific aeroplanes approved and the area(s) or route(s) of such operations.