

Schedule 10

Operations of Aircraft

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SUBPART A: GENERAL

10.001 APPLICABILITY

- (a) This Schedule prescribes the requirements for—
 - (1) Operations conducted by airman licenced in The Bahamas while operating aircraft registered in The Bahamas.
 - (2) Operations of foreign registered aircraft by Bahamas AOC holders.
- (b) This Schedule is applicable to operators of aircraft in—
 - (1) Aerial work;
 - (2) Commercial air transport; or
 - (3) General aviation.
- (c) This Schedule is applicable to pilots and other persons performing duties required by these Regulations.
- (d) For operations outside of The Bahamas, all Bahamian 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.
- (e) 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 aeroplanes.”

10.003 SPECIFIC APPROVALS

- (a) The pilot-in-command shall not conduct operations for which a specific approval is required by this Schedule unless such approval has been issued by the State of Registry.
- (b) Specific approvals issued by the Authority shall follow a specific layout and contain at least the information required to clearly indicate the approval that is granted, any applicable limitation(s) and, if applicable, the expiration date.

10.005 DEFINITIONS

- (a) The definitions applicable to this Schedule are consolidated in Schedule1 (Appendix 1 to 1.015).

10.010 ACRONYMS

- (a) The following acronyms are used in this Schedule—
 - ADS** – Automatic Dependent Surveillance
 - AFM** – Aircraft Flight Manual
 - AGL** – Above Ground Level
 - AOC** – Air Operator Certificate
 - AOM** – Aircraft Operating Manual
 - ATC** – Air Traffic Control
 - ATSU** – Air Traffic Service Unit
 - CAT** – Category
 - CG** – Center of Gravity
 - DH** – Decision Height
 - ETA** – Estimated Time of Arrival
 - EDTO** – Extended Diversion Time Operations
 - FL** – Flight Level
 - ft** – Feet
 - IFR** – Instrument Flight Rules

IMC – Instrument Meteorological Conditions
LOC – Localizer
LVTO – Low Visibility Take Off
kph – Kilometres Per Hour
km – Kilometre
m – Meter
MDA – Minimum Decent Altitude
MEA – Minimum En Route Altitude
MEL – Minimum Equipment List
MMEL – Master Minimum Equipment List
MNPSA – Minimum Navigation Specifications Airspace
MOCA – Minimum Obstruction Clearance Altitude
MSL – Mean Sea Level
nm – Nautical Mile
NOTAM – Notice to Airmen
RFM – Rotorcraft Flight Manual
RVR – Runway Visibility Range
RVSM – Reduced Vertical Separation Minimum
PBE – Protective Breathing Equipment
PBC = Performance-Based Communications
PBN = Performance-Based Navigation
PBS = Performance-Based Surveillance
PIC – Pilot In Command
SIC – Second In Command
SCA – Senior Cabin crew member
sm – Statute Miles
VFR – Visual Flight Rules
VMC – Visual Meteorological Conditions

SUBPART B: AIRCRAFT REQUIREMENTS

10.015 AIRCRAFT REGISTRATION & MARKINGS

- (a) No person may operate a Bahamian registered aircraft unless it—
 - (1) Has a valid Certificate of Aircraft Registration issued by the Authority which has not expired; and
 - (2) Displays the proper markings prescribed in Schedule 3.
- (b) No person may operate an aircraft in The Bahamas unless it—
 - (1) Has a valid Certificate of Aircraft Registration issued by the State of Registry which has not expired; and
 - (2) Displays registration markings in accordance with ICAO Annex 7.

10.020 CIVIL AIRCRAFT AIRWORTHINESS

- (a) No person may operate a civil aircraft unless it has—
 - (1) A valid Certification of Airworthiness issued by the State of Registry which has not expired; and
 - (2) Been maintained in an airworthy condition and released to service under a system of maintenance acceptable to the State of Registry.

- (b) No person may operate an aircraft unless, before take-off, it has been determined to be in condition for safe flight.
- (c) The PIC shall discontinue a flight as soon as practicable when an unairworthy mechanical, electrical or structural condition occurs.

10.025 OPERATIONAL RESTRICTIONS: CERTIFICATE OF AIRWORTHINESS

- (a) No person may operate an aircraft except—
 - (1) As provided in the terms of the airworthiness certificate or equivalent document issued by the State of Registry;
 - (2) Within the approved operating limitations contained in its flight manual; and
 - (3) Within the mass limitations imposed by compliance with the applicable noise certificate, unless otherwise authorised in exceptional circumstances for a certain aerodrome or a runway where there is no noise disturbance problem, by the competent authority of the State in which the aerodrome is situated.
- (b) No person may operate an aircraft with a Special Certificate of Airworthiness except as provided in the limitations issued with that certificate.

10.030 AIRCRAFT INSTRUMENTS & EQUIPMENT

- (a) No person may operate an aircraft unless it is equipped with the instruments and equipment requirements of Schedule 7 appropriate to the type of flight operation conducted and the route being flown.
- (b) No person may operate an aircraft unless the owner, or in the case where it is leased, the lessee, has available at all times for immediate communication to rescue coordination centres, lists containing information on the emergency and survival equipment carried on board the aircraft.
- (c) The information shall include, as applicable, the—
 - (1) Number, colour and type of life rafts and pyrotechnics;
 - (2) Details of emergency medical supplies, water supplies; and
 - (3) Type and frequencies of the emergency portable radio equipment.

10.035 INOPERATIVE INSTRUMENTS & EQUIPMENT

- (a) No person may take-off in an aircraft with inoperative instruments or equipment installed, except as authorised by the Authority.
- (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 exists for that aircraft.
 - (2) The Authority has approved the MEL for use for the specific aircraft and AOC holder.
 - (3) The approved Minimum Equipment List must—
 - (i) Be prepared in accordance with the most current Master Minimum Equipment List issued by the State of Design;
 - (ii) Be prepared in accordance with the limitations specified in paragraph (c) of this Section; and
 - (iii) 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 required by paragraph (b)(3)(ii) of this Section must be available to the pilot.
 - (5) The aircraft is operated under all applicable conditions and limitations contained in the Minimum Equipment List and the specific operating provisions authorising use of the Minimum Equipment List.
- (c) The following instruments and equipment may not be included in the Minimum Equipment List—

- (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;
 - (3) Instruments and equipment required for specific operations under Schedules 8, 9, 10, 11, 12 or 28.
- (d) An aircraft with inoperative instruments or equipment may be operated under a Special Flight Permit issued under Schedule 5.

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

10.040 CIVIL AIRCRAFT FLIGHT MANUAL, MARKING & PLACARD REQUIREMENTS

- (a) No person may operate a civil aircraft unless there is available in the aircraft—
 - (1) A current, appropriate Approved Flight Manual; or
 - (2) An AOM approved by the Authority for the AOC holder; or
 - (3) If no appropriate Approved Flight Manual exists, approved manual material, markings and placards, or any combination thereof which provide the PIC with the necessary limitations for safe operation.
- (b) Placards, listings, instrument markings or combination thereof, containing those operating limitations prescribed by the State of Registry for visual presentation shall be displayed in the aircraft.
- (c) Each person operating a civil aircraft shall cause the appropriate Approved Flight Manual to be updated by implementing changes made mandatory by the State of Registry.

10.045 REQUIRED AIRCRAFT & EQUIPMENT INSPECTIONS

- (a) Unless otherwise authorised by the Authority, no person may operate a Bahamas civil aircraft unless it has had the following inspections and evidence of those inspections are carried on the aircraft—
 - (1) An annual inspection within the past 12 calendar months;
 - (2) For remuneration or hire operations, a 100-hour inspection;
 - (3) For IFR operations, an altimeter and pitot-static system inspection in the past 24 calendar months;
 - (4) For transponder equipped aircraft, a transponder check within the past 12 calendar months;
 - (5) For ELT-equipped aircraft, an ELT check within the past 12 calendar months; and
 - (6) For IFR aircraft, a VOR receiver check within the past 30 days or an alternative method prescribed by the Authority;
 - (7) For aircraft equipped with flight and cockpit voice recorders, operational checks and evaluations of recordings shall be conducted to ensure their serviceability at intervals prescribed by the Authority.
- (b) The requirements for these inspections are contained in Schedule 5.
- (c) Aircraft maintained under an alternate maintenance and inspection program approved by the Authority, as specified in Schedule 5, may not have current annual or 100-hour inspections in their maintenance records. An alternate maintenance and inspection program include—
 - (1) A manufacturer's recommended program;
 - (2) Instructions for continued airworthiness; or
 - (3) A program designed by the operator and approved by the Authority.

10.050 DOCUMENTS TO BE CARRIED ON AIRCRAFT: ALL OPERATIONS

- (a) No person may operate a civil aircraft unless it has within it the current and approved documents appropriate to the operations to be conducted—
 - (1) Properly displayed registration certificate issued to the owner;
 - (2) Properly airworthiness certificate;
 - (3) Appropriate Approved Flight Manual;

- (4) Normal, abnormal and emergency checklists;
 - (5) Pilot operating handbook (or aircraft operating manual);
 - (6) Performance and Mass and Balance tables or graphs;
 - (7) Aircraft radio licence (if radio is installed and being used by the crew);
 - (8) Current and suitable charts for—
 - (i) The route of the proposed flight; and
 - (ii) All routes along which it is reasonable to expect that the flight may be diverted;
 - (9) Air-ground signals and essential information for search and rescue services over which the aircraft will be flown; and
 - (10) Third-party liability insurance certificate.
- (b) An operations manual shall be carried on the aircraft for all operations involving commercial air transport and aircraft subject to the requirements of Schedule 28.
- (c) Maintenance records or related documents, other than a valid certificate of airworthiness, shall not be carried in the aircraft during normal flight operations.

10.051 ADDITIONAL DOCUMENTS APPLICABLE TO INTERNATIONAL FLIGHTS

- (a) 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) List of passenger names and points of embarkation and destination, if applicable;
 - (3) Filed ATC flight plan;
 - (4) Aircraft journey log (or equivalent document);
- Refer to Appendix 1 to 10.033 for the required contents of the Journey Logbook.*
- (5) An aircraft radio licence;
 - (6) The procedures and visual signals relation to interception of aircraft;
 - (7) An English translation of the aircraft noise certificate (or equivalent document); and
 - (8) Any other documentation that may be required by the Authority or States concerned with a proposed flight.

10.055 ADDITIONAL DOCUMENT REQUIREMENTS: COMMERCIAL AIR TRANSPORT

- (a) No person may operate a civil aircraft for commercial air transport unless it has within it the additional documents necessary for such flights, including—
- (1) Aircraft Technical Log;
 - (2) Aircraft Load Manifest;
 - (3) Operational Flight Plan;
 - (4) NOTAMS briefing documentation;
 - (5) Meteorological information;
 - (6) Part(s) of the 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) An English translation of a certified true copy of—
 - (i) The AOC; and
 - (ii) The operations specifications containing pertinent authorisations, conditions and limitations for the fleet of aircraft operated;
 - (10) Bomb search checklist;
 - (11) Least risk location instruction 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

10.059 APPLICABILITY

(a) This Subpart provides the flight crew requirements to ensure that they are qualified and current for flight operations.

10.060 COMPOSITION OF THE FLIGHT CREW

- (a) The number and composition of the flight crew may not be less than the minimum numbers specified in the—
- (1) Flight manual or other documents associated with the airworthiness certificate; and
 - (2) The operator's operations manual.
- (b) A co-pilot is required for IFR commercial air transport operations, unless the Authority has issued a deviation.
- (c) When a separate flight engineer's station is incorporated in the design of an aeroplane, the flight crew shall include at least one flight engineer especially assigned to that station, unless the duties associated with that station can be satisfactorily performed by another flight crew member, holding a flight engineer licence, without interference with regular duties.
- (d) The flight crews shall include flight crew members 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—
- (1) Type of aeroplane used;
 - (2) Type of operations involved; and
 - (3) Duration of flight between points where flight crews are exchanged.

10.065 FLIGHT CREW QUALIFICATIONS

- (a) The PIC and, where applicable, the operator shall ensure for each flight crew member that—
- (1) Their licences have been issued or rendered valid by the State of Registry and contain the appropriate category, class and type ratings;
 - (2) They have completed the recency of experience requirements of this Schedule; and
 - (3) They are competent to perform the crew duties they have been assigned.
- (b) No person may operate or perform duties in a civil aircraft that require a licence unless the licence authorising the privileges to conduct that operation were issued in accordance with the specifications of Schedule 8 and/or, where applicable, the Standards of Annex 1 of the International Civil Aviation Organisation.

10.070 WHEN AIRCRAFT TYPE RATING IS REQUIRED

- (a) Except as provided in paragraph (b) of this Section, no person may operate any of the following civil aircraft as PIC unless that person's licence has been endorsed for the aircraft type—
- (1) Large aircraft, other than lighter-than-air;
 - (2) Turbine-engined aeroplanes;
 - (3) Helicopters and powered lift;
 - (4) Aircraft certificated for operation with a minimum crew of at least two pilots;
 - (5) Any aircraft considered necessary by the Authority.

- (b) The Authority may give a special authorisation in writing to authorise a pilot to operate an aircraft requiring a class and/or type rating in place of issuing that rating in accordance with this Schedule provided—
- (1) The Authority has determined that an equivalent level of safety can be achieved through the operating limitations on the authorisation;
 - (2) The applicant shows that compliance with paragraph (a) of this Section or Schedule 8 is impracticable for the flight or series of flights;
 - (3) The operations—
 - (i) Are for the purpose of training, testing or specific special purpose non-revenue, non-passenger carrying flight (e.g. ferry flight);
 - (ii) Are within The Bahamas, 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 skill test; and
 - (iv) Involve only the carriage of flight crew members considered essential for the flight.
 - (4) The authorisation is limited in validity to the time need to complete the specific flight or series of flights

10.075 FLIGHT CREW LICENCES REQUIRED

- (a) No person may act as PIC or in any other capacity as a required flight crew member of a civil aircraft of—
- (1) Bahamas registry, unless he or she carries in their personal possession the appropriate and current licence issued in accordance with Schedule 8 for that flight crew position for the category, class and type of aircraft and a valid medical certificate;
 - (2) Foreign registry, unless he or she carries in their personal possession a valid and current licence for that type of aircraft issued to them by the State in which the aircraft is registered.
- (b) No Bahamian citizen may act as the flight crew member of a foreign registered aircraft in the airspace of The Bahamas unless they have been issued a Bahamian pilot licence for the category, class and type of aircraft operated.
- (c) No person may act as a flight crew member of a foreign registered aircraft operated by a Bahamas AOC holder unless they have been issued a Bahamas licence for the category, class and type of aircraft.
- (d) No person may act as a flight engineer of a civil aircraft of Bahamas Registry unless he or she has a flight engineer licence with appropriate ratings issued in accordance with Schedule 8.

10.077 RADIO OPERATOR LICENCE

- (a) For international operations, the flight crew shall include at least one member who holds a valid licence or endorsement, issued or rendered valid by the State of Registry, authorising operation of the type of radio transmitting equipment to be used.

10.078 LANGUAGE PROFICIENCY

- (a) No person may use the aircraft radio for aeronautical radiotelephony unless their licences has been endorsed for at least Level 4 language proficiency (as specified in Schedule 8) for the language to be used.
- (b) The PIC shall ensure that all flight crew member licences are endorsed for language proficiency in the language used for aeronautical radiotelephony communications.
- (c) The PIC shall ascertain that the common language used by the crew for the operation of the aircraft is adequate for those operations.
- (d) Operators shall ensure that flight crew members demonstrate the ability to speak and understand the language used for aeronautical radiotelephony communications as specified in Section 8.205.

10.080 MEDICAL CERTIFICATE REQUIRED

- (a) The following persons must have a current and valid medical certificate as specified in Section 8.735 in order to exercise the privileges of their licences in operations of aircraft—
 - (1) Pilots; and
 - (2) Flight engineers.
- (b) No person may serve in aviation unless that person has in their personal possession a valid airman medical certificate.

10.085 AIRMAN: LIMITATIONS ON USE OF SERVICES

- (a) 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 Schedule 14.
- (b) 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.

10.087 CATEGORY, CLASS & TYPE RATING REQUIRED

- (a) No person may act as the PIC 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 is the sole occupant of the aircraft, or—
 - (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 an authorised 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 authorised instructor.
- (b) A pilot may not act as PIC 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.

10.090 RATING REQUIRED FOR IFR OPERATIONS

- (a) No person may operate a civil aircraft as the PIC in the following situations unless that person's pilot licence has been endorsed with an instrument or airline transport pilot (not limited to VFR) rating 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);
 - (3) On an ATS clearance for operations in IFR (Instrument Flight Rules);
 - (4) Conducting Special VFR Operations at night in Class G airspace; or
 - (5) Inter-island flight at night within The Bahamas airspace.
- (b) No person may perform the duties of a co-pilot in any of the situations described in paragraph (a) of this Section when a co-pilot is required, unless that person's pilot licence has been endorsed with an instrument rating for the category of aircraft.

10.095 SPECIAL AUTHORISATION REQUIRED FOR CATEGORY II/III OPERATIONS

- (a) Except as shown in paragraph (b) of this Section, no person may act as a pilot crew member 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 authorisation for that type aircraft;
 - (2) In the case of an co-pilot, he or she is authorised by the State of Registry to act as co-pilot in that aircraft in Category II/III operations.

- (b) An authorisation is not required for individual pilots of an AOC holder that has operations specifications approving Category II or III operations, but no pilot for an AOC may act as a pilot crew member in a Category II/III operation unless current and qualified for the operation conducted.

10.096 ADDITIONAL TRAINING REQUIREMENTS FOR PILOT IN COMMAND

- (a) *Complex Aircraft.* No person may act as PIC of a complex aeroplane, high-performance aeroplane, or a pressurised aircraft capable of flight above 7500 m (25,000 ft) MSL, or an aircraft that the Authority has determined requires aircraft type-specific training, unless the person has—
- (1) Received and logged ground and flight training from an authorised instructor in the applicable aeroplane type, or in an approved flight simulator or approved flight training device that is representative of that, and has been found proficient in the operation and systems of that aeroplane; and
 - (2) Received a one-time endorsement in the pilot's logbook from an authorised instructor who certifies that the person is proficient to operate that aircraft.
- (b) *Additional training required for operating tail wheel aeroplanes.* No person may act as PIC of a tail wheel aeroplane unless that person has—
- (1) Received and logged flight training from an authorised instructor in a tail wheel aeroplane on the manoeuvres and procedures, to include at least—
 - (i) Normal and crosswind take-offs and landings;
 - (ii) Wheel landings (unless the manufacturer has recommended against such landings); and
 - (iii) Go-around procedures.
 - (2) Received an endorsement in the person's logbook from an authorised instructor who found the person proficient in the operation of a tail wheel aeroplane for the manoeuvres and procedures specified in (b)(1).

10.097 SPECIAL TRAINING REQUIREMENTS

- (a) The pilot-in-command of an aeroplane equipped with an airborne collision avoidance system (ACAS II) shall ensure that each flight crew member has been appropriately trained to competency in the use of ACAS II equipment and the avoidance of collision.

Note: Additional guidance regarding ACAS training is provided in Appendix 1 to 10.097

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 that is acceptable to the Authority.
- (b) Each PIC shall carry his or her logbook on all general aviation international flights.
- (c) A student pilot shall carry his or her logbook, including the proper flight instructor endorsements, on all solo cross-country flights.
- (d) Upon the request of an authorised representative of the Authority or a law enforcement officer, the pilot shall provide their logbook to that person.

10.101 CONTENTS OF PILOT LOGBOOK

- (a) 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) Co-pilot;
 - (iv) Flight and ground training received from an authorised instructor;
 - (v) Training received in an approved flight simulator or approved flight training device from an authorised 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 & CREDITING OF FLIGHT TIME

- (a) *Logging of pilot time.* The pilot shall, at a minimum and in accordance with the requirements of Appendix 1 to 10.102, log the—
 - (1) Training and experience used to meet the eligibility requirements for a licence, rating and/or authorisation prescribed by Schedule 8 of these Regulations; and
 - (2) The experience required to show recent flight experience prescribed by Schedules 10, 11 or 14 of these Regulations.
- (b) *Crediting of pilot time.* The pilot shall be authorised to credit the logged flight time toward a higher grade of pilot licence as prescribed in Appendix 2 of 10.102.

10.105 PILOT CURRENCY: TAKE-OFF & LANDINGS

- (a) No person may act as PIC of an aircraft carrying passengers, nor of an aircraft certified for more than one required pilot flight crew member unless, within the preceding 90 days that pilot has—
 - (1) Made 3 take-offs 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 take-offs and landings in a tailwheel aeroplane with each landing to a full stop;
 - (3) *For night operations*, made the 3 take-offs and landings required by paragraph (a)(1) at night.
- (b) No person may act as the co-pilot of an aircraft subject to the applicability of Schedule 28 unless the pilot has complied with the take-off and landing requirements of paragraph (a) of this Section.
- (c) A pilot who has not met the recency of experience for take-offs and landings shall satisfactorily complete a requalification curriculum acceptable to the Authority.
- (d) Requirements of paragraphs (a) and (b) of this Section may be satisfied in a flight simulator approved by the Authority.

10.110 PILOT CURRENCY: IFR OPERATIONS

- (a) No person may act as PIC under IFR, nor 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) No person may act as PIC for an aeroplane subject to Schedule 28 unless, with the previous 7 calendar months, they have completed an instrument proficiency check acceptable to the Authority.
- (c) A pilot who has completed an instrument competency check with an authorised representative of the Authority retains currency for IFR operations for 6 calendar months following that check.

10.115 PILOT CURRENCY: GENERAL AVIATION OPERATIONS

- (a) No person may act as pilot of an aircraft type certified for more than one pilot or subject to the applicability of Schedule 28 unless, since the beginning of the preceding 12 calendar months, he or she has passed a proficiency check in the specific type of aircraft with an authorised representative of the Authority.
- (b) No person may act as PIC of an aircraft type certified for a single pilot unless, since the beginning of the 24 calendar months, he or she has passed a proficiency check with an authorised representative of the Authority.
- (c) The proficiency check shall include the maneuvers and procedures listed in the appropriate Skill Test Standards prescribed by the Authority.

10.120 ADDITIONAL COMMERCIAL AIR TRANSPORT QUALIFICATIONS

- (a) All aviation personnel involved in commercial air transport shall also conform to—
 - (1) The initial and continuing qualification requirements of Schedule 14; and
 - (2) The requirements of Schedule 15 for maximum duty and flight time and minimum rest periods.

10.125 PILOT PRIVILEGES & LIMITATIONS

- (a) A pilot may conduct operations only within the general privileges and limitations of the type of valid licence that he as been issued by the Authority.

10.130 AIRLINE TRANSPORT PILOT PRIVILEGES

- (a) 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 co-pilot) of the aircraft in commercial air transportation certificated for operation with more than one pilot after completing the additional requirements of Schedule 12;
 - (1) Exercise the privileges accorded to a commercial pilot;
 - (2) Not give flight instruction unless also the holder of a specific authorisation from the Authority;
 - (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.
- (b) When the holder of an airline transport pilot licence in the aeroplane category has previously held only a multi-crew pilot licence, the privileges of the licence shall be limited to multi-crew operations unless the holder has met the appropriate requirements established in Sections 8.305 through 8.320. Any limitation of privileges shall be endorsed on the licence.

10.133 MULTI-CREW PILOT PRIVILEGES

- (a) The holder of a multi-crew pilot licence may exercise—
 - (1) Commercial pilot privileges while acting as a co-pilot of an aeroplane required to be operated with a co-pilot; and
 - (2) Instrument rating privileges during a multi-crew flight operation.
- (b) The holder of a multi-crew pilot licence may make application to the Authority to act as the PIC of an aeroplane certificated for single-pilot operation only after completion of the requirements of Schedule 8 for the exercise of—
 - (1) Commercial pilot privileges;

- (2) Instrument rating privileges; or
- (3) Private pilot privileges.
- (c) The Authority may exercise the option to issue one or more of the authorisations for these privileges by—
 - (1) An endorsement on the holder's multi-crew pilot licence; or
 - (2) The separate issuance of a commercial or private pilot licence with the appropriate ratings.

10.135 COMMERCIAL PILOT PRIVILEGES & LIMITATIONS: GENERAL

- (a) When qualified and current for the aircraft category, class and type being operated, the holder of a commercial pilot licence may receive remuneration and exercise the following privileges—
 - (1) To act as pilot-in-command or co-pilot of an aircraft within the appropriate aircraft category engaged in operations other than commercial air transportation;
 - (2) *For commercial air transport*, after completing Schedule 12 qualification requirements—
 - (i) To act as pilot-in-command of an aircraft within the appropriate aircraft category and certificated for single-pilot operation; or
 - (ii) to act as co-pilot of an aircraft within the appropriate aircraft category that is required to be operated with a co-pilot;
 - (3) For the airship category, to pilot an airship under IFR; and
 - (4) To exercise all the privileges of the holder of a private pilot licence in an aircraft within the appropriate aircraft category;
 - (5) When appropriate, exercise the privileges accorded to a private pilot within the appropriate aircraft category.
- (b) Before exercising the commercial pilot privileges at night, the licence holder shall have received dual instruction in aircraft within the appropriate category of aircraft in night flying, including take-off, landing and navigation.
- (c) A commercial pilot shall not give flight instruction for a licence or rating unless also the holder of an appropriate flight instructor licence and rating.

10.137 INSTRUMENT RATING PRIVILEGES

- (a) When qualified and current for IFR operations in the aircraft category and class being operated the holder of an instrument rating may act as a required pilot for flights IFR flights in—
 - (1) General aviation;
 - (2) Aerial work operations; and
 - (3) Commercial Air Transport as the—
 - (i) PIC (or co-pilot) of an aircraft with a maximum gross weight of up to 5700 kg after completing the additional requirements of Schedule 14;
 - (ii) Co-pilot of an aircraft with a maximum gross weight of more than 5700 kg after completing the additional requirements of Schedule 14.
- (b) The holder of an instrument rating shall not exercise those privileges in a multi-engined aircraft unless they have demonstrated their instruments skills in a multi-engined aircraft, including engine-out operations, as required by Section 8.215.
- (c) The holder of an instrument rating for one category may not exercise instrument privileges in another category of aircraft, unless they have completed the requirements in each category.

10.140 PRIVATE PILOT PRIVILEGES & LIMITATIONS: REQUIRED CREW MEMBER

- (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 as the pilot in

command or the co-pilot carrying passengers or property engaged in non-revenue flights as provided in this Section.

- (b) A private pilot may not act as a required crew member of an aircraft carrying passengers or property for compensation or hire or for the purpose of flight instruction.
- (c) A private pilot may act as a required crew member 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) Flight is for commercial air transport purposes as defined by these Regulations.
- (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, aerodrome expenditures, or rental fees.
- (e) Before exercising the private pilot privileges at night, the licence holder shall have received dual instruction in aircraft within the appropriate category of aircraft in night flying, including take-off, landing and navigation.
- (f) A private pilot with a glider category rating may serve as the PIC—
 - (1) If the licence holder has documented operational experience in the launching method used; and
 - (2) *If passengers are to be carried*, a minimum of 10 hours of total flight time as the pilot of a glider.
- (g) A private pilot with a lighter-than-air category rating may serve as PIC only on the type (gas or hot-air) of balloon for which he has documented operational experience.

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, unless by special or general arrangement between the States concerned;
 - (6) With a flight or surface visibility of less than 3 statute miles during daylight hours or 5 statute miles at night;
 - (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 an authorised instructor.
- (b) A student pilot may not act as a required pilot flight crew member on any aircraft for which more than one pilot is required by the aircraft type certificate or by these Schedule under which the flight is conducted, except when receiving flight training from an authorised instructor on board an airship, and no person other than a required flight crew member is carried on 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) Section 8.260 for solo flight; and
 - (2) For solo cross-country flights, Section 8.265; and
 - (3) 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 calendar days preceding the date of the flight an endorsement from an authorised instructor for the specific make and model aircraft to be flown made—

- (1) On his or her student pilot licence; 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 40 km (25 sm) unless the flight planning has been reviewed by a flight instructor and pilot's logbook has been endorsed by the instructor for the flight(s) as provided in Section 8.265.

10.147 FLIGHT INSTRUCTOR PRIVILEGES & LIMITATIONS

- (a) A flight instructor is authorised within the limitations of that person's flight instructor licence and ratings, and pilot licence and ratings, to give training and endorsements that are required for, and relate to—
- (1) A student pilot licence, including the supervision of solo flights;
 - (2) A pilot licence;
 - (3) A flight instructor licence;
 - (4) A ground instructor licence;
 - (5) An aircraft category, class or type rating;
 - (6) An instrument rating;
 - (7) A flight review, operating privilege, or recency of experience requirement;
 - (8) A skill test; and
 - (9) A knowledge test.
- (b) Except as provided in this Section, no person other than the holder of a flight instructor licence with appropriate rating may—
- (1) Give training required to qualify a person for solo flight and solo cross-country flight;
 - (2) Endorse an applicant for a pilot, flight instructor, or ground instructor licence or rating issued under this Schedule;
 - (3) Endorse a pilot logbook to show training given; or
 - (4) Endorse a student pilot licence and logbook for solo operating privileges.
- (c) Provided that the flight instructor—
- (1) Holds at least the licence and rating for which instruction is being given, in the appropriate aircraft category;
 - (2) Holds the licence and rating necessary to act as the pilot-in-command of the aircraft on which the instruction is given; and
 - (3) Has the authorisation of the Authority as either—
 - (i) A valid flight instructor licence; or
 - (ii) An endorsement of flight instructor privileges entered on the holder's pilot licence.
- (d) In order to carry out instruction for the multi-crew pilot licence, the flight instructor shall have also met all the instructor qualification requirements.
- (e) The following licence holders shall not give flight instruction unless their licence is endorsed by the Authority for this purpose—
- (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 program approved under Schedule 14;
 - (3) A person who is qualified in accordance with Schedule 9, provided the training is conducted in accordance with an approved training program; or
 - (4) The holder of a ground instructor licence in accordance with the privileges of the licence.

Note: See Appendix 1 of 10.147 for expanded flight instructor record-keeping requirements.

Note: See Appendix 2 of 10.147 for expanded flight instructor limitations.

10.148 FLIGHT ENGINEER PRIVILEGES & LIMITATIONS

- (a) No person may act as a flight engineer of an aircraft unless he or she has a flight engineer licence with appropriate ratings.
- (b) When qualified and current for the category and type of aircraft operated, the holder of a flight engineer licence with the appropriate rating is authorised 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 Schedule 14 requirements.
- (d) The Authority may exercise the option to enter the types of aircraft on which the holder of a flight engineer licence is authorised to exercise the privileges of that licence, shall be either entered on the licence or recorded elsewhere in a manner acceptable to the Authority.

SUBPART D: CREW MEMBER DUTIES & RESPONSIBILITIES

10.150 AUTHORITY & RESPONSIBILITY OF THE PIC

- (a) The PIC shall be responsible for the operation, safety and security of the aircraft and for the safety of all persons and cargo on board when the—
 - (1) Doors are closed, if installed; 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 with the primary propulsion units shut down and any propellers or rotor blades have stopped turning.
- (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.
- (d) Nothing in these Regulations shall relieve the pilot-in-command of an aircraft from the responsibility of taking such action, including collision avoidance manoeuvres based on resolution advisories provided by ACAS equipment, as will best avert collision

10.155 DESIGNATION & ASSIGNMENT OF CREW MEMBERS

Pilot in Command

- (a) For each flight, a PIC shall be designated, in writing or computer assignment, by—
 - (1) AOC holders for commercial air transport operations;
 - (2) Aerial work operators; and
 - (3) Operators subject to the requirements of Schedule 28 of these Regulations.

Other Flight Crew Members

- (b) The PIC shall ensure that qualified flight crew members are assigned to each required flight crew position and are at their station before initiating the pre-start checklists.

Cabin Crew Members

- (c) The PIC shall ensure that qualified cabin crew members are assigned to each required cabin crew position and are at their station before initiating the pre-start checklists, but may delegate that responsibility to the senior cabin crew member where more than 2 cabin crew members are required.

Operator Responsibility

- (d) No operator may assign a crew member that is not qualified to perform the necessary duties and functions—
 - (1) That are required for their assigned station; and
 - (2) In an emergency or in a situation requiring emergency evacuation.

Presumption of Qualification

- (e) The PIC may presume that the crew members assigned by an AOC holder are qualified to perform the necessary duties and functions of their assigned station.

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 Section to the Authority within 10 days in the form prescribed.

10.165 OPERATIONAL CONTROL

- (a) The PIC shall have responsibility for operational control for all general aviation and aerial work operations.
- (b) For commercial air transport operations, the operational control requirements of Schedule 16 shall apply.

10.170 FITNESS OF FLIGHT CREW MEMBERS

- (a) No person may act as PIC or in any other capacity as a required flight crew member 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 crew member is incapacitated from performing duties by any cause such as injury, sickness, fatigue, the effects of alcohol or drugs; or
 - (2) Continued beyond the nearest suitable aerodrome/heliport if a flight crew members' capacity to perform functions is significantly reduced by impairment of faculties from causes such as fatigue, sickness or lack of oxygen.

10.175 PROBLEMATIC USE OF PSYCHOACTIVE SUBSTANCES

- (a) No person whose function is critical to the safety of aviation (safety-sensitive personnel) shall undertake that function while under the influence of any psychoactive substance, by reason of which human performance is impaired.
- (b) No such person shall engage in any kind of problematic use of substances.
- (c) No person may act or attempt to act as a crew member of 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 psychoactive substance or drug that affects the person's faculties in any way contrary to safety.

- (d) A crew member shall, on request of a law enforcement officer or the Authority, yield to a test to indicate the presence of alcohol or psychoactive substances in the blood at any time—
 - (1) Up to 8 hours before acting as a crew member;
 - (2) Immediately after attempting to act as a crew member; or
 - (3) Immediately after acting as a crew member.

Note: See Appendix 1 of 10.175 for additional requirements regarding alcohol and psychoactive substances.

10.180 CREW MEMBER USE OF SEAT BELTS & SHOULDER HARNESSSES

- (a) Each crew member shall have his or her seat belts fastened during take-off and landing and all other times when seated at his or her station.
- (b) Each crew member occupying a station equipped with a shoulder harness shall fasten that harness during take-off 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 take-off 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 crew members in the performance of their duties or with the rapid egress of occupants in an emergency.

10.185 FLIGHT CREW MEMBERS AT DUTY STATIONS

- (a) Each required flight crew member shall remain at the assigned duty station during take-off and landing and critical phases of flight.
- (b) Each flight crew member 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 crew member is taking a rest period and a qualified relief crew member replaces him or her at the duty station.

See Appendix 1 to 10.185 for specific requirement pertaining to qualified relief crew members.

10.190 REQUIRED CREW MEMBER EQUIPMENT

- (a) Each crew member involved in night operations shall have a portable light at his or her station.
- (b) Each pilot crew member shall have at his or her station an aircraft checklist containing at least the pre-take-off, after take-off, before landing and emergency procedures.
- (c) Each pilot crew member 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.
- (d) Each pilot crew member wearing sunglasses will ensure that any sunglasses worn during the exercise of airman privileges are non-polarizing and of a neutral gray tint.

10.193 REQUIRED CORRECTIVE LENSES

- (a) Each flight crew member 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 crew member.
- (b) Each flight crew member 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 crew member 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 and the operator shall ensure that the flight crew—
 - (1) Has checklists for each phase of flight and emergencies available in the cockpit;
 - (2) Uses these checklists prior to, during and after each phase of flight and emergencies; and
 - (3) 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
 - (2) The flight manual; or
 - (3) Other documents associated with the certificate of airworthiness; and
 - (4) Otherwise in the operations manual.
- (c) The design and utilisation of checklists shall observe Human Factors principles.

10.200 SEARCH & 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) Operators subject to the requirements of Schedules 12 or 28 shall ensure that the pilot-in-command has available on board the aeroplane all the essential information concerning the search and rescue services in the area over which the aeroplane will be flown.
- (c) This information shall contain the air-ground visual signals for search and rescue.

10.205 PRODUCTION OF AIRCRAFT AND FLIGHT DOCUMENTATION

- (a) The PIC shall, within a reasonable time of being requested to do so by a person authorised 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 PIC shall ensure that the flight deck compartment door (if installed) is locked during passenger-carrying commercial air transport operations from the time all external doors are closed following embarkation until any such door is opened for disembarkation except when necessary to—
 - (1) Permit access and egress by authorised persons; and
 - (2) Provide for emergency evacuation.
- (b) No person shall unlock the flight deck compartment door in flight unless they have used the means of monitoring the door area to identify persons requesting entry.

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 crew member;
 - (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.

10.220 ADMISSION OF INSPECTOR TO THE FLIGHT DECK

- (a) Whenever, in performing the duties of conducting an inspection, an inspector from the Authority presents an Aviation Safety Inspector's Credential issued by the Authority 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 crew member may perform any duties during a critical phase of flight except those required for the safe operation of the aircraft.
- (b) No PIC may permit a flight crew member to engage in any activity during a critical phase of flight which could distract or interfere with the performance of their assigned duties.

10.227 FLIGHT DECK COMMUNICATIONS

- (a) Each required flight crew member 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 crew member functions and is authorised by the AOC holder.

10.235 RESPONSIBILITY FOR REQUIRED DOCUMENTS

- (a) The PIC shall ensure that all documents required for the specific flight operations are carried on board the aircraft as prescribed by Sections—
 - (1) 10.050;
 - (2) 10.051; and/or
 - (3) 10.055.
- (b) For all international flights, the PIC shall ensure the completion of—
 - (1) Journey log book; and
 - (2) General declaration and its safekeeping and delivery.

Note: See Appendix 1 to 10.051 for the prescribed contents of a journey log book.

10.240 AIRCRAFT TECHNICAL LOGBOOK: COMMERCIAL AIR TRANSPORT

- (a) The PIC shall ensure that all portions of the technical logbook are completed at the appropriate points before, during and after flight operations.

10.245 REPORTING KNOWN OR SUSPECTED DEFECTS OF AIRCRAFT

- (a) The PIC shall ensure that all known or suspected defects to the aircraft occurring during flight time are—
 - (1) *For general aviation operations*, entered in the aircraft logbook and disposed of in accordance with the MEL or other approved or prescribed procedure;
 - (2) *For commercial air transport operations and aerial work operations*, entered in the aircraft maintenance records section of the technical log of the aircraft at the appropriate points before, during and at the end of that flight time.

- (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 & AIR NAVIGATION INADEQUACIES

- (a) Each crew member 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.
- (b) The operator shall ensure that any inadequacy of facilities observed in the course of operations is reported to the authority responsible for those facilities, without undue delay.

10.255 REPORTING OF WEATHER & HAZARDOUS CONDITIONS

- (a) The flight crews should record and report on routine meteorological observation during departure and en-route and climb-out phases of the flight and special and other non-routine observations during any phase of the flight.
- (b) When making a meteorological report in flight, a pilot should follow the procedures for recording and reporting such observations in a consistent manner.
- (c) 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 en route, including those associated with—
 - (1) Meteorological conditions;
 - (2) Volcanic activity; and
 - (3) Any other report prescribed by the Authority.
- (d) The pilot-in-command shall report the runway braking action special air-report (AIREP) when the runway braking action encountered is not as good as reported.

10.257 REPORTING OF POSSIBLE COMMUNICABLE DISEASE

- (a) The PIC shall, upon identifying a suspected case(s) of communicable disease or other public health risk, on board the aircraft, promptly notify the ATS unit which the pilot is communicating, the following information—
 - (1) Aircraft identification;
 - (2) Departure aerodrome;
 - (3) Destination aerodrome;
 - (4) Estimated time of arrival;
 - (5) Number of persons on board;
 - (6) Number of suspected case(s) on board; and
 - (7) Nature of the public health risk, if known.

A communicable disease could be suspected if a person has a fever (temperature 38C (100F) or greater that is associated with signs or symptoms, such as appearing obviously unwell, persistent coughing, impaired breathing, persistent diarrhoea; persistent vomiting; skin rash, bruising or bleeding without previous injury, confusion of recent onset.

- (b) After notifying the ATS unit, the PIC shall—
 - (1) Implement the operator's operations manual procedures for situations involving possible communicable diseases;
 - (2) Comply with the ATS instructions regarding selection of aerodromes and parking locations to facilitate the aerodrome procedures planned for such situations.

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.
- (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 crew members on board an aircraft.
- (e) *Voluntary Incident Report*. All crew members should report incidents that occur during flight operations that, in their estimation, were potentially hazardous.
- (f) *PBN Navigation Error Report*. The PIC shall submit a report to the Authority following any flight that involved a determination that navigation error occurred that exceeded the navigation specifications for the airspace being transited.
- (g) *RVSM Heightkeeping Error Report*. The PIC shall submit a report to the Authority following any flight that involved a determination that a heightkeeping error occurred that exceeded the acceptable vertical tolerances prescribed for the airspace transited.
- (h) *PBC Communication Error report*. The PIC shall submit a report to the Authority following any flight that received a observation that performance issued by a monitoring programmes established in accordance with Annex 11.

10.263 DANGEROUS GOODS INCIDENT OR ACCIDENT

- (a) The PIC shall inform the appropriate ATC facility, if the situation permits, when an in-flight emergency occurs, involving dangerous goods on board.
- (b) An operator who is involved in a dangerous goods incident and/or accident in the The Bahamas must provide the Authority all the necessary information to allow the Authority take necessary accident mitigation action.
- (c) A written report shall be prepared and sent by the operator (or his authorised representative) to the Authority within 24 hours of the occurrence.

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.
- (c) In the event that the pilot is incapacitated, the operator of the aircraft shall make this accident notification and complete the accident report.

10.270 OPERATION OF FLIGHT DECK VOICE & 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 take-off 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 and the operator shall act to preserve the flight recorder records and recorded data and ensure their retention in safe custody pending their disposition as determined by the investigating Authority.
- (d) The flight recorders shall not be reactivated before their disposition is determined by the investigating Authority.

10.275 CREW MEMBER OXYGEN: MINIMUM SUPPLY & USE

- (a) The PIC shall ensure that breathing oxygen and masks are available to crew members in sufficient quantities for all flights at such altitudes where a lack of oxygen might result in impairment of the faculties of crew members.
- (b) No person may commence a flight where the minimum supply of crew oxygen on board the aircraft be less than that prescribed by the Authority for the intended altitudes and type of operations.

Note: The requirements for oxygen supply and use are prescribed in Schedule 7.

- (c) The PIC shall ensure that all flight crew members, when engaged in performing duties essential to the safe operation of an aircraft in flight, use breathing oxygen continuously—
 - (1) At cabin altitudes exceeding 700 hpa (10,000 ft) for a period in excess of 30 minutes; and
 - (2) Whenever the cabin altitude exceeds 620 hpa (13,000 ft).
- (d) One pilot at the controls of a pressurised 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; and
 - (2) *For commercial air transport operations*, at flight levels above 250, if there is no other pilot at their duty station.

10.277 WEARING OF SURVIVAL SUITS

- (a) *For commercial air transport helicopter operations Offshore*, a survival suit shall be worn by every occupant when the—
 - (1) Sea temperature is less than 10 degrees Centigrade; or
 - (2) Estimated rescue time exceeds the calculated survival time based on the sea state and ambient flight conditions.
- (b) The flight crew may deviate from this requirement when the elevation and strength of the sun results in a high temperature hazard on the flight deck.

10.280 PORTABLE ELECTRONIC DEVICES

- (a) 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 such a device prior to its use; 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 crew members use; and
 - (3) The PIC informs passengers when use of the device is permitted.

10.281 ELECTRONIC FLIGHT BAG [EFB]

- (a) Where portable EFBs are used on board, the pilot-in-command and/or the operator/owner shall ensure that they do not affect the performance of the aeroplane systems, equipment or the ability to operate the aeroplane.
- (b) Where EFBs are used on board an aeroplane the pilot-in-command and/or the owner/operator shall—
 - (1) Assess the safety risk(s) associated with each EFB function;
 - (2) Establish the procedures for the use of, and training requirements for, the device and each EFB function; and
 - (3) Ensure that, in the event of an EFB failure, sufficient information is readily available to the flight crew for the flight to be conducted safely.

10.282 CARRIAGE OF DANGEROUS GOODS

- (a) 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 Schedule 18 regarding carriage of dangerous goods by air.
- (b) No person shall carry dangerous goods unless the details of that information are included in the flight plan and proper notification has been made to both the appropriate authorities at the intermediate and destination aerodromes.
- (c) No person shall carry dangerous goods in an aircraft registered in The Bahamas or operated in The Bahamas except—
 - (1) With the written permission of the Authority and in accordance with the regulations and/or conditions set by the Authority in granting such permission; and
 - (2) In accordance with the Technical Instructions for the Safe Transport of Dangerous Goods by Air issued by the Council of International Civil Aviation Organisation and with any variations to those instructions that the Authority may from time to time mandate and provide notification of to ICAO.

10.283 COMPLIANCE WITH SECURITY PROGRAM

- (a) The PIC shall be responsible for the security of the aircraft during its operation.
- (b) No person shall commence a flight unless all requirements of the operator security program have been completed.
- (c) Each operator shall establish, implement and maintain a written operator security program that meets the requirements of the national civil aviation security program and includes the accepted industry codes of practice for such programs.

10.284 RECORDS OF EMERGENCY & SURVIVAL EQUIPMENT CARRIED

- (a) The owner of the aircraft, or in the case where it is leased, the lessee, shall at all times have available for immediate communication to rescue co-ordination centres, lists containing information on the emergency and survival equipment carried on board any of their aircraft.
- (b) This information shall include, as applicable, the—
 - (1) Number, colour and type of life rafts and pyrotechnics;
 - (2) Details of emergency medical supplies;
 - (3) Water supplies; and
 - (4) Type and frequencies of the emergency portable radio equipment.
- (c) The PIC shall determine that this information is immediately available from the owner (or operator) before commencing flight overwater or remote areas.

SUBPART E: ALL PASSENGER CARRYING OPERATIONS

10.285 APPLICABILITY

- (a) This Subpart applies to all passenger-carrying operations in civil aircraft.
- (b) Operators of aircraft with passenger seating capacity of more than 9 passengers shall also comply with the applicable passenger carrying requirements contained in Schedule 13.

10.287 UNACCEPTABLE CONDUCT

- (a) No person on board may interfere with a crew member 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 while the no-smoking sign is lighted.
- (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 REFUELING WITH PASSENGERS ON BOARD

- (a) No PIC or operator may allow an aircraft to be refueled when passengers are embarking, on board or disembarking unless—
 - (1) The aircraft is manned by qualified personnel ready to initiate and direct an evacuation by the most practical and expeditious means available; and
 - (2) Two-way communication is maintained by the aeroplane's intercommunication system or other suitable means between the qualified personnel in the aircraft and the ground crew supervising the refuelling.
- (b) *For helicopters*, unless specifically authorised by the Authority, no person or operator will allow a helicopter to be refueled when—
 - (1) Passengers are embarking, on board, or disembarking; or
 - (2) The rotors are turning.
- (c) The PIC shall exercise extra precautions when the fuel is other than aviation kerosene or when an open line is used.

10.295 PASSENGER SAFETY

- (a) The PIC and operator shall ensure that—
 - (1) Each person on board 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, take-off and landing;
 - (2) Each passenger shall have his or her seat belt or harness securely fastened at any other time the PIC determines it is necessary for safety, especially during turbulence or emergency;
 - (3) A safety belt provided for the occupant of a seat is not used during take-off and landing by more than one person who has reached his or her second birthday;
 - (4) All carry-on baggage is adequately and securely stowed for take-off and landing;
 - (5) All cargo carried in the passenger cabin is restrained through the use of straps or nets attached to the airframe;
 - (6) All crew members understand and are capable of performing their assigned emergency duties related to emergency evacuation and passenger safety.

10.300 PASSENGER BRIEFING

- (a) The PIC shall ensure that crew members and passengers are made familiar, by means of an oral briefing or by other means, with the location, when and how to use the following items, if appropriate—
 - (1) Seat belts;
 - (2) Emergency exits;
 - (3) Life jackets or equivalent individual flotation devices;
 - (4) Oxygen dispensing equipment; and
 - (5) Other emergency equipment provided for individual use, including passenger emergency briefing cards.
- (b) The PIC and operator 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.
- (c) *For commercial air transport operations*, the briefing shall contain all subjects approved by the Authority for the specific operations conducted as included in the pertinent Operations Manual.
- (d) When cabin crew members are required because of the passenger capacity of the aircraft, the PIC and operator may delegate this responsibility, but shall ascertain that the proper briefing has been conducted prior to take-off.

10.305 INFLIGHT EMERGENCY INSTRUCTION

- (a) 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.

10.310 PASSENGER OXYGEN: MINIMUM SUPPLY & 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 effect passengers.
 - (b) No person may commence a flight that is intended for operations above an altitude of 700 hpa (10,000 feet) unless the minimum supply of stored breathing oxygen carried on board the aircraft is—
 - (1) *For non-pressurised aircraft—*
 - (i) Sufficient for 10 per cent of the passengers for any period in excess of 30 minutes that the pressure in compartments occupied by them will be between 700 hPa and 620 hPa; and
 - (ii) Sufficient for any period that the atmospheric pressure in compartments occupied by them will be less than 620 hPa.
 - (2) *For pressurised aircraft—*
 - (i) Sufficient to supply all passengers, as is appropriate to the circumstances of the flight being undertaken, in the event of loss of pressurisation, for any period that the atmospheric pressure in any compartment occupied by them would be less than 700 hPa; and
 - (ii) In addition, when an aeroplane is operated at flight altitudes at which the atmospheric pressure is less than 376 hPa (24,000 feet); or
 - (iii) Which, if operated at flight altitudes at which the atmospheric pressure is more than 376 hPa and cannot descend safely within four minutes to a flight altitude at which the atmospheric pressure is equal to 620 hPa, there shall be no less than a 10-minute supply for the occupants of the passenger compartment.
- Note: The requirements for oxygen storage and dispensing apparatus are prescribed in Schedule 7.*
- (c) The PIC shall require all passengers to use oxygen continuously at cabin pressure altitudes above 620 hpa. (15,000 ft)

10.315 ALCOHOL OR DRUGS

- (a) 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 person is under the influence of drugs (except a medical patient under proper care).

SUBPART F: FLIGHT PLANS

10.324 APPLICABILITY

- (a) The rules of this Subpart are applicable to all operations of aircraft in the airspace of The Bahamas and, for international flights, wherever they may be, to the extent that they do not conflict with the rules published by the State having jurisdiction over the territory overflown.

10.325 SUBMISSION OF A FLIGHT PLAN

- (a) Information relative to an intended flight or portion of a flight, to be provided to air traffic services units, shall be in the form of a flight plan.
- (b) Prior to operating one of the following, a pilot shall file a VFR or IFR flight plan, as applicable, for—
 - (1) Any flight (or portion thereof) to be provided with air traffic control service;
 - (2) Any IFR flight within advisory airspace;
 - (3) 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;
 - (4) Any flight within or into designated areas, or along designated routes, when so required by the appropriate ATC authority to facilitate coordination 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
 - (5) Any flight across international borders.
- (c) 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.
- (d) Unless otherwise prescribed by the appropriate ATC authority, a pilot should submit a flight plan to the appropriate ATC facility—
 - (1) At least 1 hour 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

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

10.335 CONTENTS OF A FLIGHT PLAN

- (a) 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/heliport and alternate (if required);

- (6) Estimated off-block time;
 - (7) Cruising speed(s);
 - (8) Cruising level(s);
 - (9) Route to be followed;
 - (10) Destination aerodrome/heliport and alternates, including those for ETDO (if required);
 - (11) Fuel endurance;
 - (12) Total number of persons on board;
 - (13) Emergency and survival equipment; and
 - (14) Other information.
- (g) 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.
- (h) It shall, in addition, contain information, as applicable, on all other items when so prescribed by the appropriate ATS authority or when otherwise deemed necessary by the person submitting the flight plan.

10.340 PLANNED RECLEARANCE (RE-DISPATCH)

- (a) No person shall commence a flight, if prior to departure it is anticipated that depending on fuel endurance decision may be taken request clearance to proceed to a revised destination aerodrome, unless the flight plan submitted to the appropriate ATC unit contains information concerning the revised route (where known) and the revised destination.
- (b) No person may plan to change destinations in flight unless there is adequate fuel on board to comply the required fuel requirements from the point of re-planning and ATC has been notified of the planned change and, in the case of IFR flight, an ATC clearance to the revised destination has been received.
- (c) An AOC holder shall submit all pre-planned re-dispatch rationale to the Authority for approval in accordance with Schedule 12.

10.345 CHANGES TO A FLIGHT PLAN

- (a) When a change occurs to a flight plan submitted for an IFR flight or a VFR flight operated as a controlled flight, the pilot shall report that change 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.
- (c) Where information submitted prior to departure regarding fuel endurance or total number of persons carried on board is incorrect at time of departure, this significant change shall be reported by the PIC.

10.350 CLOSING A FLIGHT PLAN

- (a) The PIC shall make a report of arrival either in person, by radio or data link to the appropriate ATC facility at the earliest possible moment after landing at the destination aerodrome, unless ATS 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 en route 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) When communication facilities at the arrival aerodrome/heliport are known to be inadequate and alternate arrangements for the handling of arrival reports on the ground are not available, the following action shall be taken—
 - (1) Immediately prior to landing the pilot shall, if practicable, transmit to the appropriate air traffic services unit, a message comparable to an arrival report, where such a report is required;

- (2) Normally this transmission shall be made to the aeronautical station serving the ATS unit in charge of the flight information region in which the aircraft is operated.
- (e) Pilots shall include the following elements of information in their arrival reports—
 - (1) Aircraft identification;
 - (2) Departure aerodrome;
 - (3) Destination aerodrome/heliport (only in the case of a diversionary landing);
 - (4) Arrival aerodrome; and
 - (5) Time of arrival.
- (f) Pilots and operators are cautioned that whenever an arrival report is required, failure to comply with these provisions may cause serious disruption in the air traffic services and incur great expense in carrying out unnecessary search and rescue operations

SUBPART G: FLIGHT PLANNING & PREPARATION

10.354 APPLICABILITY

- (a) The rules of this Subpart are applicable to all operations of aircraft in the airspace of The Bahamas and, for international flights, wherever they may be, to the extent that they do not conflict with the rules published by the State having jurisdiction over the territory overflown.

10.355 AIRCRAFT AIRWORTHINESS & SAFETY PRECAUTIONS

- (a) The PIC may not commence a flight, or series of flights, in a civil aircraft until satisfied that—
 - (1) The aircraft is airworthy, duly registered and that appropriate certificates (i.e. airworthiness, registration) 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 maintenance release, if applicable, has been issued in respect to the aircraft.
- (b) *For commercial air transport operations*, before commencing the flight, the PIC shall certify by signing the aircraft technical log that he or she is satisfied that the requirements of paragraph (a) of this Section have been met for a particular flight.

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 and the protection of the passengers, are adequate for the type of operation under which the flight is to be conducted and are adequately operated for this purpose, including communication facilities and navigation aids.

10.363 SELECTION OF VFR LANDMARKS

- (a) No person may commence a flight under VFR unless it has been determined that the flight can be conducted by visual reference to landmarks spaced no greater than 110 km (60 nm) apart.

10.365 PRE-FLIGHT ACTION, INCLUDING WEATHER REPORTS & 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 the 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

- (a) 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 WEATHER LIMITATIONS FOR IFR FLIGHTS

- (a) For IFR flight planning purposes, no person may commence an IFR flight unless the available information indicates that the weather conditions at the estimated time of arrival at the aerodrome of intended landing and, where a destination alternate is required, at least one suitable destination alternate, will be at or above the—
 - (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.
- (b) *For commercial air transport operations and general aviation operations of large or turbojet aeroplanes, no person may—*
 - (1) take-off from the departure aerodrome unless the meteorological conditions, at the time of use, are at or above the operator's established aerodrome operating minima for that operation; and
 - (2) take-off or continue beyond the point of in-flight re-planning unless at the aerodrome of intended landing or at each alternate aerodrome to be selected in compliance with Sections 10.145 through 10.253, current meteorological reports or a combination of current reports and forecasts indicate that the meteorological conditions will be, at the estimated time of use, at or above the operator's established aerodrome operating minima for that operation.
- (c) *For commercial air transport operations:* 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 AERODROME/HELIPORT/LANDING LOCATION

One Destination Alternate Normally Required

- (a) Except as provided in paragraph (b), no person may commence a flight to be conducted in accordance with the instrument flight rules, unless at least one suitable destination alternate aerodrome shall be selected and specified in the—
 - (1) ATS flight plan; and
 - (2) *For commercial air transport*, the operational flight plan.
- (b) A destination alternate aerodrome is not required to be selected when—
 - (1) The aerodrome is isolated; or
 - (2) For the duration of the flight from the departure aerodrome, or from the point of in-flight re-planning, to the destination aerodrome, a reasonable certainty exists that at the estimated time of use (taking into account all meteorological conditions and operational information relevant to the flight)—
 - (i) The approach and landing may be made under visual meteorological conditions as specified in paragraphs (d) and (e); and
 - (ii) Separate runways are usable at the estimated time of use of the destination aerodrome with at least one runway having an operational instrument approach procedure.

Two Destination Alternate Aerodromes Required

- (c) Two destination alternate aerodromes shall be selected and specified in the operational and ATS flight plans when, for the destination aerodrome—
- (1) Meteorological conditions at the estimated time of use will be below the operator's established aerodrome operating minima for that operation; or
 - (2) Meteorological information is not available.

Standard Instrument approach available

- (d) No person may commence an IFR flight in an aircraft without at least one destination alternate aerodrome listed in the flight plan unless available current meteorological information indicates that the following meteorological conditions will exist from 1 hour before to 1 hour after the estimated time of arrival at the destination with a standard instrument approach—
- (1) *For an aeroplane—*
 - (i) A cloud base of at least 300 meters (1,000 ft) above the minimum associated with a standard instrument approach procedure for that aerodrome; and
 - (ii) Visibility of at least 4.5 km more than the minimum associated with the procedure.
 - (2) *For a helicopter—*
 - (i) A cloud base of at least 120 meters (400 ft) above the minimum associated with a standard instrument approach procedure for that aerodrome; and
 - (ii) Visibility of at least 1.5 km more than the minimum associated with the procedure.

No standard instrument approach available

- (e) No person may commence an IFR flight in an aircraft without at least one destination alternate aerodrome listed in the flight plan unless available current meteorological information indicates that the following meteorological conditions will exist from two hours before to two hours after the estimated time of arrival at the destination with a standard instrument approach—
- (1) A cloud base of at least 300 meters (1,000 feet) above the lowest minimum en-route altitude within 10 km of the aerodrome; and
 - (2) Visibility of 8 kilometres at the aerodrome.

10.382 ADDITIONAL REQUIREMENTS FOR ISOLATED AERODROMES

- (a) No person may commence a flight into an isolated aerodrome, unless a determination of the point of no return has been made and that PNR has been included in the flight plan remarks.
- (b) No person may continue a flight to an isolated aerodrome past the point of no return unless a current assessment of meteorological conditions, traffic and other operational conditions indicate that a safe landing can be made at the estimated time of use.

10.385 IFR ALTERNATE AERODROME/HELIPORT SELECTION CRITERIA

8.6.2.7

Published Alternate Minima

- (a) If alternate minima 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 minima.

Alternate Minima Not Published

- (b) *If alternate minima 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 180 m (600 ft) and visibility of not less than 3 km (2 sm); or
- (2) For a non-precision approach procedure, a ceiling of at least 240 m (800 ft) and visibility of not less than 3 km (2 sm).

Additional Limitations to Commercial Air Transport

- (c) *For commercial air transport operations in aeroplanes*, the PIC shall ensure that the meteorological conditions at that alternate 1 hour before and after the ETA are forecast to be at or above—
- (1) For a Cat II and III approach, at least the published Category I minimums;
 - (2) For a Cat I approach, at least the published non-precision minimums;
 - (3) For a non-precision approach, at least 150 m (500 ft) above the published non-precision minimums;
 - (4) For a circling approach, at least the circling approach minimums.

Two Destination Alternates Required

- (d) Where two destination alternates are required, the meteorological forecasts for those aerodromes—
- (1) The first destination alternate should be forecast to be at or above the operating minima for use as a destination; and
 - (2) The second at or above the operating minima for selection as an alternate.

Special Alternate Minima

- (e) The Authority may approve more appropriate incremental values for the height of cloud base and visibility in lieu of those specified in paragraphs (b) and (c) if the operator can demonstrate that an adequate margin of safety is observed in determining whether or not an approach and landing can be safely carried out at each alternate aerodrome.
- (f) The Authority may approve a margin of time in lieu of the requirement of paragraph (c) if the operator can demonstrate that an adequate margin of safety will exist.

10.390 OFFSHORE ALTERNATES FOR HELICOPTER OPERATIONS

- (a) No person may designate an offshore alternate landing site when—
- (1) It is possible to carry enough fuel to have an on-shore alternate landing site; or
 - (2) A hostile environment exists.
- (b) The selection of offshore alternates shall be exceptional cases, the details of which have been approved by the Authority, and should not include payload enhancement in IMC.
- (c) Each person selecting an Offshore alternate landing site shall consider the following—
- (1) The offshore alternate may be used only after a point of no return;
 - (2) The mechanical reliability of critical control systems and critical components shall be considered and taken into account when determining the suitability of the alternates;
 - (3) One engine inoperative performance capability will be obtained prior to arrival at the alternate;
 - (4) The helideck availability is guaranteed;
 - (5) The weather information at the helideck shall be available from a source approved or accepted by the Authority; and
 - (6) For IFR operations, an instrument approach procedure shall be prescribed and available; and
 - (7) Whether the landing technique specified in the flight manual following control system failure precludes the selection of certain helidecks as alternate aerodromes.

10.395 TAKE-OFF ALTERNATE REQUIREMENTS

- (a) No person may release or take-off an aircraft without a suitable take-off alternate specified in the operational flight plan if either meteorological conditions at the aerodrome/heliport of departure are below

the operator's established aerodrome/heliport landing minima for that operation or it would not be possible to return to the aerodrome/heliport of departure for other reasons.

- (b) Each operator shall ensure that each take-off alternate specified shall be located within the following flight time from the aerodrome/heliport of departure—
 - (1) For aircraft with two engines, one hour of flight time at a one-engine-inoperative cruising speed, determined from the aircraft operating manual, calculated in ISA and still-air conditions using the actual take-off mass; or
 - (2) For aircraft with three or more engines, two hours of flight time at an all-engine operating cruising speed, determined from the aircraft operating manual, calculated in ISA and still-air conditions using the actual take-off mass; or
 - (3) For airplanes engaged in extended diversion time operations (EDTO) where an alternate aerodrome meeting the distance criteria of (a) or (b) is not available, the first available alternate aerodrome located within the distance of the operator's approved maximum diversion time considering the actual take-off mass.

10.397 EN-ROUTE ALTERNATES

- (a) No person may commence a flight without suitable en-route alternates along the route at which the aircraft would be able to land after experiencing an abnormal or emergency condition.
- (b) Where required for extended diversion time operations by aeroplanes with two turbine engines, en-route alternate aerodromes shall be selected and specified in the operational and air traffic services (ATS) flight plans.

10.398 TIME CAPABILITY OF CARGO COMPARTMENT FIRE SUPPRESSION

- (a) No person may plan a diversion time to an aerodrome where a safe landing could be made that exceeds the published cargo compartment fire suppression time capability of the aeroplane (when one is identified in the relevant aeroplane documentation) minus an operational safety margin of 15 minutes.

10.400 OPERATIONS BEYOND 60 MINUTES TO AN EN-ROUTE ALTERNATE AERODROME

- (a) Operators conducting operations beyond 60 minutes from a point on a route to an en-route alternate aerodrome shall ensure that—
 - (1) 60 minutes in cruising flight; or
 - (2) A threshold time approved by the Authority.
- (b) Operators conducting operations beyond 60 minutes from a point on a route to an en-route alternate aerodrome shall ensure that—
 - (1) For all airplanes—
 - (i) En-route alternate aerodromes are identified; and
 - (ii) The most up-to-date information is provided to the flight crew on identified en-route alternate aerodromes, including operational status and meteorological conditions;
 - (2) For airplanes with two turbine engines, the most up-to-date information provided to the flight crew indicates that conditions at identified en-route alternate aerodromes will be at or above the operator's established aerodrome operating minima for the operation at the estimated time of use.
- (c) In addition to the requirements in paragraph (b), all operators shall ensure that the following are taken into account and provide the overall level of safety intended by the provisions for—
 - (1) Operational control and flight dispatch procedures;
 - (2) Operating procedures; and
 - (3) Training programs.

10.405 EXTENDED DIVERSION TIME OPERATIONS

- (a) Unless specifically approved by the Authority (EDTO Approval), no person may operate, and no person may authorise operations of an airplane with two or more turbine engines over a route which contains a diversion time from any point on the route, calculated in ISA and still air conditions at the one-engine inoperative cruise speed for airplanes with two turbine engines and at the all-engine operating cruise speed for airplanes with more than two turbine engines, to an en-route alternate aerodrome exceeds the threshold time prescribed for such operations by the Authority—
- (1) The maximum diversion time, for an operator of a particular airplane type engaged in extended diversion time operations shall be approved by the Authority before such operations;
 - (2) For airplanes engaged in EDTO, the required additional fuel shall include the fuel necessary to comply with the EDTO critical fuel scenario as established by the Authority
- (b) No pilot may continue, and no person may authorise a flight to continue, beyond the threshold time unless the identified en-route alternate aerodromes have been re-evaluated for availability and the most up to date information indicates that, during the estimated time of use—
- (1) Conditions at those aerodromes will be at or above the operator's established aerodrome operating minima for the operation; and
 - (2) If any conditions are identified that would preclude a safe approach and landing at that aerodrome during the estimated time of use, the PIC shall determine and implement an alternative course of action.

10.410 FUEL SUPPLY: GENERAL CONSIDERATIONS

- (a) No person may commence a flight without carrying enough usable fuel on the aircraft, to complete the planned flight safely and to allow for deviations from the planned operation.
- (b) The amount of usable fuel to be carried shall, as a minimum, be based on—
- (1) The following data—
 - (i) Current aircraft-specific data derived from a fuel consumption monitoring system, if available; or
 - (ii) If current aircraft-specific data is not available, data provided by the aircraft manufacturer; and—
 - (2) The operating conditions for the planned flight including—
 - (i) Anticipated aircraft mass;
 - (ii) Notices to Airmen;
 - (iii) Current meteorological reports or a combination of current reports and forecasts;
 - (iv) Air traffic services procedures, restrictions and anticipated delays;
 - (v) Procedures prescribed in the operations manual for loss of pressurisation en route, where applicable;
 - (vi) Failure of one power-unit en route;
 - (vii) The effects of deferred maintenance items and/or configuration deviations; and
 - (viii) Any other conditions that may delay landing of the aircraft or increase fuel and/or oil consumption.

10.415 MINIMUM FUEL SUPPLY FOR VFR DOMESTIC FLIGHTS***VFR: Aeroplanes***

- (a) No person may commence a flight in an aeroplane under VFR unless, (considering the wind, forecast weather conditions and contingencies), the amount of fuel to be carried permits flight—
- (1) To the aerodrome of intended landing; and
 - (2) Assuming normal cruising altitude, to have a final reserve fuel after that—
 - (i) *For day operations*, at least 30 minutes;
 - (ii) *For night operations*, at least 45 minutes.

VFR: Helicopters

- (b) No person may commence a flight in a helicopter under VFR unless (considering the wind, forecast weather conditions and contingencies) there is enough fuel carried—
- (1) To fly to the first point of planned landing; and
 - (2) Have a final reserve fuel to fly after that for—
 - (i) A period of 20 minutes at best range speed; and
 - (ii) Still have an additional amount of fuel equal to 10% of the total flight time calculated to provide for the increased consumption on the occurrence of potential contingencies.

10.416 IFR FUEL REQUIREMENTS: HELICOPTERS

- (a) No person may commence a flight in an helicopter under IFR unless, (considering the wind, forecast weather conditions and contingencies), the amount of fuel and oil to be carried permits flight—
- (1) When no alternate is required, to fly to and execute an approach at the heliport or landing location to which the flight is planned, and thereafter to have—
 - (i) A final reserve fuel to fly 30 minutes at holding speed at 450 m (1 500 ft) above the destination heliport or landing location under standard temperature conditions and approach and land; and
 - (ii) To an additional amount of fuel, sufficient to provide for the increased consumption on the occurrence of potential contingencies.
 - (2) When an alternate is required, to fly to and execute an approach, and a missed approach, at the heliport or landing location to which the flight is planned, and thereafter—
 - (i) To fly to and execute an approach at the alternate specified in the flight plan; and then
 - (ii) Have a final reserve fuel to fly for 30 minutes at holding speed at 450 m (1 500 ft) above the alternate under standard temperature conditions, and approach and land; and
 - (iii) To have an additional amount of fuel, sufficient to provide for the increased consumption on the occurrence of potential contingencies.
 - (3) Where the aerodrome/heliport of intended landing is an isolated heliport or landing location sufficient fuel shall be carried to enable the helicopter to fly to the destination to which the flight is planned and thereafter for a period that will, based on geographic and environmental considerations, enable a safe landing to be made.

10.418 IFR FUEL REQUIREMENTS: GENERAL AVIATION PISTON-ENGINEED AEROPLANES

No destination alternate required or to isolated aerodrome

- (a) No person may commence a flight under IFR in general aviation piston-engined aeroplane unless there is enough fuel supply (considering weather reports and forecasts and contingencies), to—
- (1) Fly to the aerodrome of intended landing;
 - (2) Execute an instrument approach; and
 - (3) After that, have a final reserve fuel for at least 45 minutes at normal cruising altitude.

Destination alternate required

- (b) No person may commence a flight under IFR in general aviation piston-engined aeroplane unless there is enough fuel supply (considering weather reports and forecasts and contingencies), to—
- (1) Fly to the aerodrome of intended landing and execute an instrument approach; and
 - (2) Then to an alternate aerodrome; and
 - (3) After that, have a final reserve fuel for at least 45 minutes at normal cruising altitude.

10.420 IFR FUEL REQUIREMENTS: LARGE & TURBINE AEROPLANES

- (a) No person may commence a flight under IFR or for international operations unless, considering the wind and forecast weather conditions, the pre-flight calculation of usable fuel required and available fuel at take-off includes—
- (1) *Taxi fuel*, which shall be the amount of fuel expected to be consumed before take-off;
 - (2) *Trip fuel*, which shall be the amount of fuel required to enable the airplane to fly from take-off or the point of in-flight re-planning until landing at the destination aerodrome/heliport taking into account the operating conditions of Section 10.410;
 - (3) *Contingency fuel*, which shall be the amount of fuel required to compensate for unforeseen factors. It shall be 5 per cent of the planned trip fuel or of the fuel required from the point of in flight re-planning based on the consumption rate used to plan the trip fuel but in any case shall not be lower than the amount required to fly for five minutes at holding speed at 450 m (1 500 ft) above the destination aerodrome/heliport in standard conditions;
 - (4) *Destination alternate fuel*, which shall be—
 - (i) Where a destination alternate aerodrome/heliport is required, the amount of fuel required to enable the airplane to—
 - (A) Perform a missed approach at the destination aerodrome;
 - (B) Climb to the expected cruising altitude;
 - (C) Fly the expected routing;
 - (D) Descend to the point where the expected approach is initiated; and
 - (E) Conduct the approach and landing at the destination alternate aerodrome; or
 - (ii) Where two destination alternate aerodromes are required, the amount of fuel, as calculated, required to enable the airplane to proceed to the destination alternate aerodrome/heliport which requires the greater amount of alternate fuel; or
 - (iii) Where a flight is operated without a destination alternate aerodrome, the amount of fuel required to enable the airplane to fly for 15 minutes at holding speed at 450 m (1 500 ft) above destination aerodrome/heliport elevation in standard conditions; or
 - (iv) Where the aerodrome/heliport of intended landing is an isolated aerodrome—
 - (A) *For piston engine airplanes*, the amount of fuel required to fly for 45 minutes plus 15 per cent of the flight time planned to be spent at cruising level, including final reserve fuel, or two hours, whichever is less; or
 - (B) *For turbine engine airplanes*, the amount of fuel required to fly for two hours at normal cruise consumption above the destination aerodrome, including final reserve fuel;
 - (C) *For helicopters*, sufficient fuel shall be carried to enable the helicopter to fly to the destination to which the flight is planned and thereafter for a period that will, based on geographic and environmental considerations, enable a safe landing to be made.
 - (5) *Final reserve fuel*, which shall be the amount of fuel calculated using the estimated mass on arrival at the destination alternate aerodrome/heliport or the destination aerodrome, when no destination alternate aerodrome is required—
 - (i) *For piston engine airplanes*, the amount of fuel required to fly for 45 minutes, under speed and altitude conditions specified by the Authority; or
 - (ii) *For turbine engine airplanes and helicopters*, the amount of fuel required to fly for 30 minutes at holding speed at 450 m (1 500 ft) above aerodrome elevation in standard conditions;
 - (6) *Additional fuel*, which shall be the supplementary amount of fuel required if the minimum fuel as calculated is not sufficient to—
 - (i) Allow the aircraft to descend as necessary and proceed to an alternate aerodrome/heliport in the event of engine failure or loss of pressurisation, whichever requires the greater amount of

fuel based on the assumption that such a failure occurs at the most critical point along the route—

- (A) Fly for 15 minutes at holding speed at 450 m (1 500 ft) above aerodrome/heliport elevation in standard conditions; and
 - (B) Make an approach and landing;
 - (C) Allow an airplane engaged in EDTO to comply with the EDTO critical fuel scenario as established by the Authority;
 - (D) Meet additional requirements not covered above;
- (7) *Discretionary fuel*, which shall be the extra amount of fuel to be carried at the discretion of the pilot-in-command.
- (b) No person may commence or continue from the point of in-flight re-planning (re-dispatch) unless the usable fuel on board meets the requirements, if required.

10.423 IN-FLIGHT CHANGES & RE-PLANNING

- (a) No person may use fuel after flight commencement for purposes other than originally intended during pre-flight planning unless they have performed a re-analysis and, if applicable, adjustment of the planned operation.
- (b) No person may commence or continue from the point of in-flight re-planning unless the re-analysis required by paragraph (a) shows that the usable fuel on board meets the requirements of Sections 10.410, 10.415, 10.416, 10.418 or 10.420 as applicable to the aircraft used and type of operation.

10.425 IN-FLIGHT FUEL MANAGEMENT

- (a) The pilot-in-command shall continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an aerodrome/heliport where a safe landing can be made with the planned final reserve fuel remaining upon landing.
- (b) The pilot-in-command shall request delay information from ATC when unanticipated circumstances may result in landing at the destination aerodrome/heliport with less than the final reserve fuel plus any fuel required to proceed to an alternate aerodrome or the fuel required to operate to an isolated aerodrome.
- (c) The pilot-in-command shall advise ATC of a minimum fuel state by declaring MINIMUM FUEL when, having committed to land at a specific aerodrome, the pilot calculates that any change to the existing clearance to that aerodrome/heliport may result in landing with less than planned final reserve fuel.
- (d) The pilot-in-command shall declare a situation of fuel emergency by broadcasting MAYDAY MAYDAY MAYDAY FUEL, when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome/heliport where a safe landing can be made is less than the planned final reserve fuel.

10.430 AIRCRAFT LOADING, MASS & 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.
- (c) 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.
- (d) Unless otherwise authorised by the Authority, the computations for the mass and balance shall be based on the AFM or RFM method for determination of the C.G. and the mass values used for these computations shall be based on the—

- (1) Aircraft empty weight derived through a periodic weighing of the aircraft;
 - (2) Actual weights of the required crew, their equipment and baggage;
 - (3) Actual weights of the passengers, their baggage and cargo; and
 - (4) Actual weight of the usable fuel boarded.
- (e) *For commercial air transport operations and general aviation operations subject to Schedule 28, no person may commence a flight unless these mass and balance computations are accomplished by qualified persons and are also in conformance with the requirements of this Section and the additional mass and balance requirements of Schedule 17.*

10.435 AIRCRAFT PERFORMANCE & OPERATING LIMITATIONS

- (a) The detailed and comprehensive performance code of the State of Registry 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 taking into account the flight conditions expected and in accordance with the aircraft's designed operating limitations, contained in the flight manual, or its equivalent, will not be exceeded. This information should be based on the manufacturer's or other data, acceptable to the Authority, and should be included in the operations manual.
- (c) No person may commence a flight unless the performance data is available for use inflight and, 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.
- (d) No person may commence a flight that, given the aircraft's weight and assuming normal engine operation, cannot safely clear all obstacles during all phases of flight, including all points along the intended en route path or any planned diversions.
- (e) No person may commence a flight without ensuring that the maximum allowable weight for a flight does not exceed the maximum allowable take-off or landing weight, or any applicable en route performance or landing distance limitations considering the—
 - (1) Condition of the take-off 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.
- (f) *For commercial air transport operations and general aviation operations subject to Schedule 28, no person may commence a flight unless the performance computations are accomplished by qualified persons and are in conformance with the requirements of this Section and additional performance requirements of Schedule 17.*

10.440 FLIGHT RELEASE REQUIRED: COMMERCIAL AIR TRANSPORT

- (a) No person may commence a flight, or series of flights, under a flight following system without specific authority from the person authorised by the AOC holder to exercise operational control over the flight.
- (b) No person may commence a passenger-carrying flight in commercial air transport for which there is a published schedule, unless a qualified person authorised by the AOC holder to perform operational control functions has issued a flight release for that specific flight or series of flights.
- (c) No person may release or commence a commercial air transport flight or series of flights unless it has been determined to be in compliance with the additional requirements of Schedule 16 of these Regulations.

10.445 OPERATIONAL FLIGHT PLAN: COMMERCIAL AIR TRANSPORT

- (a) No person may commence a flight, or series of flights, unless the operational flight plan has been signed by the PIC.
- (b) A PIC may sign the operational flight plan only when the PIC and the person authorised by the operator to exercise operational control have determined that the flight can be safely completed.
- (c) 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.
- (d) The PIC signing the operational flight plan shall have access to the applicable flight planning information for fuel supply, alternate aerodromes, weather reports and forecasts and NOTAMs for the routing and aerodrome.
- (e) No person may continue a flight from an intermediate aerodrome/heliport without a new operational flight plan if the aircraft has been on the ground more than 4 hours.

10.450 FLIGHT PLANNING DOCUMENT DISTRIBUTION & RETENTION: COMMERCIAL AIR TRANSPORT

- (a) For commercial air transport operations, the PIC shall complete and sign the following flight preparation documents before commencing a flight or series of flights—
 - (1) An operational flight plan, including NOTAMs and weather pertinent to the flight planning decisions regarding minimum fuel supply, en route performance, and destination and alternate aerodromes;
 - (2) A load manifest, showing the distribution of the load, centre of gravity, take-off and landing weights and compliance with maximum operating weight limitations, and performance analysis; and
 - (3) An applicable 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.
- (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 Section on the aircraft to the destination aerodrome.
- (d) These documents will be retained by the AOC holder for at least 3 months using the location and methodology approved by the Authority.

SUBPART H: FLIGHT RULES FOR ALL OPERATIONS

10.470 APPLICABILITY & COMPLIANCE

- (a) The flight rules of this Subpart are applicable to all operations of aircraft in the airspace of The Bahamas and, for international flights, wherever they may be, to the extent that they do not conflict with the rules published by the State having jurisdiction over the territory overflown.
- (b) All persons involved in the operation of an aircraft either in flight or on the movement area of an aerodrome shall ensure that it is operated in compliance with the applicable regulations and, in addition, when in flight, either with the—
 - (1) Visual flight rules; or
 - (2) Instrument flight rules.
- (c) The holders of airman certificates issued by The Bahamas will comply with these rules when flying outside The Bahamas, except where these rules may differ with the other State, in which case compliance with the rules of the State being overflown is required.

10.475 NEGLIGENT OR RECKLESS OPERATIONS OF THE AIRCRAFT

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

10.476 UNMANNED OR REMOTELY PILOTED AIRCRAFT

- (a) A remotely piloted aircraft shall be operated in such a manner as to minimize hazards to persons, property or other aircraft and in accordance with the conditions specified in Schedule 27
- (b) An unmanned free balloon shall be operated in such a manner as to minimize hazards to persons, property or other aircraft and in accordance with the conditions specified in Schedule 27.

10.477 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
 - (3) The air navigation facilities relating to them.
- (b) The PIC shall ensure that other members of the flight crew are familiar with the laws, regulations and procedures that are pertinent to the performance of their respective duties in the operation of the aeroplane
- (c) 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.
- (d) The operator of the aircraft shall ensure that the crew members of the aircraft are familiar with the laws, regulations and procedures of the States where operations are conducted.

10.480 OPERATION OF AIRCRAFT ON THE GROUND

Taxiing on the Movement Area

- (a) No person may taxi an aircraft on the movement area of an aerodrome unless the person at the controls is an appropriately qualified pilot or—
 - (1) Has been authorised 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;
 - (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; and
 - (5) When required, displays the required exterior lighting.
- (b) No person may taxi an aircraft on the manoeuvring area of a controlled aerodrome without clearance from the aerodrome control tower and shall comply with any instructions given by that unit.

Helicopter Rotors

- (c) No person shall cause a helicopter rotor to be turned under power unless there is a qualified pilot at the controls.
- (d) The operator shall provide appropriately specific training and procedures to be followed for all personnel, other than qualified pilots, who are likely to carry out the turning of a rotor under power for purposes other than flight.

Taxiing Under Guidance of Signalman

- (e) No person shall guide an aircraft unless trained, qualified and approved by the appropriate authority to carry out the functions of a signalman.
- (f) No pilot shall taxi an aircraft under the guidance of a signalman unless—
 - (1) The standard marshalling signals to aircraft are provided in a clear and precise manner using the signals as prescribed by the Authority;
Note: Refer to AC 10-003 for the standard aircraft marshalling signals that correspond to those specified in ICAO Annex 2. Appendix 1.
 - (2) The signalman is wearing a distinctive fluorescent identification vest to allow the flight crew to identify that he or she is the person responsible for the marshalling operation; and
 - (3) The signalman and all participating ground staff are using daylight-fluorescent wands, table-tennis bats or gloves for all signalling during daylight hours and illuminated wands at night or in low visibility.

10.482 TAKE-OFF & LANDING

- (a) No person shall cause an aircraft to take-off or land at an aerodrome or heliport within The Bahamas that is not licensed by the Government or a Government aerodrome for which permission for use has been received, 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 The Bahamas 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) Except where specifically authorised by the Authority, no person shall cause an aircraft with a certificated passenger capacity of more than 20 passengers to take-off or land at an aerodrome or heliport within The Bahamas for the purpose of commercial air transport carrying passengers, unless there is—
 - (1) Current runway analysis for obstacle clearance and stopping distance;
 - (2) Established communications with a qualified person on the surface to determine the—
 - (i) Prevailing approach and landing conditions; and
 - (ii) Status of runway surface.
- (d) No person may cause a helicopter to take-off or land at an elevated—
 - (1) Heliport in a congested area unless it is operating in Performance Class 1;
 - (2) Heliport or helideck unless it is operating in Performance Class 1 or 2.

10.484 PRE-TAKEOFF INSPECTIONS

- (a) No person may cause an aircraft to take off 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-take-off setup of the flight deck instruments and controls.

10.485 TAKE-OFF 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 take-off and departure; and
 - (2) The RVR or visibility in the take-off 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 take-off has been determined.

10.487 NOISE ABATEMENT

- (a) No person may take-off an aircraft at an aerodrome where a noise abatement departure is applicable to the aircraft without following those procedures, 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 authorised by the competent authority of the State for a specific aerodrome or runway where there is no noise disturbance problem.
- (d) The operator of a helicopter should ensure that take-off and landing procedures take into account the need to minimize the effect of helicopter noise.

10.490 FLIGHT INTO KNOWN OR EXPECTED ICING

- (a) No person may take-off in an aircraft or continue to operate an aircraft en route when the 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 in an aircraft in suspected or known ground icing conditions unless the aircraft has been inspected for icing and, if necessary, has been given appropriate de-icing/anti-icing treatment.
- (c) No person may take-off in 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. Accumulation of ice or naturally occurring contaminants shall be removed so that the aircraft is kept in an airworthy condition prior to take-off.
- (d) *For commercial air transport operations*, no person may take-off in 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

- (a) No person may operate a civil aircraft without complying with 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.

10.494 CRUISING LEVELS

- (a) The cruising levels at which a flight or a portion of a flight is to be conducted shall be in terms of—
 - (1) *Flight levels*, for flights at or above the lowest usable flight level or, where applicable, above the transition altitude;
 - (2) *Altitudes*, for flights below the lowest usable flight level or, where applicable, at or below the transition altitude.
- (b) Unless otherwise specified by the appropriate ATS facility, the cruising levels provided in Appendix 1 to 10.494 shall be used when selecting a cruising level appropriate to the aircraft track for VFR or IFR flight.

10.495 ALTIMETER SETTINGS

- (a) Each person operating an aircraft shall maintain the cruising altitude or flight level by reference to an altimeter set—
 - (1) Below the transition altitude to—
 - (i) The current reported QNH altimeter setting of a station along the route and within 160 km (100 nm) of the aircraft;
 - (ii) The current reported QNH 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 prescribed transition altitude to the QFE altimeter setting of 1013.2 hPa (29.92" Hg).

10.500 MINIMUM SAFE ALTITUDES: GENERAL

- (a) Except when necessary for take-off 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 operate in a manner that is not hazardous to persons and property on the surface.
- (b) The PIC of a helicopter shall comply with any routes or altitudes for the area that are prescribed for helicopters by the Authority.

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 1,000 feet above the surface or within 1,000 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) 600 m (2,000 feet) above the highest obstacle within a horizontal distance of 8 km (5 sm) from the centre of the intended course; or
 - (2) In designated mountainous areas, less than 900 m (3,000 feet) above the highest obstacle within a horizontal distance of 8 km (5 sm) from the centre of the intended course.

10.510 AERODROME OPERATING MINIMA

- (a) The pilot-in-command shall establish aerodrome operating minima in accordance with criteria specified by the State of Registry, for each aerodrome to be used in operations.
- (b) No person may operate an aircraft to or from an aerodrome (or heliport) using an operating minima lower than those established by the State in which the aerodrome is located, except with specific approval of that State's civil aviation authority.

- (c) The operating minima for 2D instrument approach operations using instrument approach procedures shall be determined by establishing a minimum descent altitude (MDA) or minimum descent height (MDH), minimum visibility and, if necessary, cloud conditions.
- (d) The operating minima for 3D instrument approach operations using instrument approach procedures shall be determined by establishing a decision altitude (DA) or decision height (DH) and the minimum visibility or RVR.

10.513 HELIPORTS IN CONGESTED HOSTILE ENVIRONMENT

- (a) Except as specifically approved by the Authority, no person may operate a helicopter to or from a heliport in a congested hostile environment unless the operation conforms to requirements for Performance Class 1.

10.515 DIVERSION DECISION

- (a) Except as provided in paragraph (b) of this Section, 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, weight, and usable fuel at the time of engine stoppage;
 - (3) Weather conditions en route and at possible landing points;
 - (4) Air traffic congestion;
 - (5) Kind of terrain; and
 - (6) Familiarity with the aerodrome to be used.

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 pre-arrangement with the PIC of each aircraft in the formation and, in controlled airspace, in accordance with the conditions prescribed in Section 10.637.
- (c) No person may operate an aircraft carrying passengers for hire in formation flight.

10.521 CLIMB & DESCENT PRECAUTIONS

- (a) Unless otherwise specified in an air traffic control instruction, the flight crew shall use a rate less than 8 m/sec or 1 500 ft/min (depending on the instrumentation available) throughout the last 300 m (1 000 ft) of climb or descent to the assigned level to avoid unnecessary airborne collision avoidance system (ACAS II) resolution advisories in aircraft at or approaching adjacent altitudes or flight levels.

10.525 RIGHT-OF-WAY RULES: AIRCRAFT IN FLIGHT

- (a) *General*—
 - (1) Each pilot shall maintain vigilance so as to see and avoid other aircraft; and
 - (2) When a rule of this Section 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;
 - (3) The pilot of the aircraft with the right-of-way should maintain heading and speed except as necessary to avoid collision;
 - (4) Nothing in these rules shall relieve the PIC of an aircraft from the responsibility of taking such action, including collision avoidance manoeuvres based on resolution advisories provided by ACAS equipment, as will best avert collision.

- (b) *In distress*. An aircraft in distress has the right-of-way over all other air traffic.
- (c) *Converging*: When two 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, except as follows—
 - (1) Power-driven heavier-than-air aircraft shall give way to airships, gliders and balloons;
 - (2) Airships shall give way to gliders and balloons;
 - (3) Gliders shall give way to balloons; and
 - (4) Power-driven aircraft shall give way to aircraft which are seen to be towing other aircraft or objects.
- (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 two aircraft are approaching each other head-on, or approximately so, and there is a danger of collision, each pilot of each aircraft shall alter heading to the right.
- (c) *Overtaking*—
 - (1) Each aircraft that is being overtaken has the right-of-way and each pilot of an overtaking aircraft, whether climbing descending or in horizontal flight, shall alter heading to the right to pass well clear;
 - (2) No subsequent change to the relative position of the two aircraft shall absolve the pilot of the overtaking aircraft from this obligation until it is entirely past and clear;
 - (3) An overtaking aircraft is an aircraft that approaches another from the rear on a line forming an angle of less than 70 degrees with the plane of symmetry of the latter. In such a position with reference to the other aircraft at night it should be unable to see either of the aircraft left (port) or right (starboard) navigation lights.
- (d) *Landing*—
 - (1) 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. But the pilot 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;
 - (2) The pilot of an aircraft in flight, or operating on the ground or water shall give way to aircraft landing or in the final stages of an approach to land;
 - (3) The pilot of an aircraft that is aware that another is compelled by emergency to land shall give way to that aircraft;
 - (4) When two or more heavier-than-air aircraft are approaching an aerodrome for the purpose of landing—
 - (i) The pilot of an aircraft at the higher level shall give way to the aircraft at the lower level;
 - (ii) But the pilot of the lower aircraft shall not take advantage of this rule to cut in front of or overtake the higher aircraft which is in the final stages of an approach to land;
 - (iii) Nevertheless, the pilot of a power-driven heavier-than-air aircraft shall give way to gliders.

10.529 RIGHT OF WAY RULES: AERODROME SURFACE MOVEMENT

- (a) In case of danger of collision between two aircraft taxiing on the movement area of an aerodrome the following shall apply—
 - (1) When two aircraft are approaching head on, or approximately so, each pilot shall stop or where practicable alter the course of the aircraft to the right so as to keep well clear;
 - (2) When two aircraft are on a converging course, the pilot which has the other aircraft on his right shall give way;
 - (3) An aircraft which is being overtaken by another aircraft shall have the right-of-way and the pilot of the overtaking aircraft shall keep well clear of the other aircraft.

- (b) The pilot of an aircraft taxiing on the manoeuvring area shall stop and hold at all runway-holding positions unless otherwise authorised by the aerodrome control tower.
- (c) The pilot of an aircraft taxiing on the manoeuvring area shall stop and hold at all lighted stop bars and may proceed further when the lights are switched off.
- (d) The pilot of an aircraft taxiing on the manoeuvring area of an aerodrome shall give way to aircraft—
 - (1) Taking off or about to take off; and
 - (2) Landing or in the final stages of an approach to landing.

10.530 RIGHT-OF-WAY RULES: WATER SURFACE 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 Section.
- (b) *Converging.* 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.
- (e) *Landing and taking off.* Aircraft landing on or taking off from the water shall, in so far as practicable, keep well clear of all vessels and avoid impeding their navigation.
- (f) *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 in the movement area of an aerodrome, on the water or in flight between the period from sunset to sunrise, or any other period prescribed by the appropriate authority, unless it displays—
 - (1) Anti-collision lights intended to attract attention to the aircraft; and
 - (2) Navigation lights intended to indicate the relative path of the aircraft to an observer.
- (c) An aircraft is considered to be operating when it is taxiing or being towed or is stopped temporarily during the course of taxiing or being towed.
- (d) The pilots of all aircraft in flight and fitted with anti-collision lights shall display such lights during all operations from take-off to landing.
- (e) A pilot shall be permitted to switch off or reduce the intensity of any required flashing lights if they do or are likely to—
 - (1) Adversely affect the satisfactory performance of duties; or
 - (2) Subject an outside observer to harmful dazzle.
- (f) Lights fitted for other purposes, such as landing lights, taxi lights, airframe floodlights, and logo lights may also be used to enhance aircraft conspicuity and attract attention to the aircraft, but no person may not display any lights that are likely to be mistaken for the navigation or anti-collision lights.
- (g) 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.
- (h) 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.

10.537 NIGHT OPERATIONS

- (a) No person may operate the following aircraft in night operations within the airspace of The Bahamas—
- (1) Gliders; or
 - (2) Free Balloons.
- (b) No person may operate single-engine aircraft in night cross-country operations within the airspace of The Bahamas.

10.540 SIMULATED INSTRUMENT FLIGHT

- (a) 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

- (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—
- (1) When carrying passengers; or
 - (2) During commercial air transport operations carrying passengers or cargo.

10.550 DROPPING, SPRAYING, TOWING

- (a) Except under conditions prescribed by the Authority in Schedule 11, no pilot may take the following actions—
- (1) Dropping, dusting or spraying from an aircraft;
 - (2) Towing of aircraft or other objects; or
 - (3) 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 m (1,500 feet) above the surface; or
 - (5) When the flight visibility is less than 5 km (3 sm).
- (b) Each pilot of an aircraft shall, before commencing acrobatic maneuvers, contact the appropriate air traffic services unit for advice and/or clearance.

- (c) 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

- (a) No person may flight-test an aircraft except—
- (1) As authorised by the Authority; and
 - (2) Conducted over open water or sparsely populated areas having light traffic.

10.565 DANGER, PROHIBITED & RESTRICTED AREAS

- (a) No person may operate an aircraft in a danger area, restricted area or prohibited area, the particulars of which have been duly published, except—
- (1) In accordance with the conditions of the restrictions; or
 - (2) By permission of the State over whose territory the areas are established.

10.570 REQUIRED SPECIAL AIRSPACE APPROVALS (PBN, MNPS, RVSM, PBC)

- (a) No person may operate in airspace or on routes where PBN (RNP), MNPS, RVSM or PBC (RCP) performance specifications have been prescribed without a written approval issued by the Authority indicating—
- (1) The navigation and communications capability of the aircraft satisfies the requirements specified for such operations;
 - (2) The operator has instituted appropriate procedures in respect of continued airworthiness (maintenance and repair) practices and program; and
 - (3) The operator has instituted appropriate flight crew procedures for operations in the authorised airspace;
 - (4) The approval is valid globally only when any operating procedures specific to a given region are stated in the operations manual or appropriate crew guidance.

Refer to Appendix 1 to 10.570 for additional requirements prescribed for Performance-Based Navigation.

Refer to Appendix 2 to 10.570 for additional requirements prescribed for Performance-Based Communications.

Refer to Appendix 3 to 10.570 for expanded requirements prescribed for RVSM operations.

- (b) No person may operate an aircraft in airspace or on routes requiring a special authorisation by the Authority, except in accordance with the conditions of the procedures and restrictions required for this airspace.
- (c) The operator and pilots involved shall provide an incident report in the form and manner prescribed by the Authority within 10 days of any deviation from the performance specifications of a route or airspace.
- (d) The operator shall make application for one or more of these operational approvals in the form and manner prescribed by the Authority and complete the prescribed certification process 30 days prior to the intended operation.

10.571 ADDITIONAL OPERATIONAL CERTIFICATION APPROVALS

- (a) Operators shall make application to the Authority and complete the certification process for the following approvals prior to operational use—
- (1) Automatic Landing Systems;
 - (2) HUD (or equivalent) EVS, SVS, CVS, or any combination of these systems into a hybrid system;
 - (3) PBN variations, including RNP-APCH;
 - (4) ADS-C, including CPDLC;

- (5) ADS-B-IN and -OUT;
- (6) Performance-Based Surveillance (PBS);
- (7) Electronic Flight Bag (EFB); and
- (8) Other critical approvals identified by the Authority or by evolving international standards.

Refer to Appendix 1 to 10.571 for requirements regarding PBS approvals.

Refer to Appendix 2 to 10.571 for requirements regarding EFB approvals.

- (b) The operator shall make application for these operational approvals in the form and manner prescribed by the Authority at least 30 days prior to the intended operation.

10.572 HEADS-UP DISPLAYS, VISION & IMAGING SYSTEMS

- (a) Unless the installation and procedures are approved by the Authority, no person may operate an aircraft using an automatic landing systems, HUD or equivalent displays, EVS, SVS, CVS, or NVIS to—
 - (1) Conduct descent or take-off in weather conditions below VFR minimums;
 - (2) Conduct Instrument approach operations below Category I instrument approach minimums;
 - (3) Reduce or satisfy visibility requirements;
 - (4) Compensate for required ground facilities;
 - (5) Conduct night operations to a site other than an aerodrome or heliport; or
 - (6) Gain any other operational benefit related to these Regulations.

Refer to Appendix 1 to 10.572 for expanded requirements for these approvals.

- (b) In consideration of the approval of operational credit(s) for operations with aircraft equipped with a HUD or equivalent displays, EVS, SVS or CVS, these approvals shall not affect the classification of the instrument approach procedure.
- (c) The operator shall make application for one or more of these operational approvals in the form and manner prescribed by the Authority 30 days prior to the intended operation and complete the prescribed certification process prior to operational use.

10.575 OPERATIONS ON OR IN THE VICINITY OF AN AERODROME

- (a) Each pilot of an aircraft operated on or in the vicinity of an aerodrome shall, whether or not within an aerodrome traffic zone—
 - (1) Observe other aerodrome traffic for the purpose of avoiding collision;
 - (2) Conform with or avoid the pattern of traffic formed by other aircraft in operation;
 - (3) Make all turns to the left, when approaching for a landing and after taking off, unless otherwise instructed;
 - (4) Comply with any traffic patterns established by the authorities having jurisdiction over that aerodrome;
 - (5) Land and take off into the wind unless safety, the runway configuration, or air traffic considerations determine that a different direction is preferable; and
 - (6) Comply with traffic light signals when radio communication cannot be established.
- (b) A helicopter shall avoid the flow of aeroplanes.

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 ATS 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 ATS facility prior to entering and, while operating in that airspace—
 - (1) Operate on an ATS clearance; and
 - (2) Maintain two-way communications.

10.580 AERODROME TRAFFIC PATTERN ALTITUDES: TURBOJET OR LARGE AIRCRAFT

- (a) When arriving at an aerodrome, the PIC of a turbojet 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 or large aircraft shall climb to 1,500 AGL as rapidly as practicable.

10.583 AEROPLANE OPERATING PROCEDURES FOR LANDING PERFORMANCE

- (a) The PIC shall not continue an approach to land below 300 m (1 000 ft) above aerodrome elevation unless satisfied that, with the runway surface condition information available, the aeroplane performance information indicates that a safe landing can be made.

10.585 COMPLIANCE WITH VISUAL & 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 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 middle marker.

10.587 STABILIZED FINAL APPROACH

- (a) The PIC of an aeroplane on final approach for landing will establish the aircraft in landing configuration (landing gear, flaps, airspeed, attitude and power) at or before 150 m (500 ft) above the elevation of the runway touchdown zone and maintain a stabilized configuration until the landing flare.

10.589 MAXIMUM AIRSPEEDS

- (a) Unless otherwise authorised by ATS, no person may operate an aircraft at an airspeed greater than—
 - (1) 340 kph (180 knots) in the aerodrome traffic area;
 - (2) 400 kph (210 knots) while in an assigned holding pattern, unless authorised by ATS clearance for a higher airspeed;
 - (3) 475 kph (250 knots) between the surface and 3,000 m (10,000 ft). MSL.

10.590 RESTRICTION OR SUSPENSION OF OPERATIONS: COMMERCIAL AIR TRANSPORT

- (a) 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

- (a) No person may continue a flight towards the aerodrome of intended landing, unless the latest available information indicates that at the expected time of arrival, a landing can be effected at that aerodrome, or at least one alternate aerodrome, in compliances with the operating minima applicable to that flight.

10.597 CONTINUATION OF FLIGHT: COMMERCIAL AIR TRANSPORT

- (a) 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 BY MILITARY OR GOVERNMENT AIRCRAFT

- (a) No pilot may conduct an international flight unless the procedures and visual signals relating to actions to be taken when intercepted by military or government 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 prescribed by the Authority.

10.601 OVERWATER OPERATIONS OF HELICOPTERS

- (a) No person may operate a helicopter over water beyond a safe forced landing distance from land unless—
 - (1) That helicopter has been certified for ditching; and
 - (2) Information about the ditching procedures and the sea state are available in the aircraft.

SUBPART I: OPERATIONS IN CONTROLLED FLIGHT

10.603 APPLICABILITY & COMPLIANCE

- (a) The flight rules of this Subpart are applicable to all operations of aircraft in the airspace of The Bahamas and, for international flights, wherever they may be, to the extent that they do not conflict with the rules published by the State having jurisdiction over the territory overflown.
- (b) The holders of airman licenses issued by The Bahamas shall comply with these rules when flying outside The Bahamas, except where these rules may differ with the other State, in which case compliance with the rules of the State or region being overflown is required.

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.
- (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. This requirement 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.
- (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 instructions in an emergency, shall—
 - (1) Notify ATC of that deviation as soon as circumstances permit; and
 - (2) State that this action has been taken under emergency authority.
- (d) A flight plan may cover only part of a flight, as necessary, to describe that portion of the flight or those manoeuvres which are subject to air traffic control. A clearance may cover only part of a current flight plan, as indicated in a clearance limit or by reference to specific manoeuvres such as taxiing, landing or take-off.

10.615 COMMUNICATIONS & COMMUNICATIONS FAILURE

Listening Watch

- (a) Each person operating an aircraft on a controlled flight under VFR or IFR shall maintain a continuous air-ground voice communication watch on the appropriate communication channel or, establish two-way communication as necessary with, the appropriate ATS unit, except as may be prescribed by the appropriate ATS authority in respect of aircraft forming part of aerodrome traffic at a controlled aerodrome.

SELCAL or similar automatic signalling devices may be used to satisfy the requirement to maintain a continuous listening watch.

The requirement for an aircraft to maintain air-ground voice communication watch remains in effect after CPDLC has been established.

Communications Failure: General

- (b) If a communication failure precludes compliance with paragraph (a), the pilot shall comply with the voice communication failure procedures of Annex 10, Volume II, and with such of the following procedures as are appropriate.
- (c) In the event of communications failure, the pilot shall attempt to establish communications with the appropriate air traffic control unit using all other available means.
- (d) In addition, the pilot shall, when forming part of the aerodrome traffic at a controlled aerodrome, keep a watch for such instructions as may be issued by visual signals.

Communications Failure: Visual Meteorological Conditions

- (e) If in visual meteorological conditions, the PIC shall—
 - (1) Continue to fly in visual meteorological conditions; land at the nearest suitable aerodrome; and report its arrival by the most expeditious means to the appropriate air traffic services unit; or
 - (2) If considered advisable, complete an IFR flight in accordance with paragraph (f).

Communications Failure: Instrument Meteorological Conditions

- (f) If in instrument meteorological conditions or when the pilot of an IFR flight considers it inadvisable to complete the flight in VMC, the PIC shall—
 - (1) Unless otherwise prescribed on the basis of regional air navigation agreement, in airspace where radar is not used in the provision of air traffic control, maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of 20 minutes following the aircraft's failure to report its position over a compulsory reporting point and thereafter adjust level and speed in accordance with the filed flight plan;
 - (2) In airspace where radar is used in the provision of air traffic control, maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of 7 minutes following—
 - (i) The time the last assigned level or minimum flight altitude is reached; or
 - (ii) The time the transponder is set to Code 7600; or
 - (iii) The aircraft's failure to report its position over a compulsory reporting point; whichever is later, and thereafter adjust level and speed in accordance with the filed flight plan;
- (g) When being radar vectored or having been directed by ATC to proceed offset using area navigation (RNAV) without a specified limit, rejoin the current flight plan route no later than the next significant point, taking into consideration the applicable minimum flight altitude;
- (h) Proceed according to the current flight plan route to the appropriate designated navigation aid or fix serving the destination aerodrome and, when required to ensure compliance with (i) below, hold over this aid or fix until commencement of descent;
- (i) Commence descent from the navigation aid or fix specified in (h) at, or as close as possible to, the expected approach time last received and acknowledged; or, if no expected approach time has been received and acknowledged, at, or as close as possible to, the estimated time of arrival resulting from the current flight plan; estimated time of arrival specified in (h) or the last acknowledged expected approach time, whichever is later; and
- (j) Complete a normal instrument approach procedure as specified for the designated navigation aid or fix; and

- (k) Land, if possible, within 30 minutes after the estimated time of arrival specified in (e) or the last acknowledged expected approach time, whichever is later.

10.620 ROUTE TO BE FLOWN

- (a) Unless otherwise authorised or directed by the appropriate ATC facility, the PIC of a controlled flight shall, in so far 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.
- (c) The requirements of this Section 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.
- (d) The PIC of a controlled flight shall notify the appropriate ATC facility of any deviations of paragraph (a) or (b).

10.625 DEVIATIONS FROM PLANNED FLIGHT

- (a) A PIC shall take the following action in the event that a controlled flight 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 forthwith to regain track as soon as practicable;
 - (2) *Deviation from ATC assigned Mach number/indicated airspeed:* the appropriate air traffic services unit shall be informed immediately;
 - (3) *Deviation from Mach number/true airspeed:* if the sustained Mach number/true airspeed at cruising level varies by plus or minus Mach 0.02 or more, or plus or minus 19 km/h (10 kt) true airspeed or more from the current flight plan, the appropriate air traffic services unit shall be so informed;
 - (4) *Change in time estimate:* except where ADS-C is activated and serviceable in airspace where ADS-C services are provided, if the time estimate for the next applicable reporting point, flight information region boundary or destination aerodrome, whichever comes first, changes in excess of 2 minutes from that previously notified to air traffic services, or such other period of time as is prescribed by the appropriate ATS authority or on the basis of regional air navigation agreements, the flight crew shall notify the appropriate air traffic services unit as soon as possible.
- (b) When ADS-C services are provided and ADS-C is activated, the air traffic services unit shall be informed automatically via data link whenever changes occur beyond the threshold values stipulated by the ADS event contract.

10.630 ATC CLEARANCE: INTENDED CHANGES

- (a) Requests for current 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 reporting points or flight information region boundaries;
 - (2) *Change of Mach number/true airspeed:* aircraft identification; requested Mach number/true airspeed;
 - (3) *Change of route—*
 - (i) *Destination unchanged.* Aircraft identification, flight rules; 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; 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); 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 unit.
- (c) In the absence of designated reporting points, pilot shall make position reports at intervals prescribed by the appropriate ATS authority or specified by the appropriate air traffic services unit.
- (d) Pilot of controlled flights providing position information to the appropriate air traffic services unit via data link communications shall only provide voice position reports when requested.

10.637 FORMATION FLIGHTS IN CONTROLLED AIRSPACE

- (a) No person will operate an aircraft in formation flight in controlled airspace unless those operations are conducted in accordance with an ATS clearance and any other prescribed conditions including—
 - (1) The formation operates as a single aircraft with regards to navigation and position reporting;
 - (2) Separation between aircraft in the flight shall be the responsibility of the flight leader and the PICs of the individual aircraft; and
 - (3) A distance not exceeding 1 km (0.5 NM) laterally and longitudinally and 30 meters (100 ft) vertically from the flight leader shall be maintained by both aircraft.
- (b) The separation requirements of (a) also apply to periods of transition when aircraft are manoeuvring to attain their own separation within the formation and during join-up and break-away.

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 Section prior to 4 nautical miles from the aerodrome when operating from the surface up to and including 2,500 feet.
- (c) On departure, each PIC shall establish communications with the control tower prior to taxi.
Take-off, 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.
- (d) A clearance to “taxi to” the take-off runway is not a clearance to cross or taxi on to that runway. It does authorise 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.

Note: Section 10.540(f) deleted - this requirement relocated to Section 10.615.

10.643 TERMINATION OF CONTROL

- (a) The pilot of a controlled flight shall, except when landing at a controlled aerodrome, advise the appropriate ATC unit as soon as it ceases to be subject to air traffic control service.

10.645 UNLAWFUL INTERFERENCE

- (a) 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, in order to enable the ATS unit to give priority to the aircraft and to minimize conflict with other aircraft.
- (b) If an aircraft is subjected to unlawful interference, the pilot-in-command shall attempt to land as soon as practicable—
 - (1) At the nearest suitable aerodrome; or
 - (2) At a dedicated aerodrome assigned by the appropriate authority unless considerations aboard the aircraft dictate otherwise.
- (c) Following an act of unlawful interference, the PIC shall submit the report required by Section 10.260 to the designated local authority.

10.650 TIME CHECKS

- (a) Each PIC shall use Coordinated 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.
- (c) Wherever time is utilized in the application of data link communications, it shall be accurate to within 1 second of UTC.

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.

Note: Refer to AC 10-001, AC 10-002 and AC 10-003 for specific guidance regarding the universal aviation signals. This guidance corresponds to that provided in ICAO Annex 2, Appendix 1.

- (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.

SUBPART J: VFR FLIGHT RULES

10.659 APPLICABILITY

- (a) The VFR rules of this Subpart are applicable in the airspace of The Bahamas and, for international flights, wherever they may be, to the extent that they do not conflict with the rules published by the State having jurisdiction over the territory overflown.
- (b) The holders of airman licenses issued by The Bahamas shall comply with these rules when flying outside The Bahamas, except where these rules may differ with the other State, in which case compliance with the rules of the State or region being overflown is required.

10.660 VISUAL METEOROLOGICAL CONDITIONS

- (a) 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 in Appendix 1 to 10.660, or the corresponding altitude and class of airspace prescribed by the International Civil Aviation Organisation (ICAO) in Annex 2 – Rules of the Air.

10.665 VFR WEATHER MINIMUMS FOR TAKE-OFF 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 airspace unless the—
 - (1) Reported ceiling is at least 450 m (1,500 ft); and
 - (2) Reported ground visibility is at least 5 km (3 sm), if reported.
- (b) If the ground visibility is not reported, the pilot shall maintain 5 km (3 sm) 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 m (1,200 ft) AGL unless—
 - (1) *For aeroplanes.* The visibility is at least 2 km (1 sm) and the aircraft can be operated clear of clouds within 1 km (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.
- (d) The only exception to the required weather minimums of this Section is during a Special VFR operation.

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 airspace unless—
 - (1) Authorised 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 the—
 - (1) The PIC is current and qualified for IFR operations; and
 - (2) The aircraft is qualified to be operated for IFR flight.

10.675 VFR CRUISING ALTITUDES

- (a) Except as provided in paragraph (b), each person operating an aircraft in level cruising flight under VFR at altitudes above 900 m (3,000 ft), but below FL 290, above the ground or water, shall maintain—
 - (1) For magnetic track from zero degrees to 179 degrees, any odd thousand MSL altitude or flight level plus 150 m (500 ft);
 - (2) For magnetic track from 180 degrees to 359 degrees, any even thousand MSL altitude or flight level plus 150 m (500 ft).
- (b) The ultimate selection of a VFR cruising altitude shall correspond to the appropriate table in Appendix 1 to 10.494.
- (c) The requirement of (a) does not apply—
 - (1) When otherwise authorised by ATC;
 - (2) When operating in a holding pattern; or
 - (3) During manoeuvring in turns.

10.680 ATC CLEARANCES FOR VFR FLIGHTS

- (a) Each pilot of a VFR flight shall obtain and comply with ATC clearances and maintain an air-ground communications watch before and during operations—
 - (1) Within Classes B, C and D airspace;
 - (2) As part of aerodrome traffic at controlled aerodromes;
 - (3) Under Special VFR;
 - (4) Crossing international borders; and

- (5) On other routes as required by ATS or the national authority.

10.685 VFR FLIGHTS REQUIRING ATC AUTHORISATION

- (a) Unless authorised by the appropriate ATC authority, no pilot may operate in VFR flight—
 - (1) Above FL 200; or
 - (2) At transonic and supersonic speeds.

10.687 VFR FLIGHT NOT AUTHORISED IN RVSM AIRSPACE

- (a) Authorisation for VFR flights to operate above FL 290 shall not be granted in areas where a vertical separation minimum of 300 m (1 000 ft) is applied above FL 290.

10.690 WEATHER DETERIORATION BELOW VMC

- (a) 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) Operating within a control zone, request authorisation 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

- (a) 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 its 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.

Note. Section 10.700 deleted - requirements relocated to Section 10.615]

SUBPART K: IFR FLIGHT RULES

10.703 APPLICABILITY & COMPLIANCE

- (a) The IFR rules of this Subpart are applicable in the airspace of The Bahamas and, for international flights, wherever they may be, to the extent that they do not conflict with the rules published by the State having jurisdiction over the territory overflown.
- (b) The holders of airman licences issued by The Bahamas shall comply with these rules when flying outside The Bahamas, except where these rules may differ with the other State, in which case compliance with the rules and procedures of the State or region being overflown is required.

10.705 IFR IN CONTROLLED AIRSPACE

- (a) No person may operate an aircraft in controlled airspace under IFR unless that person has—
 - (1) Filed an IFR flight plan;
 - (2) Received an appropriate ATC clearance; and
 - (3) Maintains a continuous air-ground communication watch on the appropriate ATS frequency.
- (b) A pilot may elect to fly in accordance with instrument flight rules in visual meteorological conditions or may be required to do so by the appropriate ATS facility.

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—
 - (1) File a flight plan;
 - (2) Maintain a continuous air-ground communication watch on the appropriate ATS frequency and establish two-way communications with the ATS unit providing flight information service; and
 - (3) Make position reports as required for controlled flights.
- (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.

10.714 IFR TAKE-OFF MINIMUMS: GENERAL AVIATION

- (a) A flight to be conducted in accordance with the instrument flight rules shall not—
 - (1) Take off from the departure aerodrome unless the meteorological conditions, at the time of use, are at or above the aerodrome operating minima for that operation; and
 - (2) Take off or continue beyond the point of in-flight re-planning unless at the aerodrome of intended landing or at each alternate aerodrome to be selected in compliance with Section 10.380 and 10.385, current meteorological reports or a combination of current reports and forecasts indicate that the meteorological conditions will be, 1 hour before and after the ETA, at or above the aerodrome operating minima for that operation.

10.715 IFR TAKE-OFF 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 a civil aerodrome under IFR unless weather conditions are at or above—
 - (1) For aircraft, other than helicopters, having two engines or less; 1 statute mile visibility.
 - (2) For aircraft having more than two engines; 1/2 statute mile visibility.
 - (3) For helicopters; 1/2 statute mile visibility.

10.720 MINIMUM ALTITUDES FOR IFR OPERATIONS

- (a) *Operation of aircraft at minimum altitudes.* Except when necessary for take-off 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 900 m (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) of this Section, at a level which is at least 600 m (1,000 ft) above the highest obstacle located within 8 km (5 sm) of the estimated position of the aircraft.
 - (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.*
 - (1) If unable to communicate with ATC, each pilot shall climb to a higher minimum IFR altitude immediately after passing the point beyond which that minimum altitude applies;
 - (2) If ground obstructions intervene, each pilot shall climb to a point beyond which that higher minimum altitude applies, at or above the applicable MCA.

10.725 MINIMUM ALTITUDES FOR USE OF AN AUTOPILOT

- (a) For en route operations, no person may use an autopilot at an altitude above the terrain that is less than 500 feet.
- (b) For instrument approach operations, no person may use an autopilot at an altitude above the terrain that is less than 50 feet below the MDA or DH.
- (c) For Category III approaches, the Authority may approve the use of a flight control guidance system with automatic capability to touchdown.
- (d) If the maximum altitude loss specified in the AFM for a malfunction, when multiplied by two is more than—
 - (1) *For en route operations*, 500 feet, then it becomes the controlling minimum altitude for use of the autopilot; or
 - (2) *For instrument approach operations*, 50 feet, then it becomes the controlling minimum altitude for use of the autopilot.

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—
 - (1) Assigned that aircraft by ATC; or
 - (2) Specified by the appropriate ATS authority in Aeronautical Information Publications.
- (b) In all other situations involving the selection of an IFR cruising level, the appropriate table in Appendix 1 to 10.494 shall be used.
- (c) 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) Except when otherwise specified by the appropriate ATS facility or as provided in paragraph (b) or (c), each person operating an aircraft in level cruising flight under IMC at altitudes above 900 m (3,000 ft), but below Flight Level 290, 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) The ultimate selection of an IFR cruising altitude shall correspond to the appropriate table in Appendix 1 to 10.494.
- (c) A person may deviate from the cruising altitudes specified in paragraph (a) of this Section only when—
 - (1) Authorised by ATC;
 - (2) Operating in a holding pattern; or
 - (3) Manoeuvring in turns.

10.740 IFR RADIO COMMUNICATIONS

- (a) 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) Any unforecast weather conditions encountered; and

- (3) 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 Section, 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 CONTINUATION OF IFR FLIGHT TOWARD A DESTINATION

- (a) No pilot may 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 CIVIL AERODROMES

- (a) Each person operating an civil aircraft shall use a standard instrument approach procedure prescribed by the State having jurisdiction over the aerodrome, unless specifically approved by that State.
- (c) No person may make an instrument approach at an aerodrome except in accordance with IFR weather minimums and the published instrument approach procedures.
- (b) For the purpose of this Section, when the approach procedure being used provides for and requires the use of a DH or MDA, the authorised 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;
 - (3) The DH or MDA for which the aircraft is equipped.

10.757 APPROVAL REQUIRED: CATEGORY II OR III APPROACHES

- (a) No person may operate an aircraft to the instrument approach minimums for Category II or III approaches unless pilots are—
 - (1) Holders of written authorisation issued by the Authority; or
 - (2) Authorised under operations specifications issued to the AOC holder.
- (b) No person may operate an aircraft in the conduct of an instrument approach requiring a special authorisation by the Authority, except in accordance with the conditions of the procedures and restrictions required for this approach.

10.760 RUNWAY VISUAL RANGE (RVR) MINIMUMS

- (a) No person may operate an aircraft for the purpose of the following landing or take-off operations at an aerodrome unless adequate landing and rollout Runway Visual Range (RVR) information is available—
 - (1) Take-off, approach and landing operations with reported visibility less than 800 m; 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.
- (c) *For helicopter operations*, the Authority may approve the use of an alternate method that provides a precise measurement or observation of visibility.

10.765 CONTINUING AN INSTRUMENT APPROACH

- (a) No pilot may continue below 300 m (1 000 ft) above the aerodrome elevation or into the final approach segment unless the reported visibility or controlling RVR is at or above the aerodrome operating minima for that procedure.
- (b) If after entering the final approach segment or after descending below 300 m (1,000 ft) above the aerodrome elevation, the reported visibility or controlling RVR falls below the specified minimum, the pilot may continue the approach to DA/H or MDA/H.
- (c) In any case, no pilot may continue its approach-to-land at any aerodrome beyond a point at which the limits of the operating minima specified for that aerodrome would be infringed.

10.770 OPERATION BELOW DH OR MDA

- (a) No pilot may continue an approach-to-land beyond a point at which the limits of the aerodrome operating minima would be infringed.
- (b) Where a DH or MDA is applicable, no pilot may operate a civil aircraft at any aerodrome or heliport below the authorised MDA, or continue an approach below the authorised 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.
- (c) These visual references specified in (a) 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 authorisation prescribed by the Authority.

10.772 THRESHOLD CROSSING HEIGHT FOR PRECISION APPROACHES

- (a) An operator shall establish operational procedures designed to ensure that an airplane being used to conduct precision approaches crosses the threshold by a safe margin with the airplane in the landing configuration and attitude.

10.775 LANDING DURING INSTRUMENT METEOROLOGICAL CONDITIONS

- (a) No pilot operating a civil aircraft may land that aircraft when the flight visibility is less than the visibility prescribed in the standard instrument approach procedure being used.

- (b) No pilot may continue a precision approach to landing unless in compliance with operational procedures that ensure the aircraft will cross the threshold by a safe margin with the aircraft in landing configuration and attitude.

10.780 EXECUTION OF A MISSED APPROACH PROCEDURE

- (a) 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 acceptable to ATC, a pilot operating under IFR encountering VMC may cancel the IFR flight plan if the VMC conditions were anticipated and it is intended that the flight will be continued for a reasonable period of time in uninterrupted VMC.

Note Section 10.790 deleted - Communications Failure in IFR relocated to Section 10.615.

Note: Subpart L deleted - requirements relocated to Schedule 28

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APPENDICES

APPENDIX 1 TO 10.035: INOPERATIVE INSTRUMENTS & EQUIPMENT

- (a) This implementing standard authorises 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 these Regulations.
- (b) The inoperative instruments and equipment may not be—
- (1) Schedule of the VFR-day instruments and equipment prescribed in Schedule 7;
 - (2) Required on the aircraft's equipment list or the operations equipment list for the kind of flight operation being conducted;
 - (3) Required by Schedule 7 for 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 not to be a hazard to safe operation;
 - (2) Deactivated and placarded;
 - (3) *Inoperative*; and
- Note: If deactivation of the inoperative instrument or equipment involves maintenance, it must be accomplished and recorded in accordance with Schedule 5.*
- (4) Removed from the aircraft, the flight deck control placarded and the maintenance recorded in accordance with Schedule 5.
- (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 for operable condition by an airworthiness directive, unless the airworthiness directive provides otherwise;
 - (3) Instruments and equipment required for specific operations.

Note: The required instruments and equipment for specific operations are listed in Schedule 7.

APPENDIX 1 TO 10.051: CONTENTS OF JOURNEY LOG

- (a) The operator shall provide a journey log for each aircraft involved in international operations which includes the following information—
- (1) Aeroplane nationality and registration;
 - (2) Date;
 - (3) Crew member names and duty assignments;
 - (4) Departure and arrival points and times;
 - (5) Purpose of flight;
 - (6) Observations regarding the flight; and
 - (7) Signature of the pilot-in-command.

APPENDIX 1 TO 10.097: ACAS II TRAINING

- (a) Appropriate training, to the satisfaction of the Authority, to competency in the use of ACAS II equipment and the avoidance of collisions may be evidenced by—
- (1) Possession of a type rating for an aeroplane equipped with ACAS II, where the operation and use of ACAS II are included in the training syllabus for the type rating; or

- (2) Possession of a document issued by a training organisation or person approved by the State to conduct training for pilots in the use of ACAS II, indicating that the holder has—
 - (i) Been trained in accordance with the appropriate ACAS II training guidelines; or
 - (ii) Received a comprehensive pre-flight briefing by a pilot who has been trained in the use of ACAS II in accordance with the ACAS II training guidelines.

APPENDIX 1 TO 10.102: LOGGING OF FLIGHT TIME

- (a) *Logging of solo flight time.* Except for a student pilot acting as PIC of an airship requiring more than one flight crew member, a pilot may log as solo flight time only that flight time when the pilot is the sole occupant of the aircraft.
- (b) *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
 - (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 authorised instructor may log as PIC time all flight time while acting as an authorised instructor;
 - (4) A student pilot may log PIC time when the student pilot—
 - (i) Is the sole occupant of the aircraft or is performing functions of the PIC of an airship requiring more than one flight crew member;
 - (ii) Has a current solo flight endorsement; or
 - (iii) Is undergoing training for a pilot licence or rating.
- (c) *Logging co-pilot flight time.* A person may log co-pilot flight time only for that flight time during which that person—
 - (1) Is qualified in accordance with the requirements of this Schedule for co-pilot and occupies a pilot station of an aircraft—
 - (i) Certificated to be operated with a co-pilot; or
 - (ii) Engaged in operations of a aircraft certificated for a single pilot, but these type of operation requires a co-pilot;
 - (2) Holds the appropriate category, class, and instrument rating (if an instrument rating is required for the flight) for the aircraft being flown in operations requiring a co-pilot;
 - (3) Is involved in multi-crew operations that have been approved by the Authority.
- (d) *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) An authorised 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 authorised instructor is present during the simulated flight.
- (g) *Logging flight instruction time*—
 - (1) A person may log flight instruction time when that person receives training from an authorised instructor in an aircraft, approved flight simulator, or approved flight training device;
 - (2) The flight instruction time shall be logged in a logbook and shall—
 - (i) Be endorsed in a legible manner by the authorised instructor;
 - (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.

APPENDIX 2 TO 10.102: CREDITING OF FLIGHT TIME

- (a) A student pilot or the holder of a pilot licence shall be entitled to be credited in full with all solo, dual instruction and pilot-in-command flight time towards the total flight time required for the initial issue of a pilot licence or the issue of a higher grade of pilot licence.
- (b) The holder of a pilot licence, when acting as co-pilot at a pilot station of an aircraft certificated for operation by a single pilot but required by the Authority to be operated with a co-pilot, shall be entitled to be credited with not more than 50 per cent of the co-pilot flight time towards the total flight time required for a higher grade of pilot licence.
- (c) The holder of a pilot licence may have the flight time specified in (b) credited in full towards the total flight time required if the aircraft is equipped (second instrument panel) to be operated by a co-pilot and the aircraft is operated in a multi-crew operation.
- (d) The holder of a pilot licence, when acting as co-pilot at a pilot station of an aircraft certificated to be operated with a co-pilot, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.
- (e) The holder of a pilot licence, when acting as pilot-in-command under supervision, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence.

APPENDIX 1 TO 10.147: FLIGHT INSTRUCTOR RECORDS

- (a) Each holder of a flight instructor shall comply with the following record keeping requirements—
 - (1) Sign the logbook of each person to whom that instructor has given flight training or ground training;
 - (2) Maintain a record in a logbook or a separate document that contains the following—
 - (i) The name of each person whose logbook or student pilot licence that instructor has endorsed for solo flight privileges, and the date of the endorsement; and
 - (ii) The name of each person that instructor has endorsed for a knowledge test or practical test, and a record of the kind of test, the date, and the results; and
 - (3) Retain the records required by this Section for at least 3 years.

APPENDIX 2 TO 10.147: FLIGHT INSTRUCTOR LIMITATIONS AND QUALIFICATIONS

- (a) Each holder of a flight instructor licence shall observe the following limitations and qualifications—
 - (1) **Hours of training.** In any 24-consecutive-hour period, a flight instructor may not conduct more than 8 hours of flight training;
 - (2) **Required ratings.** A flight instructor may not conduct flight training in any aircraft for which the flight instructor does not hold—
 - (i) A pilot licence and flight instructor licence with the applicable category and class rating; and
 - (ii) If appropriate, a type rating; and

- (iii) For instrument flight training or for training for a type rating not limited to VFR, an appropriate instrument rating on his or her flight instructor licence and pilot licence.
- (b) **Limitations on endorsements.** A flight instructor may not endorse a—
- (1) Student pilot's licence or logbook for solo flight privileges, unless that flight instructor has—
 - (i) Given that student the flight training required for solo flight privileges required by this Section;
 - (ii) Determined that the student is prepared to conduct the flight safely under known circumstances, subject to any limitations listed in the student's logbook that the instructor considers necessary for the safety of the flight;
 - (iii) Given that student pilot training in the make and model of aircraft or a similar make and model of aircraft in which the solo flight is to be flown; and
 - (iv) Endorsed the student pilot's logbook for the specific make and model aircraft to be flown.
 - (2) Student pilot's licence and logbook for a solo cross-country flight, unless that flight instructor has determined that—
 - (i) The student's flight preparation, planning, equipment, and proposed procedures are adequate for the proposed flight under the existing conditions and within any limitations listed in the logbook that the instructor considers necessary for the safety of the flight; and
 - (ii) The student has the appropriate solo cross-country endorsement for the make and model of aircraft to be flown.
 - (3) Student pilot's licence and logbook for solo flight in a Class B airspace area or at an aerodrome within Class B airspace unless that flight instructor has—
 - (i) Given that student ground and flight training in that Class B airspace or at that aerodrome; and
 - (ii) Determined that the student is proficient to operate the aircraft safely.
 - (4) Logbook of a pilot for a flight review, unless that instructor has conducted a review of that pilot in accordance with the requirements; or
 - (5) Logbook of a pilot for an instrument proficiency check, unless that instructor has tested that pilot in accordance with the requirements.
- (c) **Training in a multi engine aeroplane or helicopter.** A flight instructor may not give training required for the issuance of a licence or rating in a multi engine aeroplane or a helicopter, unless that flight instructor has at least 5 flight hours of PIC time in the specific make and model of multi engine aeroplane or helicopter, as appropriate.
- (d) **Training first-time flight instructors.** The qualifications of the flight instructor for training first-time flight instructor applicants.
- (1) No flight instructor may provide instruction to another pilot who has never held a flight instructor licence unless that flight instructor—
 - (i) Holds a current ground or flight instructor licence with the appropriate rating, has held that licence for at least 24 months, and has given at least 40 hours of ground training; or
 - (ii) Meets the prescribed eligibility requirements;
 - (iii) For training in preparation for an aeroplane or rotorcraft rating, has given at least 200 hours of flight training as a flight instructor; and
 - (iv) For training in preparation for a glider rating, has given at least 80 hours of flight training as a flight instructor.
- (e) **Prohibition against self endorsements.** A flight instructor may not make any self-endorsement for a licence, rating, flight review, authorisation, operating privilege, practical test, or knowledge test that is required by this Schedule.
- (f) **Category II and Category III instructions:** A flight instructor may not give training in Category II or Category III operations unless the flight instructor has been trained and tested in Category II or Category III operations as applicable.

APPENDIX 1 TO 10.175: USE OF PSYCHOACTIVE SUBSTANCES

- (a) Whenever there is a reasonable basis to believe that a person may not be in compliance with 10.120 and upon the request of the Authority, that person shall furnish the Authority or authorise any clinic, doctor, or other person to release to the Authority, the results of each blood test taken for presence of alcohol or psychoactive substances up to 8 hours before or immediately after acting or attempting to act as a crew members.
- (b) Any test information provided to the Authority under the provisions of this Section may be used as evidence in any legal proceeding.

APPENDIX 1 TO 10.185: FLIGHT CREW MEMBERS AT DUTY STATIONS

- (a) A required flight crew member may leave the assigned duty station if the crew member is taking a rest period, and relief is provided—
 - (1) For the assigned PIC during the en route cruise portion of the flight by a pilot who holds an airline transport pilot licence and an appropriate type rating, and who is currently qualified as PIC or co-pilot, and is qualified as PIC of that aircraft during the en route cruise portion of the flight; and
 - (2) In the case of the assigned co-pilot, by a pilot qualified to act as PIC or co-pilot of that aircraft during en route operations.

APPENDIX 1 TO 10.400: DETERMINATION OF FLIGHT PLANNING SPEED: EDTO

- (a) An AOC holder shall determine a speed for the calculation of the maximum distance to an adequate aerodrome for each two-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 engine 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 paragraph (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 sub paragraph (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 paragraph (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 (b); and
 - (2) The maximum distance from an adequate aerodrome determined in accordance with paragraphs (a) and (b).

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: EDTO ALTERNATE PLANNING

Type of Approach	Planning Minima	
	(RVR/visibility required & ceiling, if applicable)	
	Aerodrome with	
	at least 2 separate approach procedures based on 2 separate aids serving 2 separate runways (See note 1)	at least 2 separate approach procedures based on 2 separate aids serving 1 runway or, at least 1 approach procedure based on 1 aid serving 1 runway
Precision Approach Cat II, III (ILS, MLS)	Precision Approach Cat I Minima	Non-Precision Approach Minima
Precision Approach Cat 1 (ILS, MLS)	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 1: Runways on the same aerodrome are considered to be separate runways when they are separate landing surfaces which may overlay or cross such that if one of the runways is blocked, it will not prevent the planned type of operations on the other runway and each of the landing surfaces has a separate approach based on a separate aid.

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APPENDIX 1 TO 10.494: TABLES OF CRUISING LEVELS

The cruising levels to be observed when so required by this Schedule are as follows— ***RVSM – FEET***

(a) in areas where feet are used for altitude and where, in accordance with regional air navigation agreements, a vertical separation minimum of 1 000 ft is applied between FL 290 and FL 410 inclusive.*

TRACK**											
From 000 degrees to 179 degrees***						From 180 degrees to 359 degrees***					
IFR Flights			VFR Flights			IFR Flights			VFR Flights		
Level			Level			Level			Level		
FL	Feet	Metres	FL	Feet	Metres	FL	Feet	Metres	FL	Feet	Metres
010	1 000	300	—	—	—	020	2 000	600	—	—	—
030	3 000	900	035	3 500	1 050	040	4 000	1 200	045	4 500	1 350
050	5 000	1 500	055	5 500	1 700	060	6 000	1 850	065	6 500	2 000
070	7 000	2 150	075	7 500	2 300	080	8 000	2 450	085	8 500	2 600
090	9 000	2 750	095	9 500	2 900	100	10 000	3 050	105	10 500	3 200
110	11 000	3 350	115	11 500	3 500	120	12 000	3 650	125	12 500	3 800
130	13 000	3 950	135	13 500	4 100	140	14 000	4 250	145	14 500	4 400
150	15 000	4 550	155	15 500	4 700	160	16 000	4 900	165	16 500	5 050
170	17 000	5 200	175	17 500	5 350	180	18 000	5 500	185	18 500	5 650
190	19 000	5 800	195	19 500	5 950	200	20 000	6 100	205	20 500	6 250
210	21 000	6 400	215	21 500	6 550	220	22 000	6 700	225	22 500	6 850
230	23 000	7 000	235	23 500	7 150	240	24 000	7 300	245	24 500	7 450
250	25 000	7 600	255	25 500	7 750	260	26 000	7 900	265	26 500	8 100
270	27 000	8 250	275	27 500	8 400	280	28 000	8 550	285	28 500	8 700
290	29 000	8 850				300	30 000	9 150			
310	31 000	9 450				320	32 000	9 750			
330	33 000	10 050				340	34 000	10 350			
350	35 000	10 650				360	36 000	10 950			
370	37 000	11 300				380	38 000	11 600			
390	39 000	11 900				400	40 000	12 200			
410	41 000	12 500				430	43 000	13 100			
450	45 000	13 700				470	47 000	14 350			
490	49 000	14 950				510	51 000	15 550			
etc.	etc.	etc.				etc.	etc.	etc.			

* Except when, on the basis of regional air navigation agreements, a modified table of cruising levels based on a nominal vertical separation minimum of 1 000 ft (300 m) is prescribed for use, under specified conditions, by aircraft operating above FL 410 within designated portions of the airspace.

** Magnetic track, or in polar areas at latitudes higher than 70 degrees and within such extensions to those areas as may be prescribed by the appropriate ATS authorities, grid tracks as determined by a network of lines parallel to the Greenwich Meridian superimposed on a polar stereographic chart in which the direction towards the North Pole is employed as the Grid North.

*** Except where, on the basis of regional air navigation agreements, from 090 to 269 degrees and from 270 to 089 degrees is prescribed to accommodate predominant traffic directions and appropriate transition procedures to be associated therewith are specified.

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RVSM – METRES

(b) in areas where metres are used for altitude and where, in accordance with regional air navigation agreements, a vertical separation minimum of 300 m is applied between 8 900 m and 12 500 m inclusive:

TRACK**											
From 000 degrees to 179 degrees***						From 180 degrees to 359 degrees***					
IFR Flights			VFR Flights			IFR Flights			VFR Flights		
Standard Metric	Level		Standard Metric	Level		Standard Metric	Level		Standard Metric	Level	
	Metres	Feet		Metres	Feet		Metres	Feet		Metres	Feet
0030	300	1 000	—	—	—	0060	600	2 000	—	—	—
0090	900	3 000	0105	1 050	3 500	0120	1 200	3 900	0135	1 350	4 400
0150	1 500	4 900	0165	1 650	5 400	0180	1 800	5 900	0195	1 950	6 400
0210	2 100	6 900	0225	2 250	7 400	0240	2 400	7 900	0255	2 550	8 400
0270	2 700	8 900	0285	2 850	9 400	0300	3 000	9 800	0315	3 150	10 300
0330	3 300	10 800	0345	3 450	11 300	0360	3 600	11 800	0375	3 750	12 300
0390	3 900	12 800	0405	4 050	13 300	0420	4 200	13 800	0435	4 350	14 300
0450	4 500	14 800	0465	4 650	15 300	0480	4 800	15 700	0495	4 950	16 200
0510	5 100	16 700	0525	5 250	17 200	0540	5 400	17 700	0555	5 550	18 200
0570	5 700	18 700	0585	5 850	19 200	0600	6 000	19 700	0615	6 150	20 200
0630	6 300	20 700	0645	6 450	21 200	0660	6 600	21 700	0675	6 750	22 100
0690	6 900	22 600	0705	7 050	23 100	0720	7 200	23 600	0735	7 350	24 100
0750	7 500	24 600	0765	7 650	25 100	0780	7 800	25 600	0795	7 950	26 100
0810	8 100	26 600	0825	8 250	27 100	0840	8 400	27 600	0855	8 550	28 100
0890	8 900	29 100				0920	9 200	30 100			
0950	9 500	31 100				0980	9 800	32 100			
1010	10 100	33 100				1040	10 400	34 100			
1070	10 700	35 100				1100	11 000	36 100			
1130	11 300	37 100				1160	11 600	38 100			
1190	11 900	39 100				1220	12 200	40 100			
1250	12 500	41 100				1310	13 100	43 000			
1370	13 700	44 900				1430	14 300	46 900			
1490	14 900	48 900				1550	15 500	50 900			
etc.	etc.	etc.				etc.	etc.	etc.			

* Except when, on the basis of regional air navigation agreements, a modified table of cruising levels based on a nominal vertical separation minimum of 1 000 ft (300 m) is prescribed for use, under specified conditions, by aircraft operating above FL 410 within designated portions of the airspace.

** Magnetic track, or in polar areas at latitudes higher than 70 degrees and within such extensions to those areas as may be prescribed by the appropriate ATS authorities, grid tracks as determined by a network of lines parallel to the Greenwich Meridian superimposed on a polar stereographic chart in which the direction towards the North Pole is employed as the Grid North.

*** Except where, on the basis of regional air navigation agreements, from 090 to 269 degrees and from 270 to 089 degrees is prescribed to accommodate predominant traffic directions and appropriate transition procedures to be associated therewith are specified.

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Non-RVSM – FEET

(c) In other areas where feet are the primary unit of measurement for altitude:

TRACK*											
From 000 degrees to 179 degrees**						From 180 degrees to 359 degrees**					
IFR Flights			VFR Flights			IFR Flights			VFR Flights		
Level			Level			Level			Level		
FL	Feet	Metres	FL	Feet	Metres	FL	Feet	Metres	FL	Feet	Metres
010	1 000	300	–	–	–	020	2 000	600	–	–	–
030	3 000	900	035	3 500	1 050	040	4 000	1 200	045	4 500	1 350
050	5 000	1 500	055	5 500	1 700	060	6 000	1 850	065	6 500	2 000
070	7 000	2 150	075	7 500	2 300	080	8 000	2 450	085	8 500	2 600
090	9 000	2 750	095	9 500	2 900	100	10 000	3 050	105	10 500	3 200
110	11 000	3 350	115	11 500	3 500	120	12 000	3 650	125	12 500	3 800
130	13 000	3 950	135	13 500	4 100	140	14 000	4 250	145	14 500	4 400
150	15 000	4 550	155	15 500	4 700	160	16 000	4 900	165	16 500	5 050
170	17 000	5 200	175	17 500	5 350	180	18 000	5 500	185	18 500	5 650
190	19 000	5 800	195	19 500	5 950	200	20 000	6 100	205	20 500	6 250
210	21 000	6 400	215	21 500	6 550	220	22 000	6 700	225	22 500	6 850
230	23 000	7 000	235	23 500	7 150	240	24 000	7 300	245	24 500	7 450
250	25 000	7 600	255	25 500	7 750	260	26 000	7 900	265	26 500	8 100
270	27 000	8 250	275	27 500	8 400	280	28 000	8 550	285	28 500	8 700
290	29 000	8 850	300	30 000	9 150	310	31 000	9 450	320	32 000	9 750
330	33 000	10 050	340	34 000	10 350	350	35 000	10 650	360	36 000	10 950
370	37 000	11 300	380	38 000	11 600	390	39 000	11 900	400	40 000	12 200
410	41 000	12 500	420	42 000	12 800	430	43 000	13 100	440	44 000	13 400
450	45 000	13 700	460	46 000	14 000	470	47 000	14 350	480	48 000	14 650
490	49 000	14 950	500	50 000	15 250	510	51 000	15 550	520	52 000	15 850
etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.

* Magnetic track, or in polar areas at latitudes higher than 70 degrees and within such extensions to those areas as may be prescribed by the appropriate ATS authorities, grid tracks as determined by a network of lines parallel to the Greenwich Meridian superimposed on a polar stereographic chart in which the direction towards the North Pole is employed as the Grid North.

** Except where, on the basis of regional air navigation agreements, from 090 to 269 degrees and from 270 to 089 degrees is prescribed to accommodate predominant traffic directions and appropriate transition procedures to be associated therewith are specified.

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Non-RVSM – METRES

(d) In other areas where metres are the primary unit of measurement for altitude:

TRACK*											
From 000 degrees to 179 degrees**						From 180 degrees to 359 degrees**					
IFR Flights			VFR Flights			IFR Flights			VFR Flights		
Level			Level			Level			Level		
Standard Metric	Metres	Feet	Standard Metric	Metres	Feet	Standard Metric	Metres	Feet	Standard Metric	Metres	Feet
0030	300	1 000	—	—	—	0060	600	2 000	—	—	—
0090	900	3 000	0105	1 050	3 500	0120	1 200	3 900	0135	1 350	4 400
0150	1 500	4 900	0165	1 650	5 400	0180	1 800	5 900	0195	1 950	6 400
0210	2 100	6 900	0225	2 250	7 400	0240	2 400	7 900	0255	2 550	8 400
0270	2 700	8 900	0285	2 850	9 400	0300	3 000	9 800	0315	3 150	10 300
0330	3 300	10 800	0345	3 450	11 300	0360	3 600	11 800	0375	3 750	12 300
0390	3 900	12 800	0405	4 050	13 300	0420	4 200	13 800	0435	4 350	14 300
0450	4 500	14 800	0465	4 650	15 300	0480	4 800	15 700	0495	4 950	16 200
0510	5 100	16 700	0525	5 250	17 200	0540	5 400	17 700	0555	5 550	18 200
0570	5 700	18 700	0585	5 850	19 200	0600	6 000	19 700	0615	6 150	20 200
0630	6 300	20 700	0645	6 450	21 200	0660	6 600	21 700	0675	6 750	22 100
0690	6 900	22 600	0705	7 050	23 100	0720	7 200	23 600	0735	7 350	24 100
0750	7 500	24 600	0765	7 650	25 100	0780	7 800	25 600	0795	7 950	26 100
0810	8 100	26 600	0825	8 250	27 100	0840	8 400	27 600	0855	8 550	28 100
0890	8 900	29 100	0920	9 200	30 100	0950	9 500	31 100	0980	9 800	32 100
1010	10 100	33 100	1040	10 400	34 100	1070	10 700	35 100	1100	11 000	36 100
1130	11 300	37 100	1160	11 600	38 100	1190	11 900	39 100	1220	12 200	40 100
1250	12 500	41 100	1280	12 800	42 100	1310	13 100	43 000	1370	13 400	44 000
1370	13 700	44 900	1400	14 000	46 100	1430	14 300	46 900	1460	14 600	47 900
1490	14 900	48 900	1520	15 200	49 900	1550	15 500	50 900	1580	15 800	51 900
etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.

* Magnetic track, or in polar areas at latitudes higher than 70 degrees and within such extensions to those areas as may be prescribed by the appropriate ATS authorities, grid tracks as determined by a network of lines parallel to the Greenwich Meridian superimposed on a polar stereographic chart in which the direction towards the North Pole is employed as the Grid North.

** Except where, on the basis of regional air navigation agreements, from 090 to 269 degrees and from 270 to 089 degrees is prescribed to accommodate predominant traffic directions and appropriate transition procedures to be associated therewith are specified.

APPENDIX 1 TO 10.570: PERFORMANCE-BASED NAVIGATION APPROVAL

- (a) The Authority shall, for operations where a navigation specification for PBN has been prescribed, ensure that the operator has established and documented—
 - (1) Normal and abnormal procedures including contingency procedures;
 - (2) Flight crew qualification and proficiency requirements in accordance with the appropriate navigation specifications;
 - (3) A training programme for relevant personnel consistent with the intended operations;
 - (4) Appropriate maintenance procedures to ensure continued airworthiness in accordance with the appropriate navigation specifications;
 - (5) Additional requirements determined to be necessary for safety.
- (b) The Authority shall issue a specific approval for operations based on PBN authorisation required (AR) navigation specifications.

APPENDIX 1 TO 10.570: PERFORMANCE-BASED COMMUNICATIONS APPROVAL

- (a) The Authority shall, for operations where an RCP specification for PBC has been prescribed, ensure that the operator has established and documented—

- (1) Normal and abnormal procedures, including contingency procedures;
 - (2) Flight crew qualification and proficiency requirements, in accordance with appropriate RCP specifications;
 - (3) A training programme for relevant personnel consistent with the intended operations;
 - (4) Appropriate maintenance procedures to ensure continued airworthiness, in accordance with appropriate RCP specifications; and
 - (5) Additional requirements determined to be necessary for safety.
- (b) The Authority shall ensure that, in respect of those aeroplanes mentioned in Section 7.092, adequate provisions exist for—
- (1) Receiving the reports of observed communication performance issued by monitoring programmes established in accordance with ICAO Annex 11, Chapter 3, 3.3.5.2; and
 - (2) Taking immediate corrective action for individual aircraft, aircraft types or operators, identified in such reports as not complying with the RCP specification.

APPENDIX 3 TO 10.570: APPROVAL FOR RVSM OPERATIONS

- (a) Prior to granting the RVSM approval required in accordance with Section 10.570, the operator shall satisfy the Authority that—
- (1) The equipment requirements of Section 7.067 have been met;
 - (2) The demonstrated vertical navigation performance capability of the aeroplane satisfies the requirements specified in Appendix 1 to 7.067;
 - (3) The owner/operator has instituted appropriate procedures in respect of continued airworthiness (maintenance and repair) practices and programs;
 - (4) The owner/operator has instituted appropriate flight crew procedures for operations in RVSM airspace.
- Note: An RVSM approval is valid globally on the understanding that any operating procedures specific to a given region will be stated in the operations manual or appropriate crew guidance.*
- (b) The operator shall ensure that, in respect of those aeroplanes mentioned in Section 7.067, adequate provisions exist to ensure that it is—
- (1) Receiving the reports of height-keeping performance issued by the monitoring agencies established in accordance with Annex 11, 3.3.4.1;
 - (2) Taking immediate corrective action for individual aircraft, or aircraft type groups, identified in such reports as not complying with the height-keeping requirements for operation in airspace where RVSM is applied; and
 - (3) Ensuring that the Authority is receiving the reports and the corrective actions that have been initiated.

APPENDIX 1 TO 10.571: PERFORMANCE-BASED SURVEILLANCE APPROVAL

- (a) The Authority shall, for operations where an RSP specification for PBS has been prescribed, ensure that the operator has established and documented—
- (1) Normal and abnormal procedures, including contingency procedures;
 - (2) Flight crew qualification and proficiency requirements, in accordance with appropriate RSP specifications;
 - (3) A training programme for relevant personnel consistent with the intended operations;
 - (4) Appropriate maintenance procedures to ensure continued airworthiness, in accordance with appropriate RSP specifications; and
 - (5) Additional requirements determined to be necessary for safety.

- (b) The State of the Operator shall ensure that, in respect of those aeroplanes mentioned in Section 7.122, adequate provisions exist for—
- (1) Receiving the reports of observed surveillance performance issued by monitoring programmes established in accordance with ICAO Annex 11, Chapter 3, 3.3.5.2; and
 - (2) Taking immediate corrective action for individual aircraft, aircraft types or operators, identified in such reports as not complying with the RSP specification.

APPENDIX 2 TO 10.571: APPROVAL OF ELECTRONIC FLIGHT BAGS

- (a) In establishing operational criteria for the use of EFBs, the State of Registry shall ensure that—
- (1) The EFB equipment and its associated installation hardware, including interaction with aeroplane systems if applicable, meet the appropriate airworthiness certification requirements;
 - (2) The operator/owner has assessed the risks associated with the operations supported by the EFB function(s);
 - (3) The operator/owner has established requirements for redundancy of the information (if appropriate) contained in and displayed by the EFB function(s);
 - (4) The operator/owner has established and documented procedures for the management of the EFB function(s) including any databases it may use;
 - (5) The operator/owner has established and documented the procedures for the use of, and training requirements for, the EFB function(s); and
 - (6) Any additional requirements necessary for safety are completed.

APPENDIX 1 TO 10.572: APPROVAL OF AUTO LANDING, HUD, NVIS OR CVS SYSTEMS

- (a) In establishing operational criteria for the use of automatic landing systems, a HUD or equivalent displays, EVS, SVS or CVS, the State of Registry shall ensure that—
- (1) The equipment meets the appropriate airworthiness certification requirements;
 - (2) The operator/owner has carried out a safety risk assessment associated with the operations supported by the automatic landing systems, a HUD or equivalent displays, EVS, SVS or CVS;
 - (3) The operator/owner has established and documented the procedures for the use of, and training requirements for automatic landing systems, a HUD or equivalent displays, EVS, SVS or CVS; and
 - (4) Additional requirements determined to be necessary for safety are included.

APPENDIX 1 TO 10.660: AIRSPACE AND VMC MINIMUMS

Airspace Class	A*** B C D E	F	G	
		ABOVE 900 m (3 000 ft.) AMSL or above 300 m (1 000 ft.) above terrain,	At and below 900 m (3 000 ft.) AMSL or 300 m (1 000 ft.) above terrain,	whichever is the higher
Distance from cloud	1 500 m horizontally 300 m (1 000 ft.) vertically		Clear of cloud and in sight of the surface	
Flight visibility	8 km at and above 3 050 m (10 000 ft.) AMSL 5 km below 3 050 m (10 000 ft.) AMSL		5 km**	
* When the height of the transition altitude is lower than 3 050 m (10 000 ft.) AMSL, FL 100 should be used in lieu of 10 000 ft.				
<p>** When so prescribed by the appropriate ATS authority—</p> <p>a) lower flight visibilities to 1 500 m may be permitted for flights operating—</p> <ol style="list-style-type: none"> 1. At speeds that, in the prevailing visibility, will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision; or 2. In circumstances in which the probability of encounters with other traffic would normally be low, e.g. in areas of low volume traffic and for aerial work at low levels. <p>b) HELICOPTERS may be permitted to operate <i>in less than 1 500 m</i> flight visibility, if manoeuvred at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.</p>				
*** The VMC minima in Class A airspace are included for guidance to pilots and do not imply acceptance of VFR flights in Class A airspace.				

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