

GAMBIA CIVIL AVIATION ACT, 2018

GAMBIA CIVIL AVIATION REGULATIONS, 2018

PART 8 – OPERATIONS

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SCHEDULE

GAMBIA CIVIL AVIATION REGULATIONS, 2018

CHAPTER I - GENERAL

1. Applicability

(1) This Part prescribes the requirements for-

- (a) operations conducted by a flight crewmember certified in The Gambia while operating aircraft registered in the Gambia;
- (b) operations of foreign aircraft registered in another State by Gambian AOC holders; and
- (c) operations of aircraft within The Gambia by flightcrew or AOC holders of another State.

(2) For operations outside of The Gambia, all Gambian licensed pilots and operators shall comply with these requirements, unless compliance would result in a violation of the laws of the State in which the operation is conducted.

CHAPTER II - Definitions

The definitions contained in Part 1 shall also apply in this Part.

2. Abbreviations

In this Part, the following abbreviations have the meanings assigned to them-

AAC means All Aircraft;

AFM means Aeroplane Flight Manual;

AGL means Above Ground Level;

AMSL means Above Mean Sea Level;

AMT means Aviation Maintenance Technician;

AOC means Air Operator Certificate;

AOM means Aircraft Operating Manual;

APU means Auxiliary Power Unit;

ATC means Air Traffic Control;

CAT means Category;
C2 means Command and Control Link;
CDL means Configuration Deviation List;
CP means Copilot;
CRM means Crew Resource Management;
CRT means Cathode Ray Tube;
DH means Decision Height;
ETA means Estimated Time of Arrival;
EDTO means Extended Diversion Time Operations;
FAS means Final Approach Segment;
FE means Flight Engineer;
FL means Flight Level;
FN means Flight Navigator;
FRMS means Fatigue Risk Management System;
FSTD means Flight Simulation Training Device;
GPS means Global Positioning System;
IFR means Instrument Flight Rules;
IMC means Instrument Meteorological Conditions;
INS means Inertial Navigation System;
LDA means Localizer-type Directional Aid;
LOC means Localizer;
LORAN means Long-range Navigation;
LVTO means Low Visibility Take Off;
MDA means Minimum Decent Altitude;
MEA means Minimum En Route Altitude;
MEL means Minimum Equipment List;
MMEL means Master Minimum Equipment List;
MNPS means Minimum Navigation Performance Specifications;
MOCA means Minimum Obstruction Clearance Altitude;
MSL means Mean Sea Level;
NM means Nautical Miles;
NOTAM means Notice to Airmen;

OCA means Obstacle Clearance Altitude;
OCH means Obstacle Clearance Height;
OCA/H means Obstacle Clearance Altitude/Height;
PIC means Pilot in Command;
PBE means Protective Breathing Equipment;
RFFS means Rescue and Fire Fighting Service;
RFM means Rotorcraft Flight Manual;
RPA means Remotely Piloted Aircraft;
RPAS means Remotely Piloted Aircraft System;
RVR means Runway Visibility Range;
RVSM means Reduced Vertical Separation Minimum;
SCCM means Senior Cabin Crewmember;
SDF means Simplified Directional Facility;
SM means Statute Miles;
TACAN means Tactical Air Navigation System;
VFR means Visual Flight Rules;
VLOS means Visual Line-Of-Sight;
VMC means Visual Meteorological Conditions;
VSM means Vertical Separation Minimum;
V1 means Takeoff decision speed;
Vmo means Maximum operating speed.
Vso means Stalling speed or the minimum steady flight speed in the landing configuration.

CHAPTER III - GENERAL OPERATIONS REQUIREMENTS

3. Compliance with Laws, Regulations and Procedures

(1) An operator shall ensure that all employees when abroad comply with the laws, regulations and procedures of those States in which operations are conducted.

(2) An operator shall ensure that all pilots are familiar with the laws, regulations and procedures, pertinent to the performance of their duties, prescribed for the areas to be traversed, the aerodromes to be used and the air navigation facilities relating thereto.

(3) An operator shall ensure that other members of the flight crew are familiar with such of these laws, regulations and procedures as are pertinent to the performance of their respective duties in the operation of the aeroplane.

(4) An owner or operator shall not conduct operations for which a specific approval is required unless such approval has been issued by the Authority.

4. Registration Markings

A person shall not operate a Gambian-registered aircraft unless it displays the proper markings prescribed in Part 4.

5. Civil Aircraft Airworthiness

(1) A person shall not operate a civil aircraft unless it is in an airworthy condition.

(2) A PIC shall determine whether an aircraft is in a condition for safe flight.

(3) A PIC shall discontinue a flight as soon as practicable when an unairworthy mechanical, electrical, or structural condition occurs.

6. Special Airworthiness Certificate Operational Restrictions

A person shall not operate an aircraft with a special airworthiness certificate except as provided in the limitations issued with that certificate.

7. Aircraft Instruments and Equipment

A person shall not operate an aircraft unless it is equipped with the required instruments and navigation equipment appropriate to type of flight operation conducted and the route being flown.

8. Inoperative Instruments and Equipment

(1) A person shall not take off with an aircraft with inoperative instruments or equipment installed, except as authorised by the Authority.

(2) An AOC Holder shall not operate a multi-engine aircraft with inoperative instruments and equipment installed unless the following conditions are met-

- (a) an approved MEL exists for that aircraft;
- (b) the Authority has issued the AOC Holder operations specifications authorising operations in accordance with an approved MEL. The flight crew shall have direct access at all times before flight to all of the information contained in the approved MEL

through printed or other means approved by the Authority in the AOC Holder specific operating provisions. An approved MEL, as authorised by the specific operating provisions, constitutes an approved change to the type design without requiring recertification;

- (c) the approved MEL must-
 - (i) be prepared in accordance with the limitations specified in paragraph (c) of this section, and
 - (ii) provide for the operation of the aircraft with certain instruments and equipment in an inoperative condition;
- (d) records identifying the inoperative instruments and equipment and the information required by this regulation must be available to the pilot; and
- (e) the aircraft is operated under all applicable conditions and limitations contained in the MEL and the operations specifications authorising use of the MEL.

(3) The following instruments and equipment shall not be included in the MEL-

- (a) 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;
- (b) instruments and equipment required by an airworthiness directive to be in operable condition unless the airworthiness directive provides otherwise; and
- (c) instruments and equipment required for specific operations under Part 7, Part 8, or Part 9 of these Regulations.

(4) Notwithstanding sub-regulation (3), an aircraft with inoperative instruments or equipment may be operated under a special flight permit under Part 5.

(5) In situations where no master minimum equipment list (MMEL) is available and no MEL is required for the specific aircraft operation under these regulations, flight operations with inoperative instruments and equipment installed may commence provided the following conditions are met-

- (a) the inoperative instruments and equipment may not be-
 - (i) part of the VFR-day instruments and equipment prescribed in Part 7;
 - (ii) required on the aircraft's equipment list or the operations equipment list for the kind of flight operation being conducted;
 - (iii) required by Part 7 for the specific kind of flight operation being conducted; or
 - (iv) required to be operational by an airworthiness directive.
- (b) to be eligible for these provisions, the inoperative instruments and equipment shall be -
 - (i) determined by the PIC not to be a hazard to safe operation,
 - (ii) deactivated and placarded Inoperative, and
 - (iii) removed from the aircraft, the flight deck control placarded and the maintenance recorded in accordance with Part 5.

9. Civil Aircraft Flight Manual, Marking and Placard Requirements

- (1) A person shall not operate a Gambian registered civil aircraft unless there is available in the aircraft-
 - (a) a current, approved AFM or RFM; or
 - (b) an AOM approved by the Authority for the AOC holder; and
 - (c) if no AFM or RFM exists, approved manual material, markings and placards, or any combination thereof, which provide the PIC with the necessary limitations for safe operation.
- (2) A person shall not operate a civil aircraft within or over The Gambia 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 aircraft's State of Registry.
- (3) Each AFM or RFM shall be updated by implementing changes made mandatory by the State of Registry.
- (4) An operator shall display in the aircraft all placards, listings, instrument markings or combination thereof, containing those operating limitations prescribed by the certifying Authority for the aircraft's State of Registry for

visual presentation.

10. Required Aircraft and Equipment Inspections

Unless otherwise authorised by the Authority, a person shall not operate a Gambian civil aircraft unless it has had the appropriate inspections required by Chapter 3 of these Regulations.

11. Documents to be Carried on Aircraft

(1) Except as provided in these Regulations, a person shall not operate a civil aircraft in commercial air transport operations unless it has within it, the following current and approved documents-

- (a) Certificate of Aircraft Registration issued to the owner;
- (b) Certificate of Airworthiness;
- (c) Aircraft Technical Log including Aircraft Journey Log;
- (d) Aircraft Radio Licence;
- (e) list of passenger names and points of embarkation and destination, if applicable;
- (f) Cargo manifest including special loads information;
- (g) the appropriate licences of all crew members;
- (h) certified true copy AOC of the AOC including accompanying Operations Specifications;
- (i) Noise Certificate, if required;
- (j) AFM or RFM, for aeroplanes or helicopters;
- (k) Part(s) of the Operations Manual relevant to operation(s) conducted;
- (l) MEL;
- (m) Category II or III Manual, as applicable;
- (n) Operational Flight Plan, for all international flights;
- (o) Filed ATC flight plan;
- (p) NOTAMS briefing documentation;

- (q) meteorological information;
- (r) mass and balance documentation;
- (s) roster of special situation passengers;
- (t) maps and charts for routes of proposed flight or possibly diverted flights;
- (u) (u) forms for complying with the reporting requirements of the Authority and the AOC holder;
- (v) for international flights, a general declaration for customs;
- (w) any documentation that may be required by the Authority or States concerned with a proposed flight;
- (x) the appropriate licences for each member of the flightcrew;
- (y) copy of the release to service, if any, in force with respect to the aircraft; and
- (z) search and rescue information, for international flights.

(2) Except as provided in these Regulations, a person shall not operate a civil aircraft in general aviation operations or aerial work operations unless it has within it, the following current and approved documents-

- (a) Certificate of Aircraft Registration issued to the owner;
- (b) Certificate of Airworthiness;
- (c) Aircraft Journey Log;
- (d) Aircraft Radio License, for international flights;
- (e) list of passenger names and points of embarkation and destination, if applicable;
- (f) Cargo manifest including special loads information;
- (g) the appropriate licences for each member of the flight crew;
- (h) copy of the release to service, if any, in force with respect to the aircraft, or technical log, as applicable;
- (i) Noise certificate, if required.

- (j) AFM or RFM, for aeroplanes or helicopters.
- (k) Category II or III Manual, as applicable.
- (l) Operational Flight Plan, for all international flights;
- (m) NOTAMS briefing documentation;
- (n) maps and charts for routes of proposed flight or possibly diverted flights;
- (o) forms for complying with the reporting requirements of the Authority;
- (p) for international flights, a general declaration for customs;
- (q) aerial work certificate for aerial work operators;
- (r) search and rescue information, for international flights; and
- (s) any documentation that may be required by the Authority or States concerned with a proposed flight;

CHAPTER IV - AIRCRAFT MAINTENANCE AND INSPECTION REQUIREMENTS

12.Applicability

(1) This Chapter prescribes the rules governing the maintenance and inspection of Gambian registered civil aircraft operating within or outside The Gambia.

(2) Where any aircraft, not registered in The Gambia and operating under an inspection programme approved or accepted by the State of Registry, does not have the equipment required by the Authority, for operations within The Gambia, the owner or operator shall ensure that such equipment is installed and inspected in accordance with the requirements of the State of Registry, acceptable to the Authority before operation of that aircraft in The Gambia.

(3) Annual inspections and Annual Inspections or 100 hour inspections in this regulation do not apply to-

- (a) an aircraft that carries a special flight permit, a current experimental certificate, or a provisional airworthiness certificate;
- (b) an aircraft subject to the requirements of progressive

inspections in this regulation;

- (c) an aircraft subject to the requirements of a continuous airworthiness maintenance inspections in this regulation; and
- (d) a large aeroplane, a turbine-powered multi-engine aeroplane and a turbine-powered rotorcraft when the operator elects to inspect that rotorcraft in accordance with continuous airworthiness maintenance inspections in this regulation.

13. General Maintenance and Inspection Rules

(1) The registered owner or operator of an aircraft is responsible for maintaining that aircraft in an airworthy condition, including compliance with all airworthiness directives.

(2) A person shall not perform maintenance, preventive maintenance, or modifications on an aircraft other than as prescribed in this Chapter and other applicable regulations, including Part 5.

(3) A person shall not operate an aircraft for which a manufacturer's maintenance manual or instructions for continued airworthiness has been issued that contains an airworthiness limitations section, unless the mandatory replacement times, inspection intervals and related procedures set forth in operations specifications approved by the Authority under Part 9 for AOC holders, or in accordance with an inspection programme approved under this regulation are complied with.

(4) The owner or operator shall use one of the following inspection programmes as appropriate, for the aircraft and the type operation-

- (a) annual inspection;
- (b) annual or 100 hour inspection;
- (c) progressive; or
- (d) continuous airworthiness maintenance programme

(5) An aircraft shall not be approved for return to service after inspection unless the replacement times for life-limited parts specified in the aircraft specification-type data sheets are complied with and the aircraft, including airframe, engines, propellers, rotors, appliances, and survival and emergency equipment, is inspected in accordance with the selected inspection programme.

(6) Each person wishing to establish or change an approved inspection

programme shall submit the programme for approval by the Authority and shall include in writing -

- (a) instructions and procedures for the conduct of inspection for the particular make and model aircraft, including necessary tests and checks. The instructions shall set forth in detail the parts and areas of the aeronautical products, including survival and emergency equipment required to be inspected; and
- (b) a schedule for the inspections that shall be performed expressed in terms of time in service, calendar time, number of system operations or any combination of these.

(7) When an operator changes from one inspection programme to another, the operator shall apply the time in service, calendar times, or cycles of operation accumulated under the previous programme, in determining when the inspection is due under the new programme.

14. Annual Inspections

- (1) An annual inspection programme may be used for non-complex aircraft with a maximum certificated take-off mass of less than 5,700 kg (12566 lb) that are not used for compensation or hire.
- (2) An annual inspection under this regulation may be performed by an AMT holding an IA in accordance with Part 2 or an AMO.
- (3) A person shall not operate an aircraft unless within the preceding twelve calendar-months, the aircraft has had -
 - (a) an annual inspection in accordance with Part 5 and has been approved for return to service by an AMEL issued in accordance with Part 2 or an AMO certificated in accordance with Part 6, or
 - (b) an inspection for the issuance of an airworthiness certificate completed by the Authority in accordance with Part 5.

15. Annual or 100 Hour Inspections

- (1) A person shall not operate a non-complex aircraft with a certificated maximum take-off mass less than 5,700 kg (12566 lb) carrying any person (other than a crewmember) for compensation or hire, and a person shall not give flight instruction for compensation or hire in an aircraft which that person provides, unless-
 - (a) within the preceding 100 hours of time in service, the aircraft has

received an annual or a 100-hour inspection; and

- (b) it has been approved for return to service in accordance with Part 5 of these regulations.

(2) The 100-hour limitation may be exceeded by not more than ten hours while en route to reach a place where the inspection can be done.

(3) The excess time used to reach a place where the inspection can be done must be included in computing the next 100 hours of time in service.

(4) An annual inspection under this regulation may be performed and released to service by an AMEL issued in accordance with Part 2 or an AMO certificated in accordance with Part 6.

(5) A 100-hour inspection under this regulation may be performed and released to service by an AMEL in accordance with Part 2 or an AMO certificated in accordance with Part 6.

16. Progressive Inspections

(1) A progressive inspection programme may be used for aircraft with a maximum certificated take-off mass of less than 5,700 kg (12566 lb).

(2) Aircraft inspected under a progressive inspection programme may be used for aircraft engaged in compensation or hire.

(3) Each registered owner or operator of an aircraft desiring to use a progressive inspection programme shall submit a written request to the Authority, and shall provide-

- (a) an AMEL holder in accordance with Part 2, an AMO appropriately rated in accordance with Part 6, or the manufacturer of the aircraft to supervise or conduct the progressive inspection;
- (b) a current inspection procedures manual available and readily understandable to the pilot and maintenance personnel containing, in detail-
 - (i) an explanation of the progressive inspection, including the continuity of inspection responsibility, the making of reports, and the keeping of records and technical reference material;
 - (ii) an inspection schedule, specifying the intervals in hours or days when routine and detailed inspections will be performed and including instructions for exceeding an inspection interval by not more than 10 hours while en-route and for changing an

inspection interval because of service experience;

(iii) sample routine and detailed inspection forms and instructions for their use; and

(iv) sample reports and records and instructions for their use;

(c) enough housing and equipment for necessary disassembly and proper inspection of the aircraft; and

(d) appropriate current technical information for the aircraft.

(4) The frequency and detail of the progressive inspection shall provide for the complete inspection of the aircraft within each twelve calendar-months and be consistent with the current manufacturer's recommendations, field service experience, and the kind of operation in which the aircraft is engaged.

(5) The progressive inspection schedule shall ensure that the aircraft, is at all times airworthy and will conform to all applicable aircraft specifications, type certificate data sheets, airworthiness directives, and other approved data acceptable to the Authority.

(6) Each owner or operator shall include in the inspection programme, the name and address of the person responsible for the scheduling of the inspections required by the programme and provide a copy of the programme to the person performing inspection on the aircraft.

(7) If the progressive inspection is discontinued, the owner or operator shall immediately notify the Authority in writing, of the discontinuance-

(a) after the discontinuance, the first annual inspection under Part 8 is due within 12 calendar-months after the last complete inspection of the aircraft under the progressive inspection;

(b) the 100-hour inspection is due within 100 hours after that complete inspection;

(c) a complete inspection of the aircraft, for the purpose of determining when the annual and 100 hour inspections are due, requires a detailed inspection of the aircraft and all its components in accordance with the progressive inspection; and

(d) a routine inspection of the aircraft and a detailed inspection of several components are not considered to be a complete inspection.

17. Continuous Airworthiness Maintenance Inspection

(1) The registered owner or operator of each large aeroplane certificated with a maximum take-off mass of over 5,700 kg (12566 lb), turbine-powered multi-engine aeroplane, and turbine-powered rotorcraft shall select, identify in the aircraft maintenance records, and use one of the following continuous airworthiness maintenance inspection programmes for the inspection of the aircraft-

- (a) a current inspection programme recommended by the manufacturer;
- (b) a continuous airworthiness maintenance programme for that make and model of aircraft currently approved by the Authority for use by an AOC holder; or
- (c) any other inspection programme established by the registered owner or operator of that aircraft and approved by the Authority.

(2) Each owner or operator shall include in the selected inspection programme, the name and address of the person responsible for the scheduling of the inspections required by the programme and provide a copy of the programme to the person performing inspection on the aircraft.

18. Changes to Aircraft Maintenance Inspection Programmes

(1) Whenever the Authority finds that revisions to an approved inspection programme are necessary for the continued adequacy of the programme, the owner or operator shall, after notification by the Authority, make any changes in the programme found to be necessary.

(2) The owner or operator may petition the Authority to reconsider the notice, within thirty days after receiving that notice.

(3) Except in the case of an emergency requiring immediate action in the interest of safety, the filing of the petition stays the notice pending a decision by the Authority.

19. Required Maintenance

An owner or operator of an aircraft shall-

- (a) have that aircraft inspected as prescribed in this Chapter and discrepancies repaired as prescribed in the Performance Rules of

Part 5;

- (b) repair, replace, remove, or inspect any inoperative instruments or items of equipment at the next required inspection, except when permitted to be deferred under the provisions of a Minimum Equipment List (MEL);
- (c) ensure that a placard has been installed on the aircraft when listed discrepancies include inoperative instruments or equipment; and
- (d) ensure that maintenance personnel make appropriate entries in the aircraft maintenance records indicating the aircraft has been approved for return to service.

20. Maintenance and Inspection Records Retention

(1) Except for records maintained by an AOC holder, each registered owner or operator shall retain the following records until the work is repeated or superseded by other work of equivalent scope and detail-

- (a) records of the maintenance, preventive maintenance, minor modifications, and records of the 100-hour, annual, and other required or approved inspections, as appropriate, for each aircraft (including the airframe) and each engine, propeller, rotor, and appliance of an aircraft to include-
 - (i) a description (or reference to data acceptable to the Authority) of the work performed,
 - (ii) the date of completion of the work performed, and
 - (iii) the signature and certificate number of the person approving the aircraft for return to service;
- (b) records containing the following information-
 - (i) the total time-in-service of the airframe, each engine, each propeller, and each rotor,
 - (ii) the current status of all life-limited aeronautical products,
 - (iii) the time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis,
 - (iv) the current inspection status of the aircraft, including the time since the last inspection required by the inspection programme

under which the aircraft and its appliances are maintained,

- (v) the current status of applicable Airworthiness Directives including, for each, the method of compliance, the Airworthiness Directive number, and revision date. If the Airworthiness Directive involves a recurring action, include the time and date when the next action is required, or
- (vi) copies of the forms prescribed by this chapter for each major modification to the airframe and currently installed engines, rotors, propellers, and appliances.

(2) The records specified in this regulation shall be retained and transferred with the aircraft at the time the aircraft is sold or leased.

(3) A list of defects shall be retained until the defects are repaired and the aircraft is approved for return to service.

(4) The owner or operator shall make all maintenance records required by this regulation available for inspection by the Authority.

21. Lease or Sale of Aircraft - Transfer of Maintenance Records

Any owner or operator who sells or leases a Gambian-registered aircraft shall transfer to the purchaser or lessor, at the time of sale or lease, the records identified in this regulation, of that aircraft, in plain language form or in coded form at the election of the purchaser or lessor if the coded form provides for the preservation and retrieval of information in a manner acceptable to the Authority.

CHAPTER V - FLIGHTCREW REQUIREMENTS

22. Composition of the Flight Crew

(1) The number and composition of the flight crew shall not be less than that specified in the flight manual or other documents associated with the airworthiness certificate.

(2) The flight crew 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 type of airplane use, the type of operations and duties involved and the duration of flight between points where flight crews are exchanged.

(3) Where radio equipment is installed in the aircraft, the flight crew shall

include at least one member who holds a valid radio licence authorising operation of the type of radio transmitting equipment to be used.

(4) When navigation necessary for the safe operation of the aeroplane cannot be accomplished from the pilot's station, the flight crew shall include a member who holds a flight navigator licence.

(5) A co-pilot (CP) is required for IFR commercial air transport operations, unless the Authority has issued an exemption in accordance with the exemption process in Part 1 of these Regulations, for the use of an autopilot in lieu of a co-pilot. This exemption shall be for domestic operations only and aeroplanes weighting less than 5700 kg (12566 lb) or helicopters weighting less than 3,175 kg.

(6) When a separate flight engineer's station is incorporated in the design of an aeroplane and the flight engineer function cannot be accomplished from the pilot's station by a pilot who holds a flight engineer licence without interference with regular duties, the flight crew shall include at least one crewmember who holds a flight engineer licence especially assigned to that station.

23. Flight Crew Qualifications

(1) A PIC shall ensure that the licences of each flight crewmember have been issued or rendered valid by the State of Registry, contain the proper ratings, and that all that the flight crewmembers have maintained recency of experience.

(2) A person shall not operate a civil aircraft in commercial air transport or aerial work unless that person is qualified for the specific operation and in the specific type of aircraft used.

(3) A PIC shall ensure that the flight crewmembers demonstrate the ability to speak and understand the language used for radiotelephony communications and for international operations English.

24. Authorisation in Lieu of a Type Rating

The Authority may authorise a pilot to operate an aircraft requiring a type rating without a type rating for up to sixty days, provided-

- (a) the Authority has determined that an equivalent level of safety can be achieved through the operating limitations on the authorisation;
- (b) the applicant shows that compliance with this regulation is impracticable for the flight or series of flights;

- (c) the operations-
 - (i) involve only a ferry flight, training flight, test flight, or skill test for a pilot licence or rating,
 - (ii) are within The Gambia, unless, by previous agreement with the Authority of the other State, 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 crewmembers considered essential for the flight;
- (d) if the purpose of the authorisation provided by this paragraph cannot be accomplished within the time limit of the authorisation, the Authority may authorise an additional period of up to sixty days.

25. Licences Required

Except as provided for in this regulation, a person shall not act as PIC or in any other capacity as a required flight crewmember of a civil aircraft of-

- (a) Gambian registry, unless he or she carries in his or her personal possession, the appropriate and current licence for that flight crew position for that type of aircraft and a valid medical certificate; and
- (b) foreign registry, unless he or she carries in his or her personal possession, a valid and current licence for that type of aircraft issued or validated by the State in which the aircraft is registered.

26. Rating Required for IFR Operations

A person shall not act as pilot of a civil aircraft under IFR or in weather conditions less than the minimums prescribed for VFR flight unless-

- (a) the pilot holds an instrument rating or an ATP licence with an appropriate aircraft category, class, and type (if required) rating for the aircraft being flown; and
- (b) in the case of helicopter, the pilot holds a helicopter instrument rating

27. Special Authorisation Required for Category II or III Operations

(1) Except as shown in sub-regulation (2), a person shall not act as a pilot crew member of a civil aircraft in a Category II or III operation unless-

- (a) in the case of a PIC, he or she holds a current Category II or III pilot authorization issued by the State of Registry for that aircraft type; and
- (b) in the case of a CP, he or she is authorized by the State of Registry to act as CP in that aircraft type in Category II or III operations.

(2) An authorisation is not required for individual pilots of an AOC holder that has operations specifications approving Category II or III operations.

28. Pilot Logbooks

(1) A 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.

(2) A PIC shall carry his or her logbook on all general aviation international flights.

(3) A student pilot shall carry his or her logbook, including the proper flight instructor endorsements, on all solo cross-country flights.

29. Pilot Recency and Proficiency – General Aviation Operations

The recency and proficiency requirements for general aviation operations are listed in Part 2.

30. Flight Crew - Limitations on use of Services for Commercial Air Transport

(1) A person shall not serve as a flight crewmember, and an AOC holder shall not use a flight crewmember in commercial air transport unless that person is otherwise qualified for the operations for which he or she is to be used.

(2) The qualifications, training and proficiency checking for flight crewmembers engaged in commercial air transport operations are provided in Chapter 11 of these Regulations

(3) The recency and proficiency requirements for flight crewmembers

engaged in commercial air transport operations are listed in this regulation.

31. Pilot Recency -Takeoff and Landings, Commercial Air Transport Operations

(1) A person shall not act as PIC or co-pilot of an aircraft carrying passengers unless, within the preceding ninety days, that pilot has-

- (a) made three takeoffs and landings as the sole manipulator of the flight controls in an aircraft of the same category and class and if a type rating is required, of the same type or in a flight simulation training device approved for the purpose;
- (b) for a tail wheel aeroplane, made the three takeoffs and landings in a tail wheel aeroplane with each takeoff and landing to a full stop; and
- (c) for night operations, made the three takeoffs and landings required by paragraph (a) at night, with each takeoff and landing to a full stop.

(2) A pilot who has not met the recency of experience for takeoffs and landings shall satisfactorily complete a re-qualification curriculum acceptable to the Authority.

(3) The requirements of sub-regulation (1) (a) and (b) may be satisfied in a flight simulator approved by the Authority.

32. Pilot Recency- IFR Operations

(1) A person shall not act as a pilot under IFR, nor in IMC, unless he or she has, within the past six calendar-months-

- (a) logged at least six hours of instrument flight time including at least three hours in flight in the category of aircraft; and
- (b) completed at least six instrument approaches.

(2) A pilot who has completed an instrument proficiency check with an authorised representative of the Authority retains currency for IFR operations for six calendar-months following that check.

33. Pilot Recency Cruise Relief Pilot

(1) A person shall not act as a cruise relief pilot in commercial air transport unless within the preceding ninety days, that pilot has either-

- (a) operated as pilot-in-command, co-pilot or cruise relief pilot on the same type of aircraft; or
- (b) carried out flying skill refresher training including normal, abnormal and emergency procedures specific to cruise flight on the same type of aircraft or in a flight simulator approved for the purpose, and has practiced approach and landing procedures, where the approach and landing procedure practice may be performed as the pilot who is not flying the aircraft.

(2) When a cruise relief pilot is flying several variants of the same type of aircraft or different types of aircraft with similar characteristics in terms of operating procedures, systems, and handling, the recency or refreshing training may be combined, if approved by the Authority.

34. Pilot Recency–Night Vision Goggles

(1) A person shall not act as PIC in a night vision goggle operation unless that pilot has completed the required training in Part 2, and has performed and logged the following tasks as the sole manipulator of the controls on a flight during a night vision goggle operation, within the preceding sixty days to carry passengers on board, or within the preceding one hundred and twenty days to act as PIC without passengers on board-

- (a) three takeoffs and landings, with each takeoff and landing including a climb out, cruise, descent, and approach phase of flight, if the pilot intends to use night vision goggles during the takeoff and landing phase of flight;
- (b) three hovering tasks, if the pilot intends to use night vision goggles when operating helicopters or powered-lifts during the hovering phase;
- (c) three area departure and area arrival tasks;
- (d) three tasks of transitioning from aided night flight to unaided night flight and back to aided night flight; and
- (f) three night vision goggle operations, or when operating helicopters or powered-lifts, 6 night vision goggle operations.

(2) A person shall not act as PIC in a night vision goggle operation unless that pilot has successfully completed the night vision goggles proficiency check required in Part 2 with the Authority or an authorised representative of

the Authority.

35. Pilot Proficiency - Commercial Air Transport Operations

(1) The qualification, training and proficiency checking requirements for flight crewmembers engaged in commercial air transport are listed in Chapter 11. Additionally, the following requirements in sub-regulation (2) and (3) shall be met, as applicable.

(2) A person shall not act as a pilot of an aircraft unless he or she has successfully passed two proficiency checks within the 12 months, conducted by an authorised representative of Authority. The proficiency check requirement -

- (a) shall ensure that piloting technique and the ability to execute emergency procedures is checked in such a way as to demonstrate the pilot's competence on each type or variant of a type of aircraft, including where the operations may be conducted under IFR;
- (b) shall not be satisfied by the conduct of two checks that are similar and which occur within a period of four consecutive months; and
- (c) may be combined for several variants of the same type of aircraft or different types of aircraft with similar characteristics in terms of operating procedures, systems and handling, if approved by the Authority.

(3) Single pilot operations. A person shall not act as PIC of an aircraft unless he or she has completed the following proficiency requirement in the class of aeroplane in an environment representative of the operation-

- (a) for operations under the IFR or at night, have accumulated at least 50 hours flight time on the class of aeroplane, of which at least 10 hours shall be as PIC;
- (b) for operations under the IFR, have accumulated at least 25 hours flight time under the IFR on the class of aeroplane, which may form part of the 50 hours flight time in paragraph (a) above;
- (c) for operations at night, have accumulated at least 15 hours flight time at night, which may form part of the 50 hours flight time in paragraph (a) above; and
- (d) have successfully completed training programmes that include, in addition to the operator's training programme,

passenger briefing with respect to emergency evacuation, autopilot management, and the use of simplified in-flight documentation.

(4) The aircraft pilot proficiency check and the instrument proficiency check must be accomplished by the Authority or an authorised representative of the Authority in the category, class and type of aircraft to be operated, or in a flight simulation training device approved for the purpose, to the requirements in these Regulations and the applicable skill test in Part 2.

(5) A person shall not act as PIC in a night vision goggle operation unless, the pilot has completed the required training in Part 2, and meets either the-

- (a) currency requirements in this regulation above, or
- (b) passes the night vision goggles proficiency check required by this regulation with the Authority or an authorised representative of the Authority.

36. Pilot Privileges and Limitations

A pilot may conduct operations only within the general privileges and limitations of each licence, rating or authorisation as specified in Part II of these regulations.

CHAPTER VI - CREWMEMBER DUTIES AND RESPONSIBILITIES

37. Authority and Responsibility of the PIC

(1) A PIC shall be responsible for the operations and safety of the aircraft and for the safety of all persons and cargo on board, when the doors are closed.

(2) A PIC shall be responsible for the operation and safety of the aeroplane from the moment the aeroplane is ready to move for the purpose of taking off until the moment it finally comes to rest at the end of the flight and the engine(s) used as primary propulsion units are shut down.

(3) A PIC of an aircraft shall have final authority as to the operation of the aircraft while he or she is in command.

(4) A 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.

38. Compliance With Local Regulations

(1) A PIC shall comply with the relevant laws, regulations and procedures of the States in which the aircraft is operated.

(2) 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-

- (a) notify the appropriate local Authority without delay;
- (b) submit a report of the circumstances, if required by the State in which the incident occurs; and
- (c) submit a copy of this report to the State of Operator if an AOC or State of Register if in general aviation.

(3) A PIC shall submit reports specified in sub-regulation (1) (b) to the Authority within ten days, in the form prescribed.

39. Negligent or Reckless Operations of the Aircraft

A person shall not operate an aircraft in a negligent or reckless manner so as to endanger life or property of others.

40. Fitness of Flight Crew Members

(1) A person shall not act as PIC or in any other capacity as a required flight crew member when he or she is aware of any decrease in his or her medical fitness which might render the crewmember unable to safely exercise the privileges of his or her licence.

(2) A PIC shall be responsible for ensuring that a flight is not-

- (a) commenced if any flight crewmember is incapacitated from performing duties by any cause such as injury, sickness, fatigue, the effects of alcohol or drugs; or
- (b) continued beyond the nearest suitable aerodrome if a flight crewmember's capacity to perform functions is significantly reduced by impairment of faculties from causes such as fatigue, sickness or lack of oxygen.

41. Prohibition on use of Psychoactive Substances, Including Narcotics, Drugs or Alcohol

(1) A person shall not act or attempt to act as a crewmember of a civil aircraft-

- (a) within eight hours after the consumption of any alcoholic beverage;
- (b) while under the influence of alcohol; or
- (c) while using any psychoactive substance that affects the person's faculties in any way contrary to safety.

(2) A crewmember shall, up to eight hours before or immediately after acting or attempting to act as a crewmember, on the request of a law enforcement officer or the Authority, submit to a test to indicate the presence of alcohol or other psychoactive substances in the blood.

(3) Whenever there is a reasonable basis to believe that a person may not be in compliance with this regulation and upon the request of the Authority, that person shall furnish the Authority or authorise any clinic, doctor, or other person to release to the Authority, the results of each blood test taken for presence of alcohol or narcotic substances up to eight hours before or immediately after acting or attempting to act as a crewmembers.

(4) Any test information provided to the Authority under the provisions of this regulation may be used as evidence in any legal proceeding.

42. Flight Crewmember use of Seat Belts and Shoulder Harnesses

(1) Each flight crewmember shall have his or her seat belts fastened during takeoff and landing and all other times when seated at his or her station.

(2) Each flight crewmember occupying a station equipped with a shoulder harness shall fasten that harness during takeoff and landing, except that the shoulder harness may be unfastened if the crewmember cannot perform the required duties with the shoulder harness fastened.

(3) Each occupant of a seat equipped with a combined safety belt and shoulder harness shall have the combined safety belt and shoulder harness properly secured about that occupant during takeoff and landing and be able to properly perform assigned duties.

(4) At each unoccupied seat, the safety belt and shoulder harness, if installed, shall be secured so as not to interfere with crewmembers in the

performance of their duties or with the rapid egress of occupants in an emergency.

43. Flight Crewmembers at Duty Stations

(1) Each required flight crewmember shall remain at the assigned duty station during take-off and landing and critical phases of flight.

(2) Each flight crewmember shall remain at his or her station during all phases of flight, unless-

- (a) absence is necessary for the performance of his or her duties in connection with the operation;
- (b) absence is necessary for physiological needs, provided one qualified pilot remains at the controls at all times; or
- (c) the crewmember is taking a rest period and a qualified relief crewmember replaces him or her at the duty station-
 - (i) 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 CP, and is qualified as PIC of that aircraft during the en route cruise portion of the flight, and
 - (ii) in the case of the assigned CP, by a pilot qualified to act as PIC or Co-Pilot of that aircraft during en route operations

44. Required Crewmember Equipment

(1) Each crewmember involved in night operations shall have a flashlight at his or her station.

(2) A pilot crewmember shall have at his or her station, an aircraft checklist containing the normal, abnormal and emergency procedures relating to the operation of the aircraft for that type aircraft.

(3) A 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.

(4) Each flight crewmember assessed as fit to exercise the privileges of a licence subject to the use of suitable correcting lenses, shall have a spare

set of the correcting lenses readily available when performing as a required crewmember in commercial air transport.

45. Compliance with Checklists

A PIC shall ensure that the flight crew follow the approved checklist procedures when operating the aircraft.

46. Search and Rescue Information

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 he or she intends to operate the aircraft.

47. Production of Aircraft and Flight Documentation

A 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.

48. Locking of Flight Deck Compartment Door: Commercial Air Transport

(1) A PIC shall ensure that the flight deck compartment door (if installed) is locked at all times during passenger-carrying commercial air transport operations, except as necessary to accomplish approved operations or to provide for emergency evacuation.

(2) A person shall not operate a passenger carrying aeroplane having a maximum certificated takeoff mass in excess of 45,000 kg or with a passenger capacity greater than sixty, unless the flight crew compartment door is closed and locked –

- (a) from the time all external doors are closed following embarkation, until any such door is opened for disembarkation, except;
- (b) when necessary to permit access and egress by authorised persons.

49. Admission to the Flight Deck-Commercial Air Transport

(1) A person shall not admit any person to the flight deck of an aircraft engaged in commercial air transport operations, unless the person being admitted is-

- (a) an operating crewmember;
- (b) 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
- (c) permitted by and carried out in accordance with instructions contained in the Operations Manual.

(2) A PIC shall ensure that-

- (a) in the interest of safety, admission on the flight deck does not cause distraction or interference with the flight's operations; and
- (b) all persons carried on the flight deck are made familiar with the relevant safety procedures.

50. Admission of Inspector to the Flight Deck

Whenever, in performing the duties of conducting an inspection, an inspector from the Authority presents Inspector's Credential Form to the PIC, the PIC shall give the inspector free and uninterrupted access to the flight deck of the aircraft.

51. Duties During Critical Phases of Flight: Commercial Air Transport

(1) A flight crewmember shall not perform any duties during a critical phase of flight except those required for the safe operation of the aircraft.

(2) A PIC shall not permit a flight crewmember to engage in any activity during a critical phase of flight which could distract or interfere with the performance of his or her assigned duties.

52. Manipulation of the Controls-Commercial Air Transport

(1) A PIC shall not allow an unqualified person to manipulate the controls of an aircraft during commercial air transport operations.

(2) A person shall not manipulate the controls of an aircraft during commercial air transport operations, unless he or she is qualified to perform the applicable crewmember functions and is authorised by the AOC holder.

53. Simulated Abnormal situations in Flight: Commercial Air Transport

A person shall not cause or engage in simulated abnormal or emergency situations or the simulation of IMC by artificial means during commercial air transport operations.

54. Completion of the Technical Log—Commercial Air Transport and Aerial Work

A PIC shall ensure that all portions of the technical log are completed at the appropriate points before, during and after flight operations, including-

- (a) the journey logbook; and
- (b) the aircraft maintenance records section.

55. Reporting of Defects

A PIC shall ensure that all known or suspected defects occurring during flight time are-

- (a) for general aviation operations, entered in the aircraft logbook and disposed of in accordance with the MEL or other approved or prescribed procedure; and
- (b) for commercial air transport operations and aerial work operations, entered in the aircraft maintenance records section of the technical log for the aircraft at the appropriate points before, during and at the end of that flight time.

56. Reporting of Facility and Navigation Aid Inadequacies

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

57. Reporting of Hazardous Conditions

(1) A 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 meteorological conditions.

(2) A pilot-in-command shall report the runway braking action special air-report when the runway braking action encountered is not as good as reported.

58. Reporting of Incidents

(1) A PIC shall submit without delay, an air traffic incident report whenever an aircraft in flight has been endangered by-

- (a) a near collision with another aircraft or object;
- (b) faulty air traffic procedures or lack of compliance with applicable procedures by ATC or by the flightcrew; or
- (c) a failure of ATC facilities.

(2) In the event a bird constitutes an in-flight hazard or an actual bird strike occurs, the PIC shall, without delay-

- (a) inform the appropriate ground station whenever a potential bird hazard is observed; and
- (b) submit a written bird strike report after landing.

(3) A PIC shall inform the appropriate ATC facility, if the situation permits, when an in-flight emergency occurs involving dangerous goods on board.

(4) A PIC shall submit a report to the local authorities and to the Authority, without delay, following an act of unlawful interference with the crewmembers on board an aircraft.

59. Accident Notification

(1) A 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.

(2) A PIC shall submit a report to the Authority of any accident which occurred while he or she was responsible for the flight.

60. Operation of Cockpit Voice and Flight Data Recorders

(1) A PIC shall ensure that whenever an aircraft has flight recorders installed, those recorders are operationally checked and operated continuously from the instant-

- (a) for a flight data recorder, the aircraft begins its takeoff roll

until it has completed the landing roll; and

- (b) for a cockpit voice recorder, the initiation of the pre-start checklist until the end of the securing aircraft checklist.

(2) A PIC may not permit a flight data recorder or cockpit voice recorder to be disabled, switched off or erased during flight, unless necessary to preserve the data for an accident or incident investigation.

(3) In event of an accident or incident, the PIC shall act to preserve the recorded data for subsequent investigation upon completion of flight.

61. Crewmember Oxygen—Minimum Supply and Use

(1) A 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 crewmembers.

(2) In no case shall the minimum supply of oxygen on board the aircraft be less than that prescribed by the Authority.

(3) A PIC shall ensure that all flight crewmembers, when engaged in performing duties essential to the safe operation of an aircraft in flight, use breathing oxygen continuously at cabin altitudes exceeding 3,000 m (10,000 ft) for a period in excess of 30 minutes and whenever the cabin altitude exceeds 4,000 m (13,000 ft).

(4) One pilot at the controls of a pressurised aircraft in flight shall wear and use an oxygen mask for-

- (a) general aviation operations, at flight levels above 350, if there is no other pilot at a pilot duty station; and
- (b) commercial air transport operations, at flight levels above 250, if there is no other pilot at a pilot duty station.

62. Portable Electronic Devices

A PIC or SCCM shall not permit any person to use, and a person shall not use a portable electronic device on board an aircraft that may adversely affect the performance of aircraft systems and equipment unless-

- (a) for IFR operations other than commercial air transport, the PIC allows such a device before its use; or

- (b) for commercial air transport operations, the AOC holder makes a determination of acceptable devices and publishes that information in the Operations Manual for the crewmembers use; and
- (c) the PIC informs passengers of the permitted use.

63. Carriage of Dangerous Goods

A person shall not carry dangerous goods in an aircraft registered or operated in The Gambia except-

- (a) with the written permission of the Authority and subject to any condition the Authority may impose in granting such permission; and
- (b) 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.

64. Microphones

(1) For AOC holders operating aircraft, a required flight crewmember shall use a boom or throat microphone to communicate with another flight crewmember and air traffic service below the transition level or altitude.

(2) For general aviation operations in an aeroplane, helicopter or powered lift aircraft, a required flight crewmember should use a boom or throat microphone to communicate with another flight crewmember and air traffic service below the transition level or altitude.

(3) For aerial work operations, a required flight crewmember should use a boom or throat microphone to communicate with another flight crewmember and air traffic service below the transition level or altitude, as applicable to the mission.

CHAPTER VII - FLIGHT PLANNING AND SUPERVISION

65. Submission of a Flight Plan

(1) Before operating one of the following, a pilot shall file a VFR or IFR flight plan, as applicable, for any-

- (a) flight (or portion thereof) to be provided with ATC service;
- (b) IFR flight within advisory airspace;
- (c) 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;
- (d) flight within or into designated areas, or along designated routes, when so required by the appropriate ATC Authority to facilitate co-ordination with appropriate military units or with ATC facilities in adjacent states in order to avoid the possible need for interception for the purpose of identification; and
- (e) flight across international borders.

(2) A 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.

(3) Unless otherwise prescribed by the appropriate ATC Authority, a pilot should submit a flight plan to the appropriate ATC facility-

- (a) at least sixty minutes before departure; or
- (b) 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.

66. Air Traffic Control Flight Plan - Commercial Air Transport

A person shall not takeoff an aircraft in commercial air transport if an ATC flight plan has not been filed, except as authorised by the Authority.

67. Contents of a Flight Plan

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

- (a) Aircraft identification;
- (b) Flight rules and type of flight;
- (c) Number and type(s) of aircraft and wake turbulence category;
- (d) Equipment;
- (e) Departure aerodrome and alternate (if required);
- (f) Estimated off-block time;
- (g) Cruising speed(s);
- (h) Cruising level(s);
- (i) Route to be followed;
- (j) Enroute alternate aerodrome (if required);
- (k) Destination aerodrome and alternate(s) (if required);
- (l) Fuel endurance;
- (m) Total number of persons on board;
- (n) Emergency and survival equipment; and
- (o) Other information

68. Planned Reclearance

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

69. Changes to a Flight Plan

(1) 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.

(2) 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.

(3) When practicable, operational instructions involving a change in the ATS flight plan shall be coordinated with the appropriate ATS unit before transmission to the aeroplane.

70. Closing a Flight Plan

(1) A PIC shall make a report of arrival either in person or by radio to the appropriate ATC facility at the earliest possible moment after landing at the destination aerodrome, unless ATC automatically closes a flight plan.

(2) 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.

(3) 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.

(4) Pilots shall include the following elements of information in their arrival reports-

- (a) Aircraft identification;
- (b) Departure aerodrome;
- (c) Destination aerodrome (only in the case of a diversionary landing);
- (d) Arrival aerodrome; and
- (e) Time of arrival.

71. Aircraft Airworthiness and Safety Precautions

(1) A PIC shall not operate a civil aircraft in flight until satisfied that-

- (a) the aircraft is airworthy, duly registered and that appropriate certificates are aboard the aircraft;
- (b) the instruments and equipment installed in the aircraft are appropriate, taking into account the expected flight conditions; and
- (c) any necessary maintenance has been performed and a maintenance release, if applicable, has been issued in respect

to the aircraft.

(2) For commercial air transport operations, the PIC shall certify by signing the aircraft technical log that he or she is satisfied that the requirements of sub-regulation (1) have been met for a particular flight.

72. Adequacy of Operating Facilities

(1) A person shall not commence a flight unless it has been determined by every reasonable means available that the ground or water areas and facilities available and directly required for such flight and for the safe operation of the aircraft, are adequate, including communication facilities and navigation aids.

(2) An operator shall ensure that any inadequacy of facilities observed in the course of operations is reported to the Authority responsible for them, without undue delay.

(3) Subject to their published conditions of use, aerodromes and their facilities shall be kept continuously available for flight operations during their published hours of operations, irrespective of meteorological conditions.

(4) An operator shall, as part of its safety management system, assess the level of rescue and firefighting service (RFFS) protection available at any aerodrome intended to be specified in the operational flight plan in order to ensure that an acceptable level of protection is available for the aeroplane intended to be used.

(5) Information related to the level of RFFS protection that is deemed acceptable by the operator shall be contained in the operations manual.

73. Meteorological Reports and Forecasts

(1) Before commencing a flight, the PIC shall be familiar with all available meteorological information appropriate to the intended flight.

(2) A 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-

- (a) a study of available current meteorological reports and forecasts;
and
- (b) the planning of an alternative course of action to provide for the eventuality that the flight cannot be completed as planned, because of meteorological conditions.

74. Meteorological Limitations for VFR Flights

A person shall not 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.

75. IFR Destination Aerodromes

A person shall not conduct an IFR flight unless-

- (a) at the time of take-off, the meteorological conditions at the departure aerodrome are at or above the operator's established aerodrome operating minima for that operation; and
- (b) at the time of take-off or point of in-flight re-planning, 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.

76. IFR Destination Alternate Requirement

(1) A person shall not commence an IFR flight in an aeroplane without at least one destination alternate aerodrome listed in the flight plan unless-

- (a) the duration of the flight and the meteorological conditions prevailing are such that there is reasonable certainty that, at the ETA at the aerodrome of intended landing, and for a reasonable period before and after such time, the approach and landing may be made under visual meteorological conditions; or
- (b) the aerodrome of intended landing is isolated and there is no suitable destination alternate aerodrome, and-
 - (i) there is a standard instrument approach procedure prescribed for the aerodrome of intended landing by the jurisdictional authorities; and
 - (ii) available current meteorological information indicates that the following meteorological conditions will exist from two hours before to two hours after the ETA-
- (c) a cloud base of at least 600 m (2000 ft) above the airport

elevation; and

(d) visibility will be at least 3 km (2 statute miles).

(2) An AOC holder shall not commence an IFR flight in an aeroplane –

- (a) without at least one destination alternate aerodrome listed in the flight plan unless the duration of the flight from the departure aerodrome, or from the point of in-flight re-planning to the destination aerodrome is such that, taking into account all meteorological conditions and operational information relevant to the flight, at the estimated time of use there is a reasonable certainty that -
- (b) the approach and landing may be made under visual meteorological condition, and
- (c) 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, or the aerodrome is isolated, and-
- (d) for each flight into an isolated aerodrome a point of no return shall be determined; and
- (e) a flight to be conducted to an isolated aerodrome shall not be continued 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.
- (f) the fuel requirements of these Regulations are met.
- (g) without at least two destination alternate aerodromes listed in the operational and ATC flight plan when, for the destination aerodrome-
- (i) meteorological condition as at the estimated time of use will be below the operator's established aerodrome operating minima for that operation, or
- (ii) meteorological information is not available.

(3) A person shall not commence an IFR flight in a helicopter-

- (a) where no alternate aerodrome is required unless-

- (i) the operation is conducted as general aviation, and
 - (ii) available current meteorological information indicates that the following meteorological conditions will exist from two hours before to two hours after the ETA-
 - (b) a cloud base of at least 300 m (1000 ft) above the aerodrome elevation, or at least 120 m (400 ft) above the lowest applicable approach minimum, whichever is higher; and
 - (c) visibility will be at least 3 km (2 statute miles).
 - (d) without at least one destination alternate heliport listed in the flight plan unless the available information indicates that conditions, at the heliport of intended landing and at least one alternate heliport will, at the ETA, be at or above the heliport operating minima.
- (4) A person shall not commence an IFR flight in a helicopter –
 - (a) without at least one destination alternate heliport listed in the flight plan unless the available information indicates that conditions, at the heliport of intended landing, and for a reasonable period before and after such time, the approach and landing may be made under visual meteorological conditions as prescribed by the Authority, or
 - (b) without at least two destination alternate heliports, forecast to be at or above the helicopter operating minima, listed in the operational and ATC flight plan when, at the time of flight departure, the intended heliport destination is forecast to be below the helicopter operating minima; or
 - (c) if the heliport of intended landing is isolated and no suitable alternate is available, in which case a point of no return shall be determined.
- (5) The ceiling and visibility requirements for operations conducted in accordance with this regulation may be reduced upon approval of the Authority for-
 - (a) other categories of aircraft, such as powered-lift, and airships; and
 - (b) commercial air transport where the Authority has approved alternate minima as an equivalent level of safety based on the results of a specific safety risk assessment demonstrated by

the operator, which contains the following-

- (i) capabilities of the operator,
- (ii) overall capability of the aeroplane and its systems,
- (iii) available aerodrome technologies, capabilities and infrastructure,
- (iv) quality and reliability of meteorological information,
- (v) identified hazards and safety risks associated with each alternate aerodrome variation, or
- (vi) specific mitigation measures.

77. IFR Alternate Aerodrome Selection Criteria

(1) If alternate minimums are published, a PIC shall not 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 –

- (a) for all aircraft, will be at or above those published alternate minimums upon take-off from the departing aerodrome; and
- (b) for AOC holder's aircraft, will be at or above the operators established minima for that operation upon -
 - (i) take-off from the departing aerodrome, or
 - (ii) the point of in-flight re-planning.

(2) If alternate minimums are not published, and if there is no prohibition against using the aerodrome as an IFR planning alternate, each PIC shall ensure that the meteorological conditions at that alternate at the ETA will be at or above-

- (a) for aeroplanes-
 - (i) for a precision approach procedure, a ceiling of at least 180 m (600 ft) and visibility of not less than 3 km (2 statute miles); or
 - (ii) for a non-precision approach procedure, a ceiling of at least 240 m (800 ft) and visibility of not less than 5 km (3 statute miles);
- (b) for helicopters-

- (i) ceiling 60 m (200 ft) above the minimum for the approach to be flown, and visibility at least 1 statute mile but never less than the minimum visibility for the approach to be flown: or
- (ii) if no instrument approach procedure has been published and no special instrument approach procedure has been issued by the Authority to the operator, for the alternate airport, the ceiling and visibility minima are those allowing descent from the MEA, approach, and landing under basic VFR.

(3) The Planning Minima Table will be used in selecting IFR alternate aerodromes.

Planning Minima <i>(Ceiling & RVR or visibility required, if applicable)</i>		
Type of Approach	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 I, 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 60 m (200 ft)/1,000 m (3300 ft)
Non-Precision Approach	The lower of non-precision approach minima plus 60 m (200 ft)/1,000 m (3300 ft) or circling minima	The higher of non-precision approach minima plus 60 m (200 ft)/1,000 m (3300 ft) or circling minima
Circling Approach	Circling Minima	Circling Minima

Note: Runways on the same aerodrome are considered to be separate runways when they are separate landing surfaces which may overlay or cross such that if one of the runways is blocked, it will not prevent the planned type of operations on the other runway and each of the landing surfaces has a separate approach based on a separate aid.

(4) An operator shall specify appropriate incremental values for height of cloud base and visibility to be added to the established aerodrome operating

minima in order to ensure 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.

(5) An operator shall establish a margin of time for the estimated time of use of an aerodrome.

78. Offshore Alternates for Helicopter AOC Operations

(1) A person shall not designate an offshore alternate landing site when-

- (a) it is possible to carry enough fuel to have an on-shore alternate landing site, or
- (b) when the environment around the offshore alternate is hostile.

(2) Each person selecting an off-shore alternate landing site shall consider the following-

- (a) until the point of no return, using an on-shore alternate. The offshore alternate may be used only after a point of no return;
- (b) attaining one engine inoperative performance capability before arrival at the alternate;
- (c) guaranteeing helideck availability;
- (d) the meteorological information at the helideck shall be available from a source approved by the Authority;
- (e) for IFR operations, an instrument approach procedure shall be prescribed and available; and
- (f) attaining mechanical reliability of critical control systems and critical components when determining the suitability of the alternate.

79. Takeoff Alternate Aerodromes-Commercial Air Transport Operations

(1) A person shall not release or takeoff an aeroplane without a suitable takeoff alternate specified in the flight plan if either-

- (a) it would not be possible to return to the aerodrome of departure, or
- (b) meteorological conditions at the aerodrome of departure

are below the operator's established aerodrome landing minima for that operation.

(2) An operator shall ensure that each takeoff alternate specified shall be located within the following flight time from the aerodrome of departure-

- (a) for two-engine aeroplane, one hour 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
- (b) for three or more - engine aeroplane, two hours 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
- (c) for aeroplanes engaged in extended diversion time operations where an alternate aerodrome meeting the distance criteria of (b)(1) or (2) above 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.

(3) The ceiling and visibility requirements for operations conducted in accordance with this regulation may be reduced upon approval of the Authority for-

- (a) commercial air transport where the Authority has approved alternate minima as an equivalent level of safety based on the results of a specific safety risk assessment demonstrated by the operator, which contains the following-
- (b) capabilities of the operator;
- (c) overall capability of the aeroplane and its systems;
- (d) available aerodrome technologies, capabilities and infrastructure;
- (e) quality and reliability of meteorological information;
- (f) identified hazards and safety risks associated with each alternate aerodrome variation; and
- (i) specific mitigation measures.

80. Maximum Distance from an adequate Aerodrome for Aeroplanes without an EDTO Approval – AOC Operations

(1) Unless specifically approved by the Authority, an AOC holder shall not operate a an aeroplane with two engines or more over a route which contains a point further from an adequate aerodrome than, in the case of-

- (a) turbine-powered aeroplanes the distance flown in 60 minutes at the one-engine-inoperative cruise speed determined in accordance with paragraph (b); and
- (b) piston-engined aeroplanes-
 - (i) the distance flown in 120 minutes at the one-engine-inoperative cruise speed determined in accordance with paragraph (b); or
 - (ii) 555 km (300 nautical miles), whichever is less.

(2) An AOC holder shall determine a speed for the calculation of the maximum distance to an adequate aerodrome for each aeroplane with two or more engines operated, not exceeding V_{mo} based upon the true airspeed that the aeroplane can maintain with one engine inoperative under the following conditions-

- (a) international Standard Atmosphere;
- (b) level flight for turbine-powered aeroplanes at-
 - (i) FL 170, or
 - (ii) 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,
- (c) for piston-powered aeroplanes-
 - (i) FL 80, or
 - (ii) 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;
- (d) maximum continuous thrust or power on the remaining operating engine;
- (e) an aeroplane mass not less than that resulting from-

- (i) take off at sea level at maximum takeoff 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 subparagraph (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 sub-regulation (1).

(3) An AOC holder shall ensure that the following data, specific to each type or variant, is included in the Operations Manual for the-

- (a) one-engine-inoperative cruise speed determined in accordance with sub-regulation (2); and
- (b) maximum distance from an adequate aerodrome determined in accordance with sub-regulations (1) and (2).

81. Requirements for Extended Diversion Time Operations - AOC Aeroplanes

(1) An AOC holder shall not conduct operations beyond the threshold distance determined in accordance with these Regulations unless approved to do so by the Authority.

(2) In requesting EDTO approval, each AOC holder shall show to the satisfaction of the Authority that-

- (a) for aeroplanes-
 - (i) for all aeroplanes-
 - (A) the most limiting EDTO significant system time limitation, if any indicated in the Aeroplane Flight Manual (directly or by reference) and relevant to that particular operation is not exceeded, and
 - (B) the additional fuel required by these Regulations shall include the fuel necessary to comply with the EDTO critical fuel scenario as established by the Authority,
 - (ii) for aeroplanes with two turbine engines, the aeroplane is EDTO certified and has verified the-

- (A) reliability of the propulsion system,
- (B) airworthiness certification for EDTO of the aeroplane type, and
- (C) EDTO maintenance programme or procedures manual;

(b) it has conducted a safety risk assessment which demonstrates how an equivalent level of safety will be maintained, taking into account the following-

- (i) capabilities of the operator,
- (ii) overall reliability of the aeroplane,
- (iii) reliability of each time limited system,
- (iv) relevant information from the aeroplane manufacturer, and
- (v) specific mitigation measures.

(3) Before conducting an EDTO flight, an AOC holder shall ensure that a suitable EDTO en-route alternate is available, within either the approved diversion time or a diversion time based on MEL generated serviceability status of the aeroplane whichever is shorter.

(4) An AOC holder shall not commence a flight unless, during the possible period of arrival, the required en-route alternate aerodrome will be available and the available information indicates that conditions at the aerodrome will be at or above the aerodrome operating minima approved for the operation.

(5) An AOC holder shall not conduct operations beyond sixty minutes, from a point on a route to an en-route alternate aerodrome unless it ensures that-

- (a) for all aeroplanes-
 - (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;
- (b) for aeroplanes 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) these requirements are incorporated into the operators-

- (i) operational control and flight dispatch procedures;
- (ii) operating procedures; and
- (iii) training programmes.

(6) An AOC Holder shall not proceed beyond the threshold time approved by the Authority unless-

- (a) the identified en-route alternate aerodromes have been re-evaluated for availability; and
- (b) the most up to date information indicates that, during the estimated time of use, conditions at those aerodromes will be at or above the operator's established aerodrome operating minima for that operation; or.
- (c) conditions are identified that would preclude a safe approach and landing at that aerodrome during the estimated time of use and an alternative course of action has been determined.

82. En-Route Alternate Aerodromes - EDTO AOC Operations

(1) A PIC shall ensure that the required en-route alternates for EDTO are selected and specified in ATC flight plans in accordance with the EDTO diversion time approved by the Authority.

(2) A person shall not select an aerodrome as an EDTO en-route alternate aerodrome unless the appropriate weather reports or forecasts, or any combination thereof, indicate that during a period commencing 1 hour before and ending 1 hour after the expected time of arrival at the aerodrome, the weather conditions will be at or above the planning minima prescribed in the table below, and in accordance with the operator's EDTO approval.

(3) The ceiling and visibility requirements for operations conducted in accordance with this regulation may be reduced upon approval of the Authority for commercial air transport where the Authority has approved alternate minima as an equivalent level of safety based on the results of a specific safety risk assessment demonstrated by the operator, which contains the following-

- (a) capabilities of the operator;
- (b) overall capability of the aeroplane and its systems;
- (c) available aerodrome technologies, capabilities and

infrastructure;

- (d) quality and reliability of meteorological information;
- (e) identified hazards and safety risks associated with each alternate aerodrome variation; or
- (f) specific mitigation measures.

83. Fuel, Oil, and Oxygen Planning and Contingency Factors

(1) A person shall not commence a flight unless he or she takes into account the fuel, oil, and oxygen needed to ensure the safe completion of the flight, including any reserves to be carried for contingencies.

(2) For aeroplanes in AOC operations, the amount of usable fuel to be carried shall, as a minimum, be based on-

- (a) the following data –
 - (i) current aeroplane-specific data derived from a fuel consumption monitoring system, if available, or
 - (ii) if current aeroplane-specific data are not available, data provided by the aeroplane manufacturer; and
- (b) the operating conditions for the planned flight including-
 - (i) anticipated aeroplane mass,
 - (ii) notices to Airmen,
 - (iii) current meteorological reports or a combination of current reports and forecasts,
 - (iv) ATC procedures, restrictions and anticipated delays,
 - (v) the effects of deferred maintenance items or configuration deviations,
 - (vi) any other conditions that may delay the landing of the aeroplane or increase fuel, oil or oxygen consumption.

(3) For helicopters, each person computing the required minimum fuel and oil supply shall ensure that additional fuel and oil are carried to provide for the increased consumption that would result from any additional operating conditions in this regulation as applied to helicopters, and any of the

following contingencies-

- (a) expected winds or other meteorological conditions;
- (b) possible variations in ATC routings;
- (c) anticipated traffic delays;
- (d) a complete instrument approach procedure and possible missed approach at destination;
- (e) loss of pressurization en route, if applicable;
- (f) loss of one power-unit en route; and
- (g) any other conditions that may delay the landing of the helicopter or increase fuel, oil or oxygen (if applicable) consumption.

(4) In-flight fuel management. A PIC shall--

- (a) continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an aerodrome or heliport where a safe landing can be made with the planned final reserve fuel remaining upon landing;
- (b) request delay information from ATC when unanticipated circumstances may result in landing at the destination aerodrome or 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 or heliport;
- (c) 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 or heliport may result in landing with less than planned final reserve fuel; and
- (d) declare a situation of fuel emergency by broadcasting MAYDAY FUEL, when the calculated usable fuel predicted to be available upon landing at the nearest aerodrome or heliport where a safe landing can be made is less than the planned final reserve fuel.

84. Minimum Fuel Supply for VFR Flights

(1) A person shall not commence a flight in an aeroplane under VFR unless, considering the wind and forecast weather conditions, there is enough fuel

to fly to the first point of intended landing and, assuming normal cruising speed-

- (a) for flights during the day, for at least 30 minutes thereafter; and
- (b) for flights during the night, for at least 45 minutes thereafter.

(2) A person shall not commence a flight in a helicopter under VFR unless, considering the wind and forecast weather conditions, there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed-

- (a) for twenty minutes thereafter; and
- (b) to have an additional amount of fuel sufficient to provide for the increased consumption on the occurrence of any of the potential contingencies specified by the operator to the satisfaction of the Authority.

85. Minimum Fuel Supply for IFR Flights

(1) A person shall not commence a flight under IFR unless there is enough fuel supply, considering meteorological conditions and any delays that are expected in flight, to when a destination alternate aerodrome is -

- (a) required, fly from the aerodrome of intended landing to an alternate aerodrome, and after that, for at least forty five minutes at normal cruising altitude; and
- (b) not required, fly to the aerodrome of intended landing and after that for at least 45 minutes at normal cruising altitude.

(2) A person shall not commence a flight in commercial air transport under IFR, or continue past the point of in-flight re-planning, unless there is enough fuel supply, considering meteorological conditions and any delays that are expected in flight, to include the following-

- (a) taxi fuel – which shall be the amount of fuel expected to be consumed before take-off;
- (b) trip fuel – which shall be the amount of fuel required to enable the aeroplane to fly from take-off, or the point of in-flight re-planning, until landing at the destination aerodrome taking into account the operating conditions in the data provided by the

manufacturer;

- (c) contingency fuel – which shall be the amount of fuel required to compensate for unforeseen factors, which shall be five percent 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 (1500 ft) above the destination aerodrome in standard conditions;
- (d) destination alternate fuel, which shall be-
 - (i) where a destination alternate aerodrome is required, the amount of fuel required to enable the aeroplane to-
 - (A) perform a missed approach at the destination aerodrome,
 - (B) climb to the expected cruising altitude,
 - (C) fly the expecting 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 in (4)(i) above, required to enable the aeroplane to proceed to the destination alternate aerodrome 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 aeroplane to fly for fifteen minutes at holding speed at 450 m (1500 ft) above destination aerodrome elevation in standard conditions; or
 - (iv) where the aerodrome of intended landing is an isolated aerodrome-
 - (A) for a reciprocating engine aeroplane, the amount of fuel required to fly for forty five minutes plus 15 percent of the flight time planned to be spend at cruising level, including final reserve fuel, or two hours, whichever is less, or
 - (B) for a turbine-engined aeroplane, the amount of fuel

required to fly for two hours at normal cruise consumption above the destination aerodrome, including final reserve fuel;

- (v) final reserve fuel – which shall be the amount of fuel calculated using the estimated mass on arrival at the destination alternate aerodrome, or the destination aerodrome when no destination alternate aerodrome is required, or a pre-calculated value for each aeroplane type and variant in the fleet rounded up to an easily recalled figure-
 - (A) for a reciprocating engine aeroplane, the amount of fuel required to fly for forty five minutes, under speed and altitude conditions specified by the Authority; or
 - (B) for a turbine-engined aeroplane, the amount of fuel required to fly for thirty minutes at holding speed at 450 m (1500 ft) above aerodrome elevation in standard conditions;
- (e) additional fuel – which shall be the supplementary amount of fuel required if the minimum fuel calculated in accordance with trip fuel, contingency fuel, destination alternate fuel and final reserve fuel above is not sufficient to-
 - (i) allow the aeroplane to descend as necessary and proceed to an alternate aerodrome in the event of engine failure or loss of pressurization, 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) to fly for 15 minutes at holding speed at 450 m (1500 ft) above the aerodrome elevation in standard conditions,
 - (B) make an approach and landing,
 - (C) allow an aeroplane engaged in EDTO to comply with the EDTO critical fuel scenario as established by the Authority,
 - (D) meet additional requirements not covered above;
- (f) discretionary fuel, which shall be the extra amount of fuel to be carried at the discretion of the PIC.

(3) Notwithstanding the provisions of this regulation, the Authority may approve a variation to these requirements provided the operator can demonstrate an equivalent level of safety will be maintained through a safety

risk assessment that includes at least the following-

- (a) flight fuel calculations;
- (b) capabilities of the operator to include-
 - (i) a data-driven method that includes a fuel consumption monitoring programme, or
 - (ii) the advanced use of alternate aerodromes; and
- (c) specific mitigation measures.

(4) A person shall not commence a helicopter flight in commercial air transport under IFR unless there is enough fuel supply, considering meteorological conditions and any delays that are expected in flight, to-

- (a) when a destination alternate is required,
 - (i) fly to and execute an approach, and a missed approach, at the heliport to which the flight is planned, and thereafter,
 - (ii) fly for thirty minutes at a holding speed at 450 m (1500 ft) above the alternate under standard temperature conditions, and approach and land, and
 - (iii) have a reserve for contingencies specified by the operator and approved by the Authority;
- (b) when a destination alternate is not required, to fly to the heliport to which the flight is planned and thereafter-
 - (i) fly for thirty minutes at a holding speed at 450 m (1500 ft) above the alternate under standard temperature conditions, and approach and land, and
 - (ii) have a reserve for contingencies specified by the operator and approved by the Authority.

86. Flight Planning Document Distribution and Retention— Commercial Air Transport

(1) For commercial air transport operations, the PIC shall complete and sign the following flight preparation documents before departure-

- (a) 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;

- (b) a load manifest, showing the distribution of the load, centre of gravity, takeoff and landing mass and compliance with maximum operating mass limitations, and performance analysis;
- (c) 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.

(2) A person shall not takeoff an aircraft in commercial air transport, unless all flight release documents signed by the PIC, are retained and available at the point of departure.

(3) A PIC shall carry a copy of the documents specified in this regulation on the aircraft to the destination aerodrome.

(4) Completed flight preparation documents shall be kept by the AOC holder for a period of three months.

87. Aircraft Loading, Mass and Balance

(1) A person shall not operate an aircraft unless all loads carried are properly distributed and safely secured.

(2) A person shall not operate an aircraft unless the calculations for the mass of the aeroplane and centre of gravity location indicate that the flight can be conducted safely, taking into account the flight conditions expected.

(3) For commercial air transport operations, a PIC shall not commence a flight unless the PIC is satisfied that the loading and mass and balance calculations contained in the load manifest are accurate and comply with the aircraft limitations.

88. Maximum Allowable Mass to be considered on all Load Manifests

A PIC shall ensure that the maximum allowable mass for a flight does not exceed the maximum allowable takeoff mass-

- (a) for the specific runway and conditions existing at the takeoff time; and

- (b) considering anticipated fuel and oil consumption that allows compliance with applicable en route performance, landing mass, and landing distance limitations for destination and alternate aerodromes.

89. Flight Release Required-Commercial Air Transport

(1) A person shall not start a flight under a flight following system without specific authority from the person authorised by the AOC holder to exercise operational control over the flight.

(2) A person shall not commence a passenger-carrying flight in commercial air transport unless a qualified person authorised by the AOC holder to perform operational control functions has issued a flight release for that specific operation or series of operations.

90. Operational Flight Plan—Commercial Air Transport

(1) A person shall not commence a flight unless the operational flight plan has been signed by the PIC.

(2) 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.

(3) 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.

(4) A 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.

(5) A person shall not continue a flight from an intermediate aerodrome without a new operational flight plan if the aircraft has been on the ground more than six hours.

CHAPTER VIII - AIRCRAFT OPERATING AND PERFORMANCE LIMITATIONS

91. Applicability – All aircraft

This Chapter prescribes the operating and performance limitations for all civil aircraft.

92. General – All aircraft

A person shall not operate an aircraft that exceeds -

- (a) its designed performance limitations for any operation, as established by the State of Registry;
- (b) the operating limitations contained in the aircraft flight manual, or its equivalent;
- (c) the terms of its certificate of airworthiness; or
- (d) the mass limitations, if applicable, imposed by the terms of its noise certification standards, as contained in the applicable part of ICAO Annex 16, Volume I, unless otherwise approved by the Authority.

93. Aircraft Performance Calculations – All Aircraft

(1) An operator shall ensure that the performance data contained in the AFM, RFM, or other authorised source is used to determine compliance with the appropriate requirements of this Chapter.

(2) When applying performance data, each person performing calculations shall account for all factors that significantly affect the performance of the aircraft configuration, including –

- (a) mass of the aeroplane;
- (b) the operating procedures;
- (c) the pressure-altitude appropriate to the elevation of the aerodrome;
- (d) the ambient temperature,
- (e) the wind;
- (f) the runway slope and surface conditions of the runway (environmental conditions, snow, slush, water, ice, for landplanes, water surface condition for seaplanes);
- (g) and the operation of any system or systems that may have an adverse effect on performance.

(3) The factors described in sub-regulation (2) of the aircraft performance calculations shall be taken into account directly as operations parameters or

indirectly by means of allowances or margins, which may be provided in the design performance limits or in the terms of the AOC in accordance with which the aeroplane is being operated.

94. General Mass and Obstruction Clearance Limitations

(1) A person shall not takeoff an aircraft without ensuring that the maximum allowable mass for a flight does not exceed the maximum allowable takeoff or landing mass, or any applicable en route performance or landing distance limitations considering the-

- (a) condition of the takeoff and landing areas to be used;
- (b) gradient of runway to be used (landplanes only);
- (c) pressure altitude;
- (d) ambient temperature;
- (e) current and forecast winds; and
- (f) any known conditions (e.g., atmospheric and aircraft configuration) which may adversely affect aircraft performance, or compliance with noise certification standards if required.

(2) A person shall not takeoff an aircraft at a mass that, 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.

95. Applicability – AOC Aircraft

This Chapter prescribes aircraft performance and operating limitations for aircraft used in commercial air transport operations, except for those used by air transport operators holding a special authorization or waiver granted by the Authority, that exempts the aircraft from specific operating and performance limitations.

96. General– AOC Aircraft

(1) Each person operating an aircraft engaged in commercial air transport shall comply with the provisions of this regulation.

(2) Each person operating a rotorcraft identified as Class 1, 2, or 3 in international commercial air transport shall comply with the code of performance in Schedule 8.1.

(3) The Authority may grant exemptions in accordance with Part 1 of these Regulations, from the requirements of this Chapter if special circumstances make a literal observance of a requirement unnecessary for safety.

(4) Where full compliance with the requirements of these Regulations cannot be shown due to specific design characteristics (e.g., seaplanes, airships, or supersonic aircraft), the operator shall apply approved performance standards that ensure a level of safety not less restrictive than those of relevant requirements of this regulation.

(5) A person shall not operate a single-engine aircraft or an aircraft type certificated for operation by a single-pilot used for revenue passenger carrying operations unless that aircraft is continually operated in daylight, VFR, excluding over the top, and over routes and diversions there that do not permit a safe forced landing to be executed in the event of an engine failure.

(6) Notwithstanding sub-regulation (5), the Authority may approve single-pilot operations in propeller driven, turbine powered aircraft under IFR, at night, or under IMC for aircraft certificated for a maximum take-off weight of 5,700 kg (12566 lb) or less and a maximum approved passenger seating configuration of nine or less, provided it meets the equipment requirements of Part 7.

(7) Notwithstanding sub-regulation (5), the Authority may approve single-pilot operations in propeller driven, turbine powered aircraft under IFR at night, or under IMC for aircraft certificated maximum take-off weight of 5,700 kg (12566 lb) or less with a passenger seating configuration of more than nine passengers if the aircraft is type certificated for operations by a single pilot, provided it meets the equipment requirements of Part 7 and the Authority has authorised an exemption from sub-regulation (5) in the operators operations specifications. If such operations are to be conducted outside The Gambia, the Authority shall have an arrangement with the States where operations will be conducted.

(8) A person shall not operate a multiengine aircraft used for revenue passengers carrying operations that is unable to comply with any of the performance limitations of these Regulations unless that aircraft is continually operated-

- (a) in daylight;
- (b) in VFR, excluding over the top operations; and
- (c) at a mass that will allow it to climb, with the critical engine inoperative, at least 15 m (50 ft) a minute when operating at the MEAs of the intended route or any planned diversion, or at

1500 m (5,000 ft) MSL, whichever is higher.

(9) Multiengine aircraft that are unable to comply with sub-regulation (8)(3) are, for the purpose of this regulation, considered to be a single engine aircraft and shall comply with the requirements of sub-regulation (5).

97. Single and Multi-Engine Aeroplane Operations

(1) A person shall not operate a single-engine aircraft in revenue passenger carrying operations unless that aircraft is continually operated in daylight, VFR over such routes and diversions there from that permit a safe forced landing to be executed in the event of an engine failure.

(2) Notwithstanding sub-regulation (1), the Authority may approve single-engine operations in propeller driven, turbine powered aircraft under IFR, at night, or under IMC for aircraft certificated for a maximum take-off weight of 5,700 kg (12566 lb) or less and a maximum approved passenger seating configuration of nine or less, provided it meets the equipment requirements of Part 7.

(3) Notwithstanding sub-regulation (1), the Authority may approve single-engine operations in propeller driven, turbine powered aircraft under IFR at night, or under IMC for aircraft certificated maximum take-off weight of 5,700 kg (12566 lb) or less with a passenger seating configuration of more than nine passengers if the aircraft is type certificated for operations by a single pilot, provided it meets the equipment requirements of Part 7 and the Authority has authorised an exemption from sub-regulation(2), in the operators operations specifications. If such operations are to be conducted outside The Gambia, the Authority shall have an arrangement with the States where operations will be conducted

(4) A person shall not operate single-engine turbine-powered aeroplanes at night or in IMC unless the airworthiness certification of the aeroplane is appropriate and acceptable to the Authority and that the overall safety of the operation is consistent with commercial air transportation operations as provided by-

- (a) the reliability of the turbine engine;
- (b) the operator's maintenance procedures, operating practices, flight dispatch procedures;
- (c) crew training programmes; and
- (d) equipment and additional requirements provided in accordance with this regulation.

(5) A person shall not operate a single-engine turbine-powered aeroplane at night or in IMC unless the aeroplane has an engine trend monitoring system, and those aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 2005 shall have an automatic trend monitoring system.

(6) Schedule 8.2 provides additional airworthiness and operational requirements applicable to the operation of single-engine turbine-powered aeroplanes at night or in IMC with respect to-

- (a) turbine engine reliability;
- (b) systems and equipment;
- (c) minimum equipment list;
- (d) flight manual information;
- (e) event reporting;
- (f) operator planning;
- (g) Flight crew experience, training and checking;
- (h) route limitations over water; and
- (i) operator certification or validation.

(7) A person shall not operate a multiengine aircraft used for revenue passengers carrying operations that is unable to comply with any of the performance limitations of this regulation unless that aircraft is continually operated-

- (a) in daylight;
- (b) in VFR, excluding over the top operations; and
- (c) at a mass that will allow it to climb, with the critical engine inoperative, at least 15 m (50 ft) a minute when operating at the MEAs of the intended route or any planned diversion, or at 1500 m (5000 ft) MSL, whichever is higher.

(8) Multiengine aircraft that are unable to comply sub-regulation (8)(3) are, for the purpose of this regulation, considered to be a single engine aircraft and shall comply with the requirements of sub-regulation (5).

98. Aircraft Performance Calculations – AOC Aircraft

(1) A person shall not takeoff an aircraft used in commercial air transport without ensuring that the applicable operating and performance limitations required for this regulation can be accurately computed based on the AFM, RFM, or other data source approved by the Authority.

(2) Each person calculating performance and operating limitations for aircraft used in commercial air transport shall ensure that performance data used to determine compliance with this section can, during any phase of flight, accurately account for-

- (a) any reasonably expected adverse operating conditions that may affect aircraft performance;
- (b) one engine failure for aircraft having two engines, if applicable; and
- (c) two engine failure for aircraft having three or more engines, if applicable.

(3) When calculating the performance and limitation requirements of these Regulations, each person performing the calculation shall, for all engines operating and for inoperative engines, accurately account for-

- (a) in all phases of flight-
 - (i) the effect of fuel and oil consumption on aircraft mass,
 - (ii) the effect of fuel consumption on fuel reserves resulting from changes in flight paths, winds, and aircraft configuration,
 - (iii) the effect of fuel jettisoning on aircraft mass and fuel reserves, if applicable and approved,
 - (iv) the effect of any ice protection system, if applicable and weather conditions require its use,
 - (v) ambient temperatures and winds along intended route and any planned diversion, or
 - (vi) flight paths and minimum altitudes required to remain clear of obstacles;
- (b) during takeoff and landing-

(4) The condition of the takeoff runway or area to be used, including any contaminants (e.g., water, slush, snow, ice)-

- (a) the gradient of runway to be used;
- (b) the runway length including clearways and stopways, if applicable;
- (c) pressure altitudes at takeoff and landing sites;
- (d) current ambient temperatures and winds at takeoff;
- (e) forecast ambient temperatures and winds at each destination and planned alternate landing site;
- (f) the ground handling characteristics (e.g., braking action) of the type of aircraft; and
- (g) landing aids and terrain that may affect the takeoff path, landing path, and landing roll.

99. Takeoff Limitations

(1) A person shall not takeoff an aeroplane used in commercial air transport unless the following requirements are met when determining the maximum permitted take-off mass-

- (a) the takeoff run shall not be greater than the length of the runway;
- (b) for turbine- powered aeroplanes-
 - (i) the takeoff distance shall not exceed the length of the runway plus the length of any clearway, except that the length of any clearway included in the calculation shall not be greater than half the length of the runway; and
 - (ii) the accelerate-stop distance shall not exceed the length of the runway, plus the length of any stopway, at any time during takeoff until reaching V1.
- (c) for piston-engined aeroplanes the accelerate-stop distance shall not exceed the length of the runway at any time during takeoff until reaching V1.
- (d) if the critical engine fails at any time after the aeroplane reaches V1, to continue the takeoff flight path and clear all obstacles either-
 - (i) by a height of at least 9m (35 ft) vertically for turbine-powered aeroplanes or 15m (50 ft) for piston-engined

aeroplanes; and

- (ii) by at least 60 m (200 ft) horizontally within the aerodrome boundaries and by at least 90 m (300 ft) horizontally after passing the boundaries, without banking more than 15 degrees at any point on the takeoff flight path.

(2) A person shall not takeoff an aeroplane unless it is able, in the event of a critical engine failing, or for other reasons, at any point in the take-off, either to discontinue the take-off and stop within the accelerate-stop distance available, or to continue the take-off and clear all obstacles along the flight path by an adequate vertical or horizontal distance until the aeroplane is in a position to comply with the en route limitations as specified in these Regulations.

(3) A person shall when determining the resulting take-off obstacle accountability area, taken into account the operating conditions, such as the crosswind component and navigation accuracy.

(4) A person shall not takeoff a helicopter used in commercial air transport that, in the event of a critical engine failure, cannot-

(a) for Class 1 helicopters-

- (i) at or before the takeoff decision point, discontinue the takeoff and stop within the rejected takeoff area, or
- (ii) after the takeoff decision point, continue the takeoff and then climb, clearing all obstacles along the flight path, until a suitable landing site is found;

(b) for Class 2 helicopters-

- (i) before reaching a defined point after take-off, safely execute a forced landing within the rejected takeoff area, or
- (ii) at any point after reaching a defined point after take-off, continue the takeoff and then climb, clearing all obstacles along the flight path, until a suitable landing site is found;

(c) for Class 3 helicopters-

- (i) clear the obstacles along its flight path by an adequate margin, or
- (ii) maintain minimum flight altitude, or
- (iii) at engine failure permit a safe, forced landing.

100. EN Route Limitations- Aeroplane- All Engines Operating

A person shall not take off a piston-engined aeroplane used in commercial air transport at a mass that does not allow a rate of climb of at least $6.9 V_{so}$, (that is, the number of feet per minute obtained by multiplying the aeroplane's minimum steady flight speed by 6.9) with all engines operating, at an altitude of at least 300 m (1000 ft) above all terrain and obstructions within ten miles of each side of the intended track.

101. EN Route Limitations—One Engine Inoperative

(1) A person shall not take off an aeroplane used in commercial air transport having two engines unless that aeroplane can, in the event of a power failure at the most critical point en route, continue the flight to a suitable aerodrome where a landing can be made while allowing-

- (a) for piston-engined aeroplanes-
 - (i) at least a rate of climb of $0.079 - (0.106 \text{ or number of engines installed}) V_{so2}$ (when V_{so} is expressed in knots) at an altitude of 300 m (1000 ft) above all terrain and obstructions within 9.3 km (5 nautical miles), on each side of the intended track, and
 - (ii) a positive slope at an altitude of at least 450 m (1500 ft) above the aerodrome where the aeroplane is assumed to land;
- (b) for turbine-powered transport category aeroplanes-
 - (i) a positive slope at an altitude of at least 300 m (1000 ft) above all terrain and obstructions within 9.3 km (5 nautical miles), on each side of the intended track,
 - (ii) a net flight path from cruising altitude to the intended landing aerodrome that allows at least 600 m (2000 ft) clearance above all terrain and obstructions within 9.3 km (5 nautical miles), on each side of the intended track, and
 - (iii) a positive slope at an altitude of at least 450 m (1500 ft) above the aerodrome where the aeroplane is assumed to land.

(2) A person shall not take off a helicopter used in commercial air transport having two engines unless that helicopter can, in the event of the critical engine failing at any point in the en route phase, continue the flight to the destination or alternate landing site without flying below the minimum flight altitude at any point and clearing all obstacles in the approach path by a

safe margin.

102. EN Route Limitations-Two Engines Inoperative

(1) A person shall not takeoff an aeroplane used in commercial air transport having three or more engines at such a mass where there is no suitable landing aerodrome within ninety minutes at any point along the intended route (with all engines operating at cruising power), unless that aeroplane can, in the event of simultaneous power failure of two critical engines at the most critical point along that route, continue to a suitable landing aerodrome while allowing-

- (a) for turbine-powered aeroplanes-
 - (i) a net flight path (considering the ambient temperatures anticipated along the track) clearing vertically by at least 600 m (2000 ft) all terrain and obstructions within 9.3 km (five nautical miles) on each side of the intended track,
 - (ii) a positive slope at 450 m (1500 ft) above the aerodrome of intended landing, and
 - (iii) enough fuel to continue to the aerodrome of intended landing, to arrive at an altitude of at least 450 m (1500 ft) directly over the aerodrome, and thereafter to fly for 15 minutes at cruise power;
- (b) for piston-engined aeroplanes-
 - (i) a rate of climb at $0.013 V_{so}^2$ feet per minute (that is, the number of feet per minute is obtained by multiplying the number of knots squared by 0.013) at an altitude of 300m (1000 ft) above the highest ground or obstruction within 18.6 km (10 nautical miles) on each side of the intended track, or at an altitude of 1500 m (5000 ft), whichever is higher, and
 - (ii) enough fuel to continue to the aerodrome of intended landing and to arrive at an altitude of at least 300 m (1000 ft) directly over that aerodrome.

(2) A person shall not takeoff a Class 1 or Class 2 helicopter used in commercial air transport having three or more engines unless that helicopter can, in the event of two critical engines failing simultaneously at any point in the en route phase, continue the flight to a suitable landing site.

103. Landing Limitations

(1) A person shall not take off an aeroplane used in commercial operations unless its mass on arrival at either the intended destination aerodrome or any planned alternate aerodrome would allow a full stop landing from a point 15 m (50 ft) above the intersection of the obstruction clearance plane and the runway, and within-

- (a) for turbine-powered aeroplanes, 60 percent of the effective length of each runway; and
- (b) for piston-engined aeroplanes, 70 percent of the effective length of each runway.

(2) For the purpose of determining the allowable landing mass at the destination aerodrome, each person determining the landing limit shall ensure that the aeroplane is landed on the most -

- (a) favourable direction, in still air; or
- (b) suitable runway considering the probable wind velocity and direction, runway conditions, the ground handling characteristics of the aeroplane, and considering other conditions such as landing aids and terrain.

(3) Notwithstanding subparagraphs (1) and (2), if the runway at the landing destination is reported or forecast to be wet or slippery, the landing distance available shall be at least 115 percent of the required landing distance unless, based on a showing of actual operating landing techniques on wet or slippery runways, a shorter landing distance has been approved for a specific type and model aeroplane and this information is included in the AFM.

(4) A turbine-powered transport category aeroplane that would be prohibited from taking off because it could not meet the requirements of sub-regulation (1)(a), may take off if an alternate aerodrome is specified that meets all the requirements of sub-regulation (1).

(5) A person shall not take off a helicopter used in commercial air transport unless, with all engines operating on arrival at the intended destination landing site or any planned alternate landing, it can clear all obstacles on the approach path and can land and stop within the landing distance available.

(6) A person shall not take off a helicopter used in commercial air transport unless, in the event of any engine becoming inoperative in the approach and landing phase on arrival at the intended destination landing site or any planned alternate landing, it can-

- (a) for Class 1 helicopters-
 - (i) before the landing decision point, clear all obstacles on the approach path and be able to land and stop within the landing distance available or to perform a bailed landing and clear all obstacles in the flight path by an adequate margin, or
 - (ii) after the landing decision point, land and stop within the landing distance available;
- (b) for Class 2 helicopters - before reaching a defined point before landing, safely execute a forced landing within the landing distance available;
- (c) for Class 3 helicopters safely execute a forced landing within the landing distance available.

104. Additional Requirements for Class 3 Helicopters Operating in IMC

(1) Except for special VFR flights, a person shall not operate a performance Class 3 helicopter in IMC unless-

- (a) the surface environment over which the operation is to be performed is acceptable to the Authority;
- (b) the helicopter is certified for flight under IFR;
- (c) the operation is approved by the Authority taking into consideration the overall level of safety provided by-
 - (i) the reliability of the engines, and
 - (ii) the operator's maintenance procedures, operating practices and crew training programmes, and equipment including the operator's vibration health monitoring practices for the tail-rotor drive system.

(2) Except for special VFR flights, a person shall not operate a performance Class 3 helicopter in IMC unless the operator has an engine trend monitoring system and uses the instruments, systems and operational or maintenance procedures to monitor the engines that are recommended by the helicopter manufacture.

CHAPTER IX - FLIGHT RULES

105. Operation of Aircraft on the ground

(1) A person shall not taxi an aircraft on the movement area of an aerodrome unless the person at the controls-

- (a) has been authorised by the owner, the lessee, or a designated agent;
- (b) is fully competent to taxi the aircraft;
- (c) is qualified to use the radio if radio communications are required; and
- (d) 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.

(2) A person shall not cause a helicopter rotor to be turned under power unless there is a qualified pilot at the controls.

(3) A person shall not taxi an aircraft under the guidance of a signalman unless the-

- (a) standard marshalling signals to the aircraft are provided in a clear and precise manner using the signals as prescribed by the Authority in Schedule 8.7;
- (b) 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
- (c) signalman and all participating ground staff are using daylight-fluorescent wands, table-tennis bats or gloves for all signaling during daylight hours and illuminated wands at night or in low visibility.

106. Takeoff Conditions

(1) Before commencing takeoff, a PIC shall ensure that-

- (a) according to the available information, the weather at the aerodrome and the condition of the runway intended to be

used will allow for a safe takeoff and departure; and

- (b) the RVR or visibility in the takeoff direction of the aircraft is equal to or better than the applicable minimum.

(2) A person shall not 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 taken in to account.

107. Flight into Known or Expected Icing

(1) A person shall not takeoff an aircraft or continue to operate an aircraft en route when icing conditions are expected or encountered, without ensuring that the aircraft is certified for icing operations and has sufficient operational de-icing or anti-icing equipment.

(2) A person shall not takeoff 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.

(3) For commercial air transport operations, a person shall not takeoff an aircraft when conditions are such that frost, ice or snow may reasonably be expected to adhere to the aircraft, unless the aircraft has been inspected for icing, and the procedures approved for the AOC holder by the Authority are followed to ensure ground de-icing and anti-icing is accomplished.

108. Altimeter Settings

(1) Each person operating an aircraft, except a balloon or glider, shall maintain the cruising altitude or flight level by reference to an altimeter setting.

(2) The lowest usable flight level is determined by the atmospheric pressure in the area of operation.

(3) The flight crew shall use the altimeter settings provided by the ATC service of The Gambia.

109. Minimum Safe Altitudes—General

Except when necessary for takeoff or landing, a person shall no operate an aircraft below the following altitudes-

- (a) 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;

- (b) over any congested area of a city, town, or settlement, or over any open-air assembly of persons, an altitude of 300 m (1000 ft) above the highest obstacle within a horizontal radius of 600 m (2000 ft) of the aircraft;
- (c) over other than congested areas, an altitude of 150 m (500 ft) above the surface, except over open water or sparsely populated areas where the aircraft may not be operated closer than 150 m (500 ft) to any person, vessel, vehicle, or structure;
- (d) Pilots of helicopters are not subject to the proximity restrictions provided they are operated in a manner that is not hazardous to persons and property on the surface. A PIC of a helicopter shall comply with any routes or altitudes for the area that are prescribed for helicopters by the Authority; and
- (e) altitudes prescribed by ICAO Annex 2: 3.1.2, 4.6; 5.1.2

110. Minimum Safe VFR Altitudes

Except when necessary for takeoff or landing, a person shall not operate an aircraft below the following altitudes-

- (a) during the day, under VFR, at an altitude less than 300 m (1000 ft) above the surface or within 300 m (1000 ft) of any mountain, hill, or other obstruction to flight; and
- (b) at night, under VFR, at an altitude less than 300 m (1000 ft) above the highest obstacle within a horizontal distance of 8 km (5 statute miles) from the centre of the intended course, or, in designated mountainous areas, less than 600 m (2000 ft) above the highest obstacle within a horizontal distance of 8 km (5 statute miles) from the centre of the intended course.

111. Instrument Approach Operating Minima

(1) A person shall not operate to or from an aerodrome using operating minima lower than those which may be established for that aerodrome by the State in which it is located, unless that State specifically approves that operation in accordance with the provisions of Schedule 8.3.

(2) A person shall not conduct instrument approach operations at an aerodrome below 800 m (2600 ft) visibility unless RVR information is

provided.

(3) Instrument approach operations shall be classified based on the designed lowest operating minima below which an approach operation shall only be continued with the required visual reference as follows-

- (a) Type A: a minimum descent height or decision height at or above 75 m (250 ft); and
- (b) Type B: a decision height below 75 m (250 ft). Type B instrument approach operations are categorized as-
 - (i) Category I (CAT I): a decision height not lower than 60 m (200 ft) with either a visibility not less than 800 m or a runway visual range not less than 550 m,
 - (ii) Category II (CAT II): a decision height lower than 60 m (200 ft) but not lower than 30 m (100 ft) and a runway visual range not less than 300 m,
 - (iii) Category IIIA (CAT IIIA): a decision height lower than 30 m (100 ft) or no decision height and a runway visual range not less than 175 m,
 - (iv) Category IIIB (CAT IIIB): a decision height lower than 15m (50 ft) or no decision height and a runway visual range less than 175 m but not less than 50 m, and
 - (v) Category IIIC (CAT IIIC): no decision height and no runway visual range limitations.

(4) 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.

(5) 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.

112. Category II and III Operations—General Operating Rules

(1) A person shall not operate a civil aircraft in a Category II or III operation unless-

- (a) the PIC and CP of the aircraft hold the appropriate

authorisations and ratings prescribed in Part 2;

- (b) each flight crewmember has adequate knowledge of, and familiarity with, the aircraft and the procedures to be used; and
- (c) the instrument panel in front of the pilot who is controlling the aircraft has appropriate instrumentation for the type of flight control guidance system that is being used.

(2) Unless otherwise authorised by the Authority, a person shall not operate a civil aircraft in a Category II or Category III operation unless each ground component required for that operation and the related airborne equipment is installed and operating.

(3) When the approach procedure being used provides for and requires the use of a DH, the authorised DH is the highest of the following-

- (a) the DH prescribed by the approach procedure;
- (b) the DH prescribed for the PIC; and
- (c) the DH for which the aircraft is equipped.

(4) Unless otherwise authorised by the Authority, a pilot operating an aircraft in a Category II or Category III approach that provides and requires use of a DH shall not continue the approach below the authorised decision height unless the following conditions are met-

- (a) the aircraft is in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal manoeuvres, and where that descent rate will allow touchdown to occur within the touchdown zone of the runway of intended landing; and
- (b) 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 30 m (100 ft) 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) the threshold lights,
- (v) the touchdown zone or touchdown zone markings, or
- (vi) the touchdown zone lights.

(5) Unless otherwise authorised by the Authority, a pilot operating an aircraft shall immediately execute an appropriate missed approach whenever, before touchdown, the requirements of this regulation are not met.

(6) A person operating an aircraft using a Category III approach without DH shall not land that aircraft except in accordance with the provisions of the letter of authorisation issued by the Authority.

(7) A person shall not conduct Category II or III instrument approaches and landing operations below 800 m (2600 ft) visibility unless RVR information is provided.

(8) This regulation does not apply to operations conducted by AOC holders issued a certificate under Part 9.

(9) A person shall not operate a civil aircraft in a CAT II or CAT III operation conducted by an AOC holder unless the operation is conducted in accordance with that AOC holder's approved training programme and operations specifications.

113. Category II and Category III Manual

(1) Except as provided in sub-regulation (3), a person shall not operate a civil aircraft in a Category II or a Category III operation unless-

- (a) there is available in the aircraft a current and approved Category II or Category III Manual, as appropriate, for that aircraft;
- (b) the operation is conducted in accordance with the procedures, instructions, and limitations in the appropriate manual; and
- (c) the instruments and equipment listed in the manual that are required for a particular Category II or Category III operation have been inspected and maintained in accordance with the maintenance programme contained in the manual.

(2) An operator must keep a current copy of each approved manual at its principal base of operations and must make each manual available for inspection upon request by the Authority.

(3) Sub-regulations (1) and (2) do not apply to operations conducted by an

AOC holder issued a certificate under Part 9, which will have approved Category II or III operations included as a part of its operations manual.

(4) Schedule 8.4 provides specific Category II and III Manual requirements.

114. Exemption from Certain Category II Operations

The Authority may grant an exemption from the requirements of these Regulations for the operation of small aircraft Category II operations if the operator can demonstrate to the Authority that the proposed operation can be safely conducted.

115. Diversion Decision—Engine Inoperative

(1) Except as provided in sub-regulation (2), 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.

(2) 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-

- (a) nature of the malfunction and the possible mechanical difficulties that may occur if flight is continued;
- (b) altitude, mass, and usable fuel at the time of engine stoppage;
- (c) weather conditions en route and at possible landing points;
- (d) air traffic congestion;
- (e) kind of terrain; and
- (f) familiarity with the aerodrome to be used.

116. Operating Near Other Aircraft—including Formation Flights

(1) A person shall not operate an aircraft so close to another aircraft as to create a collision hazard.

(2) A person shall not operate an aircraft in formation flight except-

- (a) by arrangement with the PIC of each aircraft in the formation; and
- (b) if in controlled airspace, in accordance with conditions prescribed by

the appropriate air traffic authority, which includes that-

- (i) the formation operates as a single aircraft with regard to navigation and position reporting,
- (ii) separation between aircraft in the flight shall be the responsibility of the flight leader and the pilots in command of the other aircraft in flight,
- (iv) separation between aircraft shall include periods of transition when aircraft are manoeuvring to attain their own separation within the formation and during join-up and break-away, and
- (v) a distance not exceeding 1 km (1/2 nautical mile) laterally and longitudinally and 30 m (100 ft) vertically from the flight leader shall be maintained by each aircraft.

(3) A person shall not operate an aircraft, carrying passengers for hire, in formation flight.

117. Right-of-Way Rules—Except Water Operations

(1) A pilot shall maintain vigilance so as to see and avoid other aircraft.

(2) Where a rule of this regulation 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 and taking into account the effect of aircraft wake turbulence.

(3) Each pilot who has the right-of-way shall maintain his or her heading and speed but is still responsible for taking such action, including collision avoidance manoeuvres based on resolution advisories provided by ACAS equipment, as will best avert collision.

(4) An aircraft in distress has the right-of-way over all other air traffic.

(5) where 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.

(6) If the converging aircraft are of different categories-

- (a) a balloon has the right-of-way over any other category of aircraft;
- (b) a glider has the right-of-way over an airship, and power driven heavier than air aircraft; and
- (c) an airship has the right-of-way over a power driven heavier than air

aircraft.

- (7) An aircraft towing or refueling other aircraft has the right-of-way over all other engine-driven aircraft, except aircraft in distress.
- (8) Where aircraft are approaching each other head-on or nearly so, the pilot of each aircraft shall alter course to the right.
- (9) 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 course to the right to pass well clear.
- (10) An aircraft on final approach to land or while landing, has the right-of-way over other aircraft in flight or operating on the surface.
- (11) Where two or more aircraft are approaching an aerodrome for the purpose of landing, the aircraft at the lower altitude has the right-of-way.
- (12) A PIC shall not take advantage of the right of way landing rules in in this regulation to cut in front of another aircraft that is on final approach to land or to overtake that aircraft.
- (13) An aircraft that is compelled to land has the right-of-way over other aircraft.
- (14) An aircraft taking off has the right-of-way over aircraft taxiing on the manoeuvring area of an aerodrome.
- (15) In relation to surface movement of aircraft -
 - (a) where aircraft are approaching each other head-on, or approximately so, each pilot of each aircraft shall stop, or wherever practicable alter course to the right so as to keep well clear;
 - (b) where aircraft are converging on a course, the pilot who has the other aircraft on his right shall give way; and
 - (c) each aircraft that is being overtaken has the right-of-way and each pilot of an overtaking aircraft shall keep well clear.
- (16) In relation to aircraft taxiing on the manoeuvring area of an aerodrome-
 - (a) 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;
 - (b) 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; and

- (c) the pilot of an aircraft taxiing on the manoeuvring area of an aerodrome shall give way to aircraft –
 - (i) taking off or about to take off, or
 - (ii) landing or in the final stages of an approach to landing.

118. Right-of-Way Rules-Water Operations

(1) A person operating an aircraft on 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 regulation.

(2) Where 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.

(3) Where 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.

(4) An aircraft or vessel that is being overtaken has the right-of-way, and the one overtaking shall alter course to keep well clear.

(5) Where 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

(6) Where aircraft, on landing or taking off from the water, shall keep well clear of all vessels and avoid impeding their navigation.

119. Use of Aircraft Lights

(1) If an aircraft has red rotating beacon lights, or other lights installed to show that the engine is running, the pilot shall switch those lights on before starting engines and display those lights at all times the engines are running.

(2) A person shall not operate an aircraft between the period from sunset to sunrise unless-

- (a) it has lighted navigation lights; and

- (b) if anti-collision lights are installed, those lights are lighted.

(3) A person shall not park or move an aircraft between the period from sunset to sunrise in, or in a dangerous proximity to, a movement area of an aerodrome, unless the aircraft-

- (a) is clearly illuminated;
- (b) has lighted navigation lights, or
- (c) is in an area that is marked by obstruction lights, or
- (d) has lights to indicate when the engine is running.

(4) A person shall not anchor an aircraft unless that aircraft-

- (a) has lighted anchor lights; or
- (b) is in an area where anchor lights are not required on vessels.

(5) A person shall not operate an aircraft on water during the period from sunset to sunrise unless it displays lights as –

- (a) required by the International Regulations for Preventing Collisions at Sea (most recent edition); or
- (b) similar as possible in characteristics and position to those required by the International Regulations for Preventing Collisions at Sea if it is not practical to display the lights exactly as required.

(6) A pilot is permitted to switch off or reduce the intensity of any flashing lights fitted to meet the requirements of this regulation if they do or are likely to-

- (a) adversely affect the satisfactory performance of duties; or
- (b) subject an outside observer to harmful dazzle.

120. Simulated Instrument Flight

(1) A person shall not operate an aircraft in simulated instrument flight unless-

- (a) the aircraft has fully functioning dual controls;
- (b) 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
- (c) 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.

(2) A person shall not engage in simulated instrument flight conditions during commercial air transport operations.

121. In-flight Simulation of Abnormal Situations

A person shall not simulate an abnormal or emergency situation during commercial air transport operations.

122. Dropping, Spraying, Towing

Except under conditions prescribed by the Authority, a pilot shall not take the following actions-

- (a) dropping, dusting or spraying from an aircraft;
- (b) towing of aircraft or other objects; or
- (c) allowing parachute descents.

123. Aerobatic Flight

(1) A person shall not operate an aircraft in aerobatic flight-

- (a) over any city, town or settlement;
- (b) over an open air assembly of persons;
- (c) within the lateral boundaries of the surface areas of Class B, C, D or E airspace designated for an aerodrome;
- (d) below an altitude of 450 m (1500 ft) above the surface;
- (e) when the flight visibility is less than 5 km (3 statute miles), and
- (f) unless in compliance with any other conditions prescribed by the Authority.

(2) A person shall not 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, licensed in accordance with Part 2 of these Regulations, in the past twelve calendar-months.

124. Flight Test Areas

A person shall not flight-test an aircraft except over open water, or sparsely

populated areas having light traffic.

125. Prohibited Areas and Restricted Areas

A person shall not operate an aircraft in a prohibited area, or in restricted areas, the particulars of which have been duly published, except in accordance with the conditions of the restrictions or by permission of the State over whose territory the areas are established.

126. Operations in MNPS or RVSM Airspace

(1) A person shall not operate a civil aircraft of Gambian registry in the North Atlantic airspace designated as MNPS airspace or in airspace designated as RVSM without a written authorisation issued by the Authority.

(2) A person shall not operate an aircraft in MNPS or RVSM airspace, except in accordance with the conditions of the procedures and restrictions required for this airspace.

127. Operations on or in the Vicinity of a controlled or an Uncontrolled Aerodrome

(1) When approaching to land at an aerodrome, a pilot of-

- (a) an aeroplane shall make all turns of that aeroplane to the left; or to the right, if appropriately indicated by the authorities having jurisdiction over that aerodrome; and
- (b) a helicopter shall avoid the flow of aeroplanes.

(2) When departing an aerodrome, a pilot of an aircraft shall comply with any traffic patterns established by the authorities having jurisdiction over that aerodrome.

(3) A pilot of an aircraft shall land and takeoff into the wind unless safety, the runway configurations, or traffic considerations determine that a different direction is preferable.

(4) A pilot operating an aircraft either on or in the vicinity of an aerodrome shall-

- (a) observe other aerodrome traffic for the purpose of avoiding

collision; and

- (b) conform with or avoid the pattern of traffic formed by other aircraft in operation.

(5) A pilot of an aircraft when operating to, from, or through an aerodrome having an operational control tower shall also comply with the requirements of these Regulations

(6) Aerodrome traffic management at controlled and uncontrolled aerodromes may be supplemented or directed by the use of universal aviation signals, such as the light displays and visual markings described Schedule 8.7.

128. Aerodrome Traffic Pattern Altitudes-Turbojet, Turbofan, or Large Aircraft

(1) When arriving at an aerodrome, the PIC of a turbojet, turbofan, or large aircraft shall enter the traffic pattern at least 450 m (1500 ft) AGL until further descent is required for landing.

(2) When departing, the PIC of a turbojet, turbofan, or large aircraft shall climb to 450 m (1500 ft) AGL as rapidly as practicable.

129. Compliance with Visual and Electronic Glide Slopes

(1) A 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.

(2) A PIC of a turbojet, turbofan, 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.

130. Restriction or Suspension of Operations: Commercial Air Transport

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

131. Continuation of Flight when Destination Aerodrome is Temporarily Restricted-Commercial Air Transport

A PIC shall not allow a flight to continue toward any aerodrome of intended landing where commercial air transport operations have been restricted or suspended, unless-

- (a) in the opinion of the PIC, the conditions that are a hazard to safe operations may reasonably be expected to be corrected by the ETA;
or
- (b) there is no safer procedure.

132. Interception

(1) When intercepted by a military or government aircraft, a PIC shall comply with the international standards when interpreting and responding to visual signals and communication as specified in Schedule 8.5

(2) A pilot shall not conduct an international flight unless the procedures and signals relating to interception of aircraft, as specified in Schedule 8.5, are readily available on the flight deck.

133. Noise Abatement Procedures

(1) An AOC holder shall operate its aircraft in accordance with the noise abatement procedures approved by the Authority.

(2) Unless otherwise directed by the Authority, the noise abatement procedures specified by an AOC holder for any one aeroplane type shall be the same for all aerodromes.

134. Single Pilot Operations – Aeroplane

(1) An aeroplane shall not be operated under the IFR or night by a single pilot unless approved by the State of the Operator.

(2) An aeroplane shall not be operated under IFR or at night by a single pilot unless the-

- (a) flight manual does not require a flight crew of more than one;
- (b) aeroplane is propeller driven; turbine powered and complies with these Regulations
- (c) maximum approved passenger seating configuration is not more than nine, or the aeroplane is propeller driven, turbine powered and complies with these Regulations and the maximum approved

passenger seating configuration is more than nine;

- (d) maximum certificated take-off mass does not exceed 5700 kg (12566 lb);
- (e) aeroplane is equipped as described in Part 7 of these Regulations and
- (f) pilot-in-command has satisfied the requirements of experience, training, checking, and recency described in these Regulations.

(3) Notwithstanding sub-regulation (2), the aeroplane shall be operated in compliance with these Regulations

(4) Any exemption for single pilot operations with more than nine passengers shall be authorized by the Authority in the operator's operations specifications, as required by these Regulations

(5) If such operations are to be conducted outside of The Gambia, the Authority shall have an arrangement with the States where the operations will be conducted.

135. Single Engine Aeroplane operations

(1) Except as provided in sub-regulations (2) and (3), single-engine aeroplanes, shall only be operated in conditions of weather and light, and over such routes and diversions therefrom, that permit a safe forced landing to be executed in the event of engine failure.

(2) In approving operations by single-engine turbine-powered aeroplanes, at night or in IMC, the State of the Operator shall ensure that the airworthiness certification of the aeroplane is appropriate and that the overall level of safety intended by the provisions of Parts 5 and 8 is provided by-

- (a) the reliability of the turbine engine;
- (b) the operator's maintenance procedures, operating practices, flight dispatch procedures and crew training programmes; and
- (c) equipment, and other requirements provided in accordance with these Regulations and Schedule 8.2.

(3) All single-engine turbine-powered aeroplanes operated at night or in IMC shall have an engine trend monitoring system, and those aeroplanes for which the individual certificate of airworthiness is first issued on or after 1 January 2005 shall have an automatic trend monitoring system

136. Aeroplane Operating Procedures for rates of climb and descent

Unless otherwise specified in an air traffic control instruction, to avoid unnecessary airborne collision avoidance system (ACAS II) resolution advisories in aircraft at or approaching adjacent altitudes or flight levels, operators should specify procedures by which an aeroplane climbing or descending to an assigned altitude or flight level, especially with an autopilot engaged, may do so at a rate less than 8 m (26 ft) or sec or 450 m (1500 ft) or min (depending on the instrumentation available throughout the last 300 m (1000 ft) of climb or descent to the assigned level when the pilot is made aware of another aircraft at or approaching an adjacent altitude or flight level.

137. Remotely Piloted Aircraft (RPA)

(1) A person shall not operate a RPA in a manner that would cause a hazard to persons, property or other aircraft.

(2) A person operating a RPA shall comply with the general operating rules as listed below-

- (a) a person operating an RPA, registered in The Gambia or holding an operator certificate from The Gambia, and its RPAS shall not -
 - (i) operate in The Gambia without appropriate authorisation from the Authority,
 - (ii) engage in international air navigation without appropriate authorisation from the State from which the take-off of the RPA is made, or
 - (iii) operate across the territory of another State, without special authorisation issued by each State in which the flight is to operate, which shall be obtained prior to take-off if there is reasonable expectation, when planning the operations, that the aircraft may enter the airspace concerned,
 - (iv) shall not operate over the high seas without prior coordination with the appropriate ATS Authority, which shall be obtained prior to take-off if there is reasonable expectation, when planning the operations, that the aircraft may enter the airspace concerned,
 - (v) shall operate in accordance with conditions specified by the State of Registry, and the State of the Operator if different, and the State(s) in which the flight is to operate,
 - (vi) shall ensure that the RPAS meets the performance and

equipment carriage requirements for the specific airspace in which the flight is to operate;

- (b) once authorization has been received by the Authority, the operator”-
 - (i) shall file a flight plan prior to operation of a RPA,
 - (ii) shall notify the Authority and ATC immediately in the event of a flight cancellation, and
 - (iii) shall, in the case of changes to the proposed flight, submit such changes to the Authority for consideration.

(3) A person shall not operate an RPA, registered in The Gambia or holding an operator certificate from The Gambia unless the RPA, RPAS and the remote pilot has obtained the proper approvals of the Authority, as listed below-

- (a) an RPAS shall be approved, taking into account the interdependencies of the components, in accordance with Part 5, including-
 - (i) a certificate of airworthiness for the RPA, and
 - (ii) the associated RPAS components specified in the type design certificate and maintained in accordance with national regulations;
- (b) an operator shall have an RPAS operator certificate issued in accordance with national regulations; and
- (c) remote pilots shall be licensed or have their licences rendered valid in accordance with Part 2.

(4) In relation to request for authorisation-

- (a) the request for authorisation referred to in paragraph (b) above shall be made by providing the required information in the application form contained in Schedule 8.6; and
- (b) a request for authorization to operate an RPA in The Gambia shall be made by following the requirements in Part 10 and providing the required information in the application form contained in the Schedules of Part 10.

138. Unmanned Free Balloons

(1) A person shall not operate an unmanned free balloon in a manner that

would cause a hazard to persons, property or other aircraft.

(2) Unmanned free balloons shall be classified as follows-

- (a) Light - An unmanned free balloon which carries a payload or one or more packages with a combined mass of less than 4 kg (9 lb), unless qualifying as a heavy balloon below, or
- (b) Medium - An unmanned free balloon which carries a payload of two or more packages with a combined mass of 4 kg (9 lb) or more, but less than 6 kg, unless qualifying as a heavy balloon; or
- (c) Heavy - An unmanned free balloon which carries a payload which-
 - (i) has a combined mass of 6 kg (13 lb) or more,
 - (ii) includes a package of 3 kg (6 lb) or more,
 - (iii) includes a package of 2 kg (4 lb) or more with an area density of more than 13 g (28 lb) per square centimeter, or
 - (iv) uses a rope or other device for suspension of the payload that requires an impact force of 230 N or more to separate the suspended payload from the balloon.

(3) A person shall not operate an unmanned free balloon -

- (a) unless it has received appropriate authorization from the Authority;
- (b) across the territory of another State without appropriate authorization from the other State concerned prior to the launching of the balloon;
- (c) except in accordance with the conditions specified by the State of Registry and the State(s) to be overflown;
- (d) in such a manner that the balloon, or any part thereof, including its payload with the surface of the earth, creates a hazard to persons or property not associated with the operation; and
- (e) over the high seas without prior coordination with the appropriate ATS Authority.

(4) A person shall not operate a unmanned balloon-

- (a) without authorization from the appropriate ATS Authority;
- (b) at or through any level below 18000 m (60000 ft) pressure-altitude at which-

- (i) there are clouds or obscuring phenomena of more than 4 oktas coverage, or
 - (ii) the horizontal visibility is less than 8 km (5 statute miles);
- (c) by releasing it in a manner that will cause it to fly lower than 300 m (1000 ft) over the congested areas of cities, towns or settlements or in open-air assembly of persons not associated with the operation;
- (d) unless it is equipped with at least two payload flight-termination devices or systems, whether automatic or operated by telecomm and, that operate independently of each other;
- (e) that is polyethylene zero-pressure unless is it equipped with at least two methods, systems, devices or combinations thereof, that function independently of each other for terminating the flight of the balloon envelope;
- (f) unless the balloon envelope is equipped with either a radar reflective device(s) or radar reflective material that will present an echo to surface radar operating in the 200 MHz to 2 700 MHz frequency range, or the balloon is equipped with such other devices as will permit continuous tracking by the operator beyond the range of ground-based radar;
- (g) in an area where ground-based SSR equipment is in use, unless it is equipped with a secondary surveillance radar transponder, with pressure-altitude reporting capability, which is continuously operating on an assigned code, or which can be turned on when necessary by the tracking station;
- (h) in an area where ground-based ADS-B equipment is in use, unless it is equipped with an ADS-B transmitter, with pressure-altitude reporting capability, which is continuously operated or which can be turned on when necessary by the tracking station;
- (i) with a trailing antenna with requires a force of more than 230 N to break it at any point unless the antenna has coloured pennants or streamers that are attached at not more than 15 m intervals;
- (j) below 18000 m (60000 ft) pressure-altitude between sunset and sunrise or such other period between sunset and sunrise (corrected to the altitude of operations) as may be prescribed by the appropriate ATS Authority, unless the balloon and its attachments and payload, whether or not they become separated during the operations, are lighted; and
- (k) that is equipped with a suspension device (other than a highly

conspicuously coloured open parachute) more than 15 m (50 ft) long between sunrise and sunset below 18000 m (60000 ft) pressure-altitude unless the suspension device is coloured in alternate bands of high conspicuity colours or has coloured pennants attached.

(5) The operator of an unmanned free balloon with shall activate the appropriate termination device –

- (a) when it becomes know that weather conditions are less than those prescribed for the operation;
- (b) if a malfunction or any other reason makes further operation hazardous to air traffic or to persons or property on the surface, or
- (c) prior to unauthorized entry into the airspace over another State's territory.

(6) In relation to Preflight Notification-

- (a) a person shall not operate a medium or heavy unmanned balloon unless he or she has made the appropriate notification to the ATS unit-
 - (i) the preflight notification contained in paragraph (b) below, at least seven days prior to the flight, and
 - (ii) any changes in the pre-launch information no later than-
 - (A) six hours before the estimated time of launch, or
 - (B) in the case of solar or cosmic disturbance investigations involving a critical time element, 30 minutes before the estimated time of launch;
- (b) the preflight notification shall contain the following-
 - (i) balloon flight identification or project code name,
 - (ii) balloon classification and description,
 - (iii) SSR code, aircraft address or NDB frequency as applicable,
 - (iv) operator's name and telephone number,
 - (v) estimated time of launch (or time of commencement and completion of multiple launches),
 - (vi) number of balloons to be launched and the scheduled interval between launches (if multiple launches),
 - (vii) expected direction of ascent,
 - (viii) cruising level(s) (pressure-altitude),

- (ix) the estimated elapsed time to pass 18000 m (60000 ft) pressure-altitude or to reach cruising level if at or below 18000 m (60000 ft) together with the estimated location or if the operation consists of continuous launchings, the time to be included is the estimated time at which the first and last in the series will reach the appropriate level, and
- (x) the estimated date and time of termination of the flight and the planned location of the impact or recovery area-
 - (A) in the case of balloons carry out flights of long duration, such that the date and time of termination of the flight and the location of impact cannot be forecast with accuracy, the term “long duration” shall be used,
 - (B) if there is to be more than one location of impact or recover, each location is to be listed together with the appropriate estimated time of impact, or
 - (C) if there is to be a series of continuous impacts, the time to be included is the estimated time of the first and the last in the series.

(7) The operator of a medium or heavy unmanned free balloon shall immediately after launch, notify the appropriate ATS unit of the following-

- (a) balloon flight Identification;
- (b) launch site;
- (c) actual time of launch;
- (d) estimate time at which 18000 m (60000 ft) pressure-altitude will be passed, or the estimated time at which the cruising level will be reached if at or below 18000 m (60000 ft) and the estimated location; and
- (f) any changes to the information previously notified in the preflight notification information.

(8) The operator shall notify the ATS until immediately of a cancellation of the launch of a medium or heavy unmanned free balloon for which a preflight plan has been filed.

(9) In relation to Position recording and reports-

- (a) the operator of a heavy unmanned balloon shall monitor the flight path of the balloon and forward reports of the balloon's position to the

ATS unit as follows –

- (i) for operations at or below 18000 m (60000 ft) – every two hours,
 - (ii) for operations above 18000 m (60000 ft) – every 24 hours, or
 - (iii) immediately if the tracking of the balloon has been lost, providing-
 - (A) the balloons last known position, and
 - (B) the re-establishment of tracking of the balloon.
- (b) the operator of a heavy unmanned balloon shall forward to the ATS unit the following information regarding the balloon one hour before the beginning of the planned descent-
- (i) the current geographical position,
 - (ii) the current level (pressure-altitude),
 - (iii) the forecast time of penetration of 18000 m (60000 ft) pressure-altitude, if applicable, or
 - (iv) the forecast time and location of ground impact;
- (c) the operator of a medium or heavy unmanned free balloon shall notify the appropriate ATS unit when the operation is completed.

139. ATC Clearances

- (1) A PIC shall obtain an ATC clearance before operating a controlled flight, or a portion of a flight as a controlled flight.
- (2) A PIC shall request an ATC clearance through the submission of a flight plan to an ATC facility, including potential re-clearance in flight.
- (3) 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.
- (4) A person operating an aircraft on a controlled aerodrome shall not taxi on the manoeuvring area or any runway without clearance from the aerodrome control tower.

140. Adherence to ATC Clearances

- (1) When an ATC clearance has been obtained, a PIC shall not deviate from

the clearance, except in an emergency, unless he or she obtains an amended clearance.

(2) When operating in airspace requiring controlled flight, a PIC shall not operate contrary to ATC instructions, except in an emergency.

(3) A PIC who deviates from an ATC clearance or instructions in an emergency, shall notify ATC of that deviation as soon as possible.

141. Communications

(1) A person operating an aircraft on a controlled flight shall maintain a continuous listening watch on the appropriate radio frequency of, and establish two-way communication as required with, the appropriate ATC facility.

(2) A person operating an aircraft on a controlled flight shall, except when landing at a controlled aerodrome, advise the appropriate ATC facility as soon as it ceases to be subject to ATC service.

142. Route to be Flown

(1) Unless otherwise authorised or directed by the appropriate ATC facility, the PIC of a controlled flight shall, in so far as practicable when on -

- (a) an established ATC route, operate along the defined centre line of that route; or
- (b) any other route, operate directly between the navigation facilities or points defining that route.

(2) A 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.

143. Inadvertent Changes

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

- (a) in case of deviation from track, if the aircraft is off track, the PIC shall adjust the heading of the aircraft to regain track as soon as practicable;
- (b) in case of variation in true airspeed, each PIC shall inform the

appropriate ATC facility if the average true airspeed at cruising level between reporting points varies from that given in the flight plan or is expected to vary by plus or minus 5 per cent of the true airspeed;

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

(2) When an ADS agreement is in place, 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.

144. ATC Clearance—Intended Changes

A request for a flight plan change shall include the following information-

- (a) in case of change of cruising level, aircraft identification, requested new cruising level and cruising speed at this level, and revised time estimates, when applicable, at subsequent flight information region boundaries; and
- (b) in case of change of route-
 - (i) where the destination is 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, and
 - (ii) where the destination changes, 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.

145. Position Reports

(1) A 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.

(2) A pilot of a controlled flight shall make position reports in relation to additional points or intervals when requested by the appropriate ATC facility.

(3) When operating via data link communications providing position information to the appropriate air traffic services unit, the pilot of a controlled flight shall only provide voice position reports when requested by the appropriate ATC facility.

146. Operations on or in the vicinity of a Controlled Aerodrome

(1) A person shall not 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.

(2) On arrival, each PIC shall establish communications required by (a) prior to 7.4 km (4 nautical miles) from the aerodrome when operating from the surface up to and including 760 m (2500 ft).

(3) On departure, each PIC shall establish communications with the control tower before taxi.

(4) A person shall not, at any aerodrome with an operating control tower, operate an aircraft on a runway or taxiway or takeoff or land an aircraft, unless an appropriate clearance has been received by ATC.

(5) If the radio fails or two-way communication is lost, a PIC may continue a VFR flight operation and land if -

- (a) the weather conditions are at or above basic VFR minimums; and
- (b) clearance to land from the ATC tower is given in accordance with the universal light signals and acknowledged by the PIC as contained in Schedule 8.7(5) and (6) for light signals and acknowledgement.

147. Unlawful Interference

(1) A PIC shall, when and if possible, notify the appropriate ATC facility when an aircraft is being subjected to unlawful interference, including any -

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

(2) A PIC shall attempt to land as soon as practicable when an aircraft is subjected to unlawful interference, either -

- (a) at the nearest suitable aerodrome, or
- (b) a dedicated aerodrome assigned by the appropriate Authority unless considerations aboard the aircraft dictate otherwise.

148. Time Checks

(1) A PIC shall use Co-ordinated Universal Time (UTC), expressed in hours and minutes of the 24-hour day beginning at midnight, in flight operations.

(2) A PIC shall obtain a time check before operating a controlled flight and at such other times during the flight as may be necessary.

(3) Whenever time is used in the application of data link communications, it shall be accurate to within one second of UTC.

149. Universal Signals

(1) Upon observing or receiving any of the designated universal aviation signals as contained in Schedule 8.5 and Schedule 8.7, a person operating an aircraft shall take such action as may be required by the interpretation of the signal.

(2) The universal aviation signals shall have only the meaning indicated in the implementing standard.

(3) A person using universal signals in the movement of aircraft shall only use them for the purpose indicated.

(4) A person shall not use signals likely to cause confusion with universal aviation signals.

150. Signalman

(1) A person shall not guide an aircraft unless trained, qualified and approved by the appropriate authority to carry out the functions of a signalman.

(2) The signalman shall wear a distinctive fluorescent identification vest to allow the flight crew to identify that he or she is the person responsible for the marshalling operation.

(3) The signalman shall use the marshalling equipment as specified in these Regulations.

151. Visual Meteorological Conditions

A person shall not operate an aircraft under VFR when the flight visibility is less than, or at a distance from the clouds that is less than that prescribed, or the corresponding altitude and class of airspace in the following table-

the corresponding altitude and class of airspace in the following table

Airspace and VMC Minimums*			
Airspace Class	A***B C D E	F G	
		Above 900 m (3000 ft) AMSL or above 300 m (1000 ft) above terrain, whichever is the higher	At and below 900 m (3000 ft) AMSL or 300 m (1000 ft) above terrain, whichever is the higher
Distance from cloud	1500 m (4920 ft) horizontally 300 m (1000 ft) vertically		Clear of cloud and in sight of the surface
Flight visibility	8 km (5 statute miles) at and above 3050 m (10000 ft) AMSL 5 km (3 statute miles) below 3050 m (10000 ft) AMSL		5 km (3 statute miles) **

*When the height of the transition altitude is lower than 3050 m (10000 ft) AMSL, FL 100 should be used in lieu of 10000 ft.

** When so prescribed by the appropriate ATC Authority lower flight visibilities to 1500 m (4920 ft) may be permitted for flights operating:

- at speeds that, in the prevailing visibility, will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision; or
- 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.

Helicopters may be permitted to operate in less than 1500 m (4920 ft) flight visibility, if manoeuvred at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.

***The VMC minima in Class A airspace are included for guidance to pilots and do not imply acceptance of VFR flights in Class A airspace.

152. VFR Weather Minimums For Takeoff And Landing

(1) A person shall not land or takeoff an aircraft under VFR from an aerodrome located within a control zone, or enter the aerodrome traffic zone or traffic pattern airspace unless the-

- (a) reported ceiling is at least 450 m (1500 ft); and
- (b) reported ground visibility is at least 5 km (3 statute miles); or, except when a clearance is obtained from ATC.

(2) A person shall not land or takeoff an aircraft or enter the traffic pattern under VFR from an aerodrome located outside a control zone, unless VMC conditions are at or above those indicated in these Regulations.

(3) The only exception to the required weather minimums of this regulation is during a Special VFR operation.

153. Special VFR Operations

(1) A person shall not conduct a Special VFR flight operation to enter the traffic pattern, land or takeoff an aircraft under Special VFR from an aerodrome located in Class B, Class C, Class D or Class E airspace unless-

- (a) authorised by an ATC clearance;
- (b) the aircraft remains clear of clouds; and
- (c) the flight visibility is at least 1.5 km (1 statute mile).

(2) A person shall not conduct a Special VFR flight operation in an aircraft between sunset and sunrise unless-

- (a) the PIC is current and qualified for IFR operations; and
- (b) the aircraft is qualified to be operated for IFR flight.

154. VFR Cruising Altitudes

(1) A person operating an aircraft in level cruising flight under VFR at altitudes above 900 m (3000 ft) from the ground or water, shall maintain a flight level appropriate to the track as specified in the table of cruising levels in Schedule 8.8;

(2) Sub-regulation (1) does not apply –

- (a) when otherwise authorised by ATC;
- (b) when operating in a holding pattern; or
- (c) during maneuvering in turns.

155. ATC Clearances for VFR Flights

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

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

156. VFR flights requiring ATC authorisation

(1) Unless authorised by the appropriate ATC Authority, a pilot shall not operate in VFR flight-

- (a) above FL 200; or
- (b) at transonic and supersonic speeds.

(2) ATC authorisation for VFR flights shall not be granted in areas where a VSM of only 300m (1,000 ft) is applied above FL 290.

(3) A person shall not operate in VFR flight between sunset and sunrise unless-

- (a) authorised by the appropriate ATC Authority; and
- (b) operating in accordance with any conditions prescribed by the Authority.

157. Weather deterioration below VMC

A pilot of a VFR flight operated as a controlled flight shall, when he or she finds it impractical or impossible to maintain flight in VMC in accordance with the ATC flight plan-

- (a) 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;
- (b) 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;
- (c) operating within a control zone, request authorisation to operate as a special VFR flight; or

- (d) request clearance to operate in IFR, if currently rated for IFR operations.

158. Changing from VFR TO IFR

A pilot operating in VFR who wishes to change to IFR shall-

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

159. Two-way radio communication failure in VFR

(1) 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.

(2) In addition to sub-regulation (1), 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.

(3) If radio failure occurs in VMC while under ATC control, or if VMC conditions are encountered after the failure, the pilot shall-

- (a) continue the flight under VMC;
- (b) land at the nearest suitable aerodrome; and
- (c) report arrival to the appropriate ATC services unit by the most expeditious means possible.

CHAPTER X - IFR FLIGHT RULES

160. Applicability

All aircraft operated in accordance with instrument flight procedures shall comply with the instrument flight rules, and the aerodrome instrument approach procedures approved by the Authority.

161. IFR in Controlled Airspace

A person shall not operate an aircraft in controlled airspace under IFR unless that person has-

- (a) filed an IFR flight plan; and
- (b) received an appropriate ATC clearance.

162. IFR Flights Outside Controlled Airspace

(1) A PIC of an IFR flight operating outside controlled airspace but within or into areas, or along routes, designated by the appropriate ATC Authority, shall maintain a listening watch on the appropriate radio frequency and establish two-way communication, as necessary, with the ATC facility providing flight information service.

(2) A PIC of an IFR flight operating outside controlled airspace for which the appropriate ATC Authority requires a flight plan, a listening watch on the appropriate radio frequency and establishment of two-way communication, as necessary, with the ATC facility providing flight information service, shall report position as specified for controlled flights.

163. IFR Takeoff Minimums for Commercial Air Transport

Unless otherwise authorised by the Authority, a pilot operating an aircraft in commercial air transport operations shall not accept a clearance to take off from a civil aerodrome under IFR unless weather conditions are at or above-

- (a) for aircraft, other than helicopters, having two engines or less—1,500 m (1 statute mile) visibility;
- (b) for aircraft having more than two engines—800 m (1/2 statute mile) visibility; and
- (c) for helicopters—800 m (1/2 statute mile) visibility.

164. Minimum altitudes for IFR Operations

(1) Except when necessary for takeoff or landing, a person shall not operate an aircraft under IFR below-

- (a) the applicable minimum altitudes prescribed by the authorities having jurisdiction over the airspace being overflown; or
- (b) if no applicable minimum altitude is prescribed by the authorities-
 - (i) over high terrain or in mountainous areas, at a level which is at least 600 m (2000 ft) above the highest obstacle located within 8 km (5 statute miles) of the estimated position of the aircraft, and

- (ii) elsewhere than as specified in paragraph (i), at a level which is at least 300 m (1000 ft) above the highest obstacle located within 8 km (5 statute miles) of the estimated position of the aircraft;
 - (c) 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 40.7 km (22 nautical miles) of the VOR concerned.
- (2) In the case of a Climb for obstacle clearance-
- (a) 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; and
 - (b) if ground obstructions intervene, each pilot shall climb to a point beyond which that higher minimum altitude applies, at or above the applicable Minimum Crossing Altitude.

165. Minimum Altitudes for Use of an Autopilot

- (1) For en route operations, a person shall not use an autopilot at an altitude above the terrain that is less than 152 m (500 ft).
- (2) For instrument approach operations, a person shall not use an autopilot at an altitude above the terrain that is less than 15 m (50 ft) below the MDA or DH.
- (3) For CAT III approaches, the Authority may approve the use of a flight control guidance system with automatic capability to touchdown.

166. IFR Cruising Altitude or Flight Level in Controlled Airspace

- (1) A person operating an aircraft under IFR in level cruising flight in controlled airspace shall maintain the altitude or flight level assigned that aircraft by ATC.
- (2) A person operating an aircraft in level cruising flight under IFR, or if authorised to employ cruise climb techniques between two levels, shall maintain a flight level appropriate to the track as specified in the table of cruising levels in Schedule 8.8 or according to a modified table of cruising levels when so prescribed in accordance with Schedule 8.8 for flight above FL 410.
- (3) Sub-regulation (2) above does not apply when otherwise authorised by ATC or specified by the appropriate ATC Authority in Aeronautical

Information Publications.

167. IFR Cruising Altitude or Flight Level in Uncontrolled Airspace

(1) A person operating an aircraft in level cruising flight under IFR, outside of controlled airspace, shall maintain a flight level appropriate to the track as specified in the table of cruising levels in Schedule 8.8 or according to a modified table of cruising levels when so prescribed in accordance with Schedule 8.8 for flight above FL 410.

(2) A person may deviate from the cruising altitudes specified in sub-regulation (1) only when-

- (a) authorised by ATC for flight at or below 900 m (3000 ft) above MSL;
or
- (b) when otherwise authorised by ATC.

168. IFR Radio Communications

A 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-

- (a) 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;
- (b) any unforecast weather conditions encountered; and
- (c) any other information relating to the safety of flight, such as hazardous weather or abnormal radio station indications.

169. Operation under IFR in Controlled Airspace—Malfunction Reports

(1) A 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.

(2) In each report specified in sub-regulation (1), the PIC shall include the-

- (a) aircraft identification;

- (b) equipment affected;
- (c) degree to which the capability of the pilot to operate under IFR in the ATC system is impaired; and
- (d) nature and extent of assistance desired from ATC.

170. Continuation of IFR flight toward a destination

A pilot shall not 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.

171. Instrument approach procedures and IFR landing minimums

(1) A person shall not make an instrument approach at an aerodrome except in accordance with IFR weather minimums and instrument approach procedures established for that aerodrome as set forth by the Authority.

(2) An AOC holder shall not make an instrument approach at an aerodrome except as set forth in the AOC holder's operations specifications.

172. Commencing an Instrument Approach

(1) A pilot shall not continue an approach below 300 m (1,000 ft.) above the aerodrome elevation or into the final approach segment unless-

- (a) a source approved by the Authority issues a weather report for that aerodrome; and
- (b) the latest weather report for that aerodrome reports the visibility or controlling RVR to be equal to or more than the minimums prescribed for that procedure.

(2) If a pilot begins the final approach segment of an instrument approach procedure and subsequently receives a weather report indicating below-minimum conditions, the pilot may continue the approach to DH or MDA.

173. Instrument Approaches to Civil Aerodromes

(1) A person operating a civil aircraft shall use a standard instrument approach procedure prescribed by the authorities having jurisdiction over the aerodrome, unless otherwise authorised by the Authority.

(2) For the purpose of this regulation, 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 -

- (a) the DH or MDA prescribed by the approach procedure;
- (b) the DH or MDA prescribed for the PIC; or
- (c) the DH or MDA for which the aircraft is equipped.

174. Operation below DH OR MDA

Where a DH or MDA is applicable, a pilot shall not operate a civil aircraft at any aerodrome or heliport below the authorised MDA, or continue an approach below the authorised DH unless-

- (a) the aircraft is continuously in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal manoeuvres;
- (b) for commercial air transport operations, a descent rate will allow touchdown to occur within the touchdown zone of the runway of intended landing;
- (c) the reported flight visibility is not less than the visibility prescribed in the standard instrument approach being used or the controlling RVR is above the specified minimum; and
- (d) at least one of the following visual references for the intended runway is distinctly visible and identifiable to the pilot the-
 - (i) approach light system, except that the pilot may not descend below 30 m (100 ft) 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) threshold,
 - (iii) threshold markings,
 - (iv) threshold lights,
 - (v) runway end identifier lights,
 - (vi) visual approach slope indicator;
 - (vii) touchdown zone or touchdown zone markings,
 - (viii) touchdown zone lights,
 - (ix) runway or runway markings, or
 - (x) runway lights.

175. Landing during Instrument Meteorological Conditions

A pilot operating a civil aircraft shall not land the aircraft when the flight visibility is less than the visibility prescribed in the standard instrument approach procedure being used.

176. Execution of a missed approach procedure

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

- (a) 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;
- (c) 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.

177. Change from IFR Flight to VFR Flight

(1) 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.

(2) When a pilot operating under IFR encounters VMC, he or she may not cancel the IFR flight unless it is anticipated, and intended, that the flight will be continued for a reasonable period of time in uninterrupted VMC.

178. Two-way Radio Communications Failure in IFR

(1) 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.

(2) In addition, the pilot shall, when forming part of the aerodrome traffic at a controlled aerodrome, shall keep a watch for such instructions as may be issued by visual signals.

(3) If radio failure occurs in VMC while under ATC control, or if VMC conditions are encountered after the failure, each pilot shall-

- (a) continue the flight under VMC;
- (b) land at the nearest suitable aerodrome; and
- (c) report arrival to the appropriate ATC services unit by the most expeditious means possible.

(4) If two-way radio communication failure occurs in IMC, or when the pilot of an IFR flight considers it inadvisable to continue the flight in VMC, the PIC shall-

- (a) unless otherwise prescribed on the basis of regional air navigation agreement, in airspace where radar is not used in the provision of air traffic control, 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;
- (b) in airspace where radar is used in the provision of air traffic control, maintain the last assigned speed and level, or minimum flight altitude if higher, for a period of seven minutes following –
 - (i) the time the last assigned level or minimum flight altitude is reached, 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;
- (c) 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;
- (d) proceed according to the current flight plan route to the appropriate designated navigation aid or fix serving the destination aerodrome and, when required to ensure compliance with paragraph (e) below, hold over this aid or fix until commencement of descent;
- (e) commence descent from the navigation aid or fix specified in paragraph (d) at, or as close as possible to, the expected approach time last received and acknowledged; or, if no expected approach time has been received and acknowledged, at, or as close as possible to the estimated time of arrival resulting from the current flight plan;

- (f) complete a normal instrument approach procedure as specified for the designated navigation aid or fix; and
- (g) land, if possible, within 30 minutes after the estimated time of arrival specified in (5) or the last acknowledged expected approach time, whichever is later.

179. Threshold Crossing Height for 3D Instrument Approach Operations

An operator shall establish operational procedures designed to ensure that an aeroplane being used to conduct 3D approach operations crosses the threshold by a safe margin with the aeroplane in the landing configuration and attitude.

CHAPTER X - PASSENGERS AND PASSENGER HANDLING

180. Unacceptable Conduct

- (1) A person on board shall not interfere with a crewmember in the performance of his or her duties.
- (2) Each passenger shall fasten his or her seat belt and keep it fastened while the seat belt sign is alight.
- (3) A person on board an aircraft shall not recklessly or negligently act or omit to act in such a manner as to endanger the aircraft or persons and property therein.
- (4) A person shall not secrete himself or herself nor secrete cargo on board an aircraft.
- (5) A person shall not smoke while the no-smoking sign is lighted.
- (6) A person shall not smoke in any aeroplane lavatory.
- (7) A person shall not tamper with, disable or destroy any smoke detector installed in any aeroplane lavatory

181. Refueling with Passengers Onboard

- (1) A PIC shall not allow an aeroplane to be refuelled when passengers are

embarking, on board or disembarking unless-

- (a) the aeroplane is manned by qualified personnel ready to initiate and direct an evacuation; and
- (b) two-way communication is maintained between the qualified personnel in the aeroplane and the ground crew supervising the refuelling.

(2) A PIC shall not allow a helicopter to be refuelled when passengers are embarking, on board, or disembarking; or the rotors are turning unless-

- (a) the helicopter is manned by qualified personnel ready to initiate and direct an evacuation; and
- (b) two-way communication is maintained between the qualified personnel in the helicopter and the ground crew supervising the refuelling.

182. Passenger Seats, Safety Belts, and Shoulder Harnesses

(1) A PIC shall ensure that each person on onboard occupies an approved seat or berth with their own individual safety belt and shoulder harness (if installed) properly secured about them during takeoff and landing.

(2) Each passenger shall have his or her seatbelt securely fastened at any other time the PIC determines it is necessary for safety.

(3) A safety belt provided for the occupant of a seat may not be used during takeoff and landing by more than one person who has reached his or her second birthday.

183. Passenger Briefing

(1) A PIC shall ensure that crewmembers and passengers are made familiar, by means of an oral briefing or by other means, with the location and use of the following items, if appropriate-

- (a) seat belts;
- (b) emergency exits;
- (c) life jackets;
- (d) oxygen dispensing equipment; and

(e) other emergency equipment provided for individual use, including passenger emergency briefing cards.

(2) A PIC shall ensure that all persons on board are aware of the locations and general manner of use of the principal emergency equipment carried for collective use.

(3) During takeoff and landing, and whenever by reason of turbulence or any emergency occurring during flight the precaution is considered necessary, cabin crewmembers shall ensure that all passengers aboard the aircraft fasten their seat belts so as to be secured in their seats.

(4) For helicopter off-shore operations, the PIC shall ensure that each occupant of the aircraft wear-

- (a) a life jacket or integrated survival suit, when operating beyond autorotational distance from land;
- (b) a survival suit, when the sea temperature is less than 10°C or when the estimated rescue time exceeds the calculated survival time.

184. Inflight Emergency Instruction

(1) 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.

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

185. Passenger Oxygen—Minimum Supply and Use

(1) A PIC shall ensure that breathing oxygen and masks are available to passengers in sufficient quantities for all flights at such altitudes where a lack of oxygen might harmfully affect passengers.

(2) A PIC shall ensure that the minimum supply of oxygen prescribed by the Authority is on board the aircraft.

(3) The requirements for oxygen storage and dispensing apparatus are prescribed in Part 7.

(4) A PIC shall require all passengers to use oxygen continuously at cabin pressure altitudes above 4000 m (13000 ft).

(5) A PIC shall in the event of loss of pressurization-

- (a) immediately proceed on emergency descent so as to safeguard the cabin crew and ensure reasonable probability of their retaining consciousness;
- (b) have such means of protection as will enable the cabin crew administer first aid to passengers during stabilized flight following the emergency;
- (c) safeguard passengers by such devices or operational procedures as will ensure reasonable probability of their surviving the effects of hypoxia.

186. Alcohol or Drugs

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

187. Passenger Compliance with Instructions

Each passenger on a commercial air transport flight shall comply with instructions given by a crewmember in compliance with this Part.

188. Denial of Transportation

An AOC holder may deny transportation to a passenger if he or she –

- (a) refuses to comply with the instructions regarding exit seating restrictions prescribed by the Authority; or
- (b) has a handicap that can be physically accommodated only by an exit row seat.

189. Carriage of persons without compliance with these Passenger-Carrying Requirements

(1) The passenger-carrying requirements of sub-regulation (1) do not apply when carrying-

- (a) a crewmember not required for the flight;
- (b) a representative of the Authority on official duty;
- (c) a person necessary to the safety or security of cargo or animals;

or

- (d) any person authorised by the AOC holder's Operations Manual procedures, as approved by the Authority.

(2) A person shall not be carried without compliance with the passenger carrying requirements unless-

- (a) there is an approved seat with an approved seat belt for that person;
- (b) that seat is located so that the occupant is not in any position to interfere with the flight crewmembers performing their duties;
- (c) there is unobstructed access from their seat to the flight deck or a regular or emergency exit;
- (d) there is a means for notifying that person when smoking is prohibited and when seat belts shall be fastened; and
- (e) that person has been orally briefed by a crewmember on the use of emergency equipment and exits.

190. Cabin Crew at Duty Stations

(1) During taxi, cabin crewmembers shall remain at their duty stations with safety belts and shoulder harness fastened except to perform duties related to the safety of the aircraft and its occupants.

(2) During takeoff and landing, cabin crewmembers shall be located as near as practicable to required floor level exits and shall be uniformly distributed throughout the aircraft to provide the most effective egress of passengers in event of an emergency evacuation.

(3) When passengers are on board a parked aircraft, cabin crewmembers (or another person qualified in emergency evacuation procedures for the aircraft) will be placed in the following manner if-

- (a) only one qualified person is required, that person shall be located in accordance with the AOC holder's Operations Manual procedures; and
- (b) more than one qualified person is required, those persons shall be spaced throughout the cabin to provide the most effective assistance for the evacuation in case of an emergency.

191. Evacuation Capability

A PIC, SCCM and other person assigned by the AOC holder shall ensure that, when passengers are on board the aircraft before movement on the surface, at least one floor-level exit provides for egress of passengers through normal or emergency means.

192. Arming of Automatic Emergency Exits

A person shall not cause an aeroplane carrying passengers to be moved on the surface, takeoff or land unless each automatically deployable emergency evacuation assisting means installed on the aircraft is ready for evacuation.

193. Accessibility of Emergency Exits and Equipment

A person shall not allow carry-on baggage or other items to block access to the emergency exits when the aircraft is moving on the surface, during takeoff or landing, or while passengers remain on board on the ground.

194. Stops where Passengers Remain Onboard

(1) At stops where passengers remain on board the aircraft, the PIC, the co-pilot, or both shall ensure that-

- (a) all engines are shut down;
- (b) at least one floor level exit remains open to provide for the deplaning of passengers; and
- (c) there is at least one person immediately available who is qualified in the emergency evacuation of the aircraft and who has been identified to the passengers on board as responsible for the passenger safety.

(2) If refueling with passengers on board, the PIC or a designated company representative shall ensure that the AOC holder's Operations Manual procedures are followed.

195. Passenger loading and unloading - AOC

A person shall not allow passenger loading or unloading of a propeller driven aircraft unless all engines are shut down unless the aircraft is using a passenger jetway to load and unload.

196. Carriage of persons with reduced mobility

A person shall not allow a person of reduced mobility to occupy seats if their presence may-

- (a) impede the crew in their duties;
- (b) obstruct access to emergency equipment; or
- (c) impede the emergency evacuation of the aircraft.

197. Exit Row Seating

(1) An AOC holder shall not allow a passenger to sit in an emergency exit row if the PIC or SCCM determine that it is likely that the passenger would be unable to understand and perform the functions necessary to open an exit and to exit rapidly.

(2) A cabin crewmember shall not seat a person in a passenger exit seat if it is likely that the person would be unable to perform one or more of the applicable functions listed below -

- (a) the person lacks sufficient mobility, strength, or dexterity in both arms and hands, and both legs -
 - (i) to reach upward, sideways, and downward to the location of emergency exit and exit-slide operating mechanisms,
 - (ii) to grasp and push, pull, turn, or otherwise manipulate those mechanisms,
 - (iii) to push, shove, pull, or otherwise open emergency exits,
 - (iv) to lift out, hold, deposit on nearby seats, or manoeuvre over the seatbacks to the next row objects the size and mass of over-wing window exit doors,
 - (v) to remove obstructions of size and mass similar to over-wing exit doors,
 - (vi) to reach the emergency exit expeditiously,
 - (vii) to maintain balance while removing obstructions,
 - (viii) to exit expeditiously,

- (ix) to stabilise an escape slide after deployment, or
 - (x) to assist others in getting off an escape slide;
- (b) the person is less than 15 years of age or lacks the capacity to perform one or more of the applicable functions listed above without the assistance of an adult companion, parent, or other relative;
- the person lacks the ability to read and understand instructions required by this section and related to emergency evacuation provided by the AOC holder in printed or graphic form or the ability to understand oral crew commands;
- (c) the person lacks sufficient visual capacity to perform one or more of the above functions without the assistance of visual aids beyond contact lenses or eyeglasses;
- (d) the person lacks sufficient aural capacity to hear and understand instructions shouted by cabin crewmembers, without assistance beyond a hearing aid;
- (e) the person lacks the ability to adequately impart information orally to other passengers; or
- (f) the person has a condition or responsibilities, such as caring for small children, that might prevent the person from performing one or more of the functions listed above; or a condition that might cause the person harm if he or she performs one or more of the functions listed above.
- (3) The determination of the suitability of a person permitted to occupy an exit seat shall be made by the cabin crewmembers or other persons designated in the AOC holder's Operations Manual.
- (4) In the event a cabin crewmember determines that a passenger assigned to an exit seat would be unable to perform the emergency exit functions, or if a passenger requests a non-exit seat, the cabin crewmember shall expeditiously relocate the passenger to a non-exit seat.
- (5) In the event of full booking in the non-exit seats, and if necessary to accommodate a passenger being relocated from an exit seat, the cabin crewmember shall move a passenger who is willing and able to assume the evacuation functions, to an exit seat.
- (6) Each AOC ticket agent shall, before boarding, assign seats consistent with the passenger selection criteria and the emergency exit functions, to

the maximum extent feasible.

(7) Each AOC ticket agent shall make available for inspection by the public at all passenger loading gates and ticket counters at each aerodrome where the AOC holder conducts passenger operations, written procedures established for making determinations in regard to exit row seating.

(8) Each cabin crewmember shall include in his or her passenger briefings, a request that a passenger identify himself or herself to allow reseating if he or she-

- (a) cannot meet the selection criteria;
- (b) has a no discernible condition that will prevent him or her from performing the evacuation functions;
- (c) may suffer bodily harm as the result of performing one or more of those functions; or
- (d) does not wish to perform emergency exit functions.

(9) Each cabin crewmember shall include in his or her passenger briefings a reference to the passenger information cards and the functions to be performed in an emergency exit.

(10) Each passenger shall comply with instructions given by a crewmember or other authorised employee of the AOC holder implementing exit seating restrictions.

(11) A PIC shall not allow taxi or pushback unless at least one required crewmember has verified that all exit rows and escape paths are unobstructed and that no exit seat is occupied by a person the crewmember determines is likely to be unable to perform the applicable evacuation functions.

(12) The procedures required by this standard will not become effective until final approval is granted by the Authority. Approval will be based solely upon the safety aspects of the AOC holder's procedures. In order to comply with this standard AOC holders shall—

- (a) establish procedures that address the requirements of this standard; and
- (b) submit their procedures for preliminary review and approval to the Authority.

198. Prohibition Against Carriage of Weapons

(1) A person shall not, while on board an aircraft being operated in commercial air transport, carry on or about their person a deadly or dangerous weapon, either concealed or unconcealed. An AOC holder may permit a person to transport a weapon, in accordance with the AOC holder's approved security programme-

- (a) if the weapon is unloaded; and
- (b) both the weapon and ammunition are securely stowed in a place inaccessible to any person during the flight.

(2) Officials or employees of the State, or crewmembers who are authorised to carry weapons on board the aircraft in domestic flights, shall do so in accordance with the AOC holders approved security programme. A PIC shall be notified by the AOC as to the number of armed persons and the location of their seats.

(3) The persons identified in sub-regulation (2) above shall not carry weapons aboard an international flight unless there is prior agreement between The Gambia and all States in which the operation will be either conducted or overflown.

199. Oxygen for medical use by passengers

(1) An AOC holder may allow a passenger to carry and operate equipment for the storage, generation or dispensing of medical oxygen only as prescribed by the Authority.

(2) A person shall not smoke, and a crewmember shall not allow any person to smoke within 3 m (10 ft) of oxygen storage and dispensing equipment carried for the medical use of a passenger.

(3) A crewmember shall not allow any person to connect or disconnect oxygen dispensing equipment to or from an oxygen cylinder while any other passenger is aboard the aircraft.

200. Carry-on Baggage

(1) A person shall not allow the boarding of carry-on baggage unless it can be adequately and securely stowed in accordance with the AOC holder's approved Operations Manual procedures.

(2) A person shall not allow aircraft passenger entry doors to be closed in preparation for taxi or pushback unless at least one required crewmember

has verified that each article of baggage has been properly stowed in overhead racks with approved restraining devices or doors, or in approved locations.

(3) A person shall not allow carry-on baggage to be stowed in a location that would cause that location to be loaded beyond its maximum placard mass limitation.

201. Carriage of Cargo in Passenger Compartments

(1) A person shall not allow the carriage of cargo in the passenger compartment of an aircraft except as prescribed by the Authority below.

(2) Cargo may be carried anywhere in the passenger compartment if it is carried in an approved cargo bin that meets the following requirements -

- (a) the bin must withstand the load factors and emergency landing conditions applicable to the passenger seats of the aeroplane in which the bin is installed, multiplied by a factor of 1.15, using the combined mass of the bin and the maximum mass of cargo that may be carried in the bin;
- (b) the maximum mass of cargo that the bin is approved to carry and any instructions necessary to insure proper mass distribution within the bin must be conspicuously marked on the bin;
- (c) the bin may not impose any load on the floor or other structure of the aeroplane that exceeds the load limitations of that structure;
- (d) the bin must be attached to the seat tracks or to the floor structure of the aeroplane, and its attachment must withstand the load factors and emergency landing conditions applicable to the passenger seats of the aeroplane in which the bin is installed, multiplied by either the factor 1.15 or the seat attachment factor specified for the aeroplane, whichever is greater, using the combined mass of the bin and the maximum mass of cargo that may be carried in the bin;
- (e) the bin may not be installed in a position that restricts access to or use of any required emergency exit, or of the aisle in the passenger compartment;
- (f) the bin must be fully enclosed and made of material that is at least flame resistant;

- (g) suitable safeguards must be provided within the bin to prevent the cargo from shifting under emergency landing conditions; and
- (h) the bin may not be installed in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passenger is provided.

(3) Cargo, including carry-on baggage, shall not be stowed in toilets.

(4) Cargo, including carry-on baggage must not be stowed against bulkheads or dividers in passenger compartments that are incapable of restraining articles against movement forwards, sideways or upwards and unless the bulkheads or dividers carry a placard specifying the greatest mass that may be placed there, provided that-

- (a) it is properly secured by a safety belt or other tie-down having enough strength to eliminate the possibility of shifting under all normally anticipated flight and ground conditions;
- (b) it is packaged or covered to avoid possible injury to occupants;
- (c) it does not impose any load on seats or in the floor structure that exceeds the load limitation for those components; and
- (d) it is not located in a position that obstructs the access to, or use of, any required emergency or regular exit, or the use of the aisle between the crew and the passenger compartment, or is located in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign or placard, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passengers is provided.

(5) Cargo, including carry-on baggage, may be carried anywhere in the passenger compartment of a small aircraft if it is carried in an approved cargo rack, bin, or compartment installed in or on the aircraft, if it is secured by an approved means, or if it is carried in accordance with each of the following -

- (a) for cargo, it is properly secured by a safety belt or other tie-down having enough strength to eliminate the possibility of shifting under all normally anticipated flight and ground conditions, or for carry-on baggage, it is restrained so as to prevent its movement during air turbulence;

- (b) it is packaged or covered to avoid possible injury to occupants;
- (c) it does not impose any load on seats or in the floor structure that exceeds the load limitation for those components;
- (d) it is not located in a position that obstructs the access to, or use of, any required emergency or regular exit, or the use of the aisle between the crew and the passenger compartment, or is located in a position that obscures any passenger's view of the "seat belt" sign, "no smoking" sign or placard, or any required exit sign, unless an auxiliary sign or other approved means for proper notification of the passengers is provided;
- (e) it is not carried directly above seated occupants;
- (f) it is stowed in compliance with these restrictions during takeoff and landing; and
- (g) for cargo-only operations, if the cargo is loaded so that at least one emergency or regular exit is available to provide all occupants of the aircraft a means of unobstructed exit from the aeroplane if an emergency occurs.

202. Passenger Information Signs

A PIC shall turn on required passenger information signs during any movement on the surface, for each takeoff and each landing, and when otherwise considered to be necessary.

203. Required Passenger Briefings

(1) A person shall not commence a takeoff unless the passengers are briefed before takeoff in accordance with the AOC holder's Operations Manual procedures on-

- (a) smoking limitations and prohibitions;
- (b) emergency exit location and use;
- (c) use of safety belts;
- (d) emergency floatation means location and use;
- (e) fire extinguisher location and operation;
- (f) placement of seat backs;
- (g) if flight is above 3050 m (10000 ft) MSL, the normal and emergency use of oxygen;
- (h) the passenger briefing card; and
- (i) use of other specialised equipment as required by the

Authority.

(2) Immediately before or immediately after turning the seat belt sign off, the PIC or co-pilot shall ensure that the passengers are briefed to keep their seat belts fastened while seated, even when the seat belt sign is off.

(3) Before each takeoff, the PIC or co-pilot shall ensure that any persons of reduced mobility are personally briefed on -

- (a) the route to the most appropriate exit; and
- (b) the time to begin moving to the exit in event of an emergency.

204. Passenger Briefing—Extended Overwater Operations

A person shall not commence extended overwater operations unless all passengers have been orally briefed on the location and operations of life preservers, liferafts and other flotation means, including a demonstration of the method of donning and inflating a life preserver.

205. Passenger Seat Belts

(1) Each passenger occupying a seat or berth shall fasten his or her safety belt and keep it fastened while the "Fasten Seat Belt" sign is lighted or, in aircraft not equipped with such a sign, whenever instructed by the PIC.

(2) A passenger safety belt shall not be used by more than one occupant during takeoff and landing.

(3) Notwithstanding subsection (2), a person who has not reached his or her second birthday may be held by an adult who is occupying a seat or berth.

(4) At each unoccupied seat, the safety belt and shoulder harness, if installed, shall be secured so as not to interfere with crewmembers in the performance of their duties or with the rapid egress of occupants in an emergency.

206. Passenger seat backs

A PIC or co-pilot shall not allow the takeoff or landing of an aircraft unless each passenger seat back is in the upright position.

207. Stowage of Food, Beverage and Passenger Service

A PIC, co-pilot or SCCM shall not allow the movement of an aircraft on the surface, or the takeoff or landing of an aircraft

- (a) when any food, beverage or tableware furnished by the AOC holder is located at any passenger seat; and
- (b) unless each food and beverage tray and seat back tray table is in the stowed position.

208. Securing of items of mass in passenger compartment

(1) A person shall not allow the takeoff or landing of an aircraft unless each item of mass in the passenger cabin is properly secured to prevent it from becoming a hazard during taxi, takeoff and landing and during turbulent weather conditions.

(2) A person shall not allow an aircraft to move on the surface, takeoff or land unless each passenger serving cart is secured in its stowed position.

CHAPTER XI - CREWMEMBER AND FLIGHT DISPATCHER QUALIFICATIONS

209. Limitation of Privileges of Pilots who have attained their 60th Birthday and curtailment of Privileges of Pilots who have attained their 65th Birthday

(1) A person shall not serve and an AOC holder shall not use a person as a required PIC in single pilot operations on aircraft with 10 or more passengers or engaged in commercial air transport operations if that person has reached his or her 60th birthday.

(2) For aircraft engaged in commercial air transport operations requiring more than one pilot as flight crewmembers, the AOC holder may use one pilot up to age 65 provided that the other pilot is less than age 60.

(3) For aircraft engaged in long-range commercial air transport operations requiring more than one pilot as flight crewmembers, the AOC holder may use one pilot up to age 65 provided that the other pilot is less than age 60.

(4) Check pilots who have reached their 65th birthday or who do not hold an appropriate medical certificate may continue their check pilot functions, but may not serve as or occupy the position of a required pilot flight crewmember on an aeroplane engaged in international commercial air transport operations unless the other pilot is less than age 60.

210. Use of Flight Simulation Training Devices

(1) Each flight simulation training device that is used for flight crewmember qualification shall –

- (a) be specifically approved by the Authority for -
 - (i) the AOC holder,
 - (ii) the type aircraft, including type variations, for which the training or check is being conducted, and
 - (iii) the particular manoeuvre, procedure, or crewmember function involved;
- (b) maintain the performance, functional, and other characteristics that are required for approval;
- (c) be modified to conform with any modification to the aeroplane being simulated that results in changes to performance, functional, or other characteristics required for approval;
- (d) be given a daily functional pre-flight check before use; and
- (e) have a daily discrepancy log completed by the appropriate instructor or check pilot at the end of each training or check flight.

(2) The simulation device shall have the same technology for the basic flight instruments (attitude indicator, airspeed, altimeter, heading reference) as those of the aircraft used by the operator.

(3) Operators that have electronic or glass displays shall use simulators that have electronic or glass displays.

(4) Operators that have standard instruments shall use simulators that have standard instruments.

211. Approval of a Flight Simulation Training Device for credit in training and checking

(1) An AOC holder shall not use a flight simulation training device for training or checking unless that simulator has been specifically approved for the AOC holder in writing by the Authority.

(2) An AOC holder shall not use a simulator for credit in training, recency and checking other than that specified in the Authority's approval.

212. Licence requirements for PIC

(1) A pilot shall not act as PIC of a of an aircraft, certificated for operation with more than one pilot, in commercial air transportation operations unless he or she holds an Airline Transport Pilot Licence with applicable category, class and type rating for that aircraft.

(2) A pilot shall not act as PIC of an aircraft, certificated for operation for one pilot, in commercial air transportation operations unless he or she holds a Commercial Pilot Licence or an Airline Transport Pilot Licence with applicable category, class and type rating for that aircraft.

(3) If instrument privileges are to be exercised, the PIC shall hold an Instrument Rating.

213. Licence Requirements for Co-pilot and Cruise Relief Pilot

(1) A pilot shall not act as co-pilot of an aircraft in commercial air transport operations unless he or she holds either a Commercial Pilot Licence or Instrument Rating or an Airline Transport Pilot Licence, each with category, class and type ratings, as applicable, for the aircraft operated.

(2) A pilot shall not act as a cruise relief pilot in commercial air transport operations unless he or she holds an Airline Transport Pilot Licence with category, and if applicable, class and type ratings, and has completed all training to serve as PIC with the exception of initial operating experience.

214. Flight Engineer Licence Requirements

A person shall not act as the flight engineer of an aircraft unless he or she holds a flight engineer licence with the appropriate class rating.

215. One Pilot Qualified to Perform Flight Engineer Functions

An AOC holder shall ensure that on all flights requiring a flight engineer, there is assigned at least one other flight crewmember qualified to perform the flight engineer duties in the event the flight engineer becomes incapacitated.

216. Persons Qualified to Flight Release

A person shall not act as a flight dispatcher in releasing a scheduled passenger-carrying commercial air transport operation unless that person -

- (a) holds a flight dispatcher licence or an Airline Transport Pilot License;
and
- (b) is currently qualified with the AOC holder for the operation and type of aircraft used.

217. Company Procedures Indoctrination

(1) A person shall not serve and an AOC holder shall not use a person as a crewmember or flight dispatcher unless that person has completed the company procedures indoctrination curriculum approved by the Authority, which shall include a complete review of the applicable regulations and Operations Manual procedures pertinent to the crewmember or flight operation officer's duties and responsibilities.

(2) The AOC holder shall provide a minimum of 40 programmed hours of instruction for company procedures indoctrination training unless a reduction is determined appropriate by the Authority.

(3) The knowledge area topics to be covered are contained in Schedule 8.9.

218. Initial Dangerous Goods Training

(1) A person shall not serve and an AOC holder shall not use operational personnel unless he or she has completed the appropriate initial dangerous goods curriculum approved by the Authority.

(2) Specific course curriculum requirements are contained in Schedule 8.10.

219. Initial Security Training

A person shall not serve and an AOC holder shall not use operational personnel unless they have completed the initial security curriculum approved by the Authority.

220. Initial Crew Resource Management

(1) A person shall not serve and an AOC holder shall not use a person as a flight dispatcher or crewmember unless that person has completed the initial CRM curriculum approved by the Authority.

(2) Course curriculum topics are contained in Schedule 8.11.

221. Initial Emergency Equipment Drills

(1) A person shall not serve and an AOC holder shall not use a person as a crewmember unless that person has completed the appropriate initial emergency equipment curriculum and drills for the crewmember position approved by the Authority for the emergency equipment available on the aircraft to be operated.

(2) Course curriculum requirements are contained in Schedule 8.12.

222. Initial aircraft ground training

(1) A person shall not serve and an AOC holder shall not use a person as a crewmember or flight dispatcher unless he or she has completed the initial ground training approved by the Authority for the aircraft type.

(2) Initial aircraft ground training for flight crewmembers shall include the pertinent portions of the Operations Manual relating to aircraft-specific performance, mass and balance, operational policies, systems, limitations, normal, abnormal and emergency procedures on the aircraft type to be used. Specific course curriculum requirements for flight crewmembers are contained in Schedule 8.13

(3) For cabin crewmembers, initial aircraft ground training shall include the pertinent portions of the Operations Manual relating to aircraft-specific configuration, equipment, normal and emergency procedures for the aircraft types within the fleet. Specific course curriculum requirements for cabin crewmembers are contained in Schedule 8.14.

(4) For flight dispatchers, aircraft initial ground training shall include the pertinent portions of the Operations Manual relating to aircraft-specific flight preparation procedures, performance, mass and balance, systems, limitations for the aircraft types within the fleet. Specific course curriculum requirements for flight dispatchers are contained in Schedule 8.14.

223. Initial Aircraft Flight Training

(1) A person shall serve and an AOC holder shall not use a person as a flight crewmember unless he or she has completed the initial flight training approved by the Authority for the aircraft type.

(2) Initial flight training shall focus on the manoeuvring and safe operation of the aircraft in accordance with AOC holder's normal, abnormal and emergency procedures.

(3) An AOC holder may have separate initial flight training curricula, which recognise the experience levels of flight crewmembers, approved by the

Authority.

(4) Specific flight training curriculum requirements are contained in Schedule 8.16.

224. Initial Specialised Operations Training

(1) A person shall not serve and an AOC holder shall not use a person as a flight crewmember unless he or she has completed the appropriate initial specialised operations training curriculum approved by the Authority.

(2) Specialised operations for which initial training curricula shall be developed, include -

- (a) low minimums operations, including low visibility takeoffs and Category II and III operations;
- (b) extended range operations;
- (c) specialised navigation;
- (d) PIC right seat qualification;
- (e) RVSM; and
- (f) RNP.

(3) Specific initial specialised operations training curriculum requirements are contained in Schedule 8.17.

225. Aircraft Differences

(1) A person shall not serve and an AOC holder shall not use a person as a flight dispatcher or crewmember on an aircraft of a type for which a differences curriculum is included in the AOC holder's approved training programme, unless that person has satisfactorily completed that curriculum, with respect to both the crewmember position and the particular variant of that aircraft.

(2) A general listing of subjects to be covered in aircraft differences training is contained in Schedule 8.18.

226. Introduction of new equipment or procedures

A person shall not serve and an AOC holder shall not use a person as a flight crewmember when that service would require expertise in the use of new equipment or procedures for which a curriculum is included in the AOC holder's approved training programme, unless that person has satisfactorily completed that curriculum, with respect to both the crewmember position and the particular variant of that aircraft.

227. Pilot Proficiency – Aircraft and Instrument Proficiency Checks

(1) A person shall not serve and an AOC holder shall not use a person as a pilot flight crewmember unless, since the beginning of the 12th calendar month before that service, that person has passed the aircraft pilot proficiency check prescribed by Authority in the make, and model aircraft on which their services are required.

(2) A person shall not serve and an AOC holder shall not use a person as a pilot in IFR operations unless, since the beginning of the 6th calendar month before that service, that pilot has passed the instrument proficiency check prescribed by the Authority.

(3) A pilot may complete the requirements of sub-regulations (1) and (2) simultaneously in a specific aircraft type.

(4) The manoeuvres for aircraft pilot proficiency and instrument proficiency checks conducted under Part 8 are contained in Schedule 8.19 and in Part 2 under the appropriate skill test.

228. Re-Establishing Recency of Experience—Flightcrew

(1) In respect of pilots –

- (a) in addition to meeting all applicable training and checking requirements, a required pilot flight crewmember who, in the preceding 90 days has not made at least three takeoffs and landings in the aircraft in which that person is to serve, shall, under the supervision of a check pilot, re-establish recency of experience as follows-
 - (i) make at least three takeoffs and landings in the aircraft in which that person is to serve or in a qualified simulator, or
 - (ii) make at least one takeoff with a simulated failure of the most critical powerplant, one landing from the minimum ILS authorised for the AOC holder, and one landing to a full stop;
- (b) when using a simulator to accomplish any of the takeoff and landing training requirements necessary to re-establish recency of experience, each required flight crewmember position shall be occupied by an appropriately qualified person and the simulator shall be operated as if in a normal in-flight environment without use of the repositioning features of the simulator; and
- (c) a check pilot who observes the takeoffs and landings of a pilot flight crewmember shall certify that the person being observed is proficient and qualified to perform flight duty in operations and may require any additional manoeuvres that are determined necessary to make this

certifying statement.

(2) A flight engineer who in the preceding six months has not flown 50 hours flight time with an AOC holder as flight engineer in the appropriate class of aeroplane shall re-establish recency by taking the proficiency check specified in these Regulations.

(3) A flight navigator who in the preceding six months has not flown 50 hours flight time with an AOC holder as flight navigator in the appropriate class of aircraft shall re-establish recency by taking the proficiency check specified in these Regulations.

229. Pairing of low experience pilots

(1) If a CP has fewer than 100 hours of flight time in the type aircraft being flown in commercial air transport, and the PIC is not an appropriately qualified check pilot, the PIC shall make all takeoffs and landings in situations designated as critical by the Authority in Schedule 8.20.

(2) A PIC or CP shall not conduct operations for a type aircraft in commercial air transport unless either pilot has at least 75 hours of line operating flight time, either as PIC or CP.

(3) The Authority may, upon application by the AOC holder, authorise an exemption for the reduction of the number of hours from sub-regulation (2) by an appropriate amendment to the operations specifications in any of the circumstances identified in Schedule 8.20.

230. Flight Engineer and Flight Navigator Proficiency Checks

A person shall not serve and an AOC holder shall not use a person as a flight engineer or a flight navigator on an aeroplane unless within the preceding 12 calendar-months he or she has a proficiency check in accordance with the requirements prescribed by the Authority for the skill test in Part 2.

231. Competency Checks—Cabin Crewmembers

A person shall not serve and an AOC holder shall not use a person as a cabin crewmember unless, since the beginning of the 12th calendar month before that service, that person has passed the competency check prescribed by the Authority in Schedule 8.21, performing the emergency and other duties appropriate to that person's assignment.

232. Competency Checks—Flight dispatchers

A person shall not serve and an AOC holder shall not use a person as a flight dispatcher unless, since the beginning of the 12th calendar month before that service, that person has passed the competency check, prescribed by the Authority in Schedule 8.22, performing the flight preparation and subsequent duties appropriate to that person's assignment.

233. Supervised Line Flying—Pilots

(1) A pilot initially qualifying as PIC shall complete a minimum of 10 flights performing the duties of a PIC under the supervision of a check pilot.

(2) A PIC transitioning to a new aircraft type shall complete a minimum of 5 flights performing the duties of a PIC under the supervision of a check pilot.

(3) A pilot qualifying for duties other than PIC shall complete a minimum of 5 flights performing those duties under the supervision of a check pilot.

(4) During the time that a qualifying PIC is acquiring operating experience, a check pilot who is also serving as the PIC shall occupy a pilot station.

(5) In the case of a transitioning PIC, the check pilot serving as PIC may occupy the observer's seat if the transitioning pilot has made at least two takeoffs and landings in the type aircraft used, and has satisfactorily demonstrated to the check pilot that he or she is qualified to perform the duties of a PIC for that type of aircraft.

234. Supervised Line Flying—Flight Engineers

Each person qualifying as a flight engineer for each aircraft class; piston-engined, turbopropeller powered, or turbojet powered shall perform those functions for a minimum of five flights under the supervision of a check flight engineer approved by the Authority.

235. Supervised Line Experience—Cabin Crewmembers

Each person qualifying as a cabin crewmember shall perform those functions on the following aircraft under the supervision of a check cabin crewmember before qualifying as a required crewmember -

- (a) piston-engined or turbopropeller powered aircraft-for a minimum of 2 flights that must include at least 5 hours flown; and
- (b) turbojet powered aircraft-for a minimum of two flights.

236. Line Observations-Flight dispatchers

A person shall not serve and an AOC holder shall not use a person as a flight dispatcher unless, since the beginning of the 12th calendar month before that service, that person has observed, on the flight deck, the conduct of two complete flights, comprising at least 5 total hours, over routes representative of those for which that person is assigned duties.

237. Line (Route and Area) Checks—Pilot Qualification

(1) A person shall not serve and an AOC holder shall not use a person as a pilot unless, within the preceding 12 calendar-months, that person has passed a line check in which he or she satisfactorily performed his or her assigned duties in one of the types of aircraft he or she is to fly.

(2) A person shall not perform PIC duties over a designated special operational area that requires a special navigation system or procedures or in EDTO operations unless his or her competency with the system and procedures has been demonstrated to the AOC holder within the past 12 calendar-months.

(3) A PIC shall demonstrate operational competency by navigation over the route and area to be flown and the aerodromes to be used as PIC under the supervision of a check pilot and, on a continuing basis, by flights performing PIC duties. This, at a minimum, shall include a PIC demonstration of knowledge in the following -

- (a) the terrain and minimum safe altitudes;
- (b) the seasonal meteorological conditions;
- (c) the search and rescue procedures;
- (d) the navigational facilities and procedures, including any long-range navigation procedures, associated with the route along which the flight is to take place; and
- (e) procedures applicable to -
 - (i) flight paths over heavily populated areas or high air traffic density,
 - (ii) obstructions,
 - (iii) physical layout,
 - (iv) lighting, approach aids,
 - (v) arrival, departure, holding and instrument approach procedures, and

(vi) applicable operating minima.

(f) notices to airmen.

238. PIC Low Minimums Authorisation

(1) Until a PIC has 15 flights performing PIC duties in the aircraft type (which included 5 approaches to landing using Category I or II procedures), he or she may not plan for or initiate an instrument approach when the DH or MDA is less than 100 m (300 ft) and the visibility less than 1.5km (1 statute mile).

(2) Until a PIC has 20 flights performing PIC duties in the aircraft type (which included 5 approach and landing using Category III procedures), he or she may not plan for or initiate an approach when the DH or MDA is less than 30 m (100 ft) or the visibility is less than 350 m RVR (1200 ft).

239. Designated Special Aerodromes and Heliports—PIC Qualification

(1) The Authority may determine that certain airports, due to items such as surrounding terrain, obstructions, or complex approach or departure procedures, are special aerodromes requiring special aerodrome qualifications and that certain areas or routes, or both, require a special type of navigation qualifications.

(2) A person shall not serve and an AOC holder shall not use a person as PIC for operations at designated special aerodromes and heliports unless within the preceding 12 calendar-months -

- (a) the PIC has been qualified by the AOC holder through a pictorial means acceptable to the Authority for that aerodrome; or
- (b) the PIC or the assigned CP has made a takeoff and landing at that aerodrome while serving as a flight crewmember for the AOC holder; and
- (c) if the 12 months qualification period required in sub-regulation (2) has expired, the PIC must re-qualify in accordance with the requirements in sub-regulation (2).

(3) Designated special aerodrome and heliport limitations are not applicable if the operation will occur -

- (a) during daylight hours;

- (b) when the visibility is at least 5 km (3 miles); and
- (c) when the ceiling at that aerodrome is at least 300 m (1000 ft) above the lowest initial approach altitude prescribed for an instrument approach procedure.

240. Recurrent Training—Flight Crewmembers

(1) A person shall not serve and an AOC holder shall not use a person as a flight crewmember unless within the preceding 12 calendar-months that person has completed the recurrent ground and flight training curricula approved by with the Authority.

(2) The recurrent ground training shall include training on -

- (a) aircraft systems and limitations and normal, abnormal and emergency procedures;
- (b) emergency equipment and drills;
- (c) crew resource management;
- (d) recognition or transportation of dangerous goods; and
- (e) security training.

(3) The recurrent flight training curriculum shall include -

- (a) manoeuvring and safe operation of the aircraft in accordance with AOC holder's normal, abnormal and emergency procedures;
- (b) manoeuvres and procedures necessary for avoidance of in-flight hazards; and
- (c) for authorised pilots, at least one low visibility takeoff to the lowest applicable minimum LVTO and two approaches to the lowest approved minimums for the AOC holder, one of which is to be a missed approach.

(3) Satisfactory completion of a proficiency check with the AOC holder for the type aircraft and operation to be conducted may be used in lieu of recurrent flight training.

(4) Detailed recurrent training requirements for pilots, flight engineers and flight navigators are contained in Schedule 8.23.

241. Recurrent Training and Re-Establishment of Qualifications - Cabin Crewmembers

(1) A person shall not serve and an AOC holder shall not use a person as a cabin crewmember unless within the preceding 12 calendar-months that person has completed the recurrent ground curricula approved by the Authority relevant to the type(s) or variant(s) of aircraft and operations to which he or she is assigned.

(2) The recurrent ground training shall include training on -

- (a) aircraft-specific configuration, equipment and procedures;
- (b) emergency and first aid equipment and drills;
- (c) crew resource management;
- (d) recognition or transportation of dangerous goods; and
- (e) security training.

(3) Specific normal and emergency programme training requirements for cabin crewmembers are contained in Schedule 8.21.

(4) A required cabin crewmember who, due to a period of inactivity, has not met the recurrent training requirements in paragraphs (a) through (c) shall complete the initial AOC training programme and competency check specified in these Regulations.

242. Recurrent Training and Re-Establishment of Qualifications- Flight dispatchers

(1) A person shall not serve and an AOC holder shall not use a person as a flight dispatcher unless within the preceding 12 calendar-months, that person has completed the recurrent ground curricula approved by the Authority relevant to the type(s) or variant(s) of aircraft and positions to which he or she is assigned.

(2) Specific requirements for flight dispatchers recurrent training are contained in Schedule 8.25

(3) A required flight dispatcher who, due to a period of inactivity, has not met the recurrent training requirements in sub-regulations (1) and (2) shall complete the initial AOC training programme and competency check specified in these Regulations.

243. Instructor Qualifications –Flight Crew, Cabin Crew and Flight dispatcher

(1) An AOC holder shall not use a person and a person shall not serve as a flight instructor in an established flight training programme unless, with respect to the aircraft type involved, that person -

- (a) holds the personnel licences and ratings required to serve as a PIC, a flight engineer, or a flight navigator, as applicable;
- (b) has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training and differences training, that are required to serve as a PIC, flight engineer, or flight navigator, as applicable;
- (c) has satisfactorily completed the appropriate proficiency, competency and recency of experience checks that are required to serve as a PIC, flight engineer, or flight navigator, as applicable;
- (d) has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed in-flight competency check; and
- (e) holds the appropriate medical certificate for service as a required crewmember.

(2) A person shall not serve and an AOC holder shall not use a person as a Flight Instructor in a flight simulation training device, unless, since the beginning of the 12th calendar month before that service, that person has -

- (a) flown at least 5 flights as a required crewmember for the type of aircraft involved; or
- (b) observed, on the flight deck, the conduct of 2 complete flights in the aircraft type to which the person is assigned.

(3) An AOC holder shall not use a person and a person shall not serve as an instructor in an established cabin crew training programme unless, with respect to the aircraft type or position involved, that person -

- (a) holds the qualification required to serve as a cabin crewmember;
- (b) has satisfactorily completed the appropriate training phases for the aircraft and position involved, including recurrent training and differences training, that are required to serve as a cabin crewmember;

- (c) has satisfactorily completed the appropriate competency and recency of experience checks that are required to service as a cabin crewmember; and
- (d) has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed competency check.

(4) An AOC holder shall not use a person and a person shall not serve as an instructor in an established flight dispatcher training programme unless, with respect to the aircraft type and position involved, that person-

- (a) holds the licence required to serve as a flight dispatcher;
- (b) has satisfactorily completed the appropriate training phases for the aircraft or position involved, including recurrent training and differences training, that are required to serve as a flight dispatcher;
- (c) has satisfactorily completed the appropriate competency and recency of experience checks that are required to serve as a flight dispatcher; and
- (d) has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed competency check.

244. Instructor Training

(1) A person shall not serve and an AOC holder shall not use a person as an instructor for flight crew, cabin crew or flight dispatchers, unless he or she has completed the curricula approved by the Authority for those functions for which they are to serve.

(2) Specific training programme requirements for flight crew instructors are contained in Schedule 8.26.

245. Personnel Approved to Conduct Checks

(1) The Authority may approve the following AOC holder personnel to conduct checks when such personnel meet the requirements for the authorised responsibilities, and may be approved for either aircraft or simulator, or both, as applicable, for checking of flight crew check-

- (a) pilot;
- (b) flight engineer;

- (c) flight navigator;
- (d) cabin crewmember; and
- (e) flight dispatcher.

(2) The authorized duties of check personnel are to -

- (a) conduct initial and recurrent proficiency checks for flight crew and competency checks for cabin crew and flight dispatchers;
- (b) certify as satisfactory, the knowledge and proficiency of the flight crew, and the knowledge and competency of the cabin crew and flight dispatchers; and
- (c) for all check personnel, supervise operating experience (OE).

(3) A person shall not serve and an AOC holder shall not use a person as a check personnel under the AOC holder's crewmember checking and standardization programme in Part 9 unless that person has-

- (a) been identified by name and function and approved in writing by the Authority; and
- (b) successfully completed the AOC holder's curricula approved by the Authority for those functions for which he or she is to serve.

(4) Once approved, a person shall not serve and an AOC holder shall not use a person as a check personnel for any flight crew, cabin crew or flight dispatcher checks unless that person has demonstrated, initially and at least biennially to an Authority inspector, the ability to conduct a check for which he or she is approved.

246. Check Personnel Qualifications

(1) An AOC holder shall not use a person, and a person shall not serve as a check personnel in an established flight crew training programme unless, with respect to the aircraft type involved, that person-

- (a) holds the personnel licences and ratings required to serve as a PIC, a flight engineer, or a flight navigator, as applicable;
- (b) has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training and differences training, that are required to serve as a PIC, flight engineer, or flight navigator, as applicable;
- (c) has satisfactorily completed the appropriate proficiency, competency and recency of experience checks that are required to serve as a

PIC, flight engineer, or flight navigator, as applicable;

- (d) has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed in-flight competency check for check personnel duties;
- (e) holds the appropriate medical certificate if serving as a required flight crewmember; and
- (f) has been approved by the Authority for the check personnel duties involved.

(2) A person shall not serve and an AOC holder shall not use a person as a check personnel in a flight simulation training device, unless, since the beginning of the 12th calendar month before that service, that person has -

- (a) flown at least 5 flights as a required crew-member for the type of aircraft involved; or
- (b) observed, on the flight deck, the conduct of 2 complete flights in the aircraft type to which the person is assigned.

(3) An AOC holder shall not use a person and a person shall not serve as a check cabin crewmember in an established cabin crew training programme unless, with respect to the aircraft type or position involved, that person -

- (a) holds the qualifications required to serve as a cabin crewmember;
- (b) has satisfactorily completed the appropriate training phases for the aircraft and or position, including recurrent training and differences training, that are required to serve as a cabin crewmember;
- (c) has satisfactorily completed the appropriate competency and recency of experience checks that are required to serve as a cabin crewmember;
- (d) has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed competency check for the check personnel duties; and
- (e) has been approved by the Authority for the check cabin crewmember duties involved.

(4) An AOC holder shall not use a person, and a person shall not serve as a check flight dispatcher in an established flight dispatcher training programme unless, with respect to the aircraft type or position involved, that person -

- (a) holds the licence required to serve as a flight dispatcher;
- (b) has satisfactorily completed the appropriate training phases for the aircraft and or position, including recurrent training and differences training, that are required to serve as a flight dispatcher;
- (c) has satisfactorily completed the appropriate competency and recency of experience checks that are required to serve as a flight dispatcher;
- (d) has satisfactorily completed the applicable initial or transitional training requirements and the Authority-observed competency check for the check flight dispatcher duties involved; and
- (e) has been approved by the Authority for the check flight dispatcher duties involved.

247. Check Personnel Training

(1) A person shall not serve nor may any AOC holder use a person for checks unless he or she has completed the curricula approved by the Authority for those functions for which they are to serve.

(2) Specific training programme requirements for check personnel are contained in Schedule 8.29.

248. Single – Pilot Operations under IFR or at Night – Qualifications, Training, Checking

(1) A person shall not conduct single-pilot-operations under IFR or at night in commercial air transportation, in accordance with these Regulations, unless the operation is approved by the Authority and the pilot has at least 50 hours flight time in the aircraft class in which he or she is to serve and of those 50 hours, not less than 10 hours shall be as pilot in command.

(2) For single-pilot-operations conducted under IFR -

- (a) the pilot shall have at least 25 hours flight time under IFR in the type and class of aircraft in which he or she is to serve.
- (b) the 25 hours flight time under IFR referenced in b. (1) may form part of the required 50 hours flight time in aircraft class.
- (c) the pilot shall have performed in single-pilot-operations, at least 5 IFR flights including 3 instrument approaches in the class of aircraft in which he or she is to serve within 90 days preceding the flight, or

- (d) within 90 days preceding the flight, the pilot has satisfactorily completed the single-pilot-operation instrument competency check, as prescribed by the Authority, in the class of aircraft in which he or she is to serve.
- (3) For single-pilot-operations conducted at night -
- (a) the pilot shall have performed in single-pilot-operations at least 3 take offs and landings at night in the type and class of aircraft in which he or she is to serve within 90 days preceding the flight, and
 - (b) have successfully completed the approved single-pilot-operation training programme prescribed by the Authority.
- (4) A pilot shall not serve and an AOC holder shall not assign a person to operate an aircraft in single-pilot-operations in commercial air transport unless the pilot has -
- (a) successfully completed the relevant training requirements of Subpart 8.10 applicable to flight crewmembers engaged in commercial air transport;
 - (b) successfully completed the approved single-pilot operations training programme prescribed by the Authority; and
 - (c) satisfactorily completed the single-pilot operations checking requirements, as prescribed by the Authority, in the type and class of aircraft in which he or she is to serve.

249. Monitoring of Training and Checking Activities

- (1) To enable adequate supervision of its training and checking activities, the AOC holder shall forward to the Authority at least 24 hours before the scheduled activity the dates, report times and report location of all –
- (a) training for which a curriculum is approved in the AOC holder's training programme; and
 - (b) proficiency, competency and line checks.
- (2) Failure to provide the information required by sub-regulation (1) may invalidate the training or check and the Authority may require that it be repeated for observation purposes.

250. Termination of a Proficiency, Competency or Line Check

If it is necessary to terminate a check for any reason, the AOC holder may not use the crewmember or flight dispatcher in commercial air transport operations until the completion of a satisfactory recheck.

251. Recording of Crewmember and Flight dispatcher Qualifications

(1) An AOC holder shall record in its records maintained for each crewmember and flight dispatcher, the completion of each of the qualifications required by this Part.

(2) A crewmember or flight dispatcher may complete the curricula required by this Part concurrently or intermixed with other required curricula, but completion of each of these curricula shall be recorded separately.

252. Eligibility period

(1) Crewmembers required to take a proficiency check, test or competency check, or recurrent training to maintain qualification for commercial air transport operations may complete those requirements at any time during the eligibility period.

(2) The eligibility period is defined as the three calendar month period including the month-prior, the month-due, and the month-after any due date specified by this regulation.

(3) Completion of the requirement at any time during the period shall be considered as completed in the month-due for calculation of the next due date.

253. Reductions in Requirements

(1) The Authority may authorise reductions in, or waive, certain portions of the training requirements of this subpart, taking into account the previous experience of the crewmembers.

(2) An AOC holder request for reduction or waiver shall be made in writing and outline the basis under which the request is made.

(3) If the request was for a specific crewmember, the correspondence from the Authority authorising the reduction and the basis for it shall be filed in the record the AOC holder maintains for that crewmember.

(4) If approved by the Authority, a person need not complete the programmed hours of flight training for the particular aircraft if he or she -

- (a) progresses successfully through flight training,

(b) is recommended by their instructor, and

(c) successfully completes the appropriate flight check with a check person.

(5) If approved by the Authority, a person need not complete the programmed hours of cabin crew or flight dispatcher training if he or she-

(a) progresses successfully through cabin crew or flight dispatcher training;

(b) is recommended by their instructor; and

(c) successfully completes the appropriate competency check with a check person.

(6) Whenever the Authority finds that 20 percent of the checks given at a particular training base during the previous six months are unsuccessful, this method of approval will not be used by the AOC holder at that base until the Authority finds that the effectiveness of the training programme has improved.

CHAPTER XII - FATIGUE MANAGEMENT

254. Applicability

This Part is applicable to the management of fatigue-related safety risks of crewmembers and flight dispatchers engaged in commercial air transport flight operations.

255. Managing Fatigue-Related Safety Risks

(1) For the purpose of managing fatigue-related safety risks, an AOC holder shall establish either -

(a) flight time, flight duty period, duty period and rest period limitations that are within the prescriptive fatigue management regulations in Section 8.12; or

(b) a Fatigue Risk Management System (FRMS) in compliance with these Regulations.

(c) a FRMS in compliance with these Regulations for part of its operations and the requirements of Chapter 13 for the remainder of its operations.

(2) Where the operator adopts prescriptive fatigue management regulations for part or all of its operations, the Authority may approve, in exceptional circumstances, variations to these regulations on the basis of a risk assessment provided by the operator. Approved variations shall provide a level of safety equivalent to, or better than that achieved through the prescriptive fatigue management regulations.

(3) The Authority shall approve an operator's FRMS before it may take the place of any or all of the prescriptive fatigue management regulations. An approved FRMS shall provide a level of safety equivalent to, or better than, the prescriptive fatigue management regulations.

(4) Operators using an FRMS must adhere to the following provisions of the FRMS approval process that allows the Authority to ensure that the approved FRMS meets the requirements of these Regulations.

- (a) establish maximum values for flight times or flight duty period(s) and duty period(s), and minimum values for rest periods that shall be based upon scientific principles and knowledge, subject to safety assurance processes
- (b) adhere to Authority mandates to decrease maximum values and increase in minimum values in the event that the operator's data indicates these values are too high to too low, respectively; and
- (c) provide justification to the Authority for any increase in maximum values or decrease in minimum values based on accumulated FRMS experience and fatigue-related data before such changes will be approved by the Authority.

(5) Operators implementing an FRMS to manage fatigue-related safety risks shall, as a minimum -

- (a) incorporate scientific principles and knowledge within the FRMS;
- (b) identify fatigue-related safety hazards and the resulting risks on an ongoing basis;
- (c) ensure that the remedial actions, necessary to effectively mitigate the risks associated with the hazards, are implemented promptly;
- (d) provide for continuous monitoring and regular assessment of the mitigation of fatigue risks achieved by such actions; and
- (e) provide for continuous improvement to the overall performance of the FRMS.

256. Duty and rest periods

Duty and rest periods for flight crew and cabin crew are contained in Schedule 8.33.

CHAPTER XIII - FLIGHT TIME, FLIGHT DUTY PERIODS, DUTY PERIODS, AND REST PERIODS FOR FATIGUE MANAGEMENT

257. Applicability

This Part is applicable to the rest, duty and flight time limitations of crewmembers and flight dispatchers engaged in commercial air transport flight operations.

258. Duty and Rest Periods – All Crewmembers and Flight dispatchers

(1) With respect to duty periods-

- (a) persons are considered to be on duty if they are performing any tasks on behalf of the AOC holder, whether scheduled, requested or self-initiated;
- (b) if an AOC holder requires a flight crewmember to engage in deadhead transportation for more than 4 hours, one half of that time shall be treated as duty time, unless they are given 10 hours of rest on the ground before being assigned to flight duty;
- (c) an AOC holder shall not schedule-
 - (i) a flight crew member for more than 14 hours of duty, except as prescribed by the Authority,
 - (ii) a cabin crew member for more than 14 consecutive hours of duty, except as prescribed by the Authority, and
 - (iii) a flight operations officer and aircraft dispatcher for more than 10 consecutive hours of duty within a 24 consecutive hour period, unless that person is given an intervening rest period of at least 8 hours at or before the end of the 10 hours duty, except in cases where circumstances or emergency conditions beyond the control of the AOC holder require otherwise-
 - (A) each AOC holder shall establish the daily duty period for a flight dispatcher so that it begins at a time that allows him or her to become thoroughly familiar with existing and anticipated weather conditions along the route before he or

she dispatches any aircraft, or

- (B) he or she shall remain on duty until each aircraft dispatched by him or her has completed its flight or has gone beyond his or her jurisdiction or until he or she is relieved by another qualified dispatcher.

(2) With respect to rest periods -

- (a) the minimum rest period is considered to be 8 consecutive hours;
- (b) the minimum rest period for flight crewmembers shall be 9 consecutive hours, unless otherwise prescribed by the Authority;
- (c) the AOC holder may exercise the option to reduce a crewmember's rest period within the limitations prescribed under Schedule 8.33;
- (d) the AOC holder shall relieve the flight crewmember, flight dispatcher or cabin crewmember from all duties for 24 consecutive hours during any 7 consecutive day period;
- (e) time spent in transportation, not local in character, which is required by the AOC holder to position crewmembers to or from flights is not considered part of a rest period;
- (f) time spent in transportation on aircraft (at the insistence of the AOC holder) to or from a crewmember's home station is not considered part of a rest period; and
- (g) an AOC holder shall not assign, nor may any person-
 - (i) perform duties in commercial air transportation unless that person has had at least the minimum rest period applicable to those duties as prescribed by the Authority; or
 - (ii) accept an assignment to any duty with the AOC holder during any required rest period.

259. Duty Aloft – Flight Crew

(1) The Authority shall consider all time spent on an aircraft as an assigned flight crewmember or relief flight crewmember, whether resting or performing tasks, to be duty aloft.

(2) The Authority shall consider a flight crewmember to be on continuous duty aloft unless the flight crewmember receives a rest period of 8

consecutive hours on the ground.

(3) Each AOC holder shall provide adequate sleeping quarters, including a berth on the aircraft whenever a flight crewmember is scheduled to be aloft for more than 12 hours during any 24 consecutive hours.

260. Maximum number of flight time hours – flight crew

(1) A person shall not schedule a flight crewmember and a flight crewmember shall not accept an assignment for flight time in commercial air transportation, if that flight crewmember's total flight time will exceed 8 hours in any 24 consecutive hours.

(2) A person shall schedule any flight crewmember and a flight crewmember shall not accept an assignment as a required crewmember for more than 7 flights in commercial air transportation during any period of 18 consecutive hours, whichever comes first.

(3) A person shall not schedule any flight crewmember and a flight crewmember shall not accept an assignment for flight time in commercial air transportation, if that flight crewmember's total flight time will exceed 30 hours in any 7-day period.

(4) A person shall not schedule any flight crewmember and a flight crewmember shall not accept an assignment for flight time in commercial air transportation, if that flight crewmember's total flight time will exceed 100 hours in any 30-day period.

(5) A person shall not schedule any flight crewmember and a flight crewmember shall not accept an assignment for flight time in commercial air transportation, if that flight crewmember's total flight time, total flights or duty aloft in commercial flying will exceed the limitations prescribed by the Authority.

(6) A person shall not schedule any flight crewmember and a flight crewmember shall not accept an assignment for flight time in commercial air transportation, if that flight crewmember's total flight time will exceed 1000 hours in any 12-calendar month period.

261. Compliance with Scheduling Requirements

(1) The Authority shall consider a person in compliance with prescribed standards if that person exceeds flight or duty limitations when-

(a) the flight is scheduled and normally terminates within the prescribed

limitations; but

- (b) due to circumstances beyond the control of the AOC holder (such as adverse weather conditions) are not expected at the time of departure to reach the destination within the scheduled time.

(2) The Authority shall consider a person in compliance with prescribed duty limitations, if that person exceeds applicable limitations during emergency or adverse situations beyond the control of the AOC holder.

262. Special Flight Duty Schemes

(1) The Authority may approve a special flight duty scheme for an AOC holder.

(2) An AOC holder may elect to apply the flight crewmember flight duty and rest requirements to the cabin crewmembers.

263. Flight Time, Duty and Rest Period Records

Each AOC holder shall maintain records for each crew member and flight dispatcher of flight time, flight duty periods, duty periods, and rest periods for a period of 24 months.

CHAPTER XIV - FLIGHT RELEASE-COMMERCIAL AIR TRANSPORT

264. Applicability

This Part is applicable to an AOC holder and the person designated by the AOC holder to issue a flight release.

265. Qualified Persons Required for Operational Control Functions

(1) A qualified person shall be designated by the AOC holder to exercise the functions and responsibilities for operational control of each flight in commercial air transport.

(2) For passenger-carrying flights conducted on a published schedule, a licensed and qualified flight dispatcher shall be on-duty at an operations base to perform the operational control functions.

(3) For all other flights, the Director of Operations and the PIC are the qualified persons exercising operational control responsibilities, and shall be available for consultation before, during and immediately following the flight

operation.

(4) The Director of Operations may delegate the functions for initiating, continuation, diversion and termination of a flight to other employees. However, the Direction of Operations shall retain full responsibility for these functions.

(5) For all flights, the PIC shares in the responsibility for operational control of the aircraft and has the situational authority to make decisions regarding operational control issues in-flight.

(6) Where a decision of the PIC differs from that recommended, the person making the recommendation shall make a record of the associated facts.

266. Functions Associated with Operational Control

A person exercising responsibility for operational control for an AOC holder shall-

- (a) authorise the specific flight operation;
- (b) ensure that only those operations authorised by the AOC operations specifications are conducted;
- (c) ensure that an airworthy aircraft properly equipped for the flight is available;
- (d) specify the conditions under which a flight may be dispatched or released (weather minimums, flight planning, aircraft loading, and fuel requirements);
- (e) ensure that qualified personnel and adequate facilities are available to support and conduct the flight;
- (f) ensure that crewmembers are in compliance with the flight and duty time requirements when departing on a flight;
- (g) provide the PIC and other personnel who perform operational control functions with access to the necessary information for the safe conduct of a flight (such as weather, NOTAMS and aerodrome analysis);
- (h) ensure that proper flight planning and preparation is made;
- (i) ensure that flight locating and flight following procedures are

followed;

- (j) ensure that each flight has complied with the conditions specified for release before it is allowed to depart;
- (k) ensure that when the conditions specified for a release cannot be met, the flight is either cancelled, delayed, re-routed, or diverted; and
- (l) for all flights, ensure the monitoring of the progress of the flight and the provision of information that may be necessary to safety.

267. Operational Control Duties

(1) For all flights, the qualified person performing the duties of a flight dispatcher shall-

- (a) assist the PIC in flight preparation and provide the relevant information required;
- (b) assist the PIC in preparing the operational and ATC flight plans;
- (c) sign the dispatch copy of the flight release;
- (d) furnish the PIC while in flight, by appropriate means, with information which may be necessary for the safe conduct of the flight; and
- (e) in the event of an emergency situation which endangers the safety of the aeroplane or persons becomes known first to the flight dispatcher, action by that persons shall be in accordance with such procedures as outlined in the AOC holder's operations manual. Where necessary, immediately notify the appropriate authorities on the nature of the situation, and if required, a request for assistance.

(2) A qualified person performing the operational control duties shall avoid taking any action that would conflict with the procedures established by-

- (a) ATC;
- (b) the meteorological service;

- (c) the communications service; or
- (d) AOC holder.

268. Contents of a Flight Release or Operational Flight Plan

(1) The dispatch or flight release or operational flight plan shall contain or have attached at least, the following information concerning each flight-

- (a) company or organisation name;
- (b) make, model, and registration number of the aircraft being used;
- (c) flight or trip number, and date of flight;
- (d) name of each flight crewmember, cabin crewmember, and PIC;
- (e) departure aerodrome, destination aerodromes, alternate aerodromes, and route;
- (f) minimum fuel supply (in gallons or pounds);
- (g) a statement of the type of operation (e.g., IFR, VFR);
- (h) the latest available weather reports and forecasts for the destination aerodrome and alternate aerodromes; and
- (i) any additional available weather information that the PIC considers necessary.

(2) The dispatch, flight release or operational flight plan shall be signed by the PIC and, when applicable, the flight dispatcher, and a copy shall be filed with operator or a designated agent. If these procedures are not possible, it shall be left with the aerodrome authority or on record at a suitable place at the point of departure.

269. Flight Release—Aircraft Requirements

(1) A person shall not issue a flight release for a commercial air transport operation unless the aircraft is airworthy and properly equipped for the intended flight operation.

(2) A person shall not issue a flight release for a commercial air transport operation using an aircraft with inoperative instruments and equipment installed, except as specified in the MEL approved for the AOC holder for that type aircraft.

(3) A person shall not issue a flight release for a commercial air transport operation using an aircraft unless a maintenance release has been issued for that aircraft.

(4) A person shall not issue a flight release for a commercial air transport operation unless the requirements of these Regulations for operational flight planning have been met.

(5) Completed flight preparation forms shall be kept by an operator for a period of three months.

270. Flight Release—Facilities and NOTAMS

(1) A person shall not release an aircraft over any route or route segment unless there are adequate communications and navigational facilities in satisfactory operating condition as necessary to conduct the flight safely.

(2) The flight dispatcher shall ensure that the PIC is provided all available current reports or information on aerodrome conditions and irregularities of navigation facilities that may affect the safety of the flight.

(3) A person shall not issue a flight release for a commercial air transport operation unless the requirements of these Regulations for operational flight planning have been complied met.

(4) Completed flight preparation forms shall be kept by an operator for a period of three months.

271. Flight Release—Weather Reports and Forecasts

(1) A person shall not release a flight unless he or she is thoroughly familiar with reported and forecast weather conditions on the route to be flown.

(2) A person shall not release a flight unless he or she has communicated all information and reservations they may have regarding weather reports and forecasts to the PIC.

(3) A person shall not issue a flight release for a commercial air transport operation unless the requirements of these Regulations for operational flight

planning have been complied with.

(4) Completed flight preparation forms shall be kept by an operator for a period of three months.

272. Flight Release — in Icing Conditions

(1) A person shall not release an aircraft, when in their opinion or that of the PIC, the icing conditions that may be expected or are met exceed that for which the aircraft is certified and has sufficient operational de-icing or anti-icing equipment.

(2) A person shall not release an aircraft any time conditions are such that frost, ice or snow may reasonably be expected to adhere to the aircraft, unless there is available to the PIC at the aerodrome of departure adequate facilities and equipment to accomplish the procedures approved for the AOC holder by the Authority for ground de-icing and anti-icing.

(3) A person shall not issue a flight release for a commercial air transport operation unless the requirements of these Regulations for operational flight planning have been complied with.

(4) Completed flight preparation forms shall be kept by an operator for a period of 3 months.

273. Flight Release — under VFR or IFR

A person shall not release a flight under VFR or IFR unless the weather reports and forecasts indicated that the flight can reasonably be expected to be completed as specified in the release.

274. Flight Release—Minimum Fuel Supply

(1) A person shall not issue a flight release for a commercial air transport operation unless the fuel supply specified in the release is equivalent to or greater than the minimum flight planning requirements of this Part, including anticipated contingencies.

(2) A person shall not issue a flight release for a commercial air transport operation unless the requirements of these Regulations for operational flight planning have been met.

(3) Completed flight preparation forms shall be kept by an operator for a period of three months.

275. Flight Release—Aircraft Loading and Performance

(1) A person shall not issue a flight release unless he or she is familiar with the anticipated loading of the aircraft and is reasonably certain that the proposed operation will not exceed the-

- (a) centre of gravity limits;
- (b) aircraft operating limitations; and
- (c) minimum performance requirements.

(2) A person shall not issue a flight release for a commercial air transport operation unless any load carried is properly distributed and safely secured.

(3) A person shall not issue a flight release for a commercial air transport operation unless the requirements of these Regulations for operational flight planning have been met.

(4) Completed flight preparation forms shall be kept by an operator for a period of three months.

276. Flight Release—Amendment or Re-Release En Route

(1) A person who amends a flight release while the flight is en route shall record that amendment.

(2) A person shall not amend the original flight release to change the destination or alternate aerodrome while the aircraft is en route unless the flight preparation requirements for routing, aerodrome selection and minimum fuel supply are met at the time of amendment or re-release.

(3) A person shall not allow a flight to continue to an aerodrome to which it has been released if the weather reports and forecasts indicate changes that would render that aerodrome unsuitable for the original flight release.

(4) A person shall not issue a flight release for a commercial air transport operation unless the requirements of these Regulations for operational flight planning have been met.

277. Flight Release—with Airborne Weather Radar Equipment

(1) A person shall not release a large aircraft carrying passengers under IFR

or night VFR conditions when current weather reports indicate that thunderstorms, or other potentially hazardous weather conditions that can be detected with airborne weather radar, may reasonably be expected along the route to be flown, unless the airborne weather radar equipment is in satisfactory operating condition.

(2) A person shall not issue a flight release for a commercial air transport operation unless the requirements of these Regulations for operational flight planning have been met.

(3) Completed flight preparation forms shall be kept by an operator for a period of three months.

SCHEDULE

SUPPLEMENTARY PROVISIONS RELATING TO PART 8

8.1 General – Rotorcraft Class 1, 2, and 3 code of performance

(1) The following guidance material is the basis of the code of helicopter performance referenced in these Regulations.

(2) In this Part-

- (a) Category A, with respect to helicopters, means a multi-engined helicopter designed with engine and system isolation features and capable of operations using take-off and landing data scheduled under a critical engine failure concept which assures adequate designated surface area and adequate performance capability for continued safe flight or safe rejected take-off; and
- (b) Category B, with respect to helicopters, means a single engine or multi-engined helicopter which does not meet Category A standards. Category B helicopters have no guaranteed capability to continue safe flight in the event of an engine failure, and a forced landing is assumed.

(3) Helicopters operating in performance Classes 1 and 2 shall be certificated in Category A.

(4) Helicopters operating in performance Class 3 shall be certificated in either Category A or Category B (or equivalent).

(5) Except as permitted by the appropriate Authority-

- (a) take-off or landing from or to heliports in a congested hostile environment should only be conducted in performance Class 1;
- (b) operations in performance Class 2 should only be conducted with a safe forced landing capability during take-off and landing or, and
- (c) operations in performance Class 3 should only be conducted in a non-hostile environment.

(6) The Authority may grant a waiver from the provisions of sub-regulation (5) (a) (b) and (c) upon receiving a commercial air transport operator's application for waiver and undertaking a risk assessment of the operational conditions proposed, including-

- (a) the type of operation and the circumstances of the flight;
- (b) the area or terrain over which the flight is being conducted;
- (c) the probability of a critical power-unit failure and the consequence of such an event;
- (d) the procedures to maintain the reliability of the power-unit(s);
- (e) the training and operational procedures to mitigate the consequences of the critical power-unit failure; and
- (f) installation and utilisation of a usage monitoring system.

8.2 Single and Multi-Engine Aeroplane Operations

(1) In addition to the requirements outlined under Regulation 98, an AOC holder seeking approval from the Authority to operate single-engine turbine-powered aeroplanes at night or in IMC shall comply with the additional requirements of this implementing standard.

(2) An AOC holder shall not operate single-engine, turbine-powered aeroplanes at night or in IMC unless the following airworthiness and operational requirements have been satisfied by the operator and approved by the Authority-

- (a) turbine Engine Reliability; and
 - (b) turbine engine reliability shall be shown to have a power loss rate of less than 1 per 100000 engine hours.
- (3) The operator shall be responsible for engine trend monitoring.
- (4) To minimize the probability of in-flight engine failure, the engine shall be equipped with-
- (a) an ignition system that activates automatically, or is capable of being operated manually for take-off and landing, and during flight, in visible moisture;
 - (b) a magnetic particle detection or equivalent system that monitors the engine, accessories gearbox, and reduction gearbox, and which includes a flight deck caution indication; and
 - (c) an emergency engine power control device that permits continuing operation of the engine through a sufficient power range to safely complete the flight in the event of any reasonably probable failure of the fuel control unit.
- (5) Single-engine turbine-powered aeroplanes approved to operate at night or in IMC shall be equipped with the following systems and equipment intended to ensure continued safe flight and to assist in achieving a safe forced landing after an engine failure, under all allowable operating conditions-
- (a) two separate electrical generating systems, each one capable of supplying all probable combinations of continuous in-flight electrical loads for instruments, equipment and systems required at night or in IMC;
 - (b) a radio altimeter;
 - (c) an emergency electrical supply system of sufficient capacity and endurance, following loss of all generated power, to as a minimum-
 - (i) maintain the operation of all essential flight instruments, communication and navigation systems during a descent from the maximum certificated altitude in a glide configuration to the completion of a landing,
 - (ii) lower the flaps and landing gear, if applicable,
 - (iii) provide power to one pitot heater, which must serve an air

speed indicator clearly visible to the pilot,

- (iv) provide for operation of the landing light specified in (5)(j) below,
 - (v) provide for one engine restart, if applicable, and
 - (vi) provide for the operation of the radio altimeter;
- (d) two attitude indicators, powered from independent sources;
- (e) a means to provide for at least one attempt at engine re-start;
- (f) airborne weather radar;
- (g) a certified area navigation system capable of being programmed with the positions of aerodromes and safe forced landing areas, and providing instantly available track and distance information to those locations;
- (h) for passenger operations, passenger seats and mounts which meet dynamically-tested performance standards and which are fitted with a shoulder harness or a safety belt with a diagonal shoulder strap for each passenger seat;
- (i) in pressurised aeroplanes, sufficient supplemental oxygen for all occupants for descent following engine failure at the maximum glide performance from the maximum certificated altitude to an altitude at which supplemental oxygen is no longer required;
- (j) a landing light that is independent of the landing gear and is capable of adequately illuminating the touchdown area in a night forced landing; and
- (k) an engine fire warning system.

(6) Minimum Equipment List (MEL). An AOC holder shall develop a Minimum Equipment List (MEL) approved by the Authority that is appropriate to the type of single-engine turbine-powered aeroplane operated specifying the operating equipment required for night or IMC operations, and for day or VMC operations.

(7) The Aeroplane Flight Manual (AFM) shall include limitations, procedures, approval status and other information relevant to operations by single-engine turbine-powered aeroplanes at night or in IMC.

(8) An AOC holder operating turbine-powered aeroplanes at night or in IMC shall report all significant failures, malfunctions or defects to the Authority

who in turn will notify the State of Design.

(9) Each AOC holder operating single-engine turbine-powered aeroplanes at night or in IMC shall take account of all relevant information in the assessment of intended routes or areas of operations, including the following-

- (a) the nature of the terrain to be overflown, including the potential for carrying out a safe forced landing in the event of an engine failure or major malfunction;
- (b) weather information, including seasonal and other adverse meteorological influences that may affect the flight; and
- (c) other criteria and limitations as specified by the Authority.

(10) Each AOC holder shall identify aerodromes or safe forced landing areas available for use in the event of engine failure and the position of these shall be programmed into the area navigation system.

Note 1: A 'safe' forced landing in this context means a landing in an area at which it can reasonably be expected that it will not lead to serious injury or loss of life, even though the aeroplane may incur extensive damage.

Note 2: Operation over routes and in weather conditions that permit a safe forced landing in the event of an engine failure, as specified in Subsection 8.8.1.30 (a) is not required for aeroplanes approved in accordance with Subsection 8.8.1.30 (a)(1). The availability of forced landing areas at all points along a route is not specified for these aeroplanes because of the very high engine reliability, additional systems and operational equipment, procedures and training requirements specified in this implementing standard.

(11) Flight Crew Experience, Training and Checking-

- (a) a person shall not serve and an AOC holder shall not use a flight crewmember in single-engine turbine-powered aeroplanes engaged in commercial air transport unless he or she has completed the appropriate flight crewmember training as specified in this Part and approved by the Authority; and
- (b) the AOC holder's approved flight crew training and checking shall be appropriate to night or IMC operations by single engine turbine-powered aeroplanes, covering normal, abnormal and emergency procedures and, in particular, engine failure, including descent to a forced landing in night or in IMC conditions.

(12) Route Limitations Over Water-

- (a) an AOC holder shall not conduct over water operations using single-engine turbine-powered aeroplanes operating at night or in IMC except in areas of operation or over specific routes identified in the AOC holder's operation specifications; and
- (b) an AOC holder shall not conduct over water operations using single-engine turbine-powered aeroplanes operating at night or in IMC except in accordance with procedures approved by the Authority in the AOC holder's operations manual for over water operations covering flight beyond gliding distance from an area suitable for a safe forced landing or ditching having regard to the characteristics of the aeroplane, seasonal weather influences, including likely sea state and temperature, and the availability of search and rescue services.

(13) An AOC holder applying for operations specifications granting authorisation to conduct single-engine turbine-powered aeroplane operations at night or in IMC shall demonstrate to the Authority consistent with Part 9 Air Operator Certification & Administration, the ability to conduct operations by single-engine turbine-powered aeroplanes at night or in IMC through a certification and approval process specified by the Authority.

8.3 Instrument Approach Operating Minima

(1) An operator establishing aerodrome-operating minima shall have its method for determining such minima approved by the Authority.

(2) An operator's method for determining aerodrome-operating minima shall accurately account for -

- (a) the type, performance and handling characteristics of the aircraft;
- (b) the composition and experience of the flight crew;
- (c) the dimensions and characteristics of the runways selected for use;
- (d) aircraft equipment used for navigation and aircraft control during the approach to landing and the missed approach;
- (e) obstacles in the approach and missed approach areas and the obstacle clearance altitude or height for the intended instrument approach procedures;

- (f) the means used to determine and report meteorological conditions;
- (g) the obstacles in the climb out areas and the necessary clearance margins;
- (h) the adequacy and performance of the available visual and non-visual ground aids; and
- (i) the declared distances, for helicopters.

8.4 Category II and III Manual

(1) An applicant for approval of a Category II or III manual or an amendment to an approved Category II or III manual shall submit the proposed manual or amendment to the Authority, and if the applicant requests an evaluation programme, it shall include the following-

- (a) the location of the aircraft and the place where the demonstrations are to be conducted; and
- (b) the date the demonstrations are to commence (at least 10 days after filing the application).

(2) A Category II or III manual shall contain-

- (a) the registration mark, make, and model of the aircraft to which it applies;
- (b) a maintenance programme; and
- (c) the procedures and instructions related to recognition of DH, use of runway visual range (RVR) information, approach monitoring, the decision region (the region between the middle marker and the decision height), the maximum permissible deviations of the basic ILS indicator within the decision region, a missed approach, use of airborne low approach equipment, minimum altitude for the use of the autopilot, instrument and equipment failure warning systems, instrument failure, and other procedures, instructions, and limitations that may be found necessary by the Authority.

8.5 Interception of Civil Aircraft

(1) The Gambia shall observe the following principles regarding the

interception of civil aircraft -

- (a) interception of civil aircraft shall be undertaken only as a last resort;
- (b) if undertaken, an interception shall be limited to determining the identity of the aircraft, unless it is necessary to return the aircraft to its planned track, direct it beyond the boundaries of national airspace, guide it away from a prohibited, restricted or danger area or instruct it to effect a landing at a designated aerodrome;
- (c) practice interception of civil aircraft shall not be undertaken;
- (d) navigational guidance and related information will be given to an intercepted aircraft by radiotelephony, whenever radio contact can be established; and
- (e) in the case where an intercepted civil aircraft is required to land in the territory overflown, the aerodrome designated for the landing is to be suitable for the safe landing of the aircraft type concerned.

note: In the unanimous adoption by the 25th Session (Extraordinary) of the ICAO Assembly on 10 May 1984 of Article 3 bis to the Convention on International Civil Aviation, the Contracting States have recognised that "every State must refrain from resorting to the use of weapons against civil aircraft in flight."

(2) The Gambia shall ensure that -

- (a) a standard method has been established and made available to the public for the manoeuvring of aircraft intercepting a civil aircraft that is designed to avoid any hazard for the intercepted aircraft; and
- (b) provision is made for the use of secondary surveillance radar or ADS-B, where available, to identify civil aircraft in areas where they may be subject to interception.

(3) A PIC of an aircraft that is intercepted by another aircraft shall immediately -

- (a) follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with the specifications in item (e) below;
- (b) notify, if possible, the appropriate air traffic services unit;
- (c) attempt to establish radio communication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call

on the emergency frequency 121.5 MHz, giving the identity of the intercepted aircraft and the nature of the flight; and if no contact has been established and if practicable, repeating this call on the emergency frequency 243 MHz;

- (d) if equipped with SSR transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate air traffic services unit; and
- (e) if equipped with ADS-B or ADS-C, select the appropriate emergency functionality, if available, unless otherwise instructed by the appropriate air traffic services unit.

(4) If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the PIC of the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.

(5) If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the PIC of the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.

(6) If radio contact is established during interception but communication in a common language is not possible, the PIC of each involved aircraft shall attempt to convey instructions, acknowledgement of instructions and essential at information by using the phrases and pronunciations in Table 1 below and transmitting each phrase twice-

Table 1

Phrases for use by INTERCEPTING aircraft			Phrases for use by INTERCEPTED aircraft		
Phrase	Pronunciation 1	Meaning	Phrase	Pronunciation 1	Meaning
CALL SIGN	KOL SA-IN	What is your call sign?	CALL SIGN (call sign)2	KOL SA-IN (call sign)	My call sign is (call sign)
FOLLOW	FOL-LO	Follow me	WILCO	VILL-KO	Understood Will comply
DESCEND	DEE-SEND	Descend for landing	CAN NOT	KANN NOTT	Unable to comply
YOU LAND	YOU LAAND	Land at this aerodrome	REPEAT	REE-PEET	Repeat your instruction
PROCEED	PRO-SEED	You may proceed	AM LOST	AM LOSST	Position unknown
			MAYDAY	MAYDAY	I am in distress

			HIJACK3	HI-JACK	I have been hijacked
			LAND. (place name)	LAAND (place name)	I request to land at (place name)
			DESCEN D	DEE-SEND	I require descent
<ol style="list-style-type: none"> 1. In the second column, syllables to be emphasised are underlined. 2. The call sign required to be given is that used in radiotelephone, communications with air traffic services units and corresponding to the aircraft identification in the flight plan. 3. Circumstances may not always permit, nor make desirable, the use of the phrase "HIJACK". 					

The signals in Table 2 shall be used by the pilots of each involved aircraft in the event of interception. Signals initiated by intercepting aircraft and responses by intercepted aircraft.

Table 2

Series	INTERCEPTING Aircraft Signals	Meaning	INTERCEPTED Aircraft Responds	Meaning
1	<p>DAY or NIGHT – Rocking aircraft and flashing navigational lights at irregular intervals (and landing lights in the case of a helicopter) from a position slightly above and ahead of, and normally to the left of, the intercepted aircraft (or to the right if the intercepted aircraft is a helicopter) and, after acknowledgement, a slow level turn, normally to the left, (or to the right in the case of a helicopter) on the desired heading.</p> <p><i>Note: Meteorological conditions or terrain may require the intercepting aircraft to reverse the positions and direction of turn given above in</i></p>	You have been intercepted. Follow me.	DAY or NIGHT –Rocking aircraft. flashing navigational lights at irregular intervals and following.	Understood, will comply.

	<p><i>Series 1.</i></p> <p><i>Note: If the intercepting aircraft is not able to keep pace with the intercepting aircraft, the latter is expected to fly a series of race-track patterns and to rock the aircraft each time it passes the intercepted aircraft.</i></p>			
2	DAY or NIGHT – An abrupt break-away manoeuvre from the intercepted aircraft consisting of a climbing turn of 90 degrees or more without crossing the line of flight of the intercepted aircraft.	You may proceed.	DAY or NIGHT –Rocking the aircraft.	Understood, will comply.
3	DAY or NIGHT – Lowering landing gear (if fitted), showing steady landing lights and overflying runway in use or, if the intercepted aircraft is a helicopter, overflying the helicopter landing area. In the case of helicopters, the intercepting helicopter makes a landing approach, coming to hover near to the landing area.	Land at this aerodrome.	DAY or NIGHT –Lowering landing gear (if fitted), showing steady landing lights and following the intercepting aircraft and, if, after overflying the runway in use or helicopter landing area, landing is considered safe, proceeding to land.	Understood, will comply.
4	DAY or NIGHT – Raising landing gear (if fitted) and flashing landing lights while passing over runway in use or helicopter landing area at a height exceeding 300 m (1000 ft) but not exceeding 600 m (2000 ft) (in the case of a helicopter, at a height exceeding 50 m (170 ft) but not exceeding 100 m (330 ft) above the aerodrome level, and continuing to circle runway in use or helicopter landing area. If unable to flash landing lights, flash any other lights available.	Aerodrome you have designated is inadequate.	DAY or NIGHT – If it is desired that the intercepted aircraft follow the intercepting aircraft to an alternate aerodrome, the intercepting aircraft raises its landing gear (if fitted) and uses the Series 1 signals prescribed for intercepting aircraft. If it is decided to release the intercepted aircraft, the intercepting aircraft uses the Series 2 signals	Understood, follow me. Understood, you may proceed.

			prescribed for intercepting aircraft.	
5	DAY or NIGHT – Regular switching on and off of all available lights but in such a manner as to be distinct from flashing lights.	Cannot comply.	DAY or NIGHT – Use Series 2 signals prescribed for intercepting aircraft.	
6	DAY or NIGHT – Irregular flashing of all available lights.	In distress.	DAY or NIGHT – Use Series 2 signals prescribed for intercepting aircraft.	Understood

8.6 Remotely Piloted Aircraft (RPA)

A Gambian Operator's application form to operate RPA within The Gambia shall be as laid down by the Authority.

8.7 Universal Aviation Signals

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

Note 1: None of the provisions in this section shall prevent the use, by an aircraft in distress, of any means at its disposal to attract attention, make known its position and obtain help.

Note 2: For full details of telecommunication transmission procedures for the distress and urgency signals, see ICAO Annex 10, Volume II, Chapter 5.

Note 3: For details of the search and rescue visual signals, see ICAO Annex 12.

- (a) a signal made by radiotelegraphy or by any other signalling method consisting of the group SOS (••• — — — •••) in the Morse Code;
- (b) a signal sent by radiotelephony consisting of the spoken word MAYDAY;
- (c) rockets or shells throwing red lights, fired one at a time at short intervals; and
- (d) a parachute flare showing a red light.

Note: Article 41 of the ITU Radio Regulations (Nos. 3268, 3270 and 3271 refer) provides information on the alarm signals for actuating radiotelegraph and radiotelephone auto-alarm systems: 3268 The radiotelegraph alarm signal consists of a series of twelve dashes sent in one minute, the duration of each dash being four seconds and the duration of the interval between consecutive dashes one second. It may be transmitted by hand but its transmission by means of an automatic instrument is recommended. 3270 The radiotelephone alarm signal consists of two substantially sinusoidal audio frequency tones transmitted alternately. One tone shall have a frequency of 2200 Hz and the other a frequency of 1300 Hz, the duration of each tone being 250 milliseconds. 3271 The radiotelephone alarm signal, when generated by automatic means, shall be sent continuously for a period of at least thirty seconds but not exceeding one minute; when generated by other means, the signal shall be sent as continuously as practicable over a period of approximately one minute.

(2) The following signals, used either together or separately, mean that an aircraft wishes to give notice of difficulties which compel it to land without requiring immediate assistance-

- (a) the repeated switching on and off of the landing lights; or
- (b) the repeated switching on and off of the navigation lights in such manner as to be distinct from flashing navigation lights.

(3) The following signals, used either together or separately, mean that an aircraft has a very urgent message to transmit concerning the safety of a ship, aircraft or other vehicle, or of some person on board or within sight-

- (a) a signal made by radiotelegraphy or by any other signalling method consisting of the group XXX; and
- (b) a signal sent by radiotelephony consisting of the spoken words PAN, PAN.

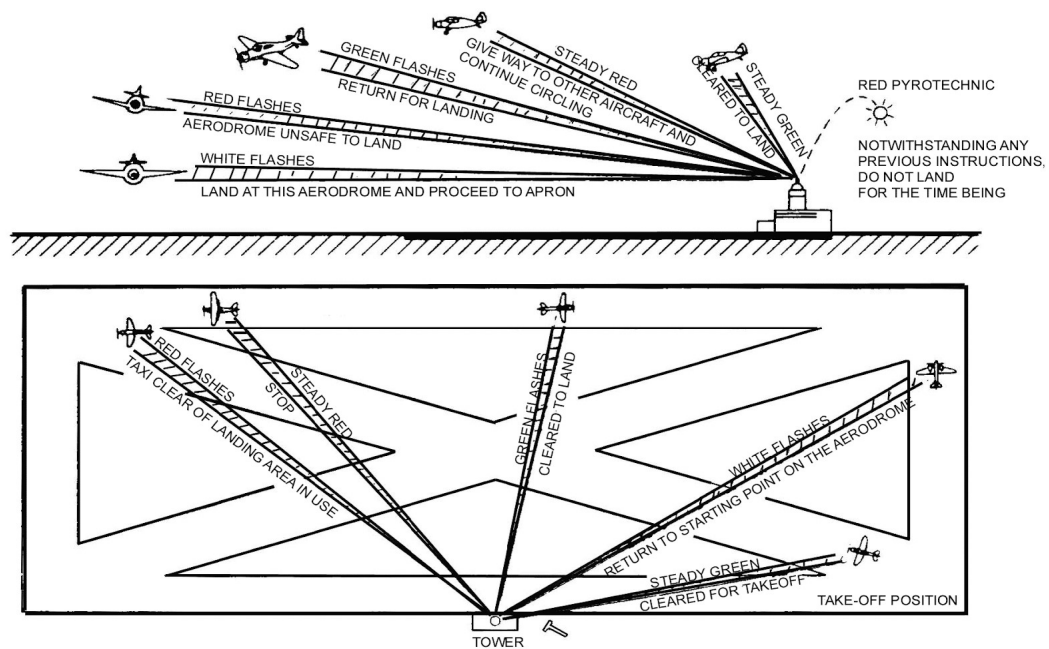
(4) Visual signals used to warn an unauthorised aircraft. By day and by night, a series of projectiles discharged from the ground at intervals of 10 seconds, each showing, on bursting, red and green lights or stars will indicate to an unauthorised aircraft that it is flying in or about to enter a restricted, prohibited, or danger area, and that the aircraft is to take such remedial action as may be necessary.

(5) Signals for aerodrome traffic. Aerodrome controllers shall use and pilots shall obey the following light and pyrotechnic signals:

Light		From Aerodrome Control to:	
		Aircraft in flight	Aircraft on the ground
Directed towards aircraft concerned (See Figure 1.1)	Steady green.	Cleared to land.	Cleared for takeoff.
	Steady red.	Give way to other aircraft and continue circling.	Stop
	Series of green flashes.	Return for landing.*	Cleared to taxi.
	Series of red flashes.	Aerodrome unsafe, do not land.	Taxi clear of landing area in use.
	Series of white flashes	Land at this aerodrome and proceed to apron*.	Return to starting point on the aerodrome
	Red pyrotechnic	Notwithstanding any previous instructions, do not land for the time being	

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

Figure 8.1



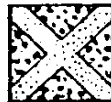
(6) Pilots shall acknowledge aerodrome controller signals as follows-

- (a) when in flight -
 - (i) during the hours of daylight, by rocking the aircraft's wings, or
 - (ii) during the hours of darkness, by flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights.
- (b) when on the ground -
 - (i) during the hours of daylight, by moving the aircraft's ailerons or rudder, or
 - (ii) during the hours of darkness, by flashing on and off twice the aircraft's landing lights or, if not so equipped, by switching on and off twice its navigation lights.

(7) Aerodrome authorities shall use the following visual ground signals during the following situations-

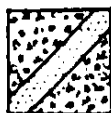
- (a) Prohibition of landing - a horizontal red square panel with yellow diagonals (Figure 8.2) when displayed in a signal area indicates that landings are prohibited and that the prohibition is liable to be prolonged;

Figure 8.2



- (b) Need for special precautions while approaching or landing - a horizontal red square panel with one yellow diagonal (Figure 8.3) when displayed in a signal area indicates that owing to the bad state of the manoeuvring area, or for any other reason, special precautions must be observed in approaching to land or in landing;

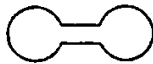
Figure 8.3



(c) Use of runways and taxiways-

- (i) a horizontal white dumb-bell (Figure 8.4) when displayed in a signal area indicates that aircraft are required to land, take off and taxi on runways and taxiways only,

Figure 8.4



- (ii) the same horizontal white dumb-bell as in Figure 8.4, but with a black bar placed perpendicular to the shaft across each circular portion of the dumb-bell (Figure 8.5) when displayed in a signal area indicates that aircraft are required to land and take off on runways only, but other manoeuvres need not be confined to runways and taxiways,

Figure 8.5



- (d) Closed runways or taxiways. Crosses of a single contrasting colour, yellow or white (Figure 8.6), displayed horizontally on runways and taxiways or parts thereof indicate an area unfit for movement of aircraft;

Figure 8.6

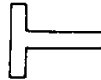


(e) Directions for landing or takeoff -

- (i) a horizontal white or orange landing T (Figure 8.7) indicates the direction to be used by aircraft for landing and take-off, which shall be in a direction parallel to the shaft of the T towards the cross arm,

Note: When used at night, the landing T is either illuminated or outlined in white coloured lights.

Figure 8.7



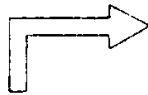
- (ii) a set of two digits (Figure 8.8) displayed vertically at or near the aerodrome control tower indicates to aircraft on the manoeuvring area the direction for takeoff, expressed in units of 10 degrees to the nearest 10 degrees of the magnetic compass,

Figure 8.8



- (f) Right-hand traffic - when displayed in a signal area, or horizontally at the end of the runway or strip in use, a right-hand arrow of conspicuous colour (Figure 8.9) indicates that turns are to be made to the right before landing and after takeoff;

Figure 8.9



- (g) Air traffic services reporting office - the letter C displayed vertically in black against a yellow background (Figure 8.10) indicates the location of the air traffic services reporting office;

Figure 8.10



- (h) Glider flights in operation - a double white cross displayed horizontally (Figure 8.11) in the signal area indicates that the aerodrome is being used by gliders and that glider flights are being performed;

Figure 8.11



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

Note: These signals are designed for use by the signalman, with hands illuminated as necessary to facilitate observation by the pilot, and facing the aircraft in a position.

- (j) for fixed-wing aircraft, the signalman shall be positioned forward of the left-wing tip within view of the pilot and, for helicopters, where the signalman can best be seen by the pilot;

Note 1: The meaning of the relevant signals remains the same if bats, illuminated wands or torchlights are held.

Note 2: The aircraft engines are numbered, for the signalman facing the aircraft, from right to left (i.e. No. 1 engine being the port outer engine).

Note 3: Signals marked with an asterisk are designed for use to hovering helicopters.

- (k) Prior to using the following signals, the signalman shall ascertain that the area within which an aircraft is to be guided is clear of objects which the aircraft might otherwise strike.

Note: The design of many aircraft is such that the path of the wing tips, engines and other extremities cannot always be monitored visually from the flight deck while the aircraft is being manoeuvred on the ground.



1. Wingwalker or guide.

Raise right hand above head level with wand pointing up; move left-hand wand pointing down toward body.

Note: This signal provides an indication by a person positioned at the aircraft wing tip to the pilot or marshaller or push-back operator that the aircraft movement on or off a parking position would be unobstructed.



2. Identify gate

Raise fully extended arms straight above head with wands pointing up.



3. Proceed to next signalman or as directed by tower or ground control
Point both arms upward; move and extend arms outward to sides of body and point with wands to direction of next signalman or taxi area.



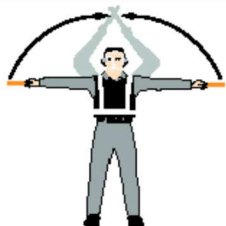
4. Straight ahead
Bend extended arms at elbows and move wands up and down from chest height to head.



5 a). Turn left (from pilot's point of view)
With right arm and wand extended at a 90-degree angle to body, make "come ahead" signal with left hand. The rate of signal motion indicates to pilot the rate of aircraft turn.



5 b). Turn right (from pilot's point of view)
With left arm and wand extended at a 90-degree angle to body, make "come ahead" signal with right hand. The rate of signal motion indicates to pilot the rate of aircraft turn.



6 a). Normal stop
Fully extend arms and wands at a 90-degree angle to sides and slowly move to above head until wands cross.



6 b). Emergency stop
Abruptly extend arms and wands to top of head, crossing wands.



7 a). Set brakes

Raise hand just above shoulder height with open palm. Ensuring eye contact with flight crew, close hand into a fist. Do not move until receipt of “thumbs up” acknowledgement from flight crew.



7 b). Release brakes

Raise hand just above shoulder height with hand closed in a fist. Ensuring eye contact with flight crew, open palm. Do not move until receipt of “thumbs up” acknowledgement from flight crew



8 a). Chocks inserted

With arms and wands fully extended above head, move wands inward in a “jabbing” motion until wands touch. Ensure acknowledgement is received from flight crew.



8 b). Chocks removed

With arms and wands fully extended above head, move wands outward in a “jabbing” motion. Do not remove chocks until authorised by flight crew.



9. Start engine(s)

Raise right arm to head level with wand pointing up and start a circular motion with hand; at the same time, with left arm raised above head level, point to engine to be started.



10. Cut engines

Extend arm with wand forward of body at shoulder level; move hand and wand to top of left shoulder and draw wand to top of right shoulder in a slicing motion across throat.



11. Slow down

Move extended arms downwards in a “patting” gesture, moving wands up and down from waist to knees.



12. Slow down engine(s) on indicated side

With arms down and wands toward ground, wave either right or left wand up and down indicating engine(s) on left or right side respectively should be slowed down.



13. Move back

With arms in front of body at waist height, rotate arms in a forward motion. To stop rearward movement, use signal 6 a) or 6 b).



14 a). Turns while backing (for tail to starboard)
Point left arm with wand down and bring right arm from overhead vertical position to horizontal forward position, repeating right-arm movement.



14 b). Turns while backing (for tail to port)
Point right arm with wand down and bring left arm from overhead vertical position to horizontal forward position, repeating left-arm movement.



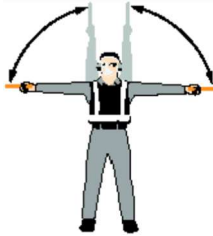
15. Affirmative or all clear

Raise right arm to head level with wand pointing up or display hand with “thumbs up”; left arm remains at side by knee.



16. Hover

Fully extend arms and wands at a 90-degree angle to sides.



17. Move upwards

Fully extend arms and wands at a 90-degree angle to sides and, with palms turned up, move hands upwards. Speed of movement indicates rate of ascent.



18. Move downwards

Fully extend arms and wands at a 90-degree angle to sides and, with palms turned down, move hands downwards. Speed of movement indicates rate of descent.



19 a). Move horizontally left (from pilot's point of view)

Extend arm horizontally at a 90-degree angle to right side of body. Move other arm in same direction in a sweeping motion.



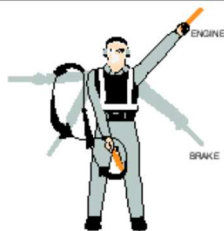
19 b). Move horizontally right (from pilot's point of view)

Extend arm horizontally at a 90-degree angle to left side of body. Move other arm in same direction in a sweeping motion.



20. Land

Cross arms with wands downwards and in front of body.



21. Fire

Move right-hand wand in a “fanning” motion from shoulder to knee, while at the same time pointing with left-hand wand to area of fire.



22. Hold position or stand by

Fully extend arms and wands downwards at a 45-degree angle to sides. Hold position until aircraft is clear for next manoeuvre.



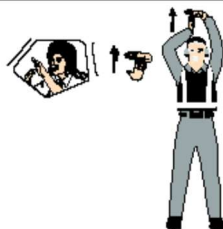
23. Dispatch aircraft

Perform a standard salute with right hand or wand to dispatch the aircraft. Maintain eye contact with flight crew until aircraft has begun to taxi.



24. Do not touch controls (technical or servicing communication signal)

Extend right arm fully above head and close fist or hold wand in horizontal position, left arm remains at side by knee.



25. Connect ground power (technical or servicing communication signal)

Hold arms fully extended above head, open left hand horizontally and move finger tips of right hand into and touch open palm of left hand (forming a “T”). At night, illuminated wands can also be used to form the “T” above head.



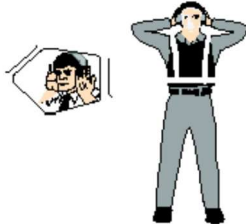
26. Disconnect power (technical or servicing communication signal)

Hold arms fully extended above head with finger tips of right hand touching open horizontal palm of left hand (forming a “T”); then move right hand away from the left. Do not disconnect power until authorised by flight crew. At night, illuminated wands can also be used to form the “T” above head.



27. Negative (technical or servicing communication signal)

Hold right arm straight out at 90 degrees from shoulder and point wand down to ground or display hand with "thumbs down"; left hand remains at side by knee.



28. Establish communication via interphone (technical or servicing communication signal)

Extend both arms at 90 degrees from body and move hands to cup both ears.



29. Open/close stairs (technical or servicing communication signal)

With right arm at side and left arm raised above head at a 45-degree angle, move right arm in a sweeping motion towards top of left shoulder.

Note: This signal is intended mainly for aircraft with the set of integral stairs at the front.

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

- (a) the PIC or CP shall use the following signals when communicating with a signalman-

Note 1: These signals are designed for use by a pilot in the cockpit with hands plainly visible to the signalman, and illuminated as necessary to facilitate observation by the signalman.

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

- (i) Brakes engaged: Raise arm and hand, with fingers extended, horizontally in front of face, then clench fist,
- (ii) Brakes released. Raise arm, with fist clenched, horizontally in front of face, then extend fingers,

Note: The moment the fist is clenched or the fingers are extended indicates, respectively, the moment of brake engagement or release.

- (iii) Insert chocks: Arms extended, palms outwards, move hands inwards to cross in front of face,

- (iv) Remove chocks: Hands crossed in front of face, palms outwards, move arms outwards, and
- (v) Ready to start engine(s). Raise the appropriate number of fingers on one hand indicating the number of the engine to be started.

8.8 Cruising Levels

(1) The cruising levels at which a flight or a portion of a flight is to be conducted shall be in terms of -

- (a) flight levels, for flights at or above the lowest usable flight level or, where applicable, above the transition altitude; and
- (b) altitudes, for flights below the lowest usable flight level or, where applicable, at or below the transition altitude.

(2) A PIC shall observe the following cruising levels in areas where, on the basis of regional air navigation agreement and in accordance with conditions specified therein, a vertical separation minimum (VSM) of 300 m (1000 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		
Altitude			Altitude			Altitude			Altitude		
FL	Meters	Feet	FL	Meters	Feet	FL	Meters	Feet	FL	Meters	Feet
-90	—	—	—	—	—	0	—	—	—	—	—
10	300	1000	—	—	—	20	600	2000	—	—	—
30	900	3000	35	1050	3500	40	1200	4000	45	1350	4500
50	1500	5000	55	1700	5500	60	1850	6000	65	2000	6500
70	2150	7000	75	2300	7500	80	2450	8000	85	2600	8500
90	2750	9000	95	2900	9500	100	3050	10000	105	3200	10500
110	3350	11000	115	3500	11500	120	3650	12000	125	3800	12500
130	3950	13000	135	4100	13500	140	4250	14000	145	4400	14500
150	4550	15000	155	4700	15500	160	4900	16000	165	5050	16500
170	5200	17000	175	5350	17500	180	5500	18000	185	5650	18500
190	5800	19000	195	5950	19500	200	6100	20000	205	6250	20500
210	6400	21000	215	6550	21500	220	6700	22000	225	6850	22500
230	7000	23000	235	7150	23500	240	7300	24000	245	7450	24500
250	7600	25000	255	7750	25500	260	7900	26000	265	8100	26500
270	8250	27000	275	8400	27500	280	8550	28000	285	8700	28500
290	8850	29000				300	9150	30000			
310	9450	31000				320	9750	32000			
330	10050	33000				340	10350	34000			
350	10650	35000				360	10950	36000			
370	11300	37000				380	11600	38000			
						400	12200	40000			

410	12500	41000		430	13100	43000
450	13700	45000		470	14350	47000
490	14950	49000		510	15550	51000
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 300 m (1000 ft) 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.

TRACK**											
From 000 Degrees to 179 Degrees***						From 180 Degrees to 359 Degrees***					
IFR Flights			VFR Flights			IFR Flights			VFR Flights		
FL	Altitude Meter s	Feet	FL	Altitude Meter s	Feet	FL	Altitude Meter s	Feet	FL	Altitude Meter s	Feet
-90	↓	↓	↓	↓	↓	0	↓	↓	↓	↓	↓
10	300	1000	↓	↓	↓	20	600	2000	↓	↓	↓
30	900	3000	35	1050	3500	40	1200	4000	45	1350	4500
50	1500	5000	55	1700	5500	60	1850	6000	65	2000	6500
70	2150	7000	75	2300	7500	50	2450	8000	85	2600	8500
90	2750	9000	95	2900	9500	100	3050	10000	105	3200	10500
110	3350	11000	115	3500	11500	120	3650	12000	125	3800	12500
130	3950	13000	135	4100	13500	140	4250	14000	145	4400	14500
150	4550	15000	155	4700	15500	160	4900	16000	165	5050	16500
170	5200	17000	175	5300	17500	180	5500	18000	185	5650	18500
190	5800	19000	195	950	19500	200	6100	20000	205	6250	20500
210	6400	21000	215	6550	21500	220	6700	22000	225	6850	22500
230	7000	23000	235	7150	23500	240	7300	24000	245	7450	24500
250	7600	25000	255	7750	25500	260	7900	26000	265	8100	26500
270	8250	27000	275	8100	27500	280	8550	28000	285	8700	28500
290	8850	29000	300	9150	30000	310	9450	31000	320	9750	32000
330	10050	33000	340	10350	34000	350	10650	35000	360	10950	36000
370	11300	37000	380	11600	38000	390	11900	39000	400	12200	40000
410	12500	41000	420	12500	42000	430	13100	43000	440	13400	44000
450	13700	45000	460	14000	46000	470	14350	47000	480	14650	48000
490	14950	49000	500	15250	50000	510	15550	51000	520	15850	52000

etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.	etc.
<p>**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.</p> <p>***.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.</p>										

8.9 Company Procedures Indoctrination

An AOC holder shall ensure that all operations personnel are provided company indoctrination training that covers the following areas-

- (a) AOC holder's organisation, scope of operation, and administrative practices as applicable to their assignments and duties;
- (b) appropriate provisions of these regulations and other applicable regulations and guidance materials;
- (c) contents of the AOC holder's certificate and operations specifications (not required for cabin crew);
- (d) AOC holder policies and procedures;
- (e) Crew member and flight operations officer duties and responsibilities;
- (f) AOC holder testing programme for alcohol and narcotic psychoactive substances;.
- (g) applicable crew member manuals; and
- (h) appropriate portions of the AOC holder's Operations Manual.

8.10 Initial Dangerous Goods Training

(1) An AOC holder shall establish, maintain, and have approved by the Authority, staff training programmes, as required by the Technical Instructions.

(2) An AOC holder not holding a permanent approval to carry dangerous

goods shall ensure that-

- (a) staff who are engaged in general cargo handling have received training to carry out their duties in respect of dangerous goods which covers as a minimum, the areas identified in Column 1 of Table 1 to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods and how to identify such goods; and
- (b) crew members, passenger handling staff, and security staff employed by the AOC holder who deal with the screening of a passengers and their baggage, have received training which covers as a minimum, the areas identified in Column 2 of Table 1 to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods, how to identify them and what requirements apply to the carriage of such goods by passengers.

Table 1

Areas Of Dangerous Goods Training	1	2
General Philosophy	X	x
Limitations On Dangerous Goods In Air Transport	X	x
Package Marking And Labelling	X	x
Dangerous Goods In Passengers Baggage		x
Emergency Procedures		x

Note: "x" indicates an area to be covered.

(3) An AOC holder holding a permanent approval to carry dangerous goods shall ensure that-

- (a) staff who are engaged in the acceptance of dangerous goods have received training and are qualified to carry out their duties which covers as a minimum, the areas identified in Column 1 of Table 2 to a depth sufficient to ensure the staff can take decisions on the acceptance or refusal of dangerous goods offered for carriage by air;
- (b) staff who are engaged in ground handling, storage and loading of dangerous goods have received training to enable them to carry out their duties in respect of dangerous goods which covers as a minimum, the areas identified in Column 2 of Table 2 to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods, how to identify such goods and

how to handle and load them;

- (c) staff who are engaged in general cargo handling have received training to enable them to carry out their duties in respect of dangerous goods which covers as a minimum, the areas identified in Column 3 of Table 2 to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods, how to identify such goods and how to handle and load them;
 - (d) flight crew members have received training which covers as a minimum, the areas identified in Column 4 of Table 2 to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods and how they should be carried on an aircraft; and
 - (e) passenger handling staff; security staff employed by the operator who deal with the screening of passengers and their baggage; and crew members other than flight crew members, have received training which covers as a minimum, the areas identified in Column 5 of Table 2 to a depth sufficient to ensure that an awareness is gained of the hazards associated with dangerous goods and what requirements apply to the carriage of such goods by passengers or, more generally, their carriage on an aircraft.
- (4) An AOC holder shall ensure that all staff who requires dangerous goods training receives recurrent training at intervals of not longer than 2 years.
- (5) An AOC holder shall ensure that records of dangerous goods training are maintained for all staff trained in accordance with paragraph (4).
- (6) An AOC holder shall ensure that its handling agent's staffs are trained in accordance with the applicable column of Table 1 or Table 2.

Table 2

Areas Of Training	1	2	3	4	5
General Philosophy	x	x	x	x	x
Limitations On Dangerous Goods in the Air Transport	x	x	x	x	x
Classification and List of Dangerous Goods	x	x		x	
General Packing Requirements and Packing Instructions	x				
Packaging Specifications Marking	x				
Package Marking and Labelling	x	x	x	x	x

Documentation from the Shipper	x				
Acceptance of Dangerous Good, Including the Use of a Checklist	x				
Loading, Restrictions on Loading and Segregation	x	x	x	x	
Inspections for Damage or Leakage and Decontamination Procedures	x	x			
Provision of Information to Commander	x	x		x	
Dangerous Goods in Passengers' Baggage	x			x	x
Emergency Procedures	x	x		x	x

Note: "x" indicates an area to be covered.

(7) An AOC holder shall provide dangerous goods training manuals which contain adequate procedures and information to assist personnel in identifying packages marked or labelled as containing hazardous materials including -

- (a) instructions on the acceptance, handling, and carriage of hazardous materials;
- (b) instructions governing the determination of proper shipping names and hazard classes;
- (c) packaging, labelling, and marking requirements;
- (d) requirements for shipping papers, compatibility requirements, loading, storage, and handling requirements; and
- (e) restrictions.

8.11 Initial Crew Resource Management Training

An AOC holder shall ensure that the flight dispatchers and all aircraft crew members have CRM training as part of their initial and recurrent training requirements-

- (a) A CRM training programme shall include-
 - (i) an initial indoctrination or awareness segment,
 - (ii) a method to provide recurrent practice and feedback, and

- (iii) a method of providing continuing reinforcement;
- (b) Curriculum topics to be contained in an initial CRM training course include-
 - (i) communications processes and decision behavior,
 - (ii) internal and external influences on interpersonal communications,
 - (iii) barriers to communication,
 - (iv) listening skills,
 - (v) decision-making skills,
 - (vi) effective briefings,
 - (vii) developing open communications,
 - (viii) inquiry, advocacy, and assertion training,
 - (ix) crew self-critique,
 - (x) conflict resolution,
 - (xi) team building and maintenance,
 - (xii) leadership and followership training,
 - (xiii) interpersonal relationships,
 - (xiv) workload management,
 - (xv) situational awareness,
 - (xvi) how to prepare, plan and monitor task completions,
 - (xvii) workload distribution,
 - (xviii) distraction avoidance,
 - (xix) individual factors, and
 - (xx) stress reduction.

8.12 Initial Emergency Equipment Drills

(1) Each aircraft crew member shall accomplish emergency training during the specified training periods, using those items of installed emergency equipment for each type of aircraft in which he or she is to serve.

(2) During initial training, each aircraft crew member shall perform the following one-time emergency drills-

(a) Protective Breathing Equipment (PBE) or Firefighting Drill-

- (i) locate source of fire or smoke (actual or simulated fire),
- (ii) implement procedures for effective crew co-ordination and communication, including notification of flight crew members about fire situation,
- (iii) don and activate installed PBE or approved PBE simulation device,
- (iv) manoeuvre in limited space with reduced visibility,
- (v) effectively use the aircraft's communication system,
- (vi) identify class of fire,
- (vii) select the appropriate extinguisher,
- (viii) properly remove extinguisher from securing device,
- (ix) prepare, operate and discharge extinguisher properly, and
- (x) utilise correct firefighting techniques for type of fire;

(b) emergency evacuation drill -

- (i) recognise and evaluate an emergency,
- (ii) assume appropriate protective position,
- (iii) command passengers to assume protective position,
- (iv) implement crew co-ordination procedures,
- (v) ensure activation of emergency lights,
- (vi) assess aircraft conditions,

- (vii) initiate evacuation (dependent on signal or decision),
- (viii) command passengers to release seatbelts and evacuate,
- (ix) assess exit and redirect, if necessary; to open exit, including deploying slides and commanding helpers to assist,
- (x) command passengers to evacuate at exit and run away from aircraft,
- (xi) assist special need passengers, such as handicapped, elderly, and persons in a state of panic, and
- (xii) actually exit aircraft or training device using at least one of the installed emergency evacuation slides.

The crew member may either observe the aeroplane exits being opened in the emergency mode and the associated exit slide/raft pack being deployed and inflated, or perform the tasks resulting in the accomplishment of these actions.

(3) Each aircraft crew member shall accomplish additional emergency drills during initial and recurrent training, including actual performance of the following emergency drills -

(a) emergency exit drill-

- (i) correctly preflight each type of emergency exit and evacuation slide or slideraft (if part of cabin crew member's assigned duties),
- (ii) disarm and open each type of door exit in normal mode,
- (iii) close each type of door exit in normal mode,
- (iv) arm each type of door exit in emergency mode,
- (v) open each type of door exit in emergency mode,
- (vi) use manual slide inflation system to accomplish or ensure slide or slideraft inflation,
- (vii) open each type of window exit, and
- (viii) remove escape rope and position for use;

(b) hand fire extinguisher drill-

- (i) preflight each type of hand fire extinguisher,
- (ii) locate source of fire or smoke and identify class of fire,
- (iii) select appropriate extinguisher and remove from securing device,
- (vi) prepare extinguisher for use,
- (vii) actually operate and discharge each type of installed hand fire extinguisher,

Note 1: Fighting an actual or a simulated fire is not necessary during this drill.

Note 2: The discharge of Halon extinguishing agents during firefighting drills is not appropriate, unless a training facility is used that is specifically designed to prevent harm to the environment from the discharged Halon. When such facilities are not used, other fire extinguishing agents that are not damaging to the environment should be used during the drills.

- (viii) utilise correct firefighting techniques for type of fire, and
- (ix) implement procedures for effective crew co-ordination and communication, including notification of flight crew members about the type of fire situation;

(c) emergency oxygen system drill-

- (i) preflight and operation of portable oxygen devices,
- (ii) actually operate portable oxygen bottles, including masks and tubing,
- (iii) verbally demonstrate operation of chemical oxygen generators or installed oxygen supply system,
- (vi) prepare for use and operate oxygen device properly, including donning and activation,
- (vii) administer oxygen to self, passengers, and to those persons with special oxygen needs,
- (viii) utilise proper procedures for effective crew co-ordination and communication,

- (ix) manually open each type of oxygen mask compartment and deploy oxygen masks,
- (x) identify compartments with extra oxygen masks,
- (xi) implement immediate action decompression procedures,
- (xii) reset oxygen system, if applicable,
- (xiii) preflight and operation of PBE, and
- (xiv) activate PBE;

Several operators equip their aircraft with approved PBE units that have approved storage pouches fastened with two metal staples at one end. However, considerations of practicality and cost compel operators to use a less durable storage pouch that lacks the staple fasteners for training purposes. As a result, pilots and cabin crew members have been surprised that opening the pouch furnished on board requires more force than opening the training pouch. The Authority should require crew member training that includes the appropriate procedures for operating PBE. In those cases where pouches with staples are used for storage of the PBE unit, special emphasis in training should highlight the difference between the training pouch and the onboard pouch. The training pouch may be easy to open, but the approved, onboard pouch may require as much as 28 pounds of force to overcome the 2 staple fasteners.

(d) flotation device drill-

- (i) preflight flotation device, if appropriate,
- (ii) don and inflate life vests,
- (iii) remove and use flotation seat cushions, as installed, and
- (iv) demonstrate swimming techniques using a seat cushion, as installed;

(e) ditching drill, if applicable-

Note: During a ditching drill students shall perform the "prior to impact" and "after impact" procedures for a ditching, as appropriate to the specific operator's type of operation.

- (i) implement crew co-ordination procedures, including briefing with captain to obtain pertinent ditching information and briefing cabin

crew members,

- (ii) co-ordinate time frame for cabin and passenger preparation,
- (iii) adequately brief passengers on ditching procedures,
- (iv) ensure cabin is prepared, including the securing of carry-on baggage, lavatories, and galleys,
- (v) demonstrate how to properly deploy and inflate slideraft,
- (vi) demonstrate how to properly deploy and inflate liferafts, if applicable,
- (vii) remove, position and attach sliderafts to aircraft,
- (viii) inflate rafts,
- (ix) use escape ropes at overwing exits
- (x) command helpers to assist,
- (xi) use slides and life vests or seat cushions as flotation devices,
- (xii) remove appropriate emergency equipment from aircraft,
- (xiii) board rafts properly,
- (xiv) initiate raft management procedures (i.e., disconnecting rafts from aircraft,
- (xv) applying immediate first aid, rescuing persons in water, salvaging floating rations and equipment, deploying sea anchor, tying rafts together, activating or ensuring operation of emergency locator transmitter),
- (xvi) initiate basic survival procedures (i.e., removing and utilising survival kit items, repairing and maintaining raft, ensuring protection from exposure, erecting canopy, communicating location, providing continued first aid, providing sustenance),
- (xvii) use heaving line to rescue persons in water,
- (xviii) tie sliderafts or rafts together,
- (xix) use life line on edge of slideraft or life raft as a handhold, and

(xx) secure survival kit items.

(4) Each aircraft crew member shall accomplish additional emergency drill requirements during initial and recurrent training including observing the following emergency drills-

(a) liferaft removal and inflation drill, if applicable-

- (i) removal of a liferaft from the aircraft or training device, or
- (ii) inflation of a liferaft;

(b) slideraft transfer drill-

- (i) transfer of each type of slideraft pack from an unusable door to a usable door,
- (ii) disconnect slideraft at unusable door,
- (iii) redirect passengers to usable slideraft, and
- (iv) installation and deployment of slideraft at usable door;

(c) slide and slideraft deployment, inflation, and detachment drill-

- (i) engage slide girt bar in floor brackets, if applicable,
- (ii) arm slide for automatic inflation,
- (iii) inflate slides with and without quick-release handle (manually and automatically),
- (iv) disconnecting slide from the aircraft for use as a flotation device,
- (v) arm sliderafts for automatic inflation, or
- (vi) disconnecting slideraft from the aircraft;

(d) emergency evacuation slide drill -

- (i) open armed exit with slide or slideraft deployment and inflation,
or
- (ii) egress from aircraft via the evacuation slide and run away to a safe distance.

8.13 Initial Aircraft Ground Training—Flight Crew

(1) Each AOC holder shall have an initial aircraft ground training curriculum for the flight crew applicable to their duties, the type of operations conducted and aircraft flown. Instructions shall include at least the following general subjects-

- (a) AOC holder's dispatch, flight release, or flight locating procedures;
- (b) principles and methods for determining mass and balance, and runway limitations for takeoff;
- (c) AOC holder's operations specifications, authorisations and limitations;
- (d) adverse weather recognition and avoidance, and flight procedures which shall be followed when operating in the following conditions-
 - (i) icing,
 - (ii) fog,
 - (iii) turbulence,
 - (iv) heavy precipitation,
 - (v) thunderstorms.
 - (vi) low-level windshear and microburst,
 - (vii) low visibility, and
 - (viii) contaminated runways.
- (e) normal and emergency communications procedures and navigation equipment including the AOC holder's communications procedures and ATC clearance requirements;
- (f) navigation procedures used in area departure, en route, area arrival, approach and landing phases, to include visual cues prior to and during descent below DH or MDA;
- (g) approved crew resource management training;
- (h) air traffic control systems, procedures, and phraseology;
- (i) aircraft performance characteristics during all flight regimes, including-
 - (i) the use of charts, tables, tabulated data and other related

manual information,

- (ii) normal, abnormal, and emergency performance problems,
 - (iii) meteorological and mass limiting performance factors (such as temperature, pressure, contaminated runways, precipitation, climb or runway limits),
 - (iv) inoperative equipment performance limiting factors (such as MEL or CDL, inoperative antiskid), and
 - (v) special operational conditions (such as unpaved runways, high altitude aerodromes and drift down requirements);
- (j) normal, abnormal and emergency procedures on the aircraft type to be used.

(2) Each AOC holder shall have an initial aircraft ground training curriculum for the flight crew applicable to their duties, the type of operations conducted and aircraft flown, including at least the following aircraft systems (if applicable)-

(a) Airframe-

- (i) aircraft,
- (ii) aircraft dimensions, turning radius, panel layouts, cockpit and cabin configurations,
- (iii) other major systems and components or appliances of the aircraft,
- (iv) operating limitations, and
- (v) approved aircraft flight manual;

(b) Powerplants-

- (i) basic engine description,
- (ii) engine thrust ratings, and
- (iii) engine components such as accessory drives, ignition, oil, fuel control, hydraulic, and bleed air features;

(c) Electrical-

- (i) sources of aircraft electrical power (such as engine driven

- generators, APU generator, external power, etc.),
- (ii) electrical buses,
- (iii) circuit breakers,
- (iv) aircraft battery, and
- (v) standby power systems;
- (d) Hydraulic-
 - (i) hydraulic reservoirs, pumps, accumulators; filters, check valves, interconnects and actuators, and
 - (ii) other hydraulically operated components;
- (e) Fuel -
 - (i) fuel tanks (location and quantities),
 - (ii) engine driven pumps,
 - (iii) boost pumps,
 - (iv) system valves and crossfeeds,
 - (v) quantity indicators, and
 - (vi) provisions for fuel jettisoning.
- (f) Pneumatic-
 - (i) bleed air sources (APU, engine or external ground air), or
 - (ii) means of routing, venting and controlling bleed air via valves, ducts, chambers, and temperature and pressure limiting devices;
- (g) Air conditioning and pressurization-
 - (i) heaters, air conditioning packs, fans, and other environmental control devices,
 - (ii) pressurisation system components such as outflow and negative pressure relief valves, and
 - (ii) automatic, standby, and manual pressurisation controls and

annunciators;

(h) Flight controls-

- (i) primary controls (yaw, pitch, and roll devices),
- (ii) secondary controls (leading/trailing edge devices, flaps, trim, and damping mechanisms),
- (iii) means of actuation (direct or indirect or fly by wire), and
- (iv) redundancy devices;

(i) Landing gear and brakes-

- (i) landing gear extension and retraction mechanism including the operating sequence of struts, doors, and locking devices, and brake and antiskid systems, if applicable,
- (ii) steering (nose or body steering gear),
- (iii) bogie arrangements,
- (iv) air or ground sensor relays, and
- (v) visual downlock indicators;

(j) Ice and rain protection-

- (i) rain removal systems, and
- (ii) anti-icing or deicing system(s) affecting flight controls, engines, pitot static and other probes, fluid outlets, cockpit windows, and aircraft structures;

(k) Equipment and furnishings-

- (i) exits,
- (ii) galleys,
- (iii) water and waste systems,
- (iv) lavatories,
- (v) cargo areas,
- (vi) crew member and passenger seats,

- (vii) bulkheads,
- (viii) seating or cargo configurations, or
- (ix) non-emergency equipment and furnishings;
- (l) Navigation equipment-
 - (i) flight directors,
 - (ii) horizontal situation indicator,
 - (iii) radio magnetic indicator,
 - (iv) navigation receivers (GPS, ADF, SDF or LDA, VOR, TACAN, LORAN-C, RNAV, Marker Beacon, DME) as required for the flight operations to be conducted,
 - (v) inertial systems (INS, IRS),
 - (vi) functional displays,
 - (vii) fault indications and comparator systems,
 - (viii) aircraft transponders,
 - (ix) radio altimeters,
 - (x) weather radar, or
 - (xi) Cathode ray tube or computer generated displays of aircraft position and navigation information.
- (m) Auto flight system-
 - (i) autopilot,
 - (ii) autothrottles,
 - (iii) flight director and navigation systems,
 - (iv) automatic approach tracking,
 - (v) autoland, or
 - (vi) automatic fuel and performance management systems;
- (n) Flight instruments-

- (i) panel arrangement,
 - (ii) flight instruments (attitude indicator, directional gyro, magnetic compass, airspeed indicator, vertical speed indicator, altimeters, standby instruments), and
 - (iii) instrument power sources, and instrument sensory sources (e.g., pitot static pressure);
- (o) Display systems-
 - (i) weather radar, and
 - (ii) other cathode ray tube (CRT) or computer generated displays (e.g., checklist, vertical navigation or longitudinal navigation displays);
- (p) Communication equipment-
 - (i) VHF or HF or SAT COM radios,
 - (ii) audio panels,
 - (iii) inflight interphone and passenger address systems,
 - (iv) voice recorder, and
 - (vi) Air or ground passive communications systems (ACARS);
- (q) Warning systems-
 - (i) aural, visual, and tactile warning systems (including the character and degree of urgency related to each signal),
 - (ii) warning and caution annunciator systems (including airborne collision avoidance, ground proximity and takeoff configuration warning systems),
 - (iii) fire protection,
 - (iv) fire and overheat sensors, loops, modules, or other means of providing visual or aural indications of fire or overheat detection,
 - (v) procedures for the use of fire handles, automatic extinguishing systems and extinguishing agents, and
 - (vi) power sources necessary to provide protection for fire and overheat conditions in engines, APU, cargo bay or wheel

well, cockpit, cabin and lavatories;

(r) Oxygen-

- (i) passenger, crew, and portable oxygen supply systems,
- (ii) sources of oxygen (gaseous or solid),
- (iii) flow and distribution networks,
- (iv) automatic deployment systems,
- (v) regulators, pressure levels and gauges, or
- (vi) servicing requirements;

(s) Lighting-

- (i) cockpit, cabin, and external lighting systems,
- (ii) power sources,
- (iii) switch positions, or
- (iv) spare light bulb locations;

(t) Emergency equipment-

- (i) fire and oxygen bottles,
- (ii) first aid and medical kits,
- (iii) liferafts and life preservers,
- (iv) crash axes,
- (v) emergency exits and lights,
- (vi) slides and sliderafts,
- (vii) escape straps or handles,
- (viii) hatches, ladders and movable stairs, and
- (ix) survival suits, if applicable to the operation;

(u) Auxiliary Power Unit (APU)-

- (i) electric and bleed air capabilities,

- (ii) interfaces with electrical and pneumatic systems,
- (iii) inlet doors and exhaust ducts, and
- (iv) fuel supply,
- (v) Performance.

(4) Each AOC holder shall have an initial aircraft ground training curriculum for the flight crew applicable to their duties, the type of operations conducted and aircraft flown, including at least the following aircraft systems integration items-

(a) Use of checklist-

- (i) safety checks,
- (ii) cockpit preparation (switch position and checklist flows),
- (iii) checklist callouts and responses, or
- (iv) checklist sequence;

(b) Flight planning-

- (i) preflight and in-flight planning,
- (ii) performance limitations (meteorological, mass, and MEL or CDL items),
- (iii) required fuel loads, or
- (iv) weather planning (lower than standard takeoff minimums or alternate requirements);

(c) Display systems-

- (i) weather radar, or
- (ii) CRT displays (checklists, vertical navigation or longitudinal navigation displays);

(d) Navigation and Communications systems-

- (i) preflight and operation of applicable receivers,
- (ii) onboard navigation systems, or

- (iii) flight plan information input and retrieval;
- (e) Autoflight or flight directors-
 - (i) Autopilot,
 - (ii) Autothrust, and
 - (iii) flight director systems, including the appropriate procedures, normal and abnormal indications, and annunciators;
- (f) Cockpit familiarization-
 - (i) activation of aircraft system controls and switches to include normal, abnormal and emergency switches, and
 - (ii) control positions and relevant annunciators, lights, or other caution and warning systems.

(5) Each AOC holder shall ensure that initial ground training for flight crew consists of at least the following programmed hours of instruction based on the aircraft to be used, unless a reduction is determined appropriate by the Authority-

- (a) For pilots and flight engineers-
 - (i) Piston-engined aeroplane—64 hours,
 - (ii) Turbopropeller-powered aeroplane—80 hours,
 - (iii) Turbo-jet aeroplane—120 hours,
 - (iv) Helicopter—64 hours,
 - (v) Powered-lift—80 hours, and
 - (vi) other aircraft—64 hours;
- (b) For flight navigators-
 - (i) Piston-engined aircraft—16 hours,
 - (ii) Turbopropeller-powered aircraft—32 hours, and
 - (iii) Turbojet-aircraft—32 hours.

8.14 Initial Aircraft Ground Training—Cabin Crew Members

(1) Each AOC holder shall have an initial ground training curriculum for cabin crew members applicable to the type of operations conducted and aircraft flown, including at least the following general subjects, if applicable-

(a) Aircraft familiarization-

- (i) aircraft characteristics and description,
- (ii) flightdeck configuration,
- (iii) cabin configuration,
- (iv) galleys,
- (v) lavatories, and
- (vi) stowage areas.

(b) Aircraft equipment and furnishings-

- (i) cabin crew member stations,
- (ii) cabin crew member panels,
- (iii) passenger seats,
- (iv) passenger service units and convenience panels,
- (v) passenger information signs,
- (vi) aircraft markings,
- (vii) aircraft placards, and
- (viii) bassinets and bayonet tables.

(c) Aircraft systems-

- (i) air conditioning and pressurisation system,
- (ii) aircraft communication systems (call, interphone and passenger address),
- (iii) lighting and electrical systems,
- (iv) oxygen systems (flight crew, observer and passenger),

- (v) water system, or
 - (vi) entertainment and convenience systems.
- (d) Aircraft exits-
 - (i) general information,
 - (ii) exits with slides or sliderafts (preflight and normal operation),
 - (iii) exits without slides (preflight and normal operations), or
 - (iv) window exits (preflight).
- (e) Crew member communication and co-ordination-
 - (i) authority of PIC.
 - (ii) routine communication signals and procedures.
 - (iii) crew member briefing.
- (f) Routine crew member duties and procedures-
 - (i) crew member general responsibilities;
 - (ii) reporting duties and procedures for specific aircraft;
 - (iii) pre-departure duties and procedures prior to passenger boarding;
 - (iv) passenger boarding duties and procedures;
 - (v) prior to movement on the surface duties and procedures;
 - (vi) prior to takeoff duties and procedures applicable to specific aircraft;
 - (vii) inflight duties and procedures;
 - (viii) prior to landing duties and procedures;
 - (ix) movement on the surface and arrival duties and procedures;
 - (x) after arrival duties and procedures; and
 - (xi) intermediate stops.

(g) Passenger handling responsibilities-

- (i) crew member general responsibilities;
- (ii) infants, children, and unaccompanied minors;
- (iii) passengers needing special assistance;
- (iv) passengers needing special accommodation;
- (v) carry-on stowage requirements;
- (vi) passenger seating requirements; or
- (vii) smoking and no smoking requirements.

(h) Approved Crew Resource Management (CRM) training for cabin crew members-

(2) Each AOC holder shall have an initial ground training curriculum for cabin crew members applicable to the type of operations conducted and aircraft flown, including at least the following aircraft specific emergency subjects, if applicable-

(a) Emergency equipment-

- (i) emergency communication and notification systems,
- (ii) aircraft exits,
- (iii) exits with slides or sliderafts (emergency operation),
- (iv) slides and sliderafts in a ditching,
- (v) exits without slides (emergency operation),
- (vi) window exits (emergency operation),
- (vii) exits with tailcones (emergency operation),
- (viii) cockpit exits (emergency operation),
- (ix) ground evacuation and ditching equipment,
- (x) first aid equipment,
- (xi) Portable oxygen systems (oxygen bottles, chemical oxygen generators, protective breathing equipment (PBE)),

- (xii) firefighting equipment,
- (xiii) emergency lighting systems,
- (xiv) universal precaution kits,
- (xv) automated external defibrillators,
- (xvi) survival suits, if applicable to the operation, or
- (xvii) Additional emergency equipment.

(b) Emergency assignments and procedures-

- (i) general types of emergencies specific to aircraft, including crew coordination and communication;
- (ii) emergency communication signals and procedures;
- (iii) rapid decompression;
- (iv) insidious decompression and cracked window and pressure seal leaks;
- (v) fires;
- (vi) ditching;
- (vii) ground evacuation;
- (viii) unwarranted evacuation (i.e., passenger initiated);
- (ix) illness or injury;
- (x) abnormal situations involving passengers or crew members;
- (xi) hijacking and acts of unlawful interference;
- (xii) bomb threat;
- (xiii) turbulence;
- (xiv) other unusual situations including an awareness of other crew members' assignments and functions as they pertain to the cabin crew member's own duties; and
- (xv) previous aircraft accidents and incidents.

(c) Aircraft specific emergency drills-

- (i) emergency exit drill,
- (ii) hand fire extinguisher drill,
- (iii) emergency oxygen system drill,
- (iv) flotation device drill,
- (v) Ditching drill, if applicable,
- (vi) liferaft removal and inflation drill, if applicable,
- (vii) slideraft pack transfer drill, if applicable,
- (viii) slide or slideraft deployment, inflation, and detachment drill, if applicable, and
- (ix) emergency evacuation slide drill, if applicable.

(3) Each AOC holder shall ensure that initial ground training for a cabin crew member includes a competency check given by the appropriate supervisor or ground instructor to determine his or her ability to perform assigned duties and responsibilities.

(4) Each AOC holder shall ensure that initial ground training for cabin crew members consists of at least the following programmed hours of instruction based on the aircraft to be used, unless a reduction is determined appropriate by the Authority-

- (a) Piston-engined - 8 hours;
- (b) Turbopropeller-powered - 8 hours;
- (c) Turbo-jet – 16 hours; and
- (d) other aircraft, including, if applicable, helicopter and powered lift – 8 hours.

8.15 Initial Aircraft Ground Training—Flight dispatcher

(1) Each AOC holder shall provide initial aircraft ground training for flight dispatchers that include instruction in at least the following subjects-

(a) General dispatch subjects-

- (i) appropriate regulations;
- (ii) operations Manual of the AOC holder;
- (iii) operations specifications of the AOC holder;
- (iv) weather reports: interpretation, available sources, actual and prognostic, seasonal variations;
- (v) communications, to include normal and emergency;
- (vi) meteorology, to include effects on radio reception;
- (vii) adverse weather;
- (viii) notices to airmen;
- (ix) navigational charts and publications;
- (x) joint dispatcher or pilot responsibilities;
- (xi) ATC coordination procedures;
- (xii) familiarisation with operations area, including classes of airspace and special areas of navigation; and
- (xiii) characteristics of special aerodromes.

(b) Aircraft characteristics-

- (i) aircraft specific flight preparation,
- (ii) aircraft operating and performance characteristics,
- (iii) navigation equipment, including peculiarities and limitations,
- (iv) instrument approach and communication equipment,
- (v) emergency equipment,
- (vi) AFM or RFM provisions applicable to the aircraft duties,

- (vii) MEL or CDL, and
- (viii) applicable equipment training.

(c) Operations procedures-

- (i) adverse weather phenomena (wind-shear, clear air turbulence and thunderstorms),
- (ii) mass and balance computations and load control procedures,
- (iii) aircraft performance computations, to include takeoff weight limitations based on departure runway, arrival runway, and en route limitations, and also engine-out limitations,
- (iv) flight planning procedures, to include route selection, flight time, and fuel requirements analysis,
- (v) dispatch release preparation,
- (vi) crew briefings,
- (vii) flight monitoring procedures,
- (viii) MEL and CDL procedures,
- (ix) manual performance of all required procedures in case of the loss of automated capabilities,
- (x) training in appropriate geographic areas,
- (xi) ATC and instrument procedures, ground hold and central flow control procedures, and
- (xii) radio or telephone procedures.

(d) Abnormal and emergency procedures-

- (i) assisting flight crew in an emergency; and
- (ii) alerting of appropriate governmental, company and private agencies.

(e) Crew resource management;

(f) Dangerous goods;

(2) Each AOC holder shall ensure that initial ground training for flight dispatchers includes a competency check given by an appropriately qualified

dispatch supervisor or ground instructor that demonstrates the required knowledge and abilities.

(3) Each AOC holder shall ensure that initial ground training for flight dispatchers consists of at least the following programmed hours of instruction based on the aircraft to be used, unless a reduction is determined appropriate by the Authority-

- (a) piston-engined aircraft – 30 hours;
- (b) turbopropeller-powered aircraft – 40 hours; and
- (c) turbo-jet aircraft – 40 hours.

8.16 Initial Aircraft Flight Training

(1) Each AOC holder shall ensure that pilot initial flight training includes at least the following training and practice in procedures related to the carrying out of pilot duties and functions, accomplished either in flight or in a flight simulation training device (FSTD), as appropriate to the category and class of aircraft, and as approved by the Authority.

Note: The flight training events for pilots listed in this IS are generic in nature for a type-rated aeroplane training curriculum conducted in a FSTD. All of the events may not apply to all aircraft (e.g., one engine inoperative landing for multi-engine versus single engine aeroplanes) or may differ in the requirements for a similar event (e.g., taxi for aeroplane, helicopter, and seaplane). Additional training events may need to be added, changed or deleted for aircraft based on aircraft category or class.

- (a) Preparation-
 - (i) Aircraft pre-flight done by external walk around, unless the use of pictorial display is authorised by the Authority,
 - (ii) Pre-taxi procedures,
 - (iii) Performance limitations,
 - (iv) Surface operation,
 - (v) Pushback,
 - (vi) Powerback taxi, if applicable to the type of operation to be conducted,

- (vii) Starting,
- (viii) Taxi, and
- (ix) Pre-takeoff checks;
- (b) Takeoff-
 - (i) Normal,
 - (ii) Crosswind,
 - (iii) Rejected,
 - (iv) Power failure after V1, or
 - (v) Lower than standard minimum, if applicable to the type of operation to be conducted;
- (c) Climb-
 - (i) Normal, and
 - (ii) One-engine inoperative during climb to en route altitude.
- (d) En route-
 - (i) Steep turns,
 - (ii) Approaches to stalls (takeoff, en route, and landing configurations),
 - (iii) Inflight powerplant shutdown,
 - (iv) Inflight powerplant restart, or
 - (v) High speed handling characteristics;
- (e) Descent-
 - (i) Normal, or
 - (ii) Maximum rate;
- (f) Approaches-
 - (i) VFR procedures,
 - (ii) Visual approach with 50% loss of power of available

powerplants,

- (iii) Visual approach with slat or flap malfunction,
- (iv) IFR precision approaches (ILS normal and ILS with one-engine inoperative),
- (v) IFR non-precision approaches (NDB normal and VOR normal),

Non-precision approach with one engine inoperative may include LOC backcourse procedures, SDF or LDA, GPS, TACAN and circling approach procedures, as applicable to the operator's authorisations.

- (vi) Note: Simulator shall be qualified for training/ checking on the circling manoeuvre,
- (vii) Missed approach from precision approach,
- (viii) Missed approach from non-precision approach,
- (ix) Missed approach with powerplant failure;

(g) Landings-

- (i) normal with a pitch mistrim (small aircraft only),
- (ii) normal from precision instrument approach,
- (iii) normal from precision instrument approach with most critical engine inoperative,
- (iv) Normal with 50% loss of power of available powerplants,
- (v) normal with flap or slat malfunction,
- (vi) rejected landings,
- (vii) crosswind,
- (viii) manual reversion or degraded control augmentation,
- (ix) short or soft field (small aircraft only),
- (x) glassy or rough water (seaplanes only), and
- (xi) auto-rotation (helicopter only);

- (h) After landing-
 - (i) Parking,
 - (ii) Emergency evacuation, or
 - (iii) Docking, mooring, and ramping (seaplanes only);
- (i) Other flight procedures during any airborne phase-
 - (i) Airborne Collision Avoidance System: use and avoidance manoeuvres,
 - (ii) Holding,
 - (iii) Ice accumulation on airframe,
 - (iv) Air hazard avoidance, and
 - (v) Windshear or microburst;
- (j) Normal, abnormal and alternate systems procedures during any phase-
 - (i) Pneumatic or pressurization,
 - (ii) Air conditioning,
 - (iii) Fuel and oil,
 - (iv) Electrical,
 - (v) Hydraulic,
 - (vi) Flight controls,
 - (vii) Anti-icing and deicing systems,
 - (viii) Autopilot,
 - (ix) Flight management guidance systems or automatic or other approach and landing aids,
 - (x) Stall warning devices, stall avoidance devices, and stability augmentation systems,
 - (xi) Airborne weather radar,

- (xii) Flight instrument system malfunction,
- (xiii) Communications equipment, and
- (xiv) Navigation systems;
- (k) Emergency systems procedures during any phase-.
 - (i) Aircraft fires,
 - (ii) Smoke control,
 - (iii) Powerplant malfunctions,
 - (iv) Fuel jettison,
 - (v) Electrical, hydraulic, pneumatic systems,
 - (vi) Flight control system malfunction, or
 - (vii) Landing gear and flap system malfunction.

(2) Each AOC holder shall ensure that flight engineer flight training includes at least the following training and practice in procedures related to the carrying out of flight engineer duties and functions. This training and practice may be accomplished either in flight or in a flight simulation training device (FSTD), as approved by the Authority.

(3) The flight training events for flight engineers listed in this IS are generic in nature for a type-rated aeroplane training curriculum. Additional training events may need to be added, changed or deleted. The events listed are typically conducted in a FSTD, except as noted, and may be conducted in aircraft when appropriate

- (a) Preparation-
 - (i) airplane preflight,
 - (ii) logbook procedures,
 - (iii) safety checks,
 - (iv) cabin or interiors,
 - (v) exterior Walkaround,
 - (vi) servicing or deicing, and

(vii) use of Oxygen;

(b) Ground Operations-

(i) Performance Data-

- (A) TO or LND Data,
- (B) Airport Analysis, or
- (C) Mass and Balance;

(ii) Use of Checklist-

- (A) Panel setup,

(iii) Starting-

- (A) External power,
- (B) External Air, or
- (C) APU;

(iv) Communications-

- (A) Station Procedures, or
- (B) ACARS;

(v) Taxi.

(c) Takeoff-

- (i) Powerplant Control,
- (ii) Flaps or landing gear,
- (iii) Fuel management,
- (iv) Other Systems Operation,
- (v) Aircraft Performance, and
- (vi) Checklist Completion.

(d) Climb-

- (i) Powerplant control,
- (ii) Fuel Management,
- (iii) Pressurisation,
- (iv) Electrical System,
- (v) Air Conditioning,
- (vi) Flight Controls, or
- (vii) Other Systems.

(e) En Route-

- (i) Powerplant Operation,
- (ii) Fuel Management,
- (iii) Performance Management,
- (iv) High Altitude Performance, or
- (v) other Systems Operation,

(f) Descent-

- (i) Powerplant operation,
- (ii) Other Systems Operation, or
- (iii) Performance Management;

(g) Approach-

- (i) Landing Data,
- (ii) Landing Gear Operation,
- (iii) Flat or Slat or Spoiler Operation, or
- (iv) Approach Monitoring;

(h) Landings-

- (i) Powerplant Operation,
- (ii) Aircraft Configuration, or

(iii) System Operation-

(A) Emergency Evacuation

(i) Procedures During any Ground or Airborne Phase-

- (i) Cockpit Equipment,
- (ii) Flap Slats or Gear,
- (iii) Powerplant,
- (iv) Pressurisation,
- (v) Pneumatic,
- (vi) Air Conditioning,
- (vii) Fuel and Oil,
- (viii) Electrical,
- (ix) Hydraulic,
- (xi) Flight Controls,
- (xii) Anti-Icing and Deicing, and
- (xiii) Other Checklist Procedures.

(4) Each AOC holder shall ensure that flight navigator flight training includes at least the following training and practice in procedures related to the carrying out of flight navigator duties and functions. This training and practice may be accomplished either in flight or in a flight simulation training device (FSTD), as approved by the Authority.

- (a) initial flight training for flight navigators must include flight training and a flight check that is adequate to ensure the crew member's proficiency in the performance of his or her assigned duties;
- (b) the flight training and check specified in paragraph (1) must be performed-
 - (i) in-flight or in an appropriate flight simulation training device, or
 - (ii) in commercial air transport operations, if performed under the supervision of a qualified flight navigator instructor or check navigator, as applicable.

(5) Each AOC holder shall ensure that initial flight training for pilots and flight engineers consists of at least the following programmed hours of instruction based on the aircraft to be used, unless a reduction is determined appropriate by the Authority-

8.17 for one pilot in either an aircraft or flight simulation training devices-

- (i) piston-engined aircraft—PIC: 14 hours; CP: 14 hours; and FE: 12 hours,
- (ii) turbopropeller-powered aircraft—PIC: 15 hours; CP: 15 hours; and FE: 12 hours,
- (iii) turbo-jet aircraft—PIC: 20 hours; CP: 16 hours; and FE; 12 hours, and
- (iv) other aircraft—PIC and CP: 14 hours;

(b) for two pilots in a flight simulation training device—

- (i) piston-engined aircraft—PIC: 24 hours; CP: 24 hours; and FE: 20 hours,
- (ii) turbopropeller-powered aircraft—PIC: 24 hours; CP: 24 hours; and FE: 20 hours,
- (iii) turbo-jet aircraft—PIC: 28 hours; CP: 28 hours; and FE: 20 hours, and
- (iv) other aircraft—PIC and CP: 24 hours.

8.17 Initial Specialised Operations Training

Each AOC holder shall provide initial specialised operations training to ensure that each pilot and flight dispatcher is qualified in the type of operation in which he or she serves and in any specialised or new equipment, procedures, and techniques, such as-

(a) Long-range navigation-

- (i) knowledge of specialised navigation procedures, such as MNPS, NPAC, and
- (ii) knowledge of specialised equipment, such as INS, LORAN, GPS;

- (b) CAT II and CAT III approaches;
- (c) Special equipment, procedures and practice;
- (d) A demonstration of competency;
- (e) Low visibility takeoff operations-
 - (i) runway and lighting requirements,
 - (ii) rejected takeoffs at, or near, V1 with a failure of the most critical engine,
 - (iii) taxi operations,
 - (iv) procedures to prevent runway incursions under low visibility conditions;
- (f) Extended range operations with two engine aeroplanes;
- (g) Approaches using on-board radar; and
- (h) Autopilot instead of Co-pilot.

8.18 Aircraft Differences

Each AOC holder shall provide aircraft differences training for flight dispatchers when the operator has aircraft variances within the same type of aircraft, which includes at least the following-

- (a) Operations procedures-
 - (i) operations under adverse weather phenomena conditions, including clear air turbulence, windshear, and thunderstorms,
 - (ii) mass and balance computations and load control procedures,
 - (iii) aircraft performance computations, to include takeoff mass limitations based on departure runway, arrival runway, and en route limitations, and also engine-out limitations,
 - (iv) flight planning procedures, to include route selection, flight time, and fuel requirements analysis,
 - (v) dispatch release preparation,
 - (vi) crew briefings,

- (vii) flight monitoring procedures,
- (viii) flight crew response to various emergency situations, including the assistance the aircraft flight dispatcher can provide in each situation,
- (ix) MEL and CDL procedures,
- (x) manual performance of required procedures in case of the loss of automation capabilities,
- (xi) training in appropriate geographic areas,
- (xii) ATC and instrument procedures, to include ground hold and central flow control procedures, and
- (xiii) radio or telephone procedures;

emergency procedures-

- (i) actions taken to aid the flight crew, or
- (ii) AOC holder and Authority notification.

Note 1: The FAA Flight Standardisation Board, the Transport Canada and JAA Joint Operations Evaluation Board have a harmonised process and their reports are a source for differences training.

Note 2: ICAO Doc 9376, Preparation of an Operations Manual, contains guidance material to design flight crew training programmes.

Note 3: ICAO Doc 9379, Manual of Procedures for the Establishment of a State's Personnel Licensing System, contains guidance of a general nature on cross-crew qualification, mixed-fleet flying and cross-credit.

8.19 Pilot Proficiency – Aircraft And Instrument Proficiency Checks

(1) Aircraft and instrument proficiency checks for PIC and CP must include the following operations and procedures listed in the appropriate skill test in Part 2, on each type or variant of type of aircraft.

(2) The oral and flight test phases of a proficiency check shall not be conducted simultaneously.

(3) When the check pilot determines that an applicant's performance is unsatisfactory, the check pilot may terminate the flight test immediately or, with the consent of the applicant, continue with the flight test until the

remaining events are completed.

(4) If the check must be terminated (for mechanical or other reasons) and there are events which still need to be repeated, the check pilot shall issue a letter of discontinuance, valid for 60 days, listing the specific areas of operation that have been successfully completed.

(5) Satisfactory completion of a proficiency check following completion of an approved air carrier training programme for the particular type aircraft, satisfies the requirement for an aircraft type rating skill test if-

- (a) that proficiency check includes all manoeuvres and procedures required for a type rating skill test; and
- (b) proficiency checks are to be conducted by a check pilot approved by the Authority.

(6) A PIC proficiency check given in accordance with Part 8 may be used to satisfy the proficiency requirements of Part 2 to act as a PIC.

(7) The CP proficiency check given in accordance with Part 8 may be used to satisfy the proficiency requirements of Part 2 to act as a CP.

(8) The AOC holder may combine recurrent training with the AOC holder's proficiency check if approved to do so by the Authority.

8.20 Pairing Of Low Experience Pilots

(1) Situations designated as critical by the Authority at special aerodromes designated by the Authority or at special aerodromes designated by the AOC holder include -

- (a) the prevailing visibility value in the latest weather report for the aerodrome is at or below 1200 m (3/4 statute mile);
- (b) the runway visual range for the runway to be used is at or below 1200 m (4000 ft);
- (c) the runway to be used has water, snow, slush or similar conditions that may adversely affect aircraft performance;
- (d) the braking action on the runway to be used is reported to be less than "good";
- (e) the crosswind component for the runway to be used is in excess of 15 knots;

- (f) windshear is reported in the vicinity of the aerodrome; and
- (g) any other condition in which the PIC determines it to be prudent to exercise the PIC's prerogative.

(2) Circumstances which would be routinely be considered for deviation from the required minimum line operating flight time include-

- (a) a newly certified AOC holder does not employ any pilots who meet the minimum flight time requirements;
- (b) an existing AOC holder adds to its fleet a type aircraft not before proven for use in its operations; or
- (c) an existing AOC holder establishes a new domicile to which it assigns pilots who will be required to become qualified on the aircraft operated from that domicile.

8.21 Competency Checks—Cabin Crewmembers

A check cabin crewmember, approved by the Authority, shall conduct competency checks for cabin crewmembers in the following areas to demonstrate that each candidate's competency level is sufficient to successfully perform assigned duties and responsibilities-

- (a) Emergency Equipment, as applicable-
 - (i) emergency communication and notification systems,
 - (ii) aircraft exits,
 - (iii) exits with slides or sliderafts (emergency operation),
 - (iii) slides and sliderafts in a ditching,
 - (iv) exits without slides (emergency operation),
 - (v) window exits (emergency operation),
 - (vi) exits with tailcones (emergency operation),
 - (vii) cockpit exits (emergency operation),
 - (viii) ground evacuation and ditching equipment,
 - (ix) first aid equipment,
 - (x) portable oxygen systems (oxygen bottles, chemical oxygen

generators, protective breathing equipment (PBE),

(xi) firefighting equipment,

(xii) emergency lighting systems, and

(xiii) additional emergency equipment;

(b) Emergency procedures-

(i) general types of emergencies specific to aircraft,

(ii) emergency communication signals and procedures,

(iii) rapid decompression,

(iv) insidious decompression and cracked window and pressure seal leaks,

(v) fires,

(vi) ditching,

(vii) ground evacuation,

(viii) unwarranted evacuation (i.e., Passenger initiated),

(ix) illness or injury,

(x) abnormal situations involving passengers or crew members,

(xi) turbulence, and

(xii) other unusual situations;

(c) Emergency drills-

(i) location and use of all emergency and safety equipment carried on the aeroplane,

(ii) the location and use of all types of exits,

(iii) actual donning of a lifejacket where fitted,

(iv) actual donning of protective breathing equipment (PBE), and

(v) actual handling of fire extinguishers;

(d) Crew Resource Management-

- (i) decision-making skills,
- (xi) briefings and developing open communication,
- (xii) inquiry, advocacy, and assertion training, and
- (xiii) workload management;

(e) Dangerous goods-

- (i) recognition of and transportation of dangerous goods,
- (ii) proper packaging, marking, and documentation, or
- (iii) instructions regarding compatibility, loading, storage and handling characteristics;

(f) Security- hijacking.

8.22 Competency Checks- Flight Dispatcher

A check flight dispatcher, approved by the Authority, shall conduct competency checks for flight dispatchers in at least the following areas to demonstrate that each candidate's competency level is sufficient to successfully perform assigned duties and responsibilities-

- (a) use of communications systems including the characteristics of those systems and the appropriate normal and emergency procedures;
- (b) meteorology, including various types of meteorological information and forecasts, interpretation of weather data (including forecasting of en route and terminal temperatures and other weather conditions), frontal systems, wind conditions, and use of actual and prognostic weather charts for various altitudes;
- (c) the NOTAM system;
- (d) navigational aids and publications;
- (e) joint dispatcher-pilot responsibilities;
- (f) characteristics of appropriate airports;
- (g) prevailing weather phenomena and the available sources of weather information;
- (h) air traffic control and instrument approach procedures; and

- (i) approved dispatcher resource management (DRM) initial training.

8.23 Recurrent Training—Flight Crew

(1) Each AOC holder shall establish a recurrent training programme for all flight crew members in the AOC holder's Operations Manual and shall have it approved by the Authority.

(2) Each flight crew member shall undergo recurrent training relevant to the type or variant of aircraft on which he or she is certified to operate and for the crew member position involved.

(3) Each AOC holder shall have all recurrent training conducted by suitably qualified personnel.

(4) Each AOC holder shall ensure that flight crew member recurrent ground training includes at least the following-

subjects-

- (i) flight locating procedures,
 - (ii) principles and method for determining mass/balance and runway limitations,
 - (iii) meteorology to ensure practical knowledge of weather phenomena including the principles of frontal system, icing, fog, thunderstorms, windshear, and high altitude weather situations,
 - (iv) ATC systems and phraseology,
 - (v) navigation and use of navigational aids,
 - (vi) normal and emergency communication procedures,
 - (vii) visual cues before descent to MDA,
 - (viii) accident or incident and occurrence review, and
 - (ix) other instructions necessary to ensure the pilot's competence;
- (b) Aircraft systems and limitations-
- (i) normal, abnormal, and emergency procedures,

- (ii) aircraft performance characteristics,
 - (iii) engines and, if applicable, propellers,
 - (iv) major aircraft components, and
 - (v) major aircraft systems (i.e., flight controls, electric, hydraulic and other systems as appropriate);
- (c) Ground icing and de-icing procedures and requirements;
- (d) Emergency equipment and drills;
- (e) Every 12 months-
 - (i) location and use of all emergency and safety equipment carried on the aeroplane,
 - (ii) the location and use of all types of exits,
 - (iii) actual donning of a lifejacket where fitted,
 - (iv) actual donning of protective breathing equipment, and
 - (v) actual handling of fire extinguishers;
- (f) Every 3 years-
 - (i) operation of all types of exits,
 - (ii) demonstration of the method used to operate a slide, where fitted,
 - (iii) fire-fighting using equipment representative of that carried in the aeroplane on an actual or simulated fire,

With Halon extinguishers, an alternative method acceptable to the Authority may be used.

- (iv) effects of smoke in an enclosed area and actual use of all relevant equipment in a simulated smoke-filled environment,
- (v) actual handling of pyrotechnics, real or simulated, where fitted,
- (vi) demonstration in the use of the life-raft(s), where fitted,
- (vii) an emergency evacuation drill,

- (viii) a ditching drill, if applicable,
 - (ix) a rapid decompression drill, if applicable, and
 - (x) survival suits, if applicable to the operation;
- (g) Crew resource management-
 - (i) decision-making skills,
 - (ii) briefings and developing open communication,
 - (iii) inquiry, advocacy, and assertion training,
 - (iv) workload management, and
 - (v) situational awareness;
- (h) Dangerous goods-
 - (i) recognition of and transportation of dangerous goods,
 - (ii) proper packaging, marking, and documentation, and
 - (iii) instructions regarding compatibility, loading, storage and handling characteristics;
- (i) Security-
 - (i) Hijacking, or
 - (ii) Disruptive passengers.

(5) Each AOC holder shall verify knowledge of the recurrent ground training by an oral or written examination.

(6) Each AOC holder shall ensure that pilot recurrent flight training include at least the following-

Note: Flight training may be conducted in an appropriate aircraft, adequate flight simulation training device (FSTD), or in a combination of aircraft and FSTD, as approved by the Authority.

- (a) Preparation-
 - (i) Visual inspection (use of pictorial display authorised), or
 - (ii) Pre-taxi procedures;

(b) Ground operation-

- (i) Performance limitations,
- (ii) Cockpit management,
- (iii) Securing cargo,
- (iv) Pushback,
- (v) Powerback taxi, if applicable,
- (vi) Starting,
- (vii) Taxi, or
- (viii) Pre-takeoff checks;

(c) Takeoff-

- (i) Normal,
- (ii) Crosswind,
- (iii) Rejected,
- (iv) Power failure after V1,
- (v) Powerplant failure during second segment, or
- (vi) Low Visibility Takeoff Operations;

(d) Climb-

- (i) Normal, or
- (ii) one-engine inoperative climb to en route altitude;

(e) En route-

- (i) steep turns,
- (ii) approaches to stalls (takeoff, en route, and landing configurations),
- (iii) inflight powerplant shutdown,
- (iv) inflight powerplant restart, or

- (v) high speed handling characteristics;
- (f) Descent- Normal;
- (g) Approaches-
 - (i) VFR procedures,
 - (ii) Visual approach with 50% loss of power of available powerplants,
 - (iii) Visual approach with slat or flap malfunction,
 - (iv) IFR precision approaches (ILS normal and ILS with one-engine inoperative),
 - (v) IFR non- precision approaches (NDB normal and VOR normal),
 - (vi) non-precision approach with one engine inoperative (LOC backcourse, SDF or LDA, GPS, TACAN and circling approach procedures),

Note: A Flight Simulation Training Device shall not be used for training or checking on the circling manoeuvre unless it has been qualified for circling manoeuvres. The operator must be approved to conduct circling manoeuvres by the Authority to participate in that training and checking.

- (vii) Missed approach from precision approach,
- (viii) Missed approach from non-precision approach, and
- (ix) Missed approach with powerplant failure;
- (h) Landings-
 - (i) abnormal with a pitch mistrim (small aircraft only),
 - (ii) abnormal from precision instrument approach,
 - (iii) abnormal from precision instrument approach with most critical engine inoperative,
 - (iv) abnormal with 50% loss of power of available powerplants,
 - (v) abnormal with flap or slat malfunction,
 - (vi) rejected landings,

- (vii) crosswind,
- (viii) short or soft field (small aircraft only),
- (ix) glassy or rough water (seaplanes only), and
- (x) auto-rotation (helicopter only);
- (i) After landing-
 - (i) parking,
 - (ii) emergency evacuation, or
 - (iii) docking, mooring, and ramping (seaplanes only);
- (j) Other flight procedures during any airborne phase-
 - (i) airborne Collision Avoidance System: use and avoidance maneuvers,
 - (ii) holding,
 - (iii) ice accumulation on airframe,
 - (iv) air hazard avoidance, or
 - (v) windshear or microburst;
- (k) Normal, abnormal and alternate systems procedures during any phase-
 - (i) pneumatic or pressurization,
 - (ii) air conditioning,
 - (iii) fuel and oil,
 - (iv) electrical,
 - (v) hydraulic,
 - (vi) flight controls,
 - (vii) anti-icing and deicing systems,
 - (viii) flight management guidance systems and/or automatic or other approach and landing aids,
 - (ix) stall warning devices, stall avoidance devices, and stability

- augmentation systems,
- (x) airborne weather radar,
- (xi) flight instrument system malfunction,
- (xii) communications equipment,
- (xiii) navigation systems,
- (xiv) autopilot,
- (xv) approach and landing aids, and
- (xvi) flight instrument system malfunction;
- (l) Emergency systems procedures during any phase-
 - (i) aircraft fire,
 - (ii) smoke control,
 - (iii) powerplant malfunctions,
 - (iv) fuel jettison,
 - (v) electrical, hydraulic, pneumatic systems,
 - (vi) flight control system malfunction, or
 - (vii) landing gear and flap system malfunction.
- (7) Each AOC holder shall ensure that flight engineer recurrent flight training includes at least the flight training specified in Schedule 8.16 (2).
- (8) Each AOC holder shall ensure that flight navigator recurrent training includes enough training and an in-flight check to ensure competency with respect to operating procedures and navigation equipment to be used and familiarity with essential navigation information pertaining to the AOC holder's routes that require a flight navigator.
- (9) The AOC holder may combine recurrent training with the AOC holder's proficiency check if approved by the Authority.
- (10) Recurrent ground and flight training curricula may be accomplished concurrently or intermixed, but completion of each of these curricula shall be recorded separately.

8.24 Recurrent Normal and Emergency Training—Cabin Crew Members

- (1) Each AOC holder shall establish and have approved by the Authority a recurrent training programme for all cabin crew members.
- (2) Each cabin crew member shall undergo recurrent training in evacuation and other appropriate normal and emergency procedures and drills relevant to his or her assigned positions and the type(s) or variant(s) of aircraft on which he or she operates.
- (3) Each AOC holder shall have all recurrent training conducted by suitably qualified personnel.
- (4) Each AOC holder shall ensure that, every 12 months, each cabin crew member receive recurrent training in at least the following-
 - (a) Emergency equipment, if applicable-
 - (i) emergency communication and notification systems,
 - (ii) aircraft exits,
 - (iii) exits with slide s or sliderafts (emergency operation),
 - (iv) slides and sliderafts in a ditching,
 - (v) exits without slides (emergency operation),
 - (vi) window exits (emergency operation),
 - (vii) exits with tailcones (emergency operation),
 - (viii) cockpit exits (emergency operation).
 - (ix) ground evacuation and ditching equipment,
 - (x) first aid equipment,
 - (xiv) portable oxygen systems (oxygen bottles, chemical oxygen generators, protective breathing equipment (PBE)),
 - (xv) firefighting equipment,
 - (xvi) emergency lighting systems, or
 - (xvii) additional emergency equipment;
 - (b) Emergency procedures-

- (i) general types of emergencies specific to aircraft,
- (ii) emergency communication signals and procedures,
- (iii) rapid decompression,
- (iv) insidious decompression and cracked window and pressure seal leaks,
- (v) fires,
- (vi) ditching,
- (vii) ground evacuation,
- (viii) unwarranted evacuation (i.e., passenger initiated),
- (ix) illness or injury,
- (x) abnormal situations involving passengers or crew members,
- (xiv) turbulence,
- (xv) other unusual situations, or
- (xvi) emergency drills;

(c) Every 12 months

- (i) location and use of all emergency and safety equipment carried on the aeroplane,
- (ii) the location and use of all types of exits,
- (iii) actual donning of a lifejacket where fitted,
- (iv) actual donning of protective breathing equipment (PBE), or
- (v) actual handling of fire extinguishers;

(d) Every 3 years

- (i) operation of all types of exits,
- (ii) demonstration of the method used to operate a slide, where fitted,
- (iii) fire-fighting using equipment representative of that carried in

the aeroplane on an actual or simulated fire,

Note: With Halon extinguishers, an alternative method acceptable to the Authority may be used.

- (iv) effects of smoke in an enclosed area and actual use of all relevant equipment in a simulated smoke-filled environment,
 - (v) actual handling of pyrotechnics, real or simulated, where fitted,
 - (vi) demonstration in the use of the life-raft(s), where fitted,
 - (vii) an emergency evacuation drill,
 - (viii) a ditching drill, if applicable,
 - (ix) a rapid decompression drill, if applicable, and
 - (x) survival suits, if applicable to the operation;
- (e) Crew resource management-
- (i) decision-making skills,
 - (ii) briefings and developing open communication,
 - (iii) inquiry, advocacy, and assertion training, and
 - (iv) workload management;
- (f) Dangerous goods-
- (i) recognition of and transportation of dangerous goods,
 - (ii) proper packaging, marking, and documentation, and
 - (iii) instructions regarding compatibility, loading, storage and handling characteristics.
- (g) Security-
- (i) hijacking, or
 - (ii) disruptive passengers.
- (5) Each AOC holder shall verify knowledge of the recurrent training by an oral or written examination.
- (6) An AOC holder, if approved by the Authority, may administer each of the

recurrent training curricula concurrently or intermixed, but shall record completion of each of these curricula separately.

8.25 Recurrent Training—Flight Dispatcher

(1) Each AOC holder shall establish and maintain a recurrent training programme, approved by the Authority and established in the AOC holder's Operations Manual, to be completed annually by each flight dispatcher.

(2) Each flight dispatcher shall undergo recurrent training relevant to the type(s) or variant(s) of aircraft and the operations conducted by the AOC holder, and that training shall consist of at least the following hours of instruction-

- (a) piston-engined aircraft – 8 hours;
- (b) turbopropeller-powered aircraft – 10 hours;
- (c) turbo-jet aircraft – 20 hours; and
- (d) other aircraft to include rotorcraft– 10 hours.

(3) Each AOC holder shall have all recurrent training conducted by an appropriately qualified instructor.

(4) An AOC holder shall ensure that, every 12 months, each flight dispatcher receives recurrent training in the subjects required for initial training listed in Schedule 8.15 in sufficient detail to ensure competency in each specified area of training. Operators may choose to provide in-depth coverage of selected subjects on any one cycle of training. In such cases the operator's training programme must cover all the subjects to the detail required for initial qualification within three years.

(5) Each AOC holder shall verify knowledge of the recurrent training by an oral or written examination.

(6) An AOC holder shall record completion of the required training.

8.26 Flight Crew Instructor Training.

(1) An operator shall not use a person, nor may any person serve as flight instructor in a training programme unless-

- (a) that person has satisfactorily completed initial or transition flight instructor training; and
- (b) within the preceding 24 calendar months, that person satisfactorily

conducts instruction under the observation of an inspector from the Authority or an AOC holder's check personnel.

(2) An AOC holder may accomplish the observation check for a flight instructor, in part or in full, in an aircraft or a flight simulation training device.

(3) Each AOC holder shall ensure that initial ground training for flight instructors includes the following-

- (a) flight instructor duties, functions, and responsibilities;
- (b) applicable regulations and the AOC holder's policies and procedures;
- (c) appropriate methods, procedures, and techniques for conducting the required checks;
- (d) proper evaluation of student performance including the detection of-
 - (i) improper and insufficient training, and
 - (ii) personal characteristics of an applicant that could adversely affect safety;
- (e) appropriate corrective action in the case of unsatisfactory checks;
- (f) approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft; and
- (g) except for holders of existing flight instructor licences-
 - (i) the fundamental principles of the teaching-learning process,
 - (ii) teaching methods and procedures, and
 - (iii) the instructor-student relationship.

(4) Each AOC holder shall ensure that the transition ground training for flight instructors includes the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft to which the flight instructor is in transition.

(5) Each AOC holder shall ensure that the initial and transition flight training for flight instructors includes the following-

- (a) the safety measures for emergency situations that are likely to develop during instruction;

- (b) the potential results of improper, untimely, or non-execution of safety measures during instruction; and
 - (c) for pilot flight instructor (aircraft) -
 - (i) in flight training and practice in conducting flight instruction from the left and right pilot seats in the required normal, abnormal, and emergency procedures to ensure competence as an instructor; and
 - (ii) the safety measures to be taken from either pilot seat for emergency situations that are likely to develop during instruction.
- (6) For flight engineer instructors and flight navigator instructors, in-flight training to ensure competence to perform assigned duties.
- (7) An AOC holder may accomplish the flight training requirements for flight instructors in full or in part in flight or in a flight simulation training device, as appropriate.
- (8) An AOC holder shall ensure that the initial and transition flight training for flight instructors (flight simulation training device) includes the following-
- (a) training and practice in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight instruction required by this part. This training and practice shall be accomplished in full or in part in a flight simulation training device; and
 - (b) training in the operation of flight simulation training devices, to ensure competence to conduct the flight instruction required by this Part.

8.27 Cabin Crew Instructor Training

- (1) An operator shall not use a person, nor may any person serve as cabin instructor in a training programme unless-
- (a) that person has satisfactorily completed initial or transition cabin instructor training; and
 - (b) within the preceding 24 calendar months, that person satisfactorily conducts instruction under the observation of an inspector from the Authority or an AOC holder's check personnel.
- (2) An AOC holder may accomplish the observation check for a cabin instructor, in part or in full, in an aircraft or a cabin simulation training device.
- (3) Each AOC holder shall ensure that initial ground training for cabin

instructors includes the following-

- (a) cabin instructor duties, functions, and responsibilities;
- (b) applicable regulations and the AOC holder's policies and procedures;
- (c) appropriate methods, procedures, and techniques for conducting the required checks; and
- (d) proper evaluation of student performance including the detection of -
 - (i) improper and insufficient training, and
 - (ii) personal characteristics of an applicant that could adversely affect safety;
- (e) appropriate corrective action in the case of unsatisfactory checks;
- (f) approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft, as applicable;
- (g) except for existing cabin instructors -
 - (i) the fundamental principles of the teaching-learning process,
 - (ii) teaching methods and procedures, and
 - (iii) the instructor-student relationship.

(4) Each AOC holder shall ensure that the transition ground training for cabin instructors includes the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft, as appropriate to which the cabin instructor is in transition.

(5) Each AOC holder shall ensure that the initial and transition flight training for cabin instructors includes the following-

- (a) the safety measures for emergency situations that are likely to develop during instruction; and
- (b) the potential results of improper, untimely, or non-execution of safety measures during instruction;

8.28 Flight Dispatcher Instructor Training

(1) An operator shall not use a person, nor may any person serve as flight dispatcher instructor in a training programme unless-

- (a) that person has satisfactorily completed initial or transition flight dispatcher instructor training; and
- (b) within the preceding 24 calendar months, that person satisfactorily conducts instruction under the observation of an inspector from the Authority or an AOC holder's check flight dispatcher.

(2) An AOC holder may accomplish the observation check for a flight dispatcher instructor, in part or in full, in a flight operations centre.

(3) Each AOC holder shall ensure that initial ground training for flight dispatcher instructors includes the following-

- (a) flight dispatcher instructor duties, functions, and responsibilities;
- (b) applicable regulations and the AOC holder's policies and procedures;
- (c) appropriate methods, procedures, and techniques for conducting the required checks;
- (d) proper evaluation of student performance including the detection of-
 - (i) improper and insufficient training, and
 - (ii) personal characteristics of an applicant that could adversely affect safety;
- (e) appropriate corrective action in the case of unsatisfactory checks;
- (f) approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures for the aircraft or position involved;
- (g) except for holders of existing flight dispatcher instructor licences,
 - (i) the fundamental principles of the teaching-learning process,
 - (ii) teaching methods and procedures, and
 - (iii) the instructor-student relationship.

(4) Each AOC holder shall ensure that the transition ground training for flight dispatcher instructors includes the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft or position involved to which the flight

dispatcher instructor is in transition.

(5) Each AOC holder shall ensure that the initial and transition training for flight dispatcher instructors includes the following-

- (a) the safety measures for emergency situations that are likely to develop during instruction in a flight operations centre; and
- (b) the potential results of improper, untimely, or non-execution of safety measures during instruction in a flight operations centre.

8.29 Check Personnel Training

Training for check personnel - general.

(1) An operator shall not use a person, and a person shall not serve as a check person in a training programme unless, with respect to the aircraft type involved, that person has satisfactorily completed the appropriate training phases for the aircraft, including recurrent training and differences training, that are required to serve as PIC, flight engineer, navigator, cabin crewmember, or flight dispatcher, as applicable.

(2) Each AOC holder shall ensure that initial ground training for check personnel includes -

- (a) check personnel duties, functions, and responsibilities;
- (b) applicable regulations and the AOC holder's policies and procedures;
- (c) appropriate methods, procedures, and techniques for conducting the required checks;
- (d) proper evaluation of student performance including the detection of-
 - (i) improper and insufficient training, and
 - (ii) personal characteristics of an applicant that could adversely affect safety;
- (e) appropriate corrective action in the case of unsatisfactory checks; and
- (f) approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures in the aircraft.

(3) Transition ground training for all check personnel, shall include the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency procedures applicable to the aircraft to

which the check person is in transition.

8.30 Training for Check Personnel of Flight Crew.

(1) For check pilots, each AOC holder shall ensure that the initial and transition flight training includes -

- (a) training and practice in conducting flight evaluations (from the left and right pilot seats for check pilots) in the required normal, abnormal, and emergency procedures to ensure competence to conduct the flight checks;
- (b) the potential results of improper, untimely or non-execution of safety measures during an evaluation; and
- (c) the safety measures (to be taken from either pilot seat for check pilots) for emergency situations that are likely to develop during an evaluation.

(2) For check flight engineers and check flight navigators, each AOC holder shall ensure training to ensure competence to perform assigned duties to include -

- (a) the safety measures for emergency situations that are likely to develop during a check; and
- (b) the potential results of improper, untimely or non-execution of safety measures during a check.

(3) Each AOC holder shall ensure that the initial and transition flight training for check personnel (simulator) includes-

- (a) training and practice in conducting flight checks in the required normal, abnormal, and emergency procedures to ensure competence to conduct the checks required by this part (this training and practice shall be accomplished in a flight simulation training device); and
- (b) training in the operation of flight simulation training devices, to ensure competence to conduct the checks required by this Part.

(4) An AOC holder may accomplish flight training for check personnel, in full or in part in an aircraft or in a flight simulation training device, as appropriate.

(5) The AOC holder shall record the training in each individuals training record maintained by the AOC holder.

8.31 Training for Check Cabin Crewmembers

For check cabin crewmembers, each AOC holder shall ensure that the training includes-

- (a) the safety measures for emergency situations that are likely to develop during a check; and
- (b) the potential results of improper, untimely or non-execution of safety measures during a check.

8.32 Training for Check Flight Dispatchers

(1) For check flight dispatchers, each AOC holder shall ensure that the training includes-

- (a) the safety measures for emergency situations that are likely to develop during a check; and
- (b) the potential results of improper, untimely or non-execution of safety measures during a check.

(2) The AOC holder shall record the training in each individuals training record maintained by the AOC holder.

8.33 Duty And Rest Periods

Each AOC holder, scheduling official and crew member shall use the following tables as appropriate, to consolidate all scheduling and actual event requirements with respect to crew member flight time, duty and rest periods for commercial air transport operations.

Each Contracting State is required to have flight and duty time regulations. The domestic flight operations times in Tables 1 and 2 are from the United States and are used as an example.

Table 1

CONDITIONS REQUIRED FOR FLIGHT CREW MEMBER REST REDUCTION.			
Flight Deck Duty Period (Hours)	Normal Rest Period (Hours)	Authorised Reduced Rest Period (Hours)	Next Rest Period if Reduction Taken
Less than 8	9	8	10
8-9	10	8	11
9 or more	11	9	12

Table 2

CONDITIONS REQUIRED FOR CABIN CREW MEMBER REST REDUCTION.				
Scheduled Duty Period (Hours)	Extra Cabin Crew Members Required	Normal Rest Period (Hours)	Authorised Reduced Rest Period (Hours)	Next Rest Period if Reduction Taken
14 or less	0	9	8	10
14-16	1	12	10	14
16-18	2	12	10	14
18-20	3	12	10	14