GHANA CIVIL AVIATION (FLIGHT STANDARDS) DIRECTIVES

PART 9 –

AIR OPERATOR CERTIFICATION

AND

ADMINISTRATION

NOVEMBER 2018

INTRODUCTION

Part 9 sets forth the requirements for persons or entities to be granted an AOC certification from Ghana and includes Directives concerning the AOC certificate, flight operations management, maintenance requirements, security management, and dangerous goods management. This Part incorporates the Standards and Recommended Practices of ICAO Annexes 6 and 8.

The requirements for an AOC operated maintenance organization are contained in this part and shall apply where the AOC does not use the services of an AMO, or does not gain an AMO certification for its maintenance organization.

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9. AIR OPERATOR CERTIFICATE AND ADMINISTRATION

9.1 GENERAL

9.1.1 APPLICABILITY

(1) Part 9 applies to the carriage of passengers, cargo or mail for remuneration or hire by persons whose principal place of business or permanent residence is located in Ghana.

(2) This Part of the Directives prescribes requirements for the original certification and continued validity of air operator certificates (AOC) issued by Ghana

(3) Except where specifically noted, Part 9 applies to all commercial air transport operations by AOC holders for which Ghana is the State of the Operator under the definitions provided in Annex 6 to the Chicago Convention.

9.1.2 DEFINITIONS

Definitions are contained in Part 1 of the Ghana Civil Aviation (Flight Standards) Directives. For the purpose of this Part, the following definitions shall apply-

Accountable Manager. The person acceptable to the Authority who has corporate authority for ensuring that all operations and maintenance activities can be financed and carried out to the standard required by the Authority, and any additional requirements defined by the operator.

Acceptance checklist. A document used to assist in carrying out a check on the external appearance of packages of dangerous goods and their associated documents to determine that all appropriate requirements have been met.

Aircraft Technical Log. A document attached to an aircraft for recording defects and malfunctions discovered during operation and for recording details of all maintenance carried out whilst the aircraft is operating between scheduled visits to the base maintenance facility. It also contains operating information relevant to flight safety and maintenance data that the operating crew needs to know.

Airworthiness Release. The air operator's aircraft are released for service following maintenance by a person specifically authorized by the air operator rather than by an individual or maintenance organization on their own behalf. In effect, the person signing the release acts in the capacity of an authorized agent for the operator and is certifying that the maintenance covered by the release was accomplished according to the air operator's continuous maintenance program. Responsibility for each step of the accomplished maintenance is borne by the person signing for that step and the airworthiness release certifies the entire maintenance work package. This arrangement in no way reduces the responsibility of licensed aircraft maintenance engineer (AME) or maintenance organizations for maintenance functions or tasks they perform or supervise. The air operator is obligated to designate, by name or occupational title, each licensed AME or maintenance organization authorized to execute the airworthiness release. In addition, the air

operator should designate when a release is required. Normally, a release is required following inspections prescribed by the air operator's specifications maintenance activities involving inspections, and any other significant maintenance.

Agreement summary. When an aircraft is operating under an Article 83 *bis* agreement between the State of Registry and another State, the agreement summary is a document transmitted with the Article 83 *bis* Agreement registered with the ICAO Council that identifies succinctly and clearly which functions and duties are transferred by the State of Registry to that other State.

Note: The other State in the above definition refers to the State of the Operator for commercial air transport operations.

Cargo. Any property carried on an aircraft other than mail and accompanied or mishandled baggage.

Note.— This definition differs from the definition of "cargo" given in Annex 9 — Facilitation

Cargo aircraft. Any aircraft carrying goods or property but not passengers. In this context the following are not considered to be passengers.

(i) A crewmember;

(ii) An operator's employee permitted by, and carried in accordance with, the instructions contained in the Operations Manual;

(iii) An authorized representative of an Authority;

(iv) A person with duties in respect of a particular shipment on board.

Continuous descent final approach (CDFA). A technique, consistent with stabilized approach procedures, for flying the final approach segment(FAS) of an instrument non- precision approach(NPA) procedure as a continuous descent, without level-off, from an altitude/height at or above the final approach fix altitude/height to a point approximately 15 m (50 ft) above the landing runway threshold or the point where the flare manoeuvre should begin for the type of aircraft flown ;for the FAS of an NPA procedure followed by a circling approach, the CDFA technique applies until circling approach minima (circling OCA/H) or visual flight manoeuvre altitude/height are reached.

Dangerous goods accident. An occurrence associated with and related to the transport of dangerous goods which results in fatal or serious injury to a person or major property damage.

Dangerous goods incident. An occurrence, other than a dangerous goods accident, associated with a related to the transport of dangerous goods, not necessarily occurring onboard an aircraft, which results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation or other evidence that the integrity of the packaging has not been maintained. Any occurrence relating to the transport of dangerous goods which seriously jeopardizes an aircraft or its occupants is deemed to constitute a dangerous goods incident.

Dangerous goods transport document. A document specified by the ICAO Technical Instructions for the Safe Transportation of Dangerous Goods by Air (See definition, below). It is completed by the person who offers dangerous goods for air transport and contains information about those dangerous goods. The document bears a signed declaration indicating that the dangerous goods are fully and accurately described by their proper shipping names and UN numbers (if assigned) and that they are correctly classified, packaged, marked, labeled and in a proper condition for transport.

Directly in Charge. A person assigned to a position in which he or she is responsible for the work of a shop or station that performed maintenance, preventive maintenance, or modifications, or other functions affecting aircraft airworthiness.

Equivalent system of maintenance. An AOC holder may conduct maintenance activities through an arrangement with an AMO or may conduct its own maintenance, preventive maintenance, or alterations, so long as the AOC holder's maintenance system is approved by the Authority and is equivalent to that of an AMO, except that the approval for return to service of an aircraft or aeronautical product shall be made by an appropriately licensed aviation maintenance engineer or aviation repair specialists in accordance with Part 2, as appropriate.

Flight Safety Documents System. A set of inter-related documentation established by the operator, compiling and organising information necessary for flight and ground operation, and comprising as a minimum, operations manual and the operator's maintenance control manual.

Freight container. A freight container is an article of transport equipment for radioactive materials, designed to facilitate the transport of such materials, either packaged or unpacked, by one or more modes of transport.

Handling agent. An agent which performs on behalf of the operator some or all of the latter's functions including receiving, loading unloading, transferring or other processing of passengers or cargo.

Holdover time. The estimated time-de-icing or anti-icing fluid will prevent the formation of frost or ice and the accumulation of snow on the protected surfaces of an aircraft. Holdover time begins when the final application of de- icing or anti-icing fluid commences and expires when the de-icing or anti- icing fluid applied to the aircraft loses its effectiveness.

Interchange agreement. A leasing agreement which permits an air carrier to dry lease and take or relinquish operational control of an aircraft at an airport.

Low-visibility operations (LVO). Approach operations in RVRs less than 550 m and/or with a DH less than 60 m (200 ft) or take-off operations in RVRs less than 400 m.

Maintenance Control Manual. A manual containing procedures,

instructions and guidance for use by maintenance and concerned operational personnel in the execution of their duties.

Operations manual. A manual containing procedures, instruction and guidance for use by operational personnel in the execution of their duties.

Operations specifications. The authorizations including specific approvals conditions and limitations associated with the air operator certificate and subject to the conditions in the operations manual.

Overpack. An enclosure used by a single shipper to contain one or more packages and to form one handling unit for convenience of handling and stowage.

Package. The complete product of the packing operation consisting of the packaging and its contents prepared for transport.

Packaging. Receptacles and any other components or materials necessary for the receptacle to perform its containment function and to ensure compliance with the packing requirements.

Proper shipping name. The name to be used to describe a particular article or substance in all shipping documents and notifications and, where appropriate, on packaging.

Serious injury. An injury which is sustained by a person in an accident and which:

(a) Requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received;

(b) Results in a fracture of any bone (except simple fractures of fingers, toes or nose); or

(c) Involves lacerations which cause severe hemorrhage, nerve, muscle or tendon damage; or

(d) Involves injury to any internal organ; or

(e) Involves second or third degree burns, or any burns affecting more than 5% of the body surface; or

(f) Involves verified exposure to infectious substances or injurious radiation.

Specific approval. A specific approval is an approval which is documented in the Operations Specifications for commercial air transport operations or in the list of specific approvals for non-commercial operations.

Note.— The terms authorization, specific approval, approval and acceptance are further described in IS 9.1.6.

State of Origin. The STATE in which dangerous goods were first loaded on an aircraft.

State of the principal location of a general aviation operator. The State in which the operator of a general aviation aircraft has its principal place of business or, if there is no such place of business, its permanent residence.

Note: Guidance concerning the options for the principal location of a general aviation operator is contained in the Manual on the Implementation of Article 83 *bis* of the Convention on International Civil Aviation *(Doc 10059).*

Technical Instructions. The latest effective edition of the Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc. 9284- AN/905), including the supplement and any addendum, approved and published by decision of the Council of the ICAO. The term "Technical Instruction" is used in this Part.

Threshold time. The range, expressed in time, established by the State of the Operator, to an en-route alternate aerodrome, whereby any time beyond requires a specific approval for EDTO from the State of the Operator.

Training to proficiency. The process of the check airman administering each prescribed manoeuvre and procedure to a pilot as necessary until it is performed successfully during the training period.

UN number. The four-digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods to identify a substance or a particular group of substances.

Unit load device. Any type of aircraft container, aircraft pallet with a net, or aircraft pallet with a net over an igloo.

9.1.3 ABBREVIATIONS

(1) The following acronyms are used in Part 9.

ACL - Air Carrier's Licence
AOC- Air Operator Certificate
AMO- Approved Maintenance Organization
ATLA- Airline Transport Licence Authority
ATP- Air Transport Pilot
ATPL- Air Transport Pilot Licence
CAT – Category [of instrument approach operation: Type B (CAT I, II, III)]
CDL - Configuration Deviation List
CPL - Commercial Pilots Licence
DH – Decision Height
EDTO – Extended Diversion Time Operation
IFR – Instrument Flight Rules
IMC – Instrument Meteorological Conditions
MEL- Minimum Equipment List
MMEL - Master Minimum Equipment List
NOTOC – Notification to Captain/Commander
PBN – Performance Based Navigation
PIC – Pilot – In – Command

RFFS – Rescue and Fire Fighting Service
RVR – Runway Visual Range
RVSM – Reduced Vertical Separation Minimum
SMS – Safety Management System
UN- United Nations
VFR – Visual Flight Rules
VMC – Visual Meteorological Conditions

9.1.4 COMPLIANCE WITH AN AIR OPERATOR CERTIFICATE

(1) No operator shall operate an aircraft in commercial air transport unless that operator holds a valid AOC issued by the State of Operator for the operations being conducted.

(2) No person shall operate an aircraft in commercial air transport operations which are not authorized by the terms and conditions of its AOC.

(3) The Air Operator Certificate shall authorize the Operator to conduct commercial air transport operations in accordance with specific authorizations, conditions and limitations.

(4) Each AOC holder shall, at all times, continue in compliance with the AOC terms, conditions of issuance, and maintenance requirements in order to hold that certificate.

(5) The Authority shall recognize as valid an air operator certificate issued by another Contracting State, provided that the requirements under which the certificate was issued are at least equal to the applicable Standards specified in Annex 6 and Annex 19.

Note: *Failure to comply may result in the revocation or suspension of the AOC.*

9.1.5 APPLICATION FOR AN AIR OPERATOR CERTIFICATE

(1) A prospective Operator applying to the Authority for an AOC shall submit an application-

(a) In a form and manner prescribed by the Authority; and

(b) Containing any information the Authority requires the applicant to submit.

(2) Each applicant shall make the application for an initial issue of an AOC at least 90 days before the date of intended operation.

(3) At the time of application, the applicant shall provide all information and manuals required under this Part, and the safety management system documentation required by Part 36 of the Ghana Civil Aviation (Flight Standards) Directives.

(4) Each applicant shall develop policies and procedures for third parties that perform work on its behalf.

9.1.6 ISSUANCE OR DENIAL OF AIR OPERATOR CERTIFICATE

(1) The issuance of an air operator certificate by the State of the Operator shall be dependent upon the operator demonstrating adequate organization, method of control and supervision of flight operations, training programme as well as ground handling and maintenance arrangements consistent with the nature and extent of the operations specified.

(2) The Authority may issue an AOC if, after investigation, the Authority finds that the applicant-

(a) Is a citizen of Ghana;

(b) Has its principal place of business and its registered office, if any, located in Ghana;

(c) Meets the applicable Directives and standards for the holder of an AOC;

(d) Is properly and adequate equipped for safe operations in commercial air transport and maintenance of the aircraft; and

(e) Holds the economic authority ACL issued by the Authority under the provisions of the Ghana Civil Aviation Act.

(3) The Authority may deny application for an AOC if the Authority finds that-

(a) The applicant is not properly or adequately equipped or is not able to conduct safe operations in commercial air transport;

(b) The applicant previously held an AOC which was revoked; or

(c) An individual that contributed to the circumstances causing the revocation process of an AOC obtains a substantial ownership or is employed in a position required by this Directive.

9.1.7 CONTENTS OF AIR OPERATOR CERTIFICATE

(1) The AOC will consist of two documents-

(a) A one-page certificate for public display signed by the Authority; and

(b) Operations specifications containing the terms and conditions applicable to the AOC holder's certificate.

(2) The Authority will issue an AOC which will contain—

(a) The State of the Operator and the issuing authority;

(b) The Air Operator Certificate number and its expiration date;

(c) The operator name, trading name (if different) and address of the principal place of business;

(d) The date of issue and the name, signature and title of the Authority representative, and

(e) The location, in a controlled document carried on board, where the contact details of operational management can be found.

Note- See IS 9.1.7(2) for detailed requirements on the layout and content of the Air Operator Certificate.

(3) The operations specifications associated with the Air Operator Certificate shall contain the specific approvals, conditions, limitations and approvals issued by the Authority in accordance with the standards which are applicable to operations and maintenance conducted by the AOC holder.

Note 1- See IS 9.1.7(3) for the layout and content of the Operations Specifications.

Note 2 - The MEL constitutes an integral part of the operations manual.

(4) Air operator certificates and their associated operations specifications first issued from November 2008 shall follow the layouts of IS: 9.1.7(2) and IS: 9.1.7(3).

9.1.8 DURATION OF AN AIR OPERATOR CERTIFICATE

(1) An AOC, or any portion of an AOC, issued by the Authority is effective for a period of 12 months until-

(a) The Authority amends, suspends, revokes or otherwise terminates the certificate;

(b) The AOC holder surrenders it to the Authority; or

(c) The AOC holder suspends operations for more than 60 days.

(2) An AOC holder shall make application for renewal of an AOC at least 30 days before the end of the existing period of validity.

9.1.9 AMENDMENT OF AN AIR OPERATOR CERTIFICATE

(1) The Authority may amend any AOC if-

(a) The Authority determines that safety in commercial air transport and the public interest require the amendment; or

(b) The AOC holder applies for an amendment, and the Authority determines that safety in commercial air transport and the public interest allows the amendment.

(2) If the Authority stipulates in writing that an emergency exists requiring immediate amendment in the public interest with respect to safety in commercial air transportation, such an amendment is effective without stay on the date the AOC holder receives notice.

(3) An AOC holder may appeal the amendment, but shall operate in accordance with it, unless it is subsequently withdrawn.

(4) Amendments proposed by the Authority, other than emergency amendments, become effective 30 days after notice to the AOC holder, unless the AOC holder appeals the proposal in writing prior to the effective date. The filing of an appeal stays the effective date until the appeal process is completed.

(5) Amendments proposed by the AOC holder shall be made at least 30 days prior

to the intended date of any operation under that amendment.

(6) No person may perform a commercial air transport operation for which an AOC amendment is required, unless it has received notice of the approval from the Authority.

9.1.10 ACCESS FOR INSPECTION

(1) To determine continued compliance with the applicable Directives, the AOC holder shall-

(a) Grant the Authority access to and co-operation with any of its organisations, facilities and aircraft;

(b) Ensure that the Authority is granted access to and co-operation with any organisation or facilities that it has contracted for services associated with commercial air transport operations and maintenance for services; and

(c) Grant the Authority free, unlimited, unrestricted and uninterrupted access to the flight deck of the aircraft during flight operations.

(2) Each AOC holder shall provide to the Authority a forward observer's seat on each of the AOC holder's aircraft from which the flight crew's actions and conversations may be easily observed.

Note 1: The suitability of the seat location and the ability to monitor crewmember actions, conversations and radio communications is determined by the Authority.

Note 2: Guidance on dangerous goods inspections and enforcement may be found in the Supplement to the Technical Instructions (Part S-5, Chapter 1 and Part S-7, Chapters 5 and 6)

9.1.11 CONDUCTING TESTS AND INSPECTIONS

(1) The Authority will conduct on-going validation of the AOC holder's continued eligibility to hold its AOC and associated approvals.

(2) The AOC holder shall allow the Authority to conduct tests and inspections, at any time or place, to determine whether an AOC holder is complying with the applicable laws, Directives and AOC terms and conditions.

(3) The AOC holder shall make available at its principal base of operations-

(a) All portions of its current Air Operator Certificate;

(b) All portions of its Operations and Maintenance Manuals; and

(c) A current listing that includes the location and individual positions responsible for each record, document and report required to be kept by the AOC holder under the applicable aviation law, Directives or standards.

(4) Failure by any AOC holder to make available to the Authority upon request,

all portions of the AOC, Operations and Maintenance Manuals and any required record, document or report is grounds for suspension of all or part of the AOC.

(5) Inspections referred to in paragraph (2) will be conducted at least annually.

(6) After an inspection is made, the AOC holder will be notified, in writing, of any deficiencies found during the inspection.

(7) The findings shall be classified as follows:

(a) A level 1 finding is any significant non-compliance with applicable requirements of this Directive, with organization procedure manuals or with the term of an approval, certificate or with the content of a declaration which lowers the safety and hazards seriously the safety.

(b) A level 2 finding is any non-compliance with applicable requirements of this Directive, with organization procedure manuals or with the term of an approval, certificate or with the content of a declaration which could lower the safety and possibly hazard the safety.

(c) A level 3 finding (Observation) is a minor irregularity which is considered to be an observation and warrants attention.

(8) After receipt of notification of findings according to paragraph (6), the AOC holder shall, within a period prescribed by the Authority:

(a) Identify the root cause of the non-compliance; and

(b) Define a corrective action plan.

(9) Following measures taken in paragraph (8), the AOC holder shall demonstrate corrective action to the satisfaction of the Authority within a period agreed with the Authority.

(10) When during oversight or by other means evidence is found showing non-compliance with the requirements of Part 9, the Authority shall take the following actions:

(a) For level 1 findings, immediate action shall be taken by the authority to revoke, limit or suspend in whole or in part, depending on the extent of the level 1 finding, the AOC approval, until successful corrective action has been taken by the operator.

(b) For level 2 findings, the corrective action period granted by the Authority must be appropriate to the nature of the finding but in any case initially must not be more than three months. In certain circumstances and subject to the nature of the finding the authority may extend the three month period subject to a satisfactory corrective action plan agreed by the Authority.

(c) For level 3 findings, the AOC holder should consider this issue and advise the Authority in writing of its thoughts and intentions with respect to

corrective action.

(11) Where AOC holder fails to submit an acceptable corrective action plan, or to perform the corrective action within the time period accepted or extended by the Authority, the finding shall be raised to a level 1 finding and action taken as laid down in (10)(a).

9.1.12 COMPLIANCE WITH LAWS, DIRECTIVES AND PROCEDURES

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

(2) An operator shall ensure that all pilots are familiar with the laws, Directives and procedures, pertinent to the performance of their duties, prescribed for the areas to be traversed, the aerodromes or heliports to be used and the air navigation facilities relating thereto. The operator shall ensure that other members of the flight crew are familiar with such of these laws, Directives and procedures as are pertinent to the performance of their respective duties in the operation of the aircraft.

(3) An operator or a designated representative shall have responsibility for operational control.

(4) If an emergency situation which endangers the safety of the aeroplane or helicopter or persons necessitates the taking of action which involves a violation of local Directives or regulations or procedures, the pilot-in-command shall notify the appropriate local authority without delay. If required by the State in which the incident occurs, the pilot-in- command shall submit a report on any such violation to the appropriate authority of such State; in that event, the pilot-in- command shall also submit a copy of it to the State of the Operator. Such reports shall be submitted as soon as possible and normally within ten days

(5) Operators shall ensure that pilots-in-command have available on board the aircraft all the essential information concerning the search and rescue services in the area over which the aircraft will be flown.

(6) Operators shall ensure that flight crew members demonstrate the ability to speak and understand the language used for Radiotelephony communications as specified in Part 2.

(7) Responsibility for operational control shall be delegated only to the pilot-in-command and to a flight operations officer or flight dispatcher if an operator's approved method of control and supervision of flight operations requires the use of flight operations officer or flight dispatcher personnel.

(8) If an emergency situation which endangers the safety of the aeroplane or persons becomes known first to the flight operations officer or flight dispatcher, action by that person in accordance with 8.13.4(1)(e) and 8.13.4(2) shall include, where necessary, notification to the appropriate authorities of the nature of the situation without delay, and requests for

assistance if required.

9.1.13 SAFETY MANAGEMENT PROGRAMME

(1) The Authority shall establish a safety management programme in order to achieve an acceptable level of safety in the operation of aircraft. The acceptable levels of safety to be achieved is established in Part 36 of the Ghana Civil Aviation (Safety Management) Directives.

(2) An operator of an aeroplane of a certificated take-off mass in excess of 20000 kg should establish and maintain a flight data analysis programme as part of its safety management system.

(3) An operator of an aeroplane of a maximum certificated take-off mass in excess of 27 000 kg shall establish and maintain a flight data analysis programme as part of its safety management system.

(4) A flight data analysis programme shall be non-punitive and contain adequate safeguards to protect the source(s) of the data.

(5) The Authority shall, as part of the State safety programme, ensure that an operator implements an acceptable safety management system that, as a minimum:

(a) identifies safety hazards;

(b) ensures that remedial action necessary to maintain an acceptable level of safety is implemented;

(c) provides for continuous monitoring and regular assessment of the safety level achieved; and

(d) aims to make continuous improvement to the overall level of safety.

(6) A safety management system shall clearly define lines of safety accountability throughout the operator's organization, including a direct accountability for safety on the part of senior management.

(7) An operator shall establish a flight safety documents system, for the use and guidance of operational personnel, as part of its safety management system.

(8) The Authority shall not allow the use of recordings or transcripts of CVR, CARS, Class A, Class A AIR, Class A AIRS for purposes other than the investigation of an accident or incident as per Annex 13 except where the recordings or transcript:

(a) are related to a safety – related event identified in the context of a safety management system;

(b) are restricted to the relevant portions of a de-identified transcripts of the recording;

(c) are subject to the protections of Annex 19;

(d) are sought for use in criminal proceedings not related to an event involving an accident or incident investigation and are subject to the protections accorded by Annex 19; or

(e) are used for inspections of flight recorder systems as provided in section 7 of appendix 8.

Note. — Provisions on the protection of safety data, safety information and related sources are contained in Appendix 3 to Annex 19. When an investigation under Annex 13 is instituted, investigation records are subject to the protections accorded by Annex 13.

(9) States shall not allow the use of recordings or transcripts of FDR, ADRS as well as Class B and Class C AIR and AIRS for purposes other than the investigation of an accident or incident as per Annex 13, except where the recordings or transcripts are subject to the protections accorded by Annex 19 and:

(a) are used by the operator for airworthiness or maintenance purposes;

(b) are used by the operator in the operation of a flight data analysis programme required in this Directive;

(c) are sought for use in proceedings not related to an event involving an accident or incident investigation;

(d) are de-identified; or

(e) are disclosed under secure procedures.

Note.— Provisions on the protection of safety data, safety information and related sources are contained in Appendix 3 to Annex 19.

9.2 AIR OPERATOR CERTIFICATION AND CONTINUED VALIDITY

9.2.1 APPLICABILITY

(1) Subpart 9.2 provides requirements applicable to the certification and continued validity of all AOC holders.

(2) The State of the Operator shall establish a system for both the certification and the continued surveillance of the operator to ensure that the required standards of operations established in this Part are maintained.

9.2.2 ADMINISTRATION

9.2.2.1 BASE OF OPERATIONS

(1) Each AOC holder that is not authorized to conduct maintenance under its AOC certificate shall maintain a principal base of operations.

(2) Each AOC holder that is authorised to conduct maintenance under its AOC

certificate shall maintain a principal base of operations and maintenance.

(3) An AOC holder may establish a main operations base and a main maintenance base at the same location or at separate locations.

(4) Each AOC holder shall provide written notification of intent to the Authority at least 30 days before it proposes to establish or change the location of either base.

9.2.2.2 MANAGEMENT PERSONNEL REQUIRED FOR COMMERCIAL AIR TRANSPORT OPERATIONS

(1) Each AOC holder shall have an Accountable Manager, acceptable to the Authority, who has corporate authority for ensuring that all flight operations and maintenance activities can be financed and carried out to the highest degree of safety standards required by the Authority.

(2) When conducting commercial air transport operations, the AOC holder shall have qualified personnel, with proven competency in civil aviation, available and serving in the following positions or their equivalent:

(a) Director of Operations

(b) Chief Pilot

(c) Director of Safety

(d) Director of Maintenance

(e) Quality Manager

Note: "Competency in civil aviation" means that an individual shall have a technical qualification and management experience acceptable to the Authority for the position served.

(3) The Authority may approve positions or numbers of positions, other than those listed, if the AOC holder is able to show that it can perform the operation with the highest degree of safety under the direction of fewer or different categories of management personnel due to -

(a) The kind of operations involved;

(b) The number of aircraft used; and

(c) The area of operation.

Note- See IS: 9.2.2.2 for additional management personnel requirements.

(4) The individuals who serve in the positions required or approved under this section and anyone in a position to exercise control over operations conducted under the AOC must:

(a) Be qualified through training, experience, and expertise;

(b) Discharge their duties to meet applicable legal requirements and to maintain safe operations; and

(c) To the extent of their responsibilities, have a full understanding of the following materials with respect to the AOC holder's operation:

(i) Aviation safety standards and safe operating practices;

(ii) The Ghana Civil Aviation Directives;

(iii) The AOC holder's operations specifications;

(iv) All appropriate maintenance and airworthiness requirements of this Part;

(v) The manuals requirements of this Part.

(5) Each AOC holder must :

(a) State in the general policy provisions of the operations manual the duties, responsibilities and authority of personnel required by this section;

(b) List in the operations manual the names and business addresses of the individuals assigned to those positions; and

(c) Notify the Authority within ten (10) days of any change in personnel or any vacancy in any position listed.

9.2.2.3 QUALITY SYSTEM

(1) Each AOC holder shall establish a quality system and designate a quality manager to monitor compliance with, and adequacy of, procedures required to ensure safe operational practices and airworthy aircraft. Compliance monitoring shall include a feedback system to the Accountable Manager to ensure corrective action as necessary.

(2) Each AOC holder shall ensure that each quality system includes a quality assurance programme that contains procedures designed to verify that all operations are being conducted in accordance with all applicable requirements, standards and procedures.

(3) The quality system, and the quality manager, shall be acceptable to the Authority.

(4) Each AOC holder shall describe the quality system in relevant documentation as outlined in IS: 9.2.2.3.

(5) Notwithstanding (1) above, the Authority may accept the nomination of two Quality Managers, one for operations and one for maintenance, provided that the operator has designated one Quality Management Unit to ensure that the Quality System is applied uniformly throughout the entire operation.

(6) Where the AOC holder is also an AMO, the AOC holder's quality management system may be combined with the requirements of an AMO and submitted for acceptance to the Authority, and State of Registry for aircraft not registered in Ghana.

9.2.2.4 SUBMISSION AND REVISION OF POLICY AND PROCEDURE MANUALS

(1) Each manual required by this part must:

(a) Include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;

(b) Be in a form that is easy to revise and contains a system which allows personnel to determine the current revision status of each manual;

(c) Have a date of the last revision on each page concerned;

(d) Not be contrary to any applicable Ghana Civil Aviation Directive and the AOC holder's specific operation specifications; and

(e) Each manual will include a reference to appropriate Ghana Civil aviation Directive.

(2) No person may cause the use of any policy and procedure for flight operations or airworthiness function prior to co-ordination with the Authority.

(3) Each AOC holder shall submit the proposed policy or procedure to the Authority at least 30 days prior to the date of intended implementation.

9.2.2.5 RETENTION OF RECORDS

(1) Each AOC holder shall retain the following records for the period specified in IS: 9.2.2.5:

(a) Flight and duty records.

(b) Flight crew records.

(c) Other AOC holder personnel for which a training programme is required.

(d) Fuel and oil records.

(e) Maintenance records of the aircraft.

(f) Operational flight plan.

(g) Flight Preparation forms listed below —

(i) Completed load manifests.

(ii) Mass and balance records.

(iii) Dispatch releases.

(iv) Flight plans.

(v) Passenger manifests.

(vi) Weather reports.

(h) Aircraft technical logbook, including the following sections listed below —

(i) Journey records section.

(ii) Maintenance records section.

(iii) Flight recorder records.

(iv) Quality system records.

(v) Dangerous goods transport document.

(vi) Dangerous goods acceptance checklist.

(vii) Records on cosmic and solar radiation dosage.

(viii) Other records as may be required by the Authority.

(2) For the records identified in paragraph (1)(a), (b) and (c) above, the AOC holder shall maintain:

(a) Current records which detail the qualifications and training of all its employees, and contract employees, involved in the operational control, flight operations, ground operations and maintenance of the air operator.

(b) Records for those employees performing crew member or flight operations officer duties in sufficient detail to determine whether the employee meets the experience and qualification for duties in commercial air transport operations.

(3) Each AOC holder shall maintain records in a manner acceptable to the Authority.

9.2.2.6 COCKPIT VOICE AND FLIGHT DATA RECORDER RECORDS

(1) Each AOC holder shall retain:

(a) Up-to-date and sufficient documentation concerning FDR parameter allocation, conversion equations, periodic calibration and other serviceability or maintenance information; and

(b) The flight data recorder correlation for one aircraft of any group of aircraft operated by the AOC holder-

(i) That are of the same type;

(ii) On which the model flight recorder and its installation are the same; and

(iii) On which there is no difference in type design with respect to the original installation of instruments associated with the recorder.

Note: The flight data recorder calibration and the flight data recorder correlation will be kept as part of the maintenance records for aircraft and its components.

(2) The Operator shall make available the items specified in (1) above to the accident investigation authorities, when requested.

Note: The AOC holder shall deactivate the Cockpit Voice Recorder either manually or by automatic means immediately upon completion of the flight as part of approved aircraft checklist procedure, after a reportable incident or accident has occurred.

9.2.2.7 AIRCRAFT OPERATED BY THE AOC HOLDER

(1) The AOC holder shall list in its operations specifications the aircraft make, model and series with the following list of authorisations, conditions and limitations:

(a) Issuing authority contact details;

(b) Operator name and AOC number;

(c) Date of issue and signature of the Authority representative;

(d) Aircraft model;

(e) Types and areas of operations, and

(f) Special limitations and authorisations.

(2) Each AOC holder shall apply to the Authority for an amendment to its operations specification in advance of any intended change of aircraft.

(3) Aircraft of another certificate holder operated under an interchange agreement shall be incorporated to the operations specifications as required by paragraph (1) above.

9.2.2.8 AIRCRAFT TECHNICAL LOG

Each AOC holder shall have an aircraft technical log that is carried on the aircraft that contains a journey records section and an aircraft maintenance record section. The journey records section is further described in 9.3.5 and the aircraft maintenance record section is further described in 9.4.7.

Note: The aircraft technical log may be computerised. The journey records section and the maintenance record section may be combined.

9.2.2.9 COMPANY PROCEDURES INDOCTRINATION

(1) No person may serve nor may any AOC holder use a person in its employ unless that person has completed the company indoctrination curriculum approved by the Authority, appropriate to that person's duties and responsibilities.

(2) The indoctrination curriculum shall include training in knowledge and skills related to human performance, including co-ordination with other AOC personnel.

Note: Indoctrination, initial, recurrent, and other training required for crew members and flight operations officers or dispatchers is contained in Part 8.

9.2.2.10 SAFETY MANAGEMENT SYSTEM

(1) An AOC holder shall implement a safety management system acceptable to the Authority as outlined in Part 36 of the Ghana Civil Aviation (Safety Management Systems) Directives.

(2) An AOC holder operating aircraft with a maximum take-off mass over 20,000 kg

(44,092 lb.) shall establish a flight safety document system for the use and guidance of operational personnel, as part of its safety management system.

(3) The AOC holder's flight data analysis programme shall be non-punitive and contain adequate safeguards to protect the source(s) of data.

Note 1 – An operator may contract the operation of a flight data analysis programme to another party while retaining overall responsibility for the maintenance of such a programme.

Note 2 – Guidance on the establishment of flight data analysis programmes is included in ICAO Doc 10000, Manual on Flight Data Analysis Programmes.

Note 3 – Legal guidance for the protection of information from safety data collection and processing systems is contained in ICAO Annex 19, Attachment B.

9.2.2.11 FLIGHT SAFETY DOCUMENT SYSTEM

(1) An AOC holder shall establish a flight safety document system for the use and guidance of operational personnel, as part of its safety management system.

(2) The development and organisation of a flight safety document system shall contain the minimum elements of the outline provided in the IS: 9.2.2.11.

9.2.3 AIRCRAFT

9.2.3.1 AUTHORISED AIRCRAFT

(1) No person shall operate an aircraft in commercial air transport unless that aircraft has an appropriate current airworthiness certificate, is in an airworthy condition, and meets the applicable airworthiness requirements for those operations including those related to identification and equipment.

(2) No person shall operate any specific type of aircraft in commercial air transport until it has completed satisfactory initial certification, which includes the issuance of an AOC listing that type of aircraft.

(3) No person shall operate additional or replacement aircraft of a type for which it is currently authorised unless it can show that each aircraft has completed an evaluation process for inclusion in the AOC holder's fleet.

(4) No AOC holder shall lease an aircraft without prior approval of the Authority.

9.2.3.2 DRY LEASING OF FOREIGN REGISTERED AIRCRAFT

(1) An AOC holder may dry-lease a foreign-registered aircraft for commercial air transport as authorised by the Authority.

(2) No person may be authorized to operate a foreign registered aircraft unless-

(a) There is in existence, a current agreement between the Authority and the State of Registry that, while the aircraft is operated by the AOC holder, the operations Directives of Ghana are applicable;

(b) There is in existence a current agreement between the Authority and the

State of Registry that-

(i) While the aircraft is operated by the AOC holder, the airworthiness Directives of the State of Registry are applicable; or

(ii) If the State of Registry agrees to transfer some or all of the responsibility for airworthiness to the Authority under Article 83 *bis* of the Chicago Convention, the airworthiness Directives of Ghana shall apply to the extent agreed upon by the Authority and State of Registry.

(c) The agreement acknowledges that the Authority shall have unlimited, unrestricted and uninterrupted access to the aircraft at any place and any time.

Note - Implementing Standard: See IS: 9.2.3.2 for additional requirements for dry leasing of foreign-registered aircraft.

9.2.3.3 AIRCRAFT INTERCHANGE

No person shall interchange aircraft with another AOC holder without the prior approval of the Authority.

Implementing Standard: See IS: 9.2.3.3 for requirements pertaining to aircraft interchange agreements approved by the Authority.

9.2.3.4 WET-LEASING

(1) No person shall conduct wet-lease operations on behalf of another air operator except in accordance with the applicable laws and regulations of the country in which the operation occurs and the restrictions imposed by the Authority.

(2) No person shall allow another entity or air operator to conduct wet-lease operations on its behalf unless-

(a) That air operator holds an AOC from a Contracting State that authorises those operations; and

(b) The AOC holder advises the Authority of such operations and provides a copy of the AOC under which the operation was conducted.

Note - Implementing Standard: See IS: 9.2.3.4 for additional requirements when wet leasing aircraft.

9.2.3.5 DAMP-LEASING

(1) No person shall conduct damp-lease operations on behalf of another air operator except in accordance with the applicable laws and regulations of the country in which the operation occurs and the restrictions imposed by the Authority.

(2) No person shall allow another entity or air operator to conduct damp-lease operations on its behalf unless-

(a) That air operator holds an AOC from a Contracting State that authorises those operations; and

(b) The AOC holder advises the Authority of such operations and provides a copy of the AOC under which the operation is to be conducted.

(c) The operational control and the qualification of the crew are in compliance with the requirements of the lessor's AOC and or operations policies for the duration of the lease.

(d) The State of the lessor has Safety oversight.

(3) The crew combination shall be specified in the contract or agreement.

Note - Implementing Standard: See IS: 9.2.3.5 for additional requirements when damp leasing aircraft.

9.2.3.6 DURATION OF LEASES

The duration of a lease shall be specified in the lease agreement and shall be in accordance with IS: 9.2.3.6.

Note - See IS: 9.2.3.6 for additional requirements for the duration of all leases.

9.2.3.7 EMERGENCY EVACUATION DEMONSTRATION

(1) No person shall use an aircraft type and model in commercial air transport passenger-carrying operations unless it has first conducted, for the Authority, an actual full capacity emergency evacuation demonstration for the configuration in 90 seconds or less.

(2) The full capacity actual demonstration may not be required, if the AOC holder provides a written petition for deviation with evidence that-

(a) A satisfactory full capacity emergency evacuation for the aircraft to be operated was demonstrated during the aircraft type certification or during the certification of another air operator; and

(b) There is an engineering analysis, which shows that an evacuation is still possible within the 90-second standard, if the AOC holder's aircraft configuration differs with regard to number of exits or exit type or number of cabin crew or location of the cabin crew.

(3) If a full capacity demonstration is not required, no person shall use an aircraft type and model in commercial air transport passenger-carrying operations unless it has first demonstrated to the Authority that its available personnel, procedures and equipment could provide sufficient open exits for evacuation in 15 seconds or less.

(4) No person shall use a land plane in extended overwater operations unless it has first demonstrated to the Authority that it has the ability and equipment to

efficiently carry out its ditching procedures.

Note - Implementing Standard: See IS: 9.2.3.7 for additional requirements concerning emergency evacuation demonstrations.

9.2.3.8 DEMONSTRATION FLIGHTS

(1) No person shall operate an aircraft type in commercial air transport unless it first conducts satisfactory demonstration flights for the Authority in that aircraft type.

(2) No person shall operate an aircraft in a designated special area, or using a specialised navigation system, unless it conducts a satisfactory demonstration flight for the Authority.

(3) Demonstration flights required by paragraph (1) shall be conducted in accordance with the Directives applicable to the type of operation and aircraft type used.

(4) The number of hours and type of demonstration flights shall be conducted in accordance with IS: 9.2.3.8.

9.2.4 FACILITIES, OPERATING CONSIDERATIONS AND SCHEDULES

9.2.4.1 FACILITIES AND OPERATING CONSIDERATIONS

(1) Each operator shall maintain operational and airworthiness support facilities at the main operating base, appropriate for the area and type of operation.

(2) Each AOC holder shall arrange appropriate ground handling facilities at each airport used to ensure the safe servicing and loading of its flight.

(3) No AOC holder shall commence a flight unless it has been ascertained by every reasonable means available that the ground and or water facilities available and directly required on such flight, for the safety operation of the aircraft and the protection of the passengers, are adequate for type of operation under which the flight is to be conducted and are adequately operated for this purpose.

Note - "Reasonable means" is intended to denote the use, at the point of departure, of information available to the operator either through official information published by the aeronautical information services or readily available from other sources.

(4) The operator shall ensure that a flight will not commence or continue as planned unless it has been ascertained by every reasonable means available that the airspace containing the intended route from aerodrome of departure to aerodrome of arrival, including the intended take-off, destination and en-route alternate aerodromes, can be safely used for the planned operation. When intending to operate over or near conflict zones, a risk assessment shall be conducted and appropriate risk mitigation measures taken to ensure a safe flight.

Note 1.— "Reasonable means" in this directive is intended to denote the use, at the point of departure or while the aircraft is in flight, of information available to the operator either through official information published by the aeronautical information services or readily obtainable from other sources.

Note 2.— Guidance on safety risk assessments is contained in the Safety Management Manual (SMM) (Doc 9859).

Note 3.— The Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones (Doc 10084) contains further guidance on risk assessment for air operators when flying over or near conflict zones.

(5) Each AOC holder shall ensure that any inadequacy of facilities observed in the course of operations is reported to the Authority responsible without delay.

(6) Each AOC holder shall, as part of its safety management system, assess the level or Rescue and Fire Fighting 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 aircraft intended to be used.

(7) Each AOC holder shall include in its operations manual information related to the level of RFFS protection that is deemed acceptable.

Note: ICAO Annex 6, Part I: Attachment J and the Ghana Civil Aviation (Aerodromes) Directives contain guidance on assessing an acceptable level of RFFS protection at aerodromes.

9.2.4.2 OPERATIONS SCHEDULES

In establishing flight operations schedules, each AOC holder conducting scheduled operations shall allow enough time for the proper servicing of aircraft at intermediate stops, and shall consider the prevailing winds en route and cruising speed for the type of aircraft. This cruising speed may not be more than that resulting from the specified cruising output of the engines.

9.3 AOC FLIGHT OPERATIONS MANAGEMENT

9.3.1 APPLICABILITY

Subpart 9.3 provides those certification requirements that apply to management of flight operations personnel and their functions.

9.3.1.1 GENERAL

(1) An aircraft shall carry a certified true copy of the air operator certificate and a copy of the operations specifications relevant to the aircraft type, issued in conjunction with the certificate.

(2) When the certificate and the associated operations specifications are issued by the State of the Operator in a language other than English, an English translation shall be included.

9.3.2 OPERATIONS MANUAL

(1) Each AOC holder shall issue to the crewmembers and persons assigned operational control functions, an Operations Manual acceptable to the Authority.

(2) The Operations Manual shall contain the overall (general) company policies and procedures regarding the flight operations it conducts.

(3) Each AOC holder shall prepare and keep current an Operations Manual which contains the AOC procedures and policies for the use and guidance of its personnel.

(4) Each AOC holder shall issue the Operations Manual, or pertinent portions, together with all amendments and revisions to all personnel that are required to use it.

(5) No person may provide for use of its personnel in commercial air transport any Operations Manual or portions of this manual which has not been reviewed and found acceptable or approved for the AOC holder by the Authority.

(6) Each AOC holder shall ensure that the contents of the Operations Manual include at least those subjects designated by the Authority that are applicable to the AOC holder's operations.

(7) The Operations Manual shall contain the specific areas listed below, and may be issued in separate parts.

(a) General, as specified in IS: 9.3.2,

(b) Aircraft Operating Information Manual, as specified in paragraph 9.3.4 and IS: 9.3.4

(c) Route Guide -- Areas, Routes and Aerodromes, as specified in paragraph 9.3.20 and IS: 9.3.20.

(d) Training, as specified in paragraph 9.3.3, and IS: 9.3.3.

9.3.3 TRAINING PROGRAMME MANUAL

(1) Each AOC holder shall ensure that all operations personnel are properly instructed in their duties and responsibilities and the relationship of such duties to the operation as a whole.

(2) Each AOC holder shall have a training programme manual approved by the Authority containing the general training, checking, and record keeping policies.

(3) Each AOC holder shall have approval of the Authority prior to using a training curriculum for the purpose of qualifying a crewmember, or a person performing operational control functions, for duties in commercial air transport.

(4) Each AOC holder shall submit to the Authority any revision to an approved training programme, and shall receive written approval from the Authority before that revision can be used.

(5) Each AOC holder shall submit the proposed training programme to the Authority at least 30 days prior to the date of intended implementation.

(6) The operator shall issue operating instructions and provide information on aircraft climb performance with all engines operating to enable the pilot-in- command to determine the climb gradient that can be achieved during the departure phase for the existing take-off conditions and intended take-off technique. This information shall be included in the operations manual.

Note - Implementing Standard: See IS: 9.3.3 for a training program manual outline.

9.3.4 AIRCRAFT OPERATING INFORMATION MANUAL

(1) Each AOC holder or applicant shall submit proposed aircraft operating manuals for each type and variant of aircraft operated, containing the normal, abnormal and emergency procedures relating to the operation of the aircraft for approval by the Authority.

(2) Each Aircraft Operating Manual shall be based upon the aircraft manufacturer's data for the specific aircraft type and variant operated by the AOC holder and shall include specific operating parameters, details of the aircraft systems, and of the check lists to be used applicable to the operations of the AOC that are approved by the Authority. The design of the manual shall observe human factors principles.

(3) The Aircraft Operating Manual shall be issued to the flight crewmembers and persons assigned operational control functions to each aircraft operated by the AOC holder.

Note: Implementing Standard IS: 9.3.4 presents an outline for an Aircraft Operating Manual that combines numerous manual requirements.

9.3.5 AIRCRAFT TECHNICAL LOG ENTRIES - JOURNEY RECORDS SECTION

(1) Each AOC holder shall use an aircraft technical log containing a journey records section which includes the following information for each flight:

(a) Aircraft nationality and registration;

(b) Date;

(c) Names of crewmembers;

(d) Duty assignments of crewmembers;

(e) Place of departure;

(f) Place of arrival;

(g) Time of departure;

(h) Time of arrival;

(i) Hours of flight;

(j) Nature of flight (private, aerial work, scheduled or non-scheduled);

(k) Incidents, observations, if any; and

(l) Signature of person in charge.

(2) Entries in the journey log should be made currently and in ink or in indelible pencil.

(3) Completed journey log should be retained to provide continuous record of the last two (2) years' operations.

9.3.6 DESIGNATION OF PIC FOR COMMERCIAL AIR TRANSPORT

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

9.3.7 REQUIRED CABIN CREWMEMBERS

(1) The AOC holder shall schedule, and the PIC shall ensure that the minimum number of required cabin crew are on board passenger-carrying flights.

(2) The number of cabin crew may not be less than the minimum prescribed by the Authority in the AOC holder's operations specifications or the following, whichever is greater-

(a) For a seating capacity of 20 to 50 passengers:

i. One (1) cabin crew member; and

ii. One (1) additional cabin crew member for each unit or part of a unit of 50 passenger seating capacity.

(3) When passengers are on board a parked aircraft, the minimum number of flight crew shall be one-half that is required for the flight operation, but never less than one cabin crew (or another person qualified in the emergency evacuation procedures for the aircraft).

Note: Where one-half would result in a fractional number, it is permissible to round down to the next whole number.

(4) The Authority may direct the operator of any aircraft registered in Ghana to include amongst its crew whenever the aircraft is flying for the purpose of public transport, at least one (1) cabin crew, although the aircraft may be carrying fewer than twenty (20) passengers.

9.3.8 CARRIAGE OF SPECIAL SITUATION PASSENGERS

No AOC holder may allow the transportation of special situation passengers except-

(a) As provided in the AOC holder's Operations Manual procedures; and

(b) With the knowledge and concurrence of the PIC.

9.3.9 CREW MEMBER CHECKING AND STANDARDISATION PROGRAMME

(1) Each AOC holder shall have a programme of checking and standardization of crew members approved by the Authority.

(2) An AOC holder shall check pilots' proficiency on those manoeuvres and procedures that are prescribed by the Authority for pilot proficiency checks, which shall include emergency procedures and, where applicable, instrument flight rules.

Note 1: A standardised process is defined to address the operator unique fleet differences and compliance methods.

Note 2: See Part 8 for specific checking requirements.

9.3.10 TRAINING TO PROFICIENCY: PILOTS

An AOC holder may train its pilots to proficiency on those manoeuvres and procedures in the area prescribed by the Authority for pilot proficiency checks, during every other proficiency check following the initial check.

Note - Implementing Standard: See IS: 9.3.10 for requirements pertaining to aircraft simulator training used in a proficiency check.

9.3.11 COCKPIT CHECK PROCEDURE

(1) Each AOC holder shall issue to the flight crew and make available on each aircraft, the flight deck condensed checklist procedures approved by the Authority appropriate for the type and variant of aircraft.

(2) Each AOC holder shall ensure that approved procedures include each item necessary for flight crew members to check for safety before starting engines, taking off, or landing, and for engine and systems abnormalities and emergencies.

(3) Each AOC holder shall ensure that the checklist procedures are designed so that a flight crewmember will not need to rely upon their memory for items to be checked.

(4) Each AOC holder shall make the approved procedures readily useable in the cockpit of each aircraft and the flight crew shall be required to follow them when operating the aircraft.

Note - Checklists are part of the Aircraft Operating Manual, which is a part of the Operations Manual of the AOC and is approved by the Authority.

9.3.12 MINIMUM EQUIPMENT LIST AND CONFIGURATION DEVIATION LIST

(1) Each AOC holder shall provide for the use of the flight crewmembers, maintenance personnel and persons assigned operational control functions during the performance of their duties, an MEL approved by the Authority.

(2) The MEL shall be specific to the aircraft type and variant which contains the circumstances, limitations and procedures for release or continuance of flight of the aircraft with inoperative components, equipment or instruments.

(3) Each AOC holder may provide for the use of flight crew, maintenance personnel and persons assigned operational control functions during the performance of their duties a Configuration Deviation List (CDL) specific to the aircraft type if one is provided and approved by the State of Design. An AOC holder's Operations Manual shall contain those procedures acceptable to the Authority for operations in accordance with the CDL requirements.

(4) Each AOC Holder shall prepare a MEL on the basis of the MMEL.

(5) Where the state of the operator is not the state of registry, the State of the Operator shall ensure the MEL does not affect the aircraft compliance with the applicable Airworthiness requirements applicable in the state of registry.

9.3.13 PERFORMANCE PLANNING MANUAL

(1) Each AOC holder shall provide for the use of the flight crewmembers and persons assigned operational control functions during the performance of their duties, a performance planning manual acceptable to the Authority.

(2) The performance planning manual shall be specific to aircraft type and variant which contains adequate performance information to accurately calculate the performance in all normal phases of flight operation.

Note: See ICAO Annex 6, Part I, Attachment C and ICAO Annex 6, Part III, Attachment A for guidance on preparing the performance planning manual.

9.3.14 PERFORMANCE DATA CONTROL SYSTEM

(1) Each AOC holder shall have a system approved by the Authority for obtaining, maintaining and distributing to appropriate personnel current performance data for each aircraft, route and airport that it uses.

(2) The system approved by the Authority shall provide current obstacle data for departure and arrival performance calculations.

9.3.15 AIRCRAFT LOADING AND HANDLING MANUAL

(1) Each AOC holder shall provide for the use of the flight crewmembers, ground handling personnel and persons assigned operational control functions during the performance of their duties, an aircraft handling and loading manual acceptable to the Authority.

(2) This manual shall be specific to the aircraft type and variant which contains the procedures and limitations for servicing and loading of the aircraft.

Note: Depending on the size and scope of the AOC operations, the aircraft loading and handling manual may be either a standalone document or contained in the Aircraft Flight Manual.

9.3.16 MASS AND BALANCE DATA CONTROL SYSTEM

Each AOC holder shall have a system approved by the Authority for obtaining, maintaining and distributing to appropriate personnel current information regarding the mass and balance of each aircraft operated.

9.3.17 CABIN CREW MEMBER MANUAL

(1) The AOC holder shall issue to the cabin crew members and provide to passenger agents during the performance of their duties, a cabin crew member manual acceptable to the Authority.

(2) The cabin crew member manual shall contain those operational policies and procedures applicable to cabin crew and the carriage of passengers.

(3) The AOC holder shall issue to the cabin crew member, a manual specific to the aircraft type and variant which contains the details of their normal, abnormal, and emergency procedures and the location and operation of emergency equipment.

Note: These manuals may be combined into one manual for use by the cabin crew members.

9.3.18 PASSENGER BRIEFING CARDS

(1) Each AOC holder shall carry on each passenger carrying aircraft, in convenient locations for the use of each passenger, printed cards supplementing the oral briefing and containing-

(a) Diagrams and methods of operating the emergency exits;

(b) Other instructions necessary for use of the emergency equipment; and

(c) Information regarding the restrictions and requirements associated with sitting in an exit seat row.

(2) Each AOC holder shall ensure that each card contains information that is pertinent only to the type and variant of aircraft used for that flight.

Note- See IS: 9.3.18 for specific information to be included on passenger information cards regarding exit row seating.

9.3.19 AERONAUTICAL DATA CONTROL SYSTEM

Each AOC holder shall have a system approved by the Authority for obtaining, maintaining and distributing to appropriate personnel current aeronautical data for each route and airport that it uses.

Note- See IS: 9.3.19 for the specific aerodrome information to be contained in the aeronautical data control system.

9.3.20 ROUTE GUIDE – AREAS, ROUTES AND AERODROMES

(1) Each AOC holder shall provide for the use of the flight crewmembers and persons assigned operational control functions during the performance of their duties, a route guide and aeronautical charts approved by the Authority.

(2) The AOC holder shall keep this information and aeronautical charts current and appropriate for the proposed types and areas of operations to be conducted by the AOC holder. This information may be issued as part of the operations manual or may be separate.

Note - This information shall contain at least the information outlined in IS: 9.3.20.

9.3.21 WEATHER REPORTING SOURCES

(1) Each AOC holder shall use sources approved by the Authority for the weather reports and forecasts used for decisions regarding flight preparation, routing and terminal operations.

(2) For passenger carrying operations on a published schedule, the AOC holder shall have an approved system for obtaining forecasts and reports of adverse weather phenomena that may affect safety of flight on each route to be flown and airport to be used.

Note - See IS: 9.3.21 for sources of weather reports satisfactory for flight planning or controlling flight movement.

9.3.22 DE-ICING AND ANTI-ICING PROGRAMME

Each AOC holder planning to operate an aircraft in conditions where frost, ice, or snow may reasonably be expected to adhere to the aircraft shall-

(a) Use only aircraft adequately equipped for such conditions;

(b) Ensure flight crew is adequately trained for such conditions; and

(c) Have an approved ground de-icing and anti-icing programme.

Note- See IS: 9.3.22 for detailed requirements pertaining to the AOC holder's de-icing programme.

9.3.23 FLIGHT SUPERVISION AND MONITORING SYSTEM

(1) For operations on a published schedule, each AOC holder shall have an adequate system approved by the Authority for proper dispatch and monitoring of the progress of the scheduled flights.

(2) The dispatch and monitoring system shall have enough dispatch centres, adequate for the operations to be conducted, located at points necessary to ensure adequate flight preparation, dispatch and in-flight contact with the scheduled flight operations.

(3) For scheduled operations, each AOC holder shall provide enough qualified flight operations officers at each dispatch centre to ensure proper operational control of each flight.

Note- See IS: 9.3.23 for detailed requirements pertaining to the AOC holder's flight monitoring system.

9.3.24 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 directives in 8.12; or

(b) a Fatigue Risk Management System (FRMS) in compliance with 8.11.2; or

(c) an FRMS in compliance with 8.11.2 for part of its operations and the requirements of 8.12 for the remainder of its operations.

(2) Where the operator adopts prescriptive fatigue management directives as contained in Part 8 of these Directives for part or all of its operations, the Authority may approve, in exceptional circumstances, variations to these Directives 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 directives.

(3) The Authority shall approve an operator's FRMS before it may take the place of any or all of the prescriptive fatigue management directives. An approved FRMS shall provide a level of safety equivalent to, or better than, the prescriptive fatigue management directives.

(4) Operators using an FRMS shall adhere to the following provisions of the FRMS approval process that allows the Authority to ensure that the approved FRMS meets the requirements of 8.11.2.1(c):

(a) Establish maximum values for flight times and 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.

Note -See detailed IS: 9. 3.24 requirements pertaining to FRMS.

9.3.25 COMMUNICATION FACILITIES

(1) Each AOC holder's flights shall be able to have two-way radio communications with all ATC facilities along the routes and alternate routes to be used.

(2) For passenger carrying operations, each AOC holder shall be able to have rapid and reliable radio communications with all flights over the AOC's entire route structure under normal operating conditions. This radio communication system shall be independent from the ATC system.

(3) Each AOC holder engaged in international air navigation shall at all times have available for immediate communication to rescue coordination centres, information on the emergency and survival equipment carried on board any of their aeroplanes including, as applicable –

(a) The number, colour and types of life rafts and pyrotechnics;

(b) Details of emergency water and medical supplies; and

(c) The type and frequencies of the emergency portable radio equipment.

9.3.26 ROUTES AND AREAS OF OPERATION

(1) An AOC holder may conduct operations only along such routes and within such areas for which-

(a) Ground facilities and services, including meteorological services, are provided which are adequate for the planned operation;

(b) The performance of the aircraft intended to be used is adequate to comply with minimum flight altitude requirements;

(c) The equipment of the aircraft intended to be used meets the minimum requirements for the planned operation;

(d) Appropriate and current maps and charts are available;

(e) If two engine aircraft are used, adequate airports are available with the time or distance limitations; and

(f) If single-engine aircraft are used, surfaces are available which permit a safe forced landing to be executed.

(2) No person may conduct commercial air transport operations on any route or area of operation unless those operations are in accordance with any restrictions imposed by the Authority.

9.3.27 NAVIGATIONAL ACCURACY

(1) Each AOC holder shall ensure, for each proposed route or area, that the navigational systems and facilities it uses are capable of navigating the aircraft,

(a) Within the degree of accuracy required for ATC; and

(b) To the airports in the operational flight plan within the degree of accuracy necessary for the operation involved.

(2) In situations without adequate navigation systems reference, the Authority may authorize day VFR operations that can be conducted safely by pilotage because of the characteristics of the terrain.

(3) Except for those navigational aids required for routes to alternate airports, the Authority will list in the AOC holder's operations specifications non-visual ground aids required for approval of routes outside of controlled airspace.

(4) Non-visual ground aids are not required for night VFR operations on routes that the certificate holder shows have reliably lighted landmarks adequate for safe operation.

(5) Operations on route segments requiring the use of celestial or other specialised means of navigation shall be approved by the Authority.

Note: See ICAO Doc 9613, Manual on Required Navigation Performance, for information on the approval process for operations in RNP airspace and a list of references to other documents produced by States and international bodies.

9.4 AOC MAINTENANCE REQUIREMENTS

9.4.1 APPLICABILITY

This Subpart provides those certification and maintenance requirements that apply to an AOC holder utilizing an AMO or an equivalent system.

9.4.2 MAINTENANCE RESPONSIBILITY

(1) Each AOC holder shall ensure the airworthiness of the aircraft and the serviceability of both operational and emergency equipment by-

(a) Assuring the accomplishment of preflight inspections;

(b) Assuring the correction of any defect and or damage affecting safe operation of an aircraft to an approved standard, taking into account the MEL and CDL if available for the aircraft type;

(c) Assuring the accomplishment of all maintenance in accordance with the approved operators' aircraft maintenance programme;

(d) The analysis of the effectiveness of the AOC holder's approved aircraft maintenance programme;

(e) Assuring the accomplishment of any operational directive, airworthiness directive and any other continued airworthiness requirement made mandatory by the Authority; and

(f) Assuring the accomplishment of modification in accordance with an approved standard and, for non-mandatory modifications, the establishment of an embodiment policy.

(2) Each AOC holder shall ensure that the Certificate of Airworthiness for each aircraft operated remains valid in respect to-

(a) The requirements in paragraph (1);

(b) The expiration date of the certificate; and

(c) Any other maintenance condition specified in the certificate.

(3) Each AOC holder shall ensure that the requirements specified in paragraph (1) are performed in accordance with procedures approved by or acceptable to the Authority.

(4) Each AOC holder shall ensure that the maintenance, preventive maintenance, and modification of its aircraft or aeronautical products are performed in accordance with its maintenance control manual and or current instructions for continued airworthiness, and applicable aviation Directives.

(5) Each AOC holder may make an arrangement with another person or entity for the performance of any maintenance, preventive maintenance, or modifications; but

shall remain responsible of all work performed under such arrangement.

(6) Each AOC holder shall have its aircraft maintained and released to service by either an AMO certificated under Part 6 of these Flight Standards Directives or by an equivalent system. If an equivalent system to an AMO is used, the AOC holder shall ensure that the person signing the maintenance release is licensed in accordance with Part 2 of these Flight Standards Directives.

(7) If an equivalent system to an AMO is used, the maintenance release shall include the details as prescribed in GCAD Part 6.5.6(2)

9.4.3 APPROVAL AND ACCEPTANCE OF AOC MAINTENANCE SYSTEMS AND PROGRAMMES

(1) An AOC holder shall not operate an aircraft, except for pre-flight inspections, unless it is maintained and released to service by an AMO or equivalent system of maintenance that is approved or accepted by the Authority.

(2) For aircraft registered in Ghana, an AMO or an equivalent system of maintenance shall be approved by the Authority.

(3) For aircraft not registered in Ghana, an AMO or an equivalent system of maintenance will be approved by the State of Registry of the aircraft, and such approval will be accepted by the Authority.

(4) When the Authority or the State of Registry accepts an equivalent system of maintenance, the persons designated to sign a maintenance release or airworthiness release shall be licensed in accordance with Part 2 of these Flight Standards Directives, as appropriate.

9.4.4 MAINTENANCE CONTROL MANUAL

(1) Each Ghana AOC holder shall provide to the Authority, and to the State of Registry of the aircraft, if different from the Authority, an approved maintenance control manual and subsequent amendments to keep the information contained therein up to date, for the use and guidance of maintenance and operational personnel concerned, containing details of the organization's structure including:

(a) The accountable manager and designated person(s) responsible for the maintenance system as required by 9.2.2.2.

(b) Procedures to be followed to satisfy the maintenance responsibility of 9.4.2, except where the AOC holder is an AMO, and the quality functions of 9.4.1.6. Such procedures may be included in the AMO procedures manual.

(c) Procedures for the reporting of failures, malfunctions, and defects in accordance with 5.5.4, to the Authority, State of Registry and the State of Design within 72 hours of discovery, in addition items that warrant immediate

notification to the Authority by telephone, e-mail or fax, with a written follow-on report as soon as possible but no later than within 72 hours of discovery, are-

(i) Primary structural failure;

(ii) Control system failure;

(iii) Fire in the aircraft;

(iv) Engine structure failure; or

(v) Any other condition considered an imminent hazard to safety.

Note: Procedures in ICAO Doc 9389, Attachment A4, 3.1 suggest that the service difficulty items not included in the list presented in 5.5.4 be reported on a daily basis.

(2) The AOC holder's maintenance control manual shall contain the following information which may be issued in separate parts-

(a) A description of the administrative agreements between the AOC holder and the AMO, or a description of the maintenance procedures and the procedures for completing and signing a maintenance release when maintenance is based on a system other than that of an AMO;

(b) A description of the procedures to ensure each aircraft they operate is in an airworthy condition;

(c) A description of the procedures to ensure the operational emergency equipment for each flight is serviceable;

(d) The names and duties of the person or persons required to ensure that all maintenance is carried out in accordance with the maintenance control manual;

(e) A reference to the maintenance programme required in 9.4.12;

(f) A description of the methods for completion and retention of the operator's maintenance records required by 9.4.8;

(g) A description of the procedures for monitoring, assessing and reporting maintenance and operational experience for all aircraft over 5,700kg and helicopters of 3,175kg maximum certificated take-off mass;

(h) A description of the procedures for obtaining and assessing continued airworthiness information and implementing any resulting actions for all aircraft over 5,700kg and helicopters of 3,175kg maximum certificated take-off mass, from the organization responsible for the type design, and shall implement such actions considered necessary by the State of Registry;

(i) A description of the procedures for implementing mandatory continuing airworthiness information as required in 9.4.2(1)(e);

(j) A description of establishing and maintaining a system of analysis and continued monitoring of the performance and efficiency of the maintenance programme in order to correct any deficiency in that programme;

(k) A description of aircraft types and models to which the manual applies;

(l) A description of procedures for ensuring that unserviceabilities affecting airworthiness are recorded and rectified; and

(3) A description of the procedures for advising the State of Registry of significant in-service occurrences.

(4) No person may provide for use of its personnel in commercial air transport any Maintenance Control Manual or portion of this manual which has not been reviewed and approved for the AOC holder by the Authority.

(5) The operator shall provide, for the use and guidance of maintenance and operational personnel concerned, a maintenance control manual, acceptable to the Authority, in accordance with the requirements of IS: 9.4.4. The design of the manual shall observe Human Factors principles and shall be amended as necessary to keep the information contained therein up to date.

(6) Copies of all amendments to the operator's maintenance control manual shall be furnished promptly to all organizations or persons to whom the manual has been issued.

Note- See IS: 9.4.4 for an outline of specific subjects to be contained as appropriate in the AOC holder's maintenance control manual.

9.4.5 MAINTENANCE MANAGEMENT

(1) The AOC holder, approved as an AMO, may carry out the requirements specified in 9.4.2 (1) (b), (c), (e) and (f).

(2) If the AOC holder is not an AMO, the AOC holder shall meet its responsibilities under 9.4.2 (1)(b),(c),(e) and (f) by using-

(a) An equivalent system of maintenance approved or accepted by the Authority; or

(b) Through an arrangement with an AMO with a written maintenance contract agreed between the AOC holder and the contracting AMO detailing the required maintenance functions and defining the support of the quality functions approved or accepted by the Authority.

Note: ICAO Doc. 9760, Appendix B to Chapter 6, Figure I-6B-5, contains a sample operations specification authorisation for contractual maintenance agreements.

(3) Each AOC holder shall employ a person or group of persons, acceptable to the Authority, to ensure that all maintenance is carried out to an approved standard such that the maintenance requirements of 9.4.2 and requirements of the AOC holder's maintenance control manual are satisfied, and to ensure the functioning

of the quality system.

(4) Each AOC holder shall provide suitable office accommodation at appropriate locations for the personnel specified in paragraph (3).

(5) Each AOC holder shall establish a safety management system for the maintenance of aircraft that is accordance with the provisions of 9.2.2.10 and that is acceptable to the Authority.

9.4.6 AIRCRAFT TECHNICAL LOG ENTRIES: AOC HOLDERS

(1) Each person who takes action in the case of a reported or observed failure or malfunction of an aircraft or aeronautical product, that is critical to the safety of flight shall make, a record of that action in the maintenance section of the aircraft technical log.

(2) Each AOC holder shall have a procedure for keeping adequate copies of required records to be carried aboard, in a place readily accessible to each flight crewmember and shall put that procedure in the AOC holder's operations manual.

9.4.7 MAINTENANCE RECORDS

(1) Each AOC holder shall establish a system that is acceptable to the Authority to keep and maintain the following records, in a form and format that ensures readability, security and integrity at all times:

(a) The date of the last inspection;

(b) The total time in service (hours, calendar time and cycles, as appropriate) of the aircraft and all life-limited components;

(c) The current status of compliance with all mandatory continuing airworthiness information;

(d) Appropriate details of modifications and repairs to the aircraft and its major components;

(e) The time in service (hours, calendar time and cycles, as appropriate) since last overhaul of the aircraft or its components subject to mandatory overhaul life;

(f) In respect of those instruments and equipment, the serviceability and operating life of which are determined by their time in service:

(g) such records of the time in service as are necessary to determine their serviceability or to compute their operating life;

(h) The date of the last inspection;

(i) The current aircraft status of compliance with the maintenance programme; and

(j) The detailed maintenance records show that all requirements for signing of a maintenance release and airworthiness release have been met.

(2) Each AOC holder shall ensure that items in (1)(a-h) shall be kept for a minimum of 3 months (90 days) after the unit to which they refer has been permanently withdrawn from service, and the records in (1)(f) shall be kept for a minimum of 24 months after the signing of the maintenance release and or airworthiness release.

(3) Each AOC holder shall ensure that in the event of temporary change of operator, the records specified in paragraph (1) shall be made available to the new operator.

(4) Each AOC holder shall ensure that when an aircraft is permanently transferred from one operator to another operator, the records specified in paragraph (1) are also transferred.

(5) The lessee of an aircraft shall comply with 9.4.8 (1) and (2).

Note: In the context of ICAO Annex 6, Part I: 8.4.3, a judgement on what should be considered as a temporary change of operator will need to be made by the State of Registry in the light of the need to exercise control over the records, which will depend on access to them and the opportunity to update them.

9.4.8 AIRCRAFT TECHNICAL LOG ENTRIES – MAINTENANCE RECORD SECTION

(1) Each AOC holder shall use an aircraft technical log which includes an aircraft maintenance record section containing the following information for each aircraft: (See 9.3.5 for operations section of the aircraft technical log).

(a) Information about each previous flight necessary to ensure continued flight safety.

(b) The current aircraft maintenance release and or an airworthiness release.

(c) The current inspection status of the aircraft, to include inspections due to be performed on an established schedule and inspections that are due to be performed that are not on an established schedule, except that the Authority may agree to the maintenance statement being kept elsewhere.

(d) The current maintenance status of the aircraft, to include maintenance due to the performed on an established schedule and maintenance that is due to be performed that is not on an established schedule except that the Authority may agree to the maintenance statement being kept elsewhere.

(e) All deferred defects that affect the operation of the aircraft.

Note: *Defects which are not airworthiness items may be deferred to a later date for rectification. When this is done, there must be a method of recording such a deferral, and normally the aircraft technical log has a section solely for this purpose.*

(2) The aircraft technical log and any subsequent amendment shall be approved by the Authority.

(3) Each person who takes action in the case of a reported or observed failure or malfunction of an aircraft or aeronautical product, that is critical to the safety of flight shall make, or have made, a record of that action in the maintenance section of the aircraft technical log.

(4) Each AOC holder shall have a procedure for keeping adequate copies of required records to be carried aboard the aircraft, in a place readily accessible to each flight crewmember and shall put that procedure in the AOC holder's operations manual.

9.4.9 RELEASE TO SERVICE

No AOC holder shall operate an aircraft unless it has both a maintenance release, if maintenance has been performed prior to the flight, and a valid airworthiness release, as follows:

(a) Maintenance Release:

(i) An AOC holder shall not operate an aircraft unless it is maintained and released to service by an organisation approved in accordance with Part 6 of these Flight Standards Directives, or under an equivalent system, either of which shall be acceptable to the Authority.

(ii) An AOC holder using an AMO shall not operate an aircraft after release under subparagraph (i) unless a Certificate of Release to Service has been prepared in accordance with the AOC maintenance control manual procedures and a logbook entry in the maintenance records section of the aircraft technical log has been made.

(iii) An AOC holder using an equivalent system shall not operate an aircraft after release under subparagraph (a) unless a logbook entry in the maintenance records section of the aircraft technical log is prepared or caused to be prepared by an appropriately licensed and rated individual in accordance with Part 2 of these Flight Standards Directives, as appropriate. This maintenance release shall be made in accordance with the AOC maintenance control manual procedures.

(iv) The AOC holder shall ensure that the PIC of the aircraft has reviewed the maintenance section of the aircraft technical log and determined that any maintenance performed has been appropriately documented.

(b) Airworthiness Release

An AOC holder shall not operate an aircraft unless the PIC is in possession of a valid airworthiness release to indicate that any maintenance, preventative maintenance or inspections performed on the aircraft have been satisfactorily performed and appropriately documented.

9.4.10 MODIFICATION AND REPAIRS

(1) All modifications and repairs shall comply with airworthiness requirements acceptable to the Authority. Procedures shall be established by the AOC holder to ensure that the substantiating data supporting compliance with the airworthiness requirements are retained. However, in the case of a major repair or major modification, the work must have been done in accordance with technical, including engineering, data approved by the State of Design and accepted by the Authority.

(2) An AOC holder may be authorised to perform maintenance, preventive maintenance, and modifications of any aircraft, airframe, aircraft engine, propeller, appliance, component, or part thereof, under the AOC provided:

(a) It is performed under a maintenance system, acceptable to the Authority, that is equivalent to that of an Approved Maintenance Organisation (AMO) established in accordance with Part 6 of these Flight Standards Directives, and

(b) It is performed in accordance with the approved AOC's operations specifications.

(3) An AOC holder using a maintenance system acceptable to the Authority and equivalent to that of an AMO that wishes to approve for return to service major repairs or major modifications to an aircraft registered in Ghana shall use a current and valid licensed AME with an airframe and powerplant rating and shall be qualified in accordance with Part 2 of these Flight Standards Directives.

(4) Each AOC holder shall, promptly upon its completion, prepare a report of each major modification or major repair of an airframe, aircraft engine, propeller, or appliance of an aircraft that it operates.

(5) The AOC holder shall submit a copy of each report of a major modification to the Authority, and shall keep a copy of each report of a major repair available for inspection.

(6) The Authority in issuing an acceptance for an approval by State of design for the design of a modification, of a repair or of a replacement part shall verify that the aircraft is in compliance with airworthiness requirements used for the issuance of the Type Certificate, its amendments or later requirements when determined by the Authority.

9.4.11 AIRCRAFT MAINTENANCE PROGRAMME

(1) Each AOC holder shall submit to the Authority an approved aircraft maintenance programme and any subsequent amendment for each aircraft operated; acceptance by the Authority will be conditioned upon prior approval by the State of Registry,

or where appropriate, upon the AOC holder complying with recommendations provided by the State of Registry.

(2) Each AOC holder's aircraft maintenance programme and any subsequent amendment shall be submitted to the Authority for approval; where appropriate, the AOC holder shall comply with recommendations provided by the State of Design and or the Authority.

(3) The Authority will require an operator to include a reliability programme when the Authority determines that such a reliability programme is necessary. When such a determination is made by the Authority the AOC holder shall provide such procedures and information in the AOC holder's maintenance control manual.

(4) Each AOC holder shall ensure that each aircraft is maintained in accordance with the AOC holder's aircraft approved maintenance programme as required by 9.4.3 which shall include-

(a) Maintenance tasks and the intervals in which these are to be performed, taking into account the anticipated utilization of the aircraft;

(b) When applicable, a continuing structural integrity programme;

(c) Procedures for changing or deviating from subparagraphs (4)(a) and (4)(b); and

(d) When applicable, condition monitoring and reliability programme, descriptions for aircraft, systems components, and powerplants.

(e) Repetitive maintenance tasks that are specified in mandatory intervals as a condition of approval of the type design shall be identified as such.

(5) No person may provide for use of its personnel in commercial air transport a Maintenance Programme or portion thereof which has not been reviewed and approved for the AOC holder by the Authority. The design and application of the operators maintenance programme shall observe Human Factors principles.

(6) Approval by the Authority of an AOC holder's maintenance programme and any subsequent amendments shall be noted in the AOC certificate pursuant to 9.1.7(2)(f).

(7) Each AOC holder shall have an inspection programme and a programme covering other maintenance, preventive maintenance, and modifications to ensure that –

(a) Maintenance, preventive maintenance, and modifications performed by it, or by other persons, are performed in accordance with AOC holder's maintenance control manual;

(b) Each aircraft released to service is airworthy and has been properly maintained for operation.

(8) The Authority may amend any specifications issued to an AOC holder to permit deviation from those provisions of this Subpart that would prevent the return to

service and use of airframe components, powerplants, appliances, and spare parts thereof because those items have been maintained, altered, or inspected by persons employed outside Ghana who do not hold a Ghana engineer's licence. Each AOC holder who is granted Authority under this deviation shall provide for surveillance of facilities and practices to assure that all work performed on these parts are accomplished in accordance with the AOC holder's maintenance control manual.

(9) The maintenance programme shall be based on maintenance programme information made available by the State of Design or by the organization responsible for the type design, and any additional applicable experience.

(10) The operator shall provide, for the use and guidance of maintenance and operational personnel concerned, a maintenance programme manual, acceptable to the Authority. The design of the manual shall observe Human Factors principles and shall be amended as necessary to keep the information contained therein up to date.

(11) Copies of all amendments to the operator's maintenance programme manual shall be furnished promptly to all organizations or persons to whom the manual has been issued.

9.4.12 AOC CONTINUOUS MAINTENANCE PROGRAMME AND INSPECTION REQUIREMENTS

Section 9.4.12 prescribes general requirements for maintenance, preventive maintenance, and modifications for all AOC holders to have an approved continuous maintenance program.

9.4.12.1 AUTHORITY TO PERFORM AND APPROVE MAINTENANCE, PREVENTIVE MAINTENANCE AND MODIFICATIONS

(1) An AOC holder which is not approved as an AMO may perform and approve maintenance, preventive maintenance, or modifications of any aircraft, airframe, aircraft engine, propeller, appliance, or component, or a part thereof for return to service, if approved in the specific operating provisions, as provided in its maintenance programme and maintenance control manual.

(2) An AOC holder may make arrangements with an AMO (appropriately rated) for the performance of maintenance, preventive maintenance, or modifications of any aircraft, airframe, aircraft engine, propeller, appliance, or component, or part thereof as provided in its maintenance programme and maintenance control manual.

(3) An AOC holder which is not approved as an AMO shall use appropriately licensed and rated individual in accordance with Part 2 of these Flight Standards Directives, as appropriate, to approve maintenance, preventive maintenance, or modifications of any aircraft, airframe, aircraft engine, propeller, or appliance for return to service after performing or supervising in accordance with technical data

approved by the Authority.

9.4.12.2 LICENCE REQUIREMENTS FOR AN ENGINEER – AOC HOLDER USING EQUIVALENT SYSTEM

(1) Each person who is directly in charge of maintenance, preventive maintenance, or modification, of any aircraft, airframe, aircraft engine, propeller, appliance, or component, or part thereof and each person performing required inspections and approving for return to service the maintenance performed shall be appropriately licensed and rated engineer or repair specialist in accordance with Part 2 of these Flight Standards Directives, as appropriate, and acceptable to the Authority.

(2) A person who is directly in charge shall be on site but need not physically observe and direct each worker constantly, but shall be available for consultation and decision on matters requiring instruction or decision from higher Authority than that of the persons performing the work.

Note: *A person "directly in charge", is each person assigned to a position in which he is responsible for the work of a shop or station that performs maintenance, preventive maintenance, modifications, or other functions affecting aircraft airworthiness.*

9.4.12.3 REST AND DUTY LIMITATIONS FOR PERSONS PERFORMING MAINTENANCE FUNCTIONS ON AOC HOLDER AIRCRAFT

(1) No person may assign, nor shall any person perform maintenance functions for aircraft certified for commercial air transport, unless that person has had a minimum rest period of 8 hours prior to the beginning of duty.

(2) No person may schedule a person performing maintenance functions for aircraft certified for commercial air transport for more than 12 consecutive hours of duty.

(3) In situations involving unscheduled aircraft unserviceability, persons performing maintenance functions for aircraft certified for commercial air transport may be continued on duty for-

(a) Up to 16 consecutive hours; or

(b) 20 hours in 24 consecutive hours.

(4) Following unscheduled duty periods, the person performing maintenance functions for aircraft shall have a mandatory rest period of 10 hours.

(5) The AOC holder shall relieve the person performing maintenance functions from all duties for 24 consecutive hours during any 7 consecutive day period.

9.4.12.4 MATERIALS, PARTS, COMPONENTS AND APPLIANCES

(1) This section details requirements for the acceptance of materials, parts, components and appliances.

(2) A replacement or the design change of a new or used part, component or appliance to be installed in an aircraft registered in Ghana shall conform to the certification standards of the applicable Type Acceptance Certificate and any applicable Supplemental Type Certificate and:

(a) be supported by an authorised internationally-accepted release certificate issued by an organisation approved by the States listed in paragraph GCADs 5.2.3; or

(b) for new parts and appliances only, be supported by a release certificate from a State not listed in paragraph GCADs 5.2.3 when subject to the requirements of an active bilateral agreement covering such matters with a State of Type Certification listed in paragraph GCADs 5.2.3.

(3) Materials to be utilised for the repair, replacement and design change of an aircraft registered in the State shall be:

(a) of a specification specified in approved data; and

(b) in conformance with any Type Certificate Holders criteria; and

(c) obtained from an approved supplier and accompanied by an accredited release certificate.

(4) Parts Manufacturer Approval (PMA) parts may be accepted for modification and or replacement parts for installation on a Territory registered aircraft if:

(a) the PMA part is not a “critical component”; or

(b) the PMA part conforms to design data obtained under a licensing agreement from the TC or STC holder; or

(c) the PMA holder is the holder of an STC which incorporates the PMA part.

9.5 AOC SECURITY MANAGEMENT

9.5.1 APPLICABILITY

Subpart 9.5 provides those certification requirements that apply to the AOC holder’s protection of aircraft facilities and personnel from unlawful interference.

9.5.2 SECURITY REQUIREMENTS

Each AOC holder shall ensure that all appropriate personnel are familiar, and

comply with, the relevant requirements of the national security programmes of Ghana.

9.5.3 SECURITY TRAINING PROGRAMMES

(1) Each AOC holder shall establish, maintain and conduct approved training programmes which enable the operator's personnel to take appropriate action to prevent acts of unlawful interference such as sabotage or unlawful seizure of aircraft and to minimize the consequences of such events should they occur.

(2) As a minimum, the security training programme shall include:

(a) Determination of the seriousness of any occurrence;

(b) Crew communication and coordination;

(c) Appropriate self-defence responses;

(d) Use of non-lethal protective devices assigned to crew members whose use is authorised by the Authority;

(e) Live situational training exercises regarding various threat conditions;

(f) Flight deck procedures to protect the aircraft;

(g) Aircraft search procedures and guidance on least-risk bomb locations where practicable;

(h) Understanding of behaviour of terrorists so as to facilitate the ability of crewmembers to cope with hijacker behaviour and passenger responses, and

(i) Crew preventative measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aircraft.

Note: If the AOC is responsible for airport screening of passengers, baggage and cargo, then screening training must be included in the security training programme.

9.5.4 REPORTING ACTS OF UNLAWFUL INTERFERENCE

Following an act of unlawful interference on board an aircraft the PIC or, in his absence, the AOC holder shall submit, without delay, a report of such an act to the designated local Authority and the Ghana Civil Aviation Authority.

9.5.5 AIRCRAFT SEARCH PROCEDURE CHECKLIST

(1) Each AOC holder shall ensure that all aircraft carry a checklist of the procedures to be followed for that type of aircraft in searching for concealed weapons, explosives, or other dangerous devices.

(2) The checklist shall be supported by guidance on the appropriate course of action to be taken should a bomb or suspicious object be found and information on the least-risk bomb location specific to the aircraft.

9.5.6 FLIGHT CREW COMPARTMENT DOORS, IF INSTALLED – SECURITY PROCEDURES

(1) The flight crew compartment door on aircraft operated for the purpose of carrying passengers shall be capable of being locked from within the compartment in order to prevent unauthorised access.

(2) Each AOC holder shall have an approved means by which the cabin crew can discreetly notify the flight crew in the event of suspicious activity or security breaches in the cabin.

(3) All passenger carrying aeroplanes should be equipped with an approved flight crew compartment door, where practicable, that is designed to resist penetration by small arms fire and grenade shrapnel and to resist forcible intrusions by unauthorised persons.

(a) This door should be capable of being locked and unlocked from either pilot's station;

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

(c) Means should be provided for monitoring from either pilot's station the entire door area outside the flight crew compartment to identify persons requesting entry and to detect suspicious behaviour or potential threat.

9.5.7 FLIGHT CREW COMPARTMENT DOORS, LARGE AEROPLANES – SECURITY PROCEDURES

(1) All aeroplanes certificated with a maximum certificated take-off mass in excess of 45 500 kg or with a passenger seating capacity greater than 60 shall be equipped with an approved flight crew compartment door that is designed to resist penetration by small arms fire and grenade shrapnel, and to resist forcible intrusions by unauthorised persons. This door should be capable of being locked and unlocked from either pilot's station.

(2) The door shall be closed and locked from the time all external doors are closed following embarkation until any such door is opened for disembarkation, except when necessary to permit access and egress by authorised persons; and

(3) Means shall be provided for monitoring from either pilot's station the entire door area outside the flight crew compartment to identify persons requesting entry and to detect suspicious behaviour or potential threat.

9.5.8 LEAST-RISK BOMB LOCATION

A least-risk location on the aircraft shall be identified where a bomb or other explosive device may be placed to minimise the effects on the aircraft in the case of detonation.

9.5.9 CARRIAGE OF WEAPONS

Where an operator accepts the carriage of weapons removed from passengers, the aeroplane shall have provision for stowing such weapons in a place so that they are not accessible to any person during flight time.

9.6 AOC DANGEROUS GOODS MANAGEMENT

9.6.1 APPLICABILITY

Subpart 9.6 provides those certification requirements that apply to management and transport of dangerous goods.

9.6.2 OPERATORS WITH SPECIFIC APPROVAL FOR THE TRANSPORTATION OF DANGEROUS GOODS AS CARGO

No AOC holder shall transport dangerous goods unless issued with a specific approval to do so by the Authority.

9.6.3 SCOPE

(1) Each AOC holder shall comply with the provisions contained in the ***ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air, ICAO Doc. 9284*** (hereinafter called 'Technical Instructions') on all occasions when dangerous goods are carried, irrespective of whether the flight is wholly or partly within or wholly outside the territory of Ghana. Where dangerous goods are to be transported outside the territory of Ghana, the AOC holder shall review and comply with the appropriate variations noted by contracting states contained in Attachment 3 to the Technical Instructions.

(2) Articles and substances which would otherwise be classed as dangerous goods are excluded from the provisions of Subpart 9.6, to the extent specified in the Technical Instructions, provided they are—

(a) Required to be aboard the aircraft for operating reasons;

(b) Carried as catering or cabin service supplies;

(c) Carried for use in flight as veterinary aid or as a humane killer for an animal;

or

(d) Carried for use in flight for medical aid for a patient, provided that—

(i) Gas cylinders have been manufactured specifically for the purpose of containing and transporting that particular gas;

(ii) Drugs, medicines and other medical matter are under the control of trained personnel during the time when they are in use in the aircraft;

(iii) Equipment containing wet cell batteries is kept and, when necessary secured, in an upright position to prevent spillage of the electrolyte; and

(iv) Proper provision is made to stow and secure all the equipment during take-off and landing and at all other times when deemed necessary by the PIC in the interests of safety; or

(v) They are carried by passengers or crewmembers.

(e) Articles and substances intended as replacements for those in paragraph (2) (a) may be transported on an aircraft as specified in the Technical Instructions.

9.6.4 LIMITATIONS ON THE TRANSPORT OF DANGEROUS GOODS

(1) Each AOC holder shall take all reasonable measures to ensure that articles and substances that are specifically identified by name or generic description in the Technical Instructions as being forbidden for transport under any circumstances are not carried on any aircraft.

(2) Each AOC holder shall take all reasonable measures to ensure that articles and substances or other goods that are identified in the Technical Instructions as being forbidden for transport in normal circumstances or infected live animals are transported only when—

(a) They are exempted by the States concerned under the provisions of the Technical Instructions; or

(b) The Technical Instructions indicate they may be transported under an approval issued by the State of Origin.

9.6.5 CLASSIFICATION

Each AOC holder shall ensure that articles and substances are classified as dangerous goods as specified in the Technical Instructions.

9.6.6 PACKING

(1) Each AOC holder shall ensure that dangerous goods are packed as specified in the Technical Instructions.

(2) Packing used for the transport of dangerous goods shall:

(a) Be of good quality and shall be constructed and securely closed so as to prevent leakage which might be caused in normal conditions of transport, by changes in temperature, humidity or pressure, or by vibration.

(b) Be suitable for the contents. Packaging in direct contact with dangerous goods shall be resistant to any chemical or other action of such goods.

(c) Meet the material and construction specifications in the Technical Instructions.

(d) Be tested in accordance with the provisions of the Technical Instructions.

(e) For which retention of a liquid is a basic function, shall be capable of withstanding, without leaking, the pressure stated in the Technical Instructions.

(f) For inner packaging, shall be so packed, secured or cushioned as to prevent their breakage or leakage and to control their movement within the outer packaging(s) during normal conditions of air transport. Cushioning and absorbent materials shall not react dangerously with the contents of the packaging.

(g) Not be reused until it has been inspected and found free from corrosion or other damage. Where packaging is re-used, all necessary measures shall be taken to prevent contamination of subsequent contents.

(3) If because of the nature of their former contents, uncleaned empty packaging may present a hazard, they shall be tightly closed and treated according to the hazard they constitute.

(4) No harmful quantity of a dangerous substance shall adhere to the outside of packages.

9.6.7 LABELLING AND MARKING

(1) Each AOC holder shall ensure that packages, overpacks and freight containers are labelled as specified in the Technical Instructions.

(2) Each AOC holder shall ensure that packages, overpacks and freight containers are marked with:

(a) the proper shipping name of its contents;

(b) the UN number, when assigned, and

(c) other such markings as may be specified in the Technical Instructions.

(3) Each AOC holder shall ensure that packaging manufactured to a specification contained in the Technical Instructions shall be so marked in accordance with the Technical Instructions.

(4) Where dangerous goods are carried on a flight which takes place wholly or partly outside the territory of Ghana, the AOC holder shall ensure that labelling and marking are in the English language in addition to any other language requirements.

9.6.8 DANGEROUS GOODS TRANSPORT DOCUMENT

(1) Each AOC holder shall ensure that, except when otherwise specified in the Technical Instructions, dangerous goods are accompanied by a dangerous goods transport document.

(2) Where dangerous goods are carried on a flight which takes place wholly or partly outside the territory of Ghana, the AOC holder shall ensure that the English language is used for the dangerous goods transport document in addition to any other language requirements.

9.6.9 ACCEPTANCE OF DANGEROUS GOODS

(1) No AOC holder may accept dangerous goods for transport until the package, overpack or freight container has been inspected in accordance with the acceptance procedures in the Technical Instructions.

(2) Each AOC holder, or its handling agent, shall use an acceptance check list which—

(a) Shall allow for all relevant details to be checked; and

(b) Shall be in such form as will allow for the recording of the results of the acceptance check by manual or computerised means.

9.6.10 INSPECTION FOR DAMAGE, LEAKAGE OR CONTAMINATION

Each AOC holder shall ensure that:

(a) Packages, overpacks and freight containers are inspected for evidence of leakage or damage immediately prior to loading on an aircraft or into a unit load device, as specified in the Technical Instructions;

(b) A unit load device is not loaded on an aircraft unless it has been inspected as required by the Technical Instructions and found free from any evidence of leakage from, or damage to, the dangerous goods contained therein;

(c) Leaking or damaged packages, overpacks or freight containers are not loaded on an aircraft;

(d) Any package of dangerous goods found on an aircraft and which appears to be damaged or leaking is removed or arrangements made for its removal by an appropriate authority or organisation.

(e) After removal of any leaking or damaged goods, the remainder of the consignment is inspected to ensure it is in a proper condition for transport and that no damage or contamination has occurred to the aircraft or its load; and

(f) Packages, overpacks and freight containers are inspected for signs of damage or leakage upon unloading from an aircraft or from a unit load device and, if there is evidence of damage or leakage, the area where the dangerous goods were stowed is inspected for damage or contamination.

9.6.11 REMOVAL OF CONTAMINATION

Each AOC holder shall ensure that—

(a) Any contamination found as a result of the leakage or damage of dangerous goods is removed without delay; and

(b) An aircraft which has been contaminated by radioactive materials is immediately taken out of service and not returned until the radiation level at any accessible surface and the non-fixed contamination are not more than the values specified in the Technical Instructions.

9.6.12 LOADING RESTRICTIONS AND STOWAGE OF DANGEROUS GOODS

(1) Each AOC holder shall ensure that packages and overpacks containing dangerous goods and freight containers containing radioactive materials are loaded and stowed in accordance with the Technical Instructions.

(a) **Passenger Cabin and Flight Deck**. Each AOC holder shall ensure that dangerous goods are not carried in an aircraft cabin occupied by passengers or on the flight deck, unless otherwise specified in the Technical Instructions.

(b) **Cargo Compartments.** Each AOC holder shall ensure that dangerous goods are loaded, segregated, stowed and secured on an aircraft as specified in the Technical Instructions.

(c) **Dangerous Goods Designated for Carriage Only on Cargo Aircraft.** Each AOC holder shall ensure that packages of dangerous goods bearing the "Cargo Aircraft Only" label are carried on a cargo aircraft and loaded as specified in the Technical Instructions, and in a manner that a crew member or other authorised person can see, handle and, where size and weight permit, separate such packages from other cargo in flight.

(2) Packages containing dangerous goods shall be separated when stowing as follows:

(a) Those packages that might react dangerously with other packages shall not be stowed next to each other or in a position that might allow interaction between them in the event of a leakage.

(b) Those packages containing toxic and infectious substances shall be stowed in accordance with the Technical Instructions.

(c) Those packages containing radioactive materials shall be stowed so that they are separated from persons, live animals and undeveloped film, and secured in flight in accordance with the Technical Instructions.

(3) The AOC holder shall protect and secure any dangerous goods in such a manner that will prevent any movement in flight that might change the orientation of the packages.

9.6.13 PROVISION OF INFORMATION

(1) ***Information to Ground Staff.*** Each AOC holder shall ensure that:

(a) Information is provided to enable ground staff to carry out their duties with regard to the transport of dangerous goods, including the actions to be taken in the event of incidents and accidents involving dangerous goods; and

(b) Where applicable, the information referred to in paragraph (1)(a) is also provided to the handling agent.

(2) ***Information to Passengers.*** Each AOC holder shall ensure that information is promulgated as required by the Technical Instructions so that passengers are warned as to the types of goods which they are forbidden from transporting aboard an aircraft.

(3) ***Information to Shippers.*** Each AOC holder shall ensure that information is published as required by the Technical Instructions so that shippers of dangerous goods are provided with the information as required by the Technical Instructions to enable them to carry out their responsibilities with regard to the transport of dangerous goods and the action to be taken in the event of emergencies arising involving dangerous goods.

(4) ***Information to Acceptance Points Personnel***. Each AOC holder and, where applicable, the handling agent shall ensure that notices are provided at acceptance points for cargo giving information about the transport of dangerous goods, including the actions to be taken in the event of emergencies arising involving dangerous goods.

(5) ***Information to Crew Members***. Each AOC holder shall ensure that information is provided in the Operations Manual to enable crew members to carry out their responsibilities in regard to the transport of dangerous goods, including the actions to be taken in the event of emergencies arising involving dangerous goods.

(6) ***Information to the PIC.*** Each AOC holder shall ensure that the PIC is provided, as early as practicable before the departure of the flight, with written information, as specified in the Technical Instructions.

(7) ***Information in the Event of an In-Flight Emergency***. If an in-flight emergency occurs, the PIC shall, as soon as the situation permits, inform the appropriate air traffic services unit, for the information of the aerodrome authorities, of any dangerous goods on board the aircraft, as provided for in the Technical Instructions.

(8) ***Information in the Event of an Aircraft Incident or Accident***. Each AOC holder which is involved in an aircraft accident or incident shall—

(a) As soon as possible, inform the appropriate authority of the State in which the aircraft accident or incident occurred of any dangerous goods carried; and

(b) On request, provide any information required to minimise the hazards created by any dangerous goods carried.

9.6.14 DANGEROUS GOODS TRAINING PROGRAMME AND MANUAL

(1) Crew members, passenger handling staff, and security staff employed by the AOC holder who deal with the screening of a passengers and their baggage and cargo shall have received training which covers as a minimum, the areas identified in Part 8 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.

(2) 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.

(e) Restrictions.

Note- See Tables 1, 2 and 3 of Part 18 of these Flight Standards Directives for Areas of Dangerous Goods Training.

Note: x indicates an area to be covered.

9.6.15 DANGEROUS GOODS INCIDENT AND ACCIDENT REPORTS

(1) Each AOC holder shall report dangerous goods incidents and accidents to the Authority within 72 hours of the event, unless exceptional circumstances prevent this.

(2) Each AOC holder shall report undeclared or misdeclared dangerous goods discovered in cargo or passenger's baggage to the Authority within 72 hours of the discovery, unless exceptional circumstances prevent this.

9.6.16 SHIPPER'S RESPONSIBILITIES

(1) No person shall offer a package, overpack or freight container containing dangerous goods for shipment by air unless that person has, in accordance with the Technical Instructions, ensured that the dangerous goods are properly-

(a) Classified;

(b) Packed;

(c) Labelled and

(d) Accompanied by a properly executed dangerous good transport document.

(2) In completing the dangerous goods transport document for the AOC holder, the shipper shall, in accordance with the Technical Instructions and any other Directives or regulations of Ghana:

(a) Declare that the dangerous goods are fully and accurately described by their proper shipping names;

(b) Declare that the dangerous goods are classified, packed, marked and labelled and in the proper condition for transport;

(c) Complete the form in English when the dangerous goods are to be carried either wholly or partly outside Ghana; and

(d) Sign the form.

9.6.17 DANGEROUS GOODS SECURITY PROVISIONS

Each shipper, operator and other individuals engaged in the transport of dangerous goods by air shall establish security measures, consistent with these Directives, to minimise theft or misuse of dangerous goods that may endanger persons, property or the environment.

9.6.18 OPERATORS WITH NO SPECIFIC APPROVAL FOR THE TRANSPORT OF DANGEROUS GOODS AS CARGO

The Authority shall ensure that operators with no specific approval to transport dangerous goods have:

(a) established a dangerous goods training programme that meets the requirements of Part 18 and any other provisions of these Directives as may be applicable. Details of the dangerous goods training programme shall be included in the operator's operations manuals;

(b) established dangerous goods policies and procedures in its operations manual to meet, at a minimum, the requirements of Part 18 and any other provisions of these Directives as may be applicable, to allow operator personnel to:

(i) identify and reject undeclared dangerous goods, including COMAT classified as dangerous goods; and

(ii) report to the appropriate authorities of the State of the Operator and the State in which it occurred any;

A. occasions when undeclared dangerous goods are discovered in cargo or mail; and

B. Dangerous goods accidents and incidents.

9.7 CARGO COMPARTMENT SAFETY

9.7.1 TRANSPORT OF ITEMS IN THE CARGO COMPARTMENT

The Authority shall ensure that the operator establishes policy and procedures for the transport of items in the cargo compartment, which shall include the conduct of a specific safety risk assessment. The risk assessment shall include at least the:

(a) hazards associated with the properties of the items to be transported;

(b) capabilities of the operator;

(c) operational considerations (e.g. area of operations, diversion time);

(d) capabilities of the aircraft and its systems (e.g. cargo compartment fire suppression capabilities);

(e) containment characteristics of unit load devices;

(f) packing and packaging;

(g) safety of the supply chain for items to be transported; and

(h) quantity and distribution of dangerous goods items to be transported.

Note1.— Guidance on the hazards associated with the transport of items in the cargo compartment, the conduct of a specific safety risk assessment in accordance with the Safety Management Manual (SMM) (Doc 9859), and the responsibilities for the transport of dangerous goods, is contained in the Cargo Compartment Operational Safety Manual .

Note 2.— Additional operational requirements for the transport of dangerous goods are contained in
GCADs 9.6.

9.7.2 FIRE PROTECTION

(1) The elements of the cargo compartment(s) fire protection system as approved by the Authority, and a summary of the demonstrated cargo compartment fire protection certification standards, shall be provided in the aeroplane flight manual or other documentation supporting the operation of the aeroplane.
Note.— Guidance on the elements of cargo compartment fire protection and associated demonstrated standards are provided in the Cargo Compartment Operational Safety Manual *(Doc 10102).*

(2) The Operator shall establish policy and procedures that address the items to be transported in the cargo compartment. These shall ensure to a reasonable certainty that in the event of a fire involving those items, it can be detected and sufficiently suppressed or contained by the elements of the aircraft design associated with cargo compartment fire protection, until the aircraft makes a safe landing.
Note. — Guidance on policy and procedures that address the items to be transported in the cargo compartment are provided in the Cargo Compartment Operational Safety Manual *(Doc 10102).*

GHANA CIVIL AVIATION (FLIGHT STANDARDS) DIRECTIVES

PART 9 –IMPLEMENTING STANDARDS

NOVEMBER 2018

For ease of reference, the number assigned to each implementing standard corresponds to its associated directive. For Example, IS 9.1.7(2) reflects the standard required in subsection 9.1.7(2) of these Directives.

IS 9.1.6 ISSUANCE OR DENIAL OF AIR OPERATOR CERTIFICATE

Prior certification required

In accordance with GCADs 9.1.6(1), the issuance of an air operator certificate (AOC) is "dependent upon the operator demonstrating" to the Authority that its organization, training policy and programmes, flight operations, ground handling and maintenance arrangements are adequate considering the nature and extent of the operations to be conducted. The certification process involves the Authority's evaluation of each operator and a determination that the operator is capable of conducting safe operations before initial issuance of an AOC or the addition of any subsequent authorisations to an AOC.

Standard certification practices

The Authority is required by GCADs 9.2.1(2) to establish a certification system to ensure compliance with the required Directives for the type of operation to be conducted. The Authority has developed policies and procedures to comply with this certification requirement as industry capabilities evolve. While various States did not develop their certification practices in coordination with each other, their practices are remarkably similar and consistent in their requirements. The effectiveness of their practices has been validated over many years, resulting in improved safety records of operators throughout the world. Many of these certification practices have been incorporated by reference in ICAO provisions.

REQUIRED TECHNICAL SAFETY EVALUATIONS

Approval and acceptance actions

The certification and continued surveillance of an air operator includes actions taken by the Authority on matters submitted for its review. The actions can be categorized as approvals or acceptances depending on the nature of the response by the Authority to the matter submitted for its review.

An approval is an active response by the Authority to a matter submitted for its review. An approval constitutes a finding or determination of compliance with the applicable standards. An approval will be evidenced by the signature of the approving official, the issuance of a document or certificate, or some other formal action taken by the Authority.

An acceptance does not necessarily require an active response by the Authority to a matter submitted for its review. The Authority may accept a matter submitted to it for review as being in compliance with the applicable Directives if the Authority does not specifically reject all or a portion of the matter under review, usually after some defined period of time after submission.

The phrase "approved by the Authority" or similar phrases using the word "approval" are frequently used in this Part. Provisions indicating a review and implying approval or at least "acceptance" by the Authority occur even more frequently in this Part. In addition to these specific phrases, this Part, contains numerous references to requirements which would, as a minimum, create the need for at least a technical review by the Authority. This Attachment groups and outlines those specific requirements for ease of use by the Authority.

The Authority shall arrange for a technical safety evaluation before issuing the approval or acceptance. The evaluation should:
a) be accomplished by a person with specific qualifications to make such a technical evaluation;
b) be in accordance with written, standardized methodology; and
c) where necessary to safety, include a practical demonstration of the air operator's actual ability to conduct such an operation.

Demonstrations before issuance of some approvals

Standard GCADs 9.1.6(1) obligates the State of the Operator, prior to certification of the operator, to require sufficient demonstrations by the operator to enable the State to evaluate the adequacy of the operator's organization, method of control and supervision of flight operations, ground handling and maintenance arrangements. These demonstrations should be in addition to the review or inspections of manuals, records, facilities and equipment. Some of the approvals required by Annex 6, Part I, such as approval for Category III operations, have significant safety implications and should be validated by demonstration before the State approves such operations.

While the specific methodology and extent of the required demonstrations and evaluations vary between States, the certification processes of States whose operators have good safety records are generally consistent. In these States, technically qualified inspectors evaluate a representative sample of the actual training, maintenance and operations prior to the issuance of an AOC or additional authorizations to the AOC.

Recording of certification actions

It is important that the certification, approval and acceptance actions of the State are adequately documented. The State should issue a written instrument, such as a letter or formal document, as an official record of the action. These written instruments should be retained as long as the operator continues to exercise the authorizations for which the approval or acceptance action was issued. These instruments are unambiguous evidence of the authorizations held by the operator and provide proof in the event that the State and the operator disagree on the operations that the operator is authorized to conduct.

Some States collect certification records such as inspections, demonstrations, approvals and acceptance instruments into a single file which is retained as long as the operator is active. Other States retain these records in files according to the certification action performed, and revise the file as the approvals or acceptance instruments are updated. Regardless of the method used, these certification records are persuasive evidence that a State is complying with its ICAO obligations regarding operator certification.

Coordination of operations and airworthiness evaluations

Some of the references to approval or acceptance in Annex 6, Part I, will require an operations evaluation and an airworthiness evaluation. Low minima approvals for the conduct of Category II and III ILS approaches, for example, require coordinated prior evaluation by operations and airworthiness specialists. Flight operations specialists should evaluate the operational procedures, training and qualifications. Airworthiness specialists should evaluate the aircraft, equipment reliability and maintenance procedures. These evaluations may be accomplished separately, but should be coordinated to ensure that all aspects necessary for safety have been addressed before any approval is issued.

State of the Operator and State of Registry responsibilities

Annex 6, Part I, places the responsibility for initial certification, issuance of the AOC, and ongoing surveillance of an air operator on the State of the Operator. Annex 6, Part I, also requires the State of the Operator to consider or act in accordance with various approvals and acceptances by the State of Registry. Under these provisions, the State of the Operator should ensure that its actions are consistent with the approvals and acceptances of the State of Registry and that the air operator is in compliance with State of Registry requirements.

It is essential that the State of the Operator be satisfied with the arrangements by which its air operators use aircraft on the register of another State, particularly for maintenance and crew training. The State of the Operator should review such arrangements in coordination with the State of Registry. Where appropriate, an agreement transferring oversight responsibilities from the State of Registry to the State of the Operator pursuant to Article 83 *bis* to the Convention on International Civil Aviation should be arranged to preclude any misunderstandings regarding which State is responsible for specific oversight responsibilities.

Note.— Guidance concerning the responsibilities of the State of the Operator and the State of Registry in connection with lease, charter and interchange operations is contained in the Manual of Procedures for Operations Inspection, Certification and Continued Surveillance *(Doc 8335). Guidance concerning the transfer of State of Registry responsibilities to the State of the Operator in accordance with Article 83* bis *is contained in* Guidance on the Implementation of Article 83*bis* of the Convention on International Civil Aviation *(Cir 295).*

APPROVAL ACTIONS

Approvals

The term “approval” implies a more formal action on the part of the State with respect to a certification matter than does the term “acceptance”. Some States require the Director of the Civil Aviation Authority (CAA) or a designated lower-level CAA official to issue a formal written instrument for every “approval” action taken. Other States allow a variety of documents to
be issued as evidence of an approval. The approval document issued and the matter addressed by the approval will depend on the delegated authority of the official. In such States, authority to sign routine approvals, such as operator minimum equipment lists for specific aircraft, is delegated to technical inspectors. More complex or significant approvals are normally issued by higher-level officials.

Air operator certificate (AOC)

The AOC required by Annex 6, Part I, GCADs Part 9, 9.1.4(1), is a formal instrument. GCADs Part 9, 9.1.7(2) lists the information to be included in the AOC.

In addition to the items in Appendix 6, paragraph 3, operations specifications may include other specific
authorizations, such as:
a) special aerodrome operations (e.g. short take-off and landing operations or land and hold short operations);
b) special approach procedures (e.g. steep gradient approach, instrument landing system

precision runway monitor
approach, localizer-type directional aid precision runway monitor approach, RNP approach);
c) single-engine passenger transport at night or in instrument meteorological conditions; and
d) operations in areas with special procedures (e.g. operations in areas using different altimetry units or altimeter
setting procedures).

Provisions that require an approval

The following provisions require or encourage approval by specified States. The approval of the State of the Operator is required in all of the certification actions listed below that are not preceded by one or more asterisks. Certification actions listed below that are preceded by one or more asterisks require approval by the State of Registry (single asterisk or "*"), or by the State of Design (double asterisk or "**"). However, the State of the Operator should take the necessary steps to ensure
that operators for which it is responsible comply with any applicable approvals issued by the State of Registry and/or State of
Design, in addition to its own requirements.
a) **Configuration deviation list (CDL) (Definitions);
b) **Master minimum equipment list (MMEL) (Definitions);
c) The method for establishing minimum flight altitudes (GCADs 8.8.4.4);
d) The method of determining aerodrome operating minima (GCADs 8.8.1.7);
e) Additional requirements for single pilot operations under the instrument flight rules (IFR) at night (4.9.1);
f) Flight time, flight duty periods and rest periods ((GCADs 8.12);
g) Specific extended range operations (8.6.2.11);
h) Additional requirements for operations of single-engine turbine-powered aeroplanes at night and/or in instrument meteorological conditions (IMC) (5.4.1);
i) Aircraft-specific minimum equipment list (MEL) (GCADs 9.3.12(1);
j) Performance-based navigation operations (7.2.2 (3));
k) MNPS operations (GCADs7.2.7);
l) RVSM operations (GCADs 7.2.8 (1));
m) Procedures for electronic navigation data management (7.2.2(4));
n) *Aircraft-specific maintenance programme (9.4.11(10));
o) *Approved maintenance organization (GCADs 6.2.2);
p) *Maintenance quality assurance methodology (GCADs 6.5.2);
q) Flight crew training programmes (GCADs 9.3.3 & IS 9.3.3);
r) Training in the transport of dangerous goods (GCADs 9.3.3 & 9.6.14);
s) Aerodrome additional safety margin (GCADs 8.10.29 (5));
t) Pilot-in-command area, route and aerodrome qualifications (GCADs 8.10.29 (5));
u) Use of flight simulation training devices (GCADs 9.3.3 & IS 9.3.3and GCADs 8.10.19);
v) Method of control and supervision of flight operations (GCADs 9.1.6 and GCADs 8.10.8);
w) **Mandatory maintenance tasks and intervals (GCADs 9.4.11);
x) Cabin attendant training programmes (GCADs 9.3.3).

Provisions that require a technical evaluation

Other provisions in Annex 6, Part I, require the State to have made a technical evaluation. These provisions contain the phrases "acceptable to the State", "satisfactory to the State", "determined by the State", "deemed acceptable by the State" and "prescribed by the State". While not necessarily requiring an approval by the State, these Standards do require the

State to at least accept the matter at issue after it conducts a specific review or evaluation. These provisions are:
a) details of the aircraft-specific checklists (Definition: aircraft operating manual and GCADs 9.3.4;
b) details of the aircraft-specific systems (Definition: aircraft operating manual and GCADs 9.3.4;
c) mandatory material for the operations manual (GCADs 9.3.2);
d) engine trend monitoring systems (GCADs 8.7.2.3);
e) equipment for aeroplanes operated by a single pilot under the instrument flight rules or at night (6.23);
f) requirements for approval to operate in RVSM airspace (GCADs 7.2.8(3));
g) monitoring of height-keeping performance of aeroplanes approved to operate in RVSM airspace (GCADs 7.2.8(4));
h) procedures for distribution and insertion of electronic navigation data in aircraft (GCADs7.2.2);
i) *operator's aircraft-specific maintenance responsibilities (GCADs 5.5.2 & 9.4.2);
j) *method of maintenance and release (GCADs 9.4.2);
k) *maintenance control manual (GCADs 9.4.4);
l) *mandatory material for the maintenance control manual (GCADs 9.4.4);
m) *reporting of maintenance experience information (GCADs 9.4.7);
n) *implementing necessary maintenance corrective actions (GCADs 9.4.4);
o) *modification and repair requirements (GCADs 9.4.10);
p) *minimum competence level of maintenance personnel (GCADs 6.4.1);
q) requirement for flight navigator (GCADs 8.4.1(3));
r) training facilities (GCADs 9.3.3 & IS 9.3.3);
s) qualifications of instructors (GCADs 9.3.3 & IS 9.3.3);
t) need for recurrent training (GCADs 9.3.3 & IS 9.3.3);
u) use of correspondence courses and written examinations (GCADs 9.3.3 & IS 9.3.3);
v) use of flight simulation training devices (GCADs 8.10.19 & 8.10.32);
w) flight crew qualification records (GCADs 8.10.29(4));
x) designated representative of the State of the Operator (GCADs 8.10.19);
y) pilot experience, recency and training requirements for single pilot operations under the instrument flight rules (IFR)or at night (9.4.5.1 and 9.4.5.2);
z) *flight manual changes (GCADs 8.2.1.8 & 8.6.2.16);
aa) minimum number of flight attendants assigned to a specific aircraft (GCADs 9.3.7);
bb) altimetry system performance requirements for operations in RVSM airspace (Appendix 4, 1 and 2);*Single-engine operations*
cc) turbine engine reliability for approved operations by single-engine turbine-powered aeroplanes at night and/or in instrument meteorological conditions (IMC) (GCADs IS 9.1.7.3 (2)(c));
dd) systems and equipment (Appendix 3, 2);
ee) minimum equipment list (Appendix 3, 3);
ff) flight manual information (Appendix 3, 4);
gg) event reporting (Appendix 3, 5);
hh) operator planning (Appendix 3, 6);
ii) flight crew experience, training and checking (Appendix 3, 7);
jj) route limitations over water (Appendix 3, 8); and
kk) operator certification or validation (Appendix 3, 9).

ACCEPTANCE ACTIONS
Acceptance

The actual extent of the State's technical evaluation of the operator's readiness to conduct certain flight operations should be much broader than just those Standards which require or imply approval. During certification, the State should ensure that the operator will be in compliance with all requirements of Annex 6, Part I, prior to conducting international commercial air transport operations.

The concept of "acceptance" is used by some States as a formal method of ensuring that all critical aspects of operator certification are reviewed by the State prior to the formal issuance of the AOC. Using this concept, these States exercise their prerogative to have technical inspectors review all operators' policies and procedures impacting operational safety. The actual execution of an instrument to reflect this acceptance (assuming such a document is issued) may be delegated to the technical inspector assigned to the certification.

Conformance report

Some States use a conformance report to document the acceptances it makes with regard to a particular operator. This is a document submitted by the operator detailing how, with specific references to operations or maintenance manuals, it will comply with all applicable State regulations. This type of document is referenced in Doc 8335 and the *Airworthiness Manual*
(Doc 9760), Volume I, 6.2.1 c) 4). Such a conformance report should be actively used during the certification process and revised as necessary to reflect modifications required by the State in the operator's policies and procedures. Then a final conformance report is included in the State's certification records, along with other records of certification. The conformance report is an excellent method of demonstrating that the operator was properly certificated with respect to all applicable
regulatory requirements.

Operations and maintenance manuals

Operations and maintenance manuals, and any subsequent amendments should be submitted to the State (GCADs 9.3.2,
5.5.2 & 9.4.2, 9.4.4, 9.11.11, and 6.5). The State also establishes minimum contents for these manuals (GCADs 9.4.4 & IS 9.4.4, 9.4.11(4), 9.3.5 and
9.3.2). The pertinent portions of the operator's manual for evaluation should be identified in the State's technical
guidance, e.g. operations policy manual, operating manual, cabin crew manual, route guide, and training manual. Some States
issue a formal instrument accepting each manual and any subsequent amendments.

The State's technical evaluation should, in addition to ensuring that all required contents are addressed, consider if the specific policies and procedures would result in the desired outcome. For example, the specifications for the operational flight plan (GCADs 9.3.2, 9.4.4) should provide the step-by-step completion guidance necessary for compliance with GCADs 8.6.2.1concerning the content and retention of these plans.

Proven industry practices, such as an example of an actual completed operational flight plan for reference by the flight crew and dispatchers (although not a Standard), may also be required by a State's technical evaluator during certification. This aspect of the technical evaluation should be conducted by inspectors experienced in operator certification. A major consideration with respect to evaluating for proven industry practices that are aircraft-specific, equipment-specific or have limited applications is the employment of evaluators

who are currently qualified in the practice to be evaluated.

OTHER APPROVAL OR ACCEPTANCE CONSIDERATIONS

Some States provide for approval or acceptance of certain critical documents, records or procedures specified in Annex 6,Part I, although the relevant Annex 6 Standards do not require approval or acceptance by the State of the Operator. The following are some examples:
a) flight data analysis programme (GCADs 9.1.13(2));
b) method for obtaining aeronautical data (GCADs 8.6.2.2(1));
c) adequacy of the fuel and oil records (GCADs 8.6.2.13(1));
d) adequacy of flight time, flight duty and rest period records (GCADs 8.12);
e) adequacy of the aircraft maintenance log book (GCADs 8.6.2.1 a), b), and c));
f) adequacy of the load manifest (GCADs 8.6.2.1 d), e) and f));
g) adequacy of the operational plan (GCADs 8.6.2.1 (g));
h) method for obtaining weather data (GCADs 8.6.2.4 and GCADs 8.6.2.5);
i) method of compliance with carry-on baggage stowage (GCADs 8.9.2.13(14));
j) aeroplane performance operating limitations (GCADs 8.7);
k) method of obtaining and applying aerodrome obstacle data (GCADs 8.7.2.3(b));
l) adequacy of passenger information cards (GCADs 7.8);
m) procedures for long-range navigation (GCADs 7.2.1);
n) contents of the journey log book (GCADs 9.3.5); and
o) content of the security training programme (GCADs 9.5.3).

VALIDATION OF THE STANDARD OF OPERATIONS

Standard GCADs 9.1.4(4) requires that the validity of an AOC shall depend upon the operator maintaining the original certification standards (GCADs 9.1.5(4)) under the supervision of the State of the Operator. This supervision requires that a system of continued surveillance be established to ensure the required standards of operations are maintained (GCADs 9.2.1). A good starting point in the development of such a system is to require annual or semi-annual inspections, observations and tests to validate the required certification approval and acceptance actions.

AMENDMENT OF AIR OPERATOR CERTIFICATES

The certification of the operator is an ongoing process. Few operators will be satisfied over time with the initial authorizations issued with their AOC. Evolving market opportunities will cause the operator to change aircraft models and seek approval for new operational areas requiring other additional capabilities. Additional technical evaluations should be required by the State before issuing the formal written instruments approving any changes to the original AOC and other authorizations. Where possible, each request should be "bridged", using the original authorization as the foundation to determine the extent of the State's impending evaluation before issuing the formal instrument.

IS 9.1.7(2) CONTENTS OF AIR OPERATOR CERTIFICATE

The AOC and its associated operations specifications shall contain the minimum information required in paragraphs (c) and (d) respectively, in a standardised format.

The air operator certificate and its associated operations specifications shall define the operations for which an operator is authorised including specific approvals, conditions and limitations.

The AOC shall be based on the following template:

<table>
<tr><th colspan="3">AIR OPERATOR CERTIFICATE</th></tr>
<tr><td rowspan="2">[1]</td><td>[State of the Operator] [2]</td><td rowspan="2">[1]</td></tr>
<tr><td>[Issuing Authority] [3]</td></tr>
<tr><td rowspan="3">AOC#: [4]

Expiry Date: [5]</td><td>Operator Name: [6]</td><td rowspan="5">Operational Points of Contact: [10]
Contact details, at which operational management can be contacted without undue delay, are listed in_____.[11]</td></tr>
<tr><td>DBA Trading Name: [7]</td></tr>
<tr><td>Operator address: [8]</td></tr>
<tr><td rowspan="3"></td><td>Telephone: [9]</td></tr>
<tr><td>Fax:</td></tr>
<tr><td>E-mail:</td></tr>
<tr><td colspan="3">This certificate certifies that _____[12] is authorised to perform commercial air operations, as defined in the attached operations specifications, in accordance with the Operations Manual and the _____.[13]</td></tr>
<tr><td colspan="2">Date of issue[14]:</td><td>Name and Signature[15]:

Title:</td></tr>
</table>

Notes:

1. *For use of the State of the Operator.*
2. *Replace by the name of the State of the Operator.*
3. *Replace by the identification of the issuing authority of the State of the Operator.*
4. *Unique AOC number, as issued by the State of the Operator.*
5. *Date after which the AOC ceases to be valid (dd-mm-yyyy).*
6. *Replace by the operator's registered name.*
7. *Operator's trading name, if different. Insert "DBA" before the trading name (for "doing business as").*
8. *Operator's principal place of business address.*
9. *Operator's principal place of business telephone and fax details, including the country code. E-mail to be provided if available.*
10. *The contact details include the telephone and fax numbers, including the country code, and the e-mail address (if available) at which operational management can be contacted without undue delay for issues related to flight operations,*

airworthiness, flight and cabin crew competency, dangerous goods and other matters, as appropriate.

11. *Insert the controlled document, carried on board, in which the contact details are listed, with the appropriate paragraph or page reference, e.g.: "Contact details are listed in the operations manual. Gen/Basic, Chapter 1, 1.1" or "…are listed in the operations specifications, page 1" or "…are listed in an attachment to this document."*
12. *Operator's registered name.*
13. *Insertion of reference to the appropriate civil aviation Directives.*
14. *Issuance date of the AOC (dd-mm-yyyy).*
15. *Title, name and signature of the authority representative. In addition, an official stamp may be applied on the AOC (identification of the Authority).*

(4) For each aircraft model in the operator's fleet, identified by aircraft make, model and series, the following list of authorisations, conditions and limitations shall be included: the Authority's contact details, operator name and AOC number, date of issue and signature of the Authority representative, aircraft model, types and area of operations, special limitations and authorisations.

Note: If authorisations and limitations are identical for two or more models, these models may be grouped in a single list.

IS 9.1.7(3) CONTENTS OF OPERATIONS SPECIFICATIONS

(1) The operations specifications layout shall be as follows:

Note: - The Minimum Equipment List (MEL) constitutes an integral part of the Operations Manual

OPERATIONS SPECIFICATIONS

(subject to the approved conditions in the Operations Manual)

Issuing Authority Contact Details[1]

Telephone:	Fax:	E-mail:	
AOC#[2]:	Operator Name[3]:	Date[4]:	Signature:
DBA Trading Name:			
Aircraft Model[5]:			

Types of Operation: □Passengers □Cargo □Other[6]:

Area of operation[7]:

Special Limitations[8]:

Specific Approval:	Yes	No	Description 9	Remarks
Dangerous Goods	□	□		
Low Visibility Operations				
Approach and Landing	□	□	CAT[10]: ____, RVR: _____m, DH: ___ ft	
Take-off	□	□	RVR[11]: _____m	
Operational credit(s)	□	□	12	
RVSM[13] □ N/A	□	□		
EDTO[14] □N/A	□	□	Threshold time[15] : ____ minutes Maximum Diversion Time[15]: __ minutes	
AR navigation specifications for PBN Operations	□	□	**16**	16
Continuing Airworthiness			17	
EFB	□	□	**18**	
Other[19]	□	□		

1. *Telephone contact details of the Authority, including the country code. E-mail and fax to be provided if available .*
2. *Insert of associated AOC number.*
3. *Insert of the operator's registered name and the operator's trading name, if different. Insert "DBA" before the trading name (for "Doing business as").*
4. *Issuance date of the operations specifications (dd-mm-yyyy) and signature of the Authority representative.*
5. *Insert of the Commercial Aviation Safety Team (CAST)/ ICAO designation of the aircraft make, model and series, or master series, if a series has been designated (e.g. Boeing-737-3K2 or Boeing-777-232). The CAST/ICAO taxonomy is available at: http://www.intlaviationstandards.org/*
6. *Other type of transportation to be specified (e.g. emergency medical service).*

7. *Listing of geographical area(s) of authorised operation (by geographical coordinates or specific routes, flight information region or national or regional boundaries) as defined by the Authority..*
8. *List of applicable special limitations (e.g. VFR only, Day only, etc.).*
9. *List in this column the most permissive criteria for each specific approval (with appropriate criteria).*
10. *Insert the applicable precision approach category (CAT II). Insert the minimum RVR in metres and decision height in feet. One line is used per listed approach category..*
11. *Insert the approved minimum take-off RVR in metres, or the equivalent horizontal visibility if RVR is not used. One line per approval may be used if different approvals are granted..*
12. *List the airborne capabilities (i.e. automatic landing, HUD, EVS, SVS, CVS) and associated operational credit(s) granted.*
13. *Not Applicable (N/A) box may be checked only if the aircraft maximum ceiling is below FL290.*
14. *If extended diversion time operations (EDTO) specific approval does not apply based on the provisions in the GCADs, select "N/A". Otherwise a threshold time and maximum diversion time must be specified.*
15. *The threshold time and maximum diversion time may also be listed in distance (NM) as well.. Details of each particular aeroplane-engine combination for which the threshold time is established and maximum diversion time has been granted may be listed under 'remarks'. One line per approval may be used if different approvals are granted.*
16. *Performance-based Navigation (PBN): one line is used for each PBN AR navigation specification approval (e.g. RNP AR APCH), with appropriate limitations or conditions listed in the "Description" column.*
17. *Insert the name of the person/organisation, responsible for ensuring that the continuing airworthiness of the aircraft is maintained and the Directives which require the work, i.e. within the AOC directive or a specific approval (e.g. EC2042/2003, Part M, Subpart G)..*
18. *List the EFB functions used for the safe operation of aircraft and any applicable limitations.*
19. *Other authorizations or data can be entered here, using one line (or one multi-line block) per authorization (e.g. special approach authorization (e.g. special approach authorization, , approved navigation performance).*

(2) The operations specifications may include other specific authorisation, such as:

(a) Special aerodrome operations (e.g. short take-off and landing operations or land and hold short operations);

(b) Special approach procedures (e.g. steep gradient approach, instrument landing system precision runway monitor approach, localizer-type directional aid precision runway monitor approach, RNP approach, etc.);

(c) Single-engine passenger transport at night or in instrument meteorological (IMC) conditions;

(d) Operations in areas with special procedures (e.g. operations in areas using different altimetry units or altimeter setting procedures).

IS: 9.2.2.2 MANAGEMENT PERSONNEL REQUIRED FOR COMMERCIAL AIR TRANSPORT OPERATIONS

(1) Each AOC holder shall make arrangements to ensure continuity of supervision if operations are conducted in the absence of any required management personnel.

(2) Required management personnel shall be contracted to work sufficient hours such that the management functions are fulfilled.

(3) A person serving in a required management position for an AOC holder may not serve in a required management position for any other AOC holder, unless a deviation is issued by the Authority.

(4) A minimum initial qualifications for a Director of Operations are –

(a) An ATP license, and

(b) 3 years' experience as PIC in commercial air transport operations –

(i) Of large aircraft if the AOC holder operates large aircraft, or

(ii) Of either large or small aircraft if the AOC holder operates only small aircraft.

(5) The minimum qualifications for a Chief Pilot are-

(a) An ATP license with the appropriate ratings for at least one of the aircraft used in the AOC holder's operations; and

(b) 3 years experience as PIC in commercial air transport operations –

(i) Of large aircraft if the AOC holder operates large aircraft, or

(ii) Of either large or small aircraft if the AOC holder operates only small aircraft.

Note: The Authority may accept a commercial pilot license with instrument rating in lieu of the ATP license if the PIC requirements for the operations conducted require only a commercial certificate.

(6) The minimum entry qualifications for a Director of Maintenance are-

(a) Be qualified in accordance with Part 2,2.5;

(b) 3 years experience in maintaining the same category and class of aircraft used by the AOC holder including 1 year in the capacity of returning aircraft to service; and

(c) 1 year supervisory experience maintaining the same category and class of aircraft used by the AOC holder.

(7) An AOC holder may employ a person who does not meet the appropriate airman qualification or experience if the Authority issues a deviation finding that person has comparable experience and can effectively perform the required management functions.

IS: 9.2.2.3 QUALITY SYSTEM

(a) In order to show compliance with 9.2.2.3, an AOC holder shall establish its quality system in accordance with the instruction and information contained in the following paragraphs.

General.

1.1 Terminology.

The terms used in the context of the requirement for an AOC's quality system have the following meaning:

(a) Accountable Manager. The person acceptable to the Authority who has corporate authority for ensuring that all operations and maintenance activities can be financed and carried out to the standard required by the Authority, and any additional requirements defined by the operator.

(b) Quality assurance. Quality assurance, as distinguished from quality control, involves activities in the business, systems, and technical audit areas. A set of predetermined, systemic actions which are required to provide adequate confidence that a product or service satisfies quality requirements.

1.2 Quality Policy.

1.2.1 An operator shall establish a formal, written quality policy statement that is a commitment by the Accountable Manager as to what the quality system is intended to achieve. The quality policy should reflect the achievement and continued compliance with these Directives together with any additional standards specified by the operator.

1.2.2 The Accountable Manager is an essential part of the operator's management organisation. With regard to the text in 9.2.2.2(1), the term "accountable manager" is intended to mean the Chief Executive/President/Managing Director/ General Manager, etc. of the operator's organisation, who by virtue of his or her position has overall responsibility (including financial) for managing the organisation.

1.2.3 The Accountable Manager will have overall responsibility for the operator's quality system, including the frequency, format and structure of the internal management evaluation activities as prescribed in paragraph 3.9 below.

1.3 Purpose of the Quality System.

1.3.1 The quality system should enable the operator to monitor compliance with these Flight Standards Directives, the operator's manual system, and any other standards specified by the operator, or the Authority, to ensure safe operations and airworthy aircraft.

1.4 Quality Manager.

1.4.1 The function of the Quality Manager to monitor compliance with, and the adequacy of, procedures required to ensure safe operational practices and airworthy aircraft as required by these Flight Standards Directives may be carried out by more than one person by means of different, but complementary, quality assurance programmes.

1.4.2 The primary role of the Quality Manager is to verify, by monitoring activity in the fields of flight operations, maintenance, crew training and ground operations, that the standards required by the Authority, and any additional requirements defined by the operator, are being carried out under the supervision of the relevant required management personnel.

1.4.3 The Quality Manager should be responsible for ensuring that the quality assurance programme is properly established, implemented and maintained.

1.4.4 The Quality Manager should:

(1) report to the Accountable Manager;

(2) not be one of the required management personnel; and

(3) have access to all parts of the operator's, and as necessary, any sub-contractor's organisation.

1.4.5 In the case of small or very small operators, the posts of the Accountable Manager and Quality Manager may be combined.

2.0 Quality System.

2.1 Introduction.

2.1.1 The operator's quality system should ensure compliance with and adequacy of operational and maintenance activities requirements, standards, and operational procedures.

2.1.2 The operator should specify the basic structure of the quality system applicable to the operation.

2.1.3 The quality system should be structured according to the size and complexity of the operation to be monitored.

2.2 Scope.

2.2.1 As a minimum, the quality system should address the following:

(1) The provisions of these Flight Standards Directives;

(2) The operator's additional standards and operating practices;

(3) The operator's quality policy;

(4) The operator's organisational structure;

(5) Responsibility for the development, establishment and management of the quality system;

(6) Documentation, including manuals, reports and records;

(7) Quality procedures;

(8) Quality assurance programme;

(9) The required financial, material and human resources;

(10) Training requirements.

(11) Safety management system programme;

2.2.2 The quality system should include a feedback system to the accountable manager to ensure that corrective actions are both identified and promptly addressed. The feedback system should also specify who is required to rectify discrepancies and non-compliance in each particular case, and the procedure to be followed if corrective action is not completed within an appropriate timescale.

2.3 Relevant Documentation.

2.3.1 Relevant documentation includes the relevant part of the operator's manual system.

2.3.2 In addition, relevant document should include the following:

(1) Quality policy;

(2) Terminology;

(3) Specified operational standards;

(4) A description of the organisation;

(5) The allocation of duties and responsibilities;

(6) Operational procedures to ensure regulatory compliance;

(7) The quality assurance programme, reflecting:

(a) Schedule of the monitoring process;

(b) Audit procedures;
(c) Reporting procedures;
(d) Follow-up and corrective action procedures;
(e) Recording system;
(f) The training syllabus; and
(g) Document control

3.0 Quality Assurance Programme.

3.1 Introduction.

3.1.1 The quality assurance programme should include all planned and systematic actions necessary to provide confidence that all operations and maintenance are conducted in accordance with all applicable requirements, standards and operational procedures.

3.1.2 When establishing a quality assurance programme, consideration should be given to at least the following:

(1) Quality inspection;
(2) Audit;
(3) Auditors;
(4) Auditor's independence
(5) Audit scope;
(6) Audit scheduling;
(7) Monitoring and corrective action;
(8) Management evaluation.

3.2 Quality Inspection.

3.2.1 The primary purpose of a quality inspection is to observe a particular event or action or document, etc. in order to verify whether established operational procedures and requirements are followed during the accomplishment of that event and whether the required standard is achieved.

3.2.2 Typical subject areas for quality inspections are:
(1) Actual flight operations;
(2) Ground deicing or anti-icing;
(3) Flight support services;
(4) Load control;
(5) Maintenance;
(6) Technical standards; and
(7) Training standards.

3.2.3 Typical methods for quality inspections for maintenance include:
(1) Product sampling - the part inspection of a representative sample of the aircraft fleet;
(2) Defect sampling - the monitoring of defect rectification performance;
(3) Concession sampling - the monitoring of any concession to not carry out maintenance on time;
(4) On time maintenance sampling - the monitoring of when (flying hours/calendar time/flight cycles, etc.) aircraft and their components are brought in for maintenance;

Sample reports of unairworthy conditions and maintenance errors on aircraft and components

3.3 Audit.

3.3.1 An audit is a systematic and independent comparison of the way in which an operation is being conducted against the way in which the published operational procedures say it should be conducted.

3.3.2 Audits should include at least the following quality procedures and processes:

(1) A statement explaining the scope of the audit;
(2) Planning and preparation;
(3) Gathering and recording evidence; and
(4) Analysis of the evidence.

3.3.3 Techniques that contribute to an effective audit are:

(1) Interviews or discussions with personnel;
(2) A review of published documents;
(3) The examination of an adequate sample of records;
(4) The witnessing of the activities that make up the operation; and
(5) The preservation of documents and the recording of observations.

3.4. Auditors.

3.4.1 An operator should decide, depending upon the complexity of the operations, whether to make use of a dedicated audit team or a single auditor. In any event, the auditor or audit team should have relevant operational and/or maintenance experience.

3.4.2 The responsibilities of the auditors should be clearly defined in the relevant documentation.

3.5 Auditor's Independence.

3.5.1 Auditors should not have any day-to-day involvement in the area of the operation and or maintenance activity that is to be audited. An operator may, in addition to using the services of full-time dedicated personnel belonging to a separate quality department, undertake the monitoring of specific areas or activities by the use of part-time auditors. An operator whose structure and size does not justify the establishment of full-time auditors, may undertake the audit function by the use of part-time personnel from within its own organisation or from an external source under the terms of an agreement acceptable to the Authority. In all cases the operator should develop suitable procedures to ensure that persons directly responsible for the activities to be audited are not selected as part of the auditing team. Where external auditors are used, it is essential that any external specialist is familiar with the type of operation and or maintenance conducted by the operator.

3.5.2 The operator's quality assurance programme should identify the persons within the company who have the experience, responsibility and authority to:

(1) Perform quality inspections and audits as part of ongoing quality assurance;
(2) Identify and record any concerns or findings, and the evidence necessary to substantiate such concerns or findings;
(3) Initiate or recommend solutions to concerns or findings through designated reporting channels;
(4) Verify the implementation of solutions within specific timescales;
(5) Report directly to the quality manager.

3.6 Audit Scope.

3.6.1 Operators are required to monitor compliance with the operational and maintenance procedures they have designed to ensure safe operations, airworthy aircraft and the serviceability of both operational and safety equipment. In doing so they should as a minimum, and where appropriate, monitor:

(1) Organisation;

(2) Plans and company objectives;
(3) Operational procedures;
(4) Flight safety;
(5) Operator certification (AOC/Operations specifications)
(6) Supervision;
(7) Aircraft performance;
(8) All weather operations;
(9) Communications and navigational equipment and practices;
(10) Mass, balance and aircraft loading;
(11) Instruments and safety equipment;
(12) Manuals, logs, and records;
(13) Flight and duty time limitations, rest requirements, and scheduling;
(14) Aircraft maintenance/operations interface;
(15) Use of the MEL;
(16) Maintenance programmes and continued airworthiness;
(17) Airworthiness directives management;
(18) Maintenance accomplishment;
(19) Defect deferral;
(20) Flight crew;
(21) Cabin crew;
(22) Dangerous goods;
(23) Security;
(24) Training.

3.7 Audit Scheduling.

3.7.1 A quality assurance programme should include a defined audit schedule and a periodic review cycle area by area. The schedule should be flexible, and allow unscheduled audits when trends are identified. Follow-up audits should be scheduled when necessary to verify that corrective action was carried out and that it was effective.

3.7.2 An operator should establish a schedule of audits to be completed during a specified calendar period. All aspects of the operation should be reviewed within every 12 month period in accordance with the programme unless an extension to the audit period is accepted as explained below. An operator may increase the frequency of audits at its discretion but should not decrease the frequency without the agreement of the Authority. Audit frequency should not be decreased beyond a 24 month period interval.

3.7.3 When an operator defines the audit schedule, significant changes to the management, organisation, operation, or technologies should be considered as well as changes to the regulatory requirements.

3.8 Monitoring and Corrective Action.

3.8.1 The aim of monitoring within the quality system is primarily to investigate and judge its effectiveness and thereby to ensure that defined policy, operational, and maintenance standards are continuously complied with. Monitoring activity is based upon quality inspections, audits, corrective action and follow-up. The operator should establish and publish a quality procedure to monitor regulatory compliance on a continuing basis. This monitoring activity should be aimed at eliminating the causes of unsatisfactory performance.

3.8.2. Any non-compliance identified as a result of monitoring should be communicated to the manager responsible for taking corrective action or, if appropriate, the accountable manager. Such non-compliance should be recorded, for the purpose of further investigation, in order to determine the cause and to enable the recommendation of appropriate corrective action.

3.8.3 The quality assurance programme should include procedures to ensure that corrective actions are taken in response to findings. These quality procedures should monitor such actions to verify their effectiveness and that they have been completed. Organisational responsibility and accountability for the implementation of corrective action resides with the department cited in the report identifying the finding. The accountable manager will have the ultimate responsibility for resourcing the corrective active action and ensuring, through the quality manager, that the corrective action has re-established compliance with the standard required by the Authority, and any additional requirements defined by the operator.

3.8.4 Corrective action. Subsequent to the quality inspection/audit, the operator should establish:

(1) The seriousness of any findings and any need for immediate corrective action;
(2) The origin of the finding;
(3) What corrective actions are required to ensure that the non-compliance does not recur;
(4) A schedule for corrective action;
(5) The identification of individuals or departments responsible for implementing corrective action;
(6) Allocation of resources by the accountable manager, where appropriate.

3.8.5 The quality manager should:

(1) Verify that corrective action is taken by the manager responsible in response to any finding of non-compliance;
(2) Verify the corrective action includes the elements outlined in paragraph 3.8.4 above;
(3) Monitor the implementation and completion of corrective action'
(4) Provide management with an independent assessment of corrective action; implementation and completion;
(5) Evaluate the effectiveness of corrective action through follow-up process.

3.9 Management Evaluation.

3.9.1 A management evaluation is a comprehensive, systematic, documented review by the management of the quality system, operational policies and procedures, and should consider:

(1) The results of quality inspections, audits and any other indicators;
(2) The overall effectiveness of the management organisation in achieving stated objectives.

3.9.2 A management should identify and correct trends, and prevent, where possible, future non-conformities. Conclusions and recommendations made as a result of an evaluation should be submitted in writing to the responsible manager for action. The responsible manager should be an individual who has the authority to resolve issues and take action.

3.9.3 The accountable manager should decide upon the frequency, format and structure of internal management evaluation activities.

3.10 Recording.

3.10.1 Accurate, complete and readily accessible records documenting the results of the quality assurance programme should be maintained by the operator. Records are essential data to enable an operator to analyse and determine the root causes of non-conformity, so that areas of non-compliance can be identified and addressed.

3.10.2 The following records should be retained for a period of 5 years:

(1) Audit schedules;
(2) Quality inspection and audit reports;
(3) Responses to findings;
(4) Corrective action reports;

(5) Follow-up and closure reports; and

(6) Management evaluation reports.

4.0 Quality Assurance Responsibility for Sub-Contractors.

4.1 Sub-Contractors.

4.1.1 Operators may decide to sub-contract out certain activities to external agencies for the provision of services related to areas such as:

(1) Ground deicing or anti-icing;

(2) Maintenance;

(3) Ground handling;

(4) Flight support (including performance calculations, flight planning, navigation database and dispatch);

(5) Training;

(6) Manual preparation.

4.1.2 The ultimate responsibility for the product or service provided by the sub-contractor always remains with the operator. A written agreement should exist between the operator and the sub-contractor clearly defining the safety related services and quality to be provided. The sub-contractor's safety related activities relevant to the agreement should be included in the operator's quality assurance programme.

4.1.3 The operator should ensure that the sub-contractor has the necessary authorisation or approval when required and commands the resources and competence to undertake the task.

5.0. Quality System Training.

5.1 General.

5.1.1 An operator should establish effective, well planned and resourced quality related briefing for all personnel.

5.1.2 Those responsible for managing the quality system should receive training covering:

(1) An introduction to the concept of the quality system;

(2) Quality management;

(3) The concept of quality assurance;

(4) Quality manuals;

(5) Audit techniques;

(6) Reporting and recording; and

(7) The way in which the quality system will function in the company.

5.1.3 Time should be provided to train every individual involved in quality management and for briefing the remainder of the employees. The allocation of time and resources should be governed by the size and complexity of the operation concerned.

5.2 Sources of Training.

5.2.1 Quality management courses are available from the various National or International Standards Institutions, and an operator should consider whether to offer such courses to those likely to be involved in the management of quality systems. Operators with sufficient appropriately qualified staff should consider whether to carry out in-house training.

6.0 Organisations with 20 or Less Full-Time Employees.

6.1 Introduction.

6.1.1 The requirements to establish and document a quality system and to employ a quality manager apply to all operators. References to large and small operators elsewhere in these Flight Standards Directives are governed by aircraft capacity (i.e. more or less than 20 seats) and by mass (i.e. greater or less than 10 tonnes maximum take-off mass). Such terminology is not relevant when considering the scale of an operation and the quality system required. In the context of quality systems therefore, operators should be categorised according to the number of full time staff employees.

6.2 Scale of Operation.

6.2.1 Operators who employ 5 or less full time staff are considered to be "very small" while those employing between 6 and 20 full time employees are regarded as "small" operators as far as quality systems are concerned. Full-time in this context means employed for not less than 35 hours per week excluding vacation periods.

6.2.2 Complex quality systems could be inappropriate for small or very small operators and the clerical effort required to draw up manuals and quality procedures for a complex system may stretch their resources. It is therefore accepted that such operators should tailor their quality systems to suit the size and complexity of their operation and allocate resources accordingly.

6.3 Quality System for Small/Very Small Operators.

6.3.1 For small and very small operators it may be appropriate to develop a quality assurance programme that employs a checklist. The checklist should have a supporting schedule that requires completion of all checklist items within a specified timescale, together with a statement acknowledging completion of a periodic review by top management. An occasional independent overview of the checklist content and achievement of the quality assurance should be undertaken.

6.3.2 The "small" operator may decide to use internal or external auditors or a combination of the two. In these circumstances it would be acceptable for external specialists and or qualified organisations to perform the quality audits on behalf of the quality manager.

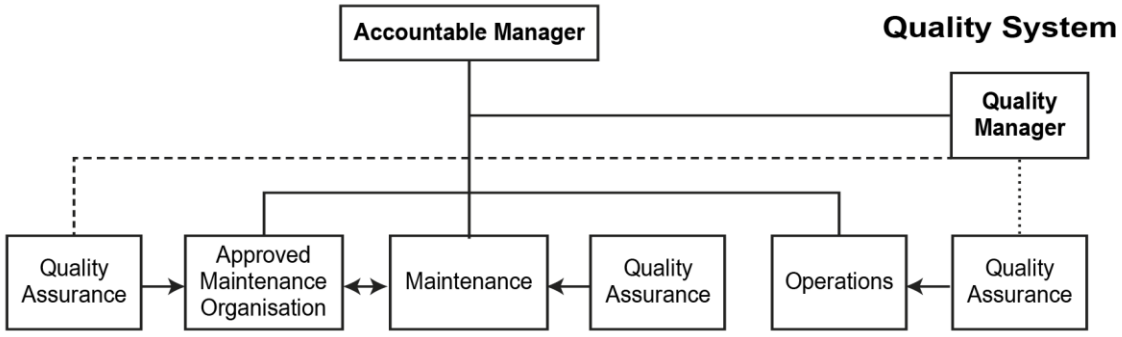
6.3.3 If the independent quality audit function is being conducted by external auditors, the audit schedule should be shown in the relevant documentation.

6.3.4 Whatever arrangements are made, the operator retains the ultimate responsibility for the quality system and especially the completion and follow-up of corrective actions.

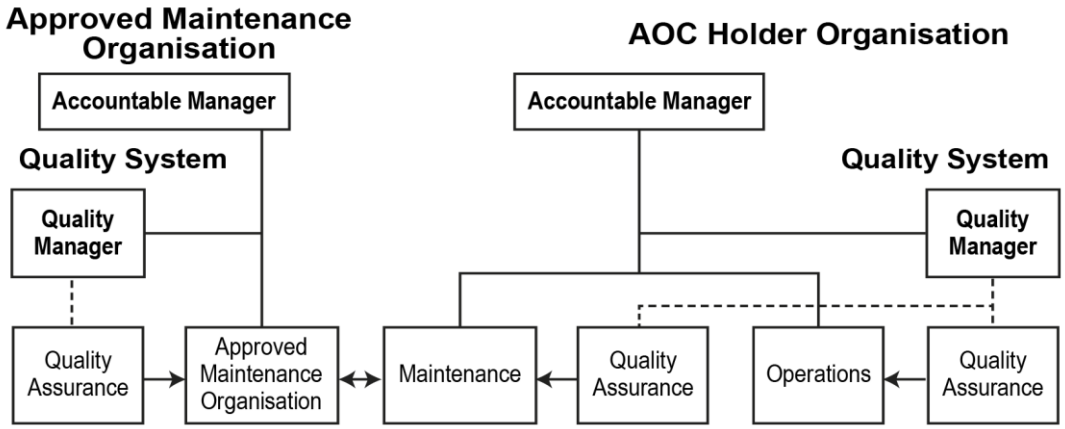
Quality System —Organisation Examples

(1) The following diagrams illustrate two typical examples of Quality organisations.

(a) Quality System within the AOC holder's organisation when the AOC holder also holds an approval for maintenance



(b) Quality Systems related to an AOC holder's organisation where aircraft maintenance is contracted out to an approved organisation which is not integrated with the AOC holder.



Note: The Quality System and Quality Audit Programme of the AOC holder should assure that the maintenance carried out by the approved organisation is in accordance with requirements specified by the AOC holder.

IS: 9.2.2.5 RETENTION OF RECORDS

An operator shall ensure that the following information or documentation is retained for the periods shown in the table below.

Table of Record Retention

Flight Crew Records	
Flight, duty and rest time	2 years
Licence and medical certificate	Until 12 months after the flight crew member has left the employ of the operator
Ground and flight training (all types)	Until 12 months after the flight crew member has left the employ of the operator
Route and aerodrome/heliport qualification training	Until 12 months after the flight crew member has left the employ of the operator
Dangerous goods training	Until 12 months after the flight crew member has left the employ of the operator
Security training	Until 12 months after the flight crew member has left the employ of the operator
Proficiency and qualification checks (all types)	Until 12 months after the flight crew member has left the employ of the operator
Cabin Crew Records	
Flight, duty and rest time	2 years
Licence, if applicable	Until 12 months after the cabin crew member has left the employ of the operator
Ground and flight training (all types) and qualification checks	Until 12 months after the cabin crew member has left the employ of the operator
Dangerous good training	Until 12 months after the cabin crew member has left the employ of the operator
Security training	Until 12 months after the cabin crew member has left the employ of the operator
Competency checks	Until 12 months after the cabin crew member has left the employ of the operator
Records for other AOC Personnel	
Training/qualification of other personnel for whom an approved training programme is required in these Directives	Until 12 months after the employee has left the employ of the operator
Licence, if required, and medical certificate if required	Until 12 months after the employee has left the employ of the operator
Proficiency or competency checks, if required	Until 12 months after the employee has left the employ of the operator
Flight Preparation Forms	
Completed load manifest	3 months after the completion of the flight

Table of Record Retention

Mass and balance reports	3 months after the completion of the flight
Dispatch releases	3 months after the completion of the flight
Flight plans	3 months after the completion of the flight
Passenger manifests	3 months after the completion of the flight
Weather reports	3 months after the completion of the flight
Flight Recorder Records	
Cockpit voice recordings	Preserved after an accident or incident for 60 days or longer if requested by the Authority
Flight data recordings	Preserved after an accident or incident for 60 days or longer if requested by the Authority
Aircraft Technical Logbook	
Journey records section	2 years
Maintenance records section	2 years
Maintenance Records of the Aircraft	
Total time in service (hours, calendar time and cycles, as appropriate) of the aircraft and all life-limited components	3 months after the unit to which they refer has been permanently withdrawn from service
Current status of compliance with all mandatory continuing airworthiness information	3 months after the unit to which they refer has been permanently withdrawn from service
Appropriate details of modifications and repairs to the aircraft and its components	3 months after the unit to which they refer has been permanently withdrawn from service
Total time in service (hours, calendar time and cycles, as appropriate) since the last overhaul of the aircraft or its components subject to a mandatory overhaul life	3 months after the unit to which they refer has been permanently withdrawn from service
The detailed maintenance records to show all requirements for a maintenance release have been met	1 year after signing of the maintenance release
Other Records	
Operational flight plan	3 months after the completion of the flight
Quality system records	5 years
Dangerous goods transport document	6 months after the completion of the flight
Dangerous goods acceptance checklist	6 months after the completion of the flight
Records on cosmic and solar radiation dosage, if AOC holder operates aircraft that fly above 15 000 m (49 000 ft)	Until 12 months after the crew member has left the employ of the AOC holder

Note: See 9.3.5 for details of the journey records section and 9.4.8 for details of the maintenance records section of the aircraft technical log.

IS: 9.2.2.8 AIRCRAFT TECHNICAL LOG

The following are two examples of an aircraft technical log:

Name of the Operator[1] Address of the operator	**Flight Log**[2]	Name of Commander:	Registration:	Sheet No[3]:
	Commander's Signature[4]:	Name and duty of other Crew Member(s):	Aeroplane Type:	Date:

FLIGHT[5]				**CHECK**	**BLOCK TIME**			**AIRBORNE TIME**			**LOAD**		**FUEL ON BOARD**		
Nature of Flight:[6]	From:	To	No. of Ldg.: [7]	Flight Preparation:[8]	Off:	On:	Time:	Take-off:	Ldg:	Time:	No. of Pax/Cargo (kg/lbs):	Take-off mass (kg/lbs):	Uplift:	Take-off[9] (ltrs/kg/lbs):	Ldg:

FLIGHT DATA **BLOCK TIME** REPORT			**INCIDENTS/OCCURRENCES/OBSERVATIONS REPORT/DEFECTS NOTED**[10]
	Block Time:	Landings:	Mark type of report: Operation/Technical/Other[11]. Also note any de-/anti-icing as instructed[12]
Total per Day:			
Total Previous Report:			
Total to Report:			

FLIGHT DATA **FLIGHT TIME** REPORT			**CERTIFICATE OF RELEASE TO SERVICE**	**ACTIONS TAKEN**[13]
	Flight Time:	Next Maintenance Due:	Name of certifying staff & GCAD approval reference (if applicable)	
Total this sheet:		Hours	Certifies that the work specified except as otherwise specified was carried out in accordance with JAR-145 and in respect to that work the aeroplane/aeroplane component is considered ready for release to service.	
Total from previous sheet:		Landings	Signature	
Total to Report:		Date		

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1 *Operator's name and address pre-printed or filled in by hand*
2 *Must be filled for*

- *Each day; and*
- *Each flight crew*

[3] *Sheet number (e.g. yy-nn) must be pre-printed or printed by hand. All sheets must be identifiable and numbered according to a continuous system that offers the same security when hand printed as when pre-printed.*

[4] *The commander's signature states that everything on this sheet is correct*

[5] *For flights from A to A, a summary entry may be made. All other flights such as A to B etc., for each flight an entry must be made.*

[6] *Such as Private, Commercial, Technical, Training, Sailplane towing, etc.*

[7] *Number of landings if summary entry*

[8] *Flight Preparation according to the Operations Manual (commander's initials) state that"*

1. *Weight and Balance is within Limit*
2. *Pre-flight check is done*
3. *Technical status is checked and aircraft accepted by the commander*
4. *Passengers manifest/ documentation performed*

[9] *Total Fuel on board (state the units unless pre-printed)*

[10] *Incidents/ Occurrences/ Observations Report (Operation, Technical, Others):*

- *If no report needs to be made state "-NIL-"*
- *If a report must be made state (mark) the type of report*

[11] *Number each observation sequentially for each log sheet*

[12] *If de- or anti-icing has been applied, state time and amount and kind of fluid applied or other action take, e.g. mechanical removal of snow or ice, if oil has been filled, state the time and amount*

[13] *Use the same number as the corresponding observation to link report and response.*

Address of Operator:	Date:	CREW	LOAD	OIL	GROUND DEICING	Sheet Number 00000001
	Aeroplane Type: Registration:	Name of Commander: _____ Name and duty of crew member _____	No. of Pax: _____ Mass (kg/lbs) Cargo:_____ Take-off:_____	Engine 1 / Engine 2 Refilled: _____/_____ Total: _____/_____	Type of fluid: _____ Mixture: _____ **Time of Deicing** Commenced: _____ Finished: _____	Last release: _____ Total aeroplane hours: _____ Total aeroplane landing: _____ **Next Maintenance Due:** In hours: _____ In landing: _____

FLIGHT				PRE-FLIGHT	BLOCK TIME		AIRBORNE TIME			FUEL ON BOARD (LTRS/KG/LBS)				
Flight Nb:	From:	To:	No. of Ldg:	Name/Signature:	Off:	On:	Time:	Take-off:	Ldg:	Time:	Uplift:	Take-off:	Ldg:	

Defects	Signature	Actions Taken	AMO Release to Service
00000001-1		**PN:** **sn off:** **sn on:**	Agreement number: Date: Place: Time: Name: Signature:
00000001-2		**PN:** **sn off:** **sn on:**	Agreement number: Date: Place: Time: Name: Signature:
00000001-3		**PN:** **sn off:** **sn on:**	Agreement number: Date: Place: Time: Name: Signature:
MEL DEFERRED DEFECT Item MEL Open Date Category Limit Date _____ _____	Captain's Acceptance	Daily Check/Maintenance done:	Agreement number: Date: Place: Time: Name: Signature:

JAR OPS 1: Attachment 1 to ACJ to Appendix 1 to JAR-OPS 1.005(a)

IS: 9.2.2.11 FLIGHT SAFETY DOCUMENTS SYSTEM

The following outline addresses the major elements of an operator's flight safety documents system development process, with the aim of ensuring compliance with these Directives.

1. 0 Organisation

1.1 A flight safety documents system shall be organised according to criteria, which ensure easy access to information, required for flight and ground operations contained in the various operational documents comprising the system and which facilitate management of the distribution and revision of operational documents.

1.2 Information contained in a flight safety documents system shall be grouped according to the importance and use of the information, as follows:

Time critical information, e.g., information that can jeopardise the safety of the operation if not immediately available;

Time sensitive information, e.g., information that can affect the level of safety or delay the operation if not available in a short time period;

Frequently used information;

Reference information, e.g., information that is required for the operation but does not fall under b) or c) above; and

Information that can be grouped based on the phase of operation in which it is used.

1.3 Time critical information shall be placed early and prominently in the flight safety documents system.

1.4 Time critical information, time sensitive information, and frequently used information shall be placed in cards and quick-reference guides

2.0 Validation.

A flight safety documents system shall be validated before deployment, under realistic conditions. Validation shall involve the critical aspects of the information use, in order to verify its effectiveness. Interactions among all groups that can occur during operations shall also be included in the validation process.

3.0 Design

3.1 A flight safety documents system shall maintain consistency in terminology and in the use of standard terms for common items and actions.

3.2 Operational documents shall include a glossary of terms, acronyms and their standard definition, updated on a regular basis to ensure access to the most recent terminology. All significant terms, acronyms and abbreviations included in the flight documents system shall be defined.

3.3 A flight safety documents system shall ensure standardisation across document types, including writing style, terminology, use of graphics and symbols, and formatting across documents. This includes a consistent location of specific types of information, consistent use of units of measurement and consistent use of codes.

3.4 A flight safety documents system shall include a master index to locate, in a timely manner, information included in more than one operational document.

Note: The master index must be placed in the front of each document and consist of no more than three levels of indexing. Pages containing abnormal and emergency information must be tabbed for direct access.

3.5 A flight safety documents system shall comply with the requirements of the operator's quality system, if applicable.

4.0 Deployment.

Operators shall monitor deployment of the flight safety documents system, to ensure appropriate and realistic use of the documents, based on the characteristics of the operational environment and in a way which is both operationally relevant and beneficial to operational personnel. This monitoring shall include a formal feedback system for obtaining input from operational personnel.

5.0 Amendment.

5.1 Operators shall develop an information gathering, review, distribution and revision control system to process information and data obtained from all sources relevant to the type of operation conducted, including, but not limited to, the State of the Operator, State of design, State of Registry, manufacturers and equipment vendors.

Note: Manufacturers provide information for the operation of specific aircraft that emphasises the aircraft systems and procedures under conditions that may not fully match the requirements of operators. Operators shall ensure that such information meets their specific needs and those of the local authority.

5.2 Operators shall develop an information gathering, review and distribution system to process information resulting from changes that originate within the operator, including:

Changes resulting from the installation of new equipment;

Changes in response to operating experience;

Changes in an operator's policies and procedures;

Changes in an operator certificate; and

Changes for purposes of maintaining cross fleet standardisation.

Note: Operators shall ensure that crew coordination philosophy, policies and procedures are specific to their operation.

5.3 A flight safety documents system shall be reviewed:

on a regular basis (at least once a year);

after major events (mergers, acquisitions, rapid growth, downsizing, etc.);

after technology changes (introduction of new equipment); and

after changes in Flight Standards Directives.

5.4 Operators shall develop methods of communicating new information. The specific methods shall be responsive to the degree of communication urgency.

Note: As frequent changes diminish the importance of new or modified procedures, it is desirable to minimise changes to the flight safety documents system.

5.5 New information shall be reviewed and validated considering its effects on the entire flight safety documents system.

5.6 The method of communicating new information shall be complemented by a tracking system to ensure currency by operational personnel. The tracking system shall include a procedure to verify that operational personnel have the most recent updates.

IS: 9.2.3.2 DRY LEASING OF FOREIGN REGISTERED AIRCRAFT

(1) An AOC holder may dry lease an aircraft for the purpose of commercial air transportation to any AOC holder of a State which is signatory to the Chicago Convention provided that the following conditions are met:

(a) The aircraft carries an appropriate airworthiness certificate issued, in accordance with ICAO Annex 8, by the country of registration and meets the registration and identification requirements of that country.

(b) The aircraft is of a type design which complies with all of the requirements that would be applicable to that aircraft were it registered in Ghana, including the requirements which shall be met for issuance of a Ghana standard airworthiness certificate (including type design conformity, condition for safe operation, and the noise, fuel venting, and engine emission requirements).

(c) The aircraft is maintained according to an approved maintenance program.

(d) The aircraft is operated by Ghana certified airmen employed by the AOC holder.

(2) Each AOC holder shall provide the Authority with a copy of the dry lease to be executed.

(3) Operational control of any dry leased aircraft rests with the AOC holder operating that aircraft.

(4) The Authority will remove a dry leased aircraft from the lessors AOC holder's operations specifications and list it on the foreign AOC lessee's operations specifications.

(5) Each AOC holder engaged in dry leasing aircraft shall make the dry lease agreement explicit concerning the maintenance programme and MEL to be followed during the term of the dry lease.

(6) For dry leased aircraft, the responsibility for airworthiness of the aircraft and the performance of maintenance, and signing of maintenance release shall remain with

the lessor unless otherwise specified in the lease arrangement or the operator/lessee State has registered the aircraft under terms agreed upon.

(7) Where an aircraft is operated under a dry lease arrangement from the State of Registry to another State (the State of the Operator) and the registration is not changed, the applicant shall provide the authority with the following information:

(a) The aircraft type and serial number;
(b) The name and address of the registered owner;
(c) State of Registry nationality and registration marks;
(d) Certificate of Airworthiness and statement from the registered owner that the aircraft fully complies with the airworthiness requirements of the State of Registry;
(e) name, address and signature of the lessee or person responsible for operational control of the aircraft under the lease agreement, including a statement that such individual and the parties to the lease agreement fully understand their respective responsibilities under the applicable Directives.

IS: 9.2.3.3 AIRCRAFT INTERCHANGE

(1) Before operating under an interchange agreement, each AOC holder shall show that-

(a) The procedures for the interchange operation conform with safe operating practices;

(b) Required crew members and flight operations officers meet approved training requirements for the aircraft and equipment to be used and are familiar with the communications and dispatch procedures to be used;

(c) Maintenance personnel meet training requirements for the aircraft and equipment, and are familiar with the maintenance procedures to be used;

(d) Flight crew members and flight operations officers meet appropriate route and airport qualifications;

(e) The aircraft to be operated are essentially similar to the aircraft of the AOC holder with whom the interchange is effected; and

(f) The arrangement of flight instruments and controls that are critical to safety are essentially similar, unless the authority determines that the AOC holder has adequate training programmes to ensure that any potentially hazardous dissimilarities are safely overcome by flight crew familiarisation,

(2) Each AOC holder conducting an interchange agreement shall include the pertinent provisions and procedures of the agreement in its manuals.

(3) The AOC holder shall amend their operations specifications to reflect an interchange agreement.

(4) The AOC holder shall comply with the applicable regulations of the State of Registry of an aircraft involved in an interchange agreement while it has operational control of that aircraft

IS: 9.2.3.4 WET LEASING

(1) Each AOC holder shall provide the Authority with a copy of the wet lease to be executed.

(2) The Authority shall determine which party to a wet lease agreement has operational control considering the extent and control of certain operation functions such as:

(a) Initiating and terminating flights.

(b) Maintenance and servicing of aircraft.

(c) Scheduling crewmembers

(d) Paying crewmembers

(e) Training crewmembers.

(3) Each AOC holder engaged in a wet leasing arrangement shall amend its operations specifications to contain the following information:

(a) The names of the parties to the agreement and the duration of the agreement.

(b) The make, model and series of each aircraft involved in the agreement

(c) The kind of operation

(d) The expiration date of the lease agreement

(e) A statement specifying the party deemed to have operational control.

(f) Any other item, condition, or limitation the Authority determines necessary

IS: 9.2.3.5 DAMP LEASING

(1) A damp lease involves a wet lease aircraft as described in IS: 9.2.3.4 where the aircraft shall be operated on the lessor's AOC with flight crew. However, all or part cabin crew shall be provided by the lessee.

(2) Under these arrangements, the responsibility for the airworthiness of the aircraft, the performance of maintenance, and signing of maintenance release shall remain with the lessor unless otherwise specified in the agreement. The airworthiness requirements for approval shall remain identical to that of a wet lease as stated in IS: 9.2.3.4.

IS: 9.2.3.6 DURATION FOR LEASES

The duration of a lease shall be specified in the lease agreement and shall be in accordance with IS: 9.2.3.6.

Scenario	Duration	Max. No. of leased aircraft
Wet/Damp Lease-In	6 months, subject to a one time extension of an additional 6 months.	To comply with **item IS 9.2.3.6(b)**
Dry Lease-In (foreign registration)	12 months.	To comply with **item IS 9.2.3.6(b)**
Wet/Damp Lease-Out	6 months.	To comply with **item IS 9.2.3.6(b)**
Dry Lease-Out (Ghana registration)	6 months, subject to a one-time only extension of an additional 6 months.	To comply with **item IS 9.2.3.6(b)**
Intra-State Wet/Damp Lease	12 months, subject to a one-time only extension of an additional 12 months.	No limitation Dependent on agreement
Dry lease-in (Ghana registration)	No limitation Dependent on agreement	No limitation Dependent on agreement
Dry lease-out (foreign registration)	No limitation Dependent on agreement	No limitation Dependent on agreement

(a) **Maximum Number of Leased Aircraft/Limitations**
There are no limitations on the number of aircraft that Ghanaian air operators may lease to or from other Ghanaian air operators. .

(b) **Maximum Number of Leased Aircraft**

A Ghanaian air operator is restricted to leasing-in or leasing-out no more than 25 percent of the aircraft registered in its name to or from a foreign air operator, rounded to the next higher whole number, as follows:

1 to 4 registered aircraft = 1 aircraft that can be leased;
5 to 8 registered aircraft = 2 aircraft that can be leased;
9 to 12 registered aircraft = 3 aircraft that can be leased; and

13 to 16 registered aircraft = 4 aircraft that can be leased, etc

IS: 9.2.3.7 EMERGENCY EVACUATION DEMONSTRATION

(1) Each AOC holder shall conduct a partial emergency evacuation and ditching evacuation, observed by the Authority that demonstrates the effectiveness of its crew member emergency training and evacuation procedures.

(2) Prior to conducting an emergency evacuation demonstration, the AOC holder shall apply for and obtain approval from the Authority.

(3) Cabin attendants used in the emergency evacuation demonstrations shall-

(a) Be selected by random by the Authority;

(b) Have completed the AOC holder's Authority-approved training programme for the type and model of aircraft; and

(c) Have passed the drills and competence check on the emergency equipment and procedures.

(4) To conduct the partial emergency evacuation demonstration, the AOC holder's assigned cabin crew shall, using the AOC holder's line operation procedures-

(a) Demonstrate the opening of 50 percent of the required floor-level emergency exits and 50 percent of the required non-floor level emergency exits (whose opening by a cabin crew is defined as an emergency evacuation duty), and deployment of 50 percent of the exit slides, selected by the Authority; and

(b) Prepare for use those exits and slides within 15 seconds.

(5) To conduct the ditching evacuation demonstration, the AOC holder's assigned cabin crew shall-

(a) Demonstrate their knowledge and use of each item of required emergency equipment;

(b) Prepare the cabin for ditching within 6 minutes after the intention to ditch is announced;

(c) Remove each life raft from storage (one life raft, selected by the Authority, shall be launched and properly inflated or one slide life raft properly inflated), and

(d) Enter the raft (the raft shall include all required emergency equipment) and completely set it up for extended occupancy.

IS: 9.2.3.8 DEMONSTRATION FLIGHTS

(1) Each AOC holder shall conduct demonstration flights for each type of aircraft, including those aircraft materially altered in design, and for each kind of operation the AOC holder intends to conduct.

Definition: "Materially altered aircraft" refers to aircraft having powerplants installed other than those for which it is certified; or alterations to the aircraft or its components that materially affect flight characteristics.

(2) Each AOC holder shall conduct demonstration flights which contain at least the following:

(a) Initial airplane proving tests of newly manufactured aircraft, or aircraft not yet demonstrated for use in a type of operation under this part.

(i) A minimum of 100 hours of flight time, in addition to the airplane certification tests, including a representative number of flights into en route airports.

(ii) The Authority may reduce the requirement for at least 100 hours of proving tests if the Authority determines that a satisfactory level of proficiency has been demonstrated to justify the reduction. This requirement applies to either new aircraft manufactured in the State or to any foreign manufactured aircraft that a Ghana certificate holder has not previously operated;

(iii) Ten (10) hours must be flown at night and may not be reduced.

(b) Type of aircraft and type of operations:

(i) For each type of aircraft, at least 50 hours of demonstration flights acceptable to the Authority for each type of operation the AOC holder intends to conduct, including a representative number of flights into en route aerodromes.

(c) Materially altered aircraft.

(i) For each type of aircraft that is materially altered in design, at least 50 hours of demonstration flights acceptable to the Authority for each type of operations the AOC holder intends to conduct with that aircraft, including a representative number of flights into en route aerodromes.

(3) No person may carry passengers in an aircraft during demonstration flights, except for those needed to make the demonstration flight and those designated by the Authority.

(4) For those AOC holders of aircraft of less than 5700kg, the necessity and extent of demonstration shall be at the option of the Authority.

IS: 9.3.2 OPERATIONS MANUAL - GENERAL

(1) Each AOC holder shall ensure that the contents and structure of the operations manual are in accordance with rules and directives of the Authority, and is relevant to the area(s) and type (s) of operation.

(2) An AOC holder may design a manual to be more restrictive than the Authority's requirements.

(3) Each AOC holder shall ensure that the operations manual presents the items of information listed below, to meet the requirements of 9.3.2(7). The manual may consist of two or more parts containing together all such information in a format and manner based upon the outline presented in paragraph (4) below. Each part of the operations manual must contain all information required by each group of personnel addressed in that part.

(a) General policies

(b) Duties and responsibilities of each crewmember, appropriate members of the ground organisation, and management personnel.

(c) Reference to appropriate Ghana Civil Aviation Directives.

(d) Flight dispatching and operational control, including procedures for co-ordinated dispatch or flight control or flight following procedures and maintenance control procedures, as applicable.

(e) En route flight, navigation, and communication procedures, including procedures for the dispatch or release or continuance of flight if any item of equipment required for the particular type of operation becomes inoperative or unserviceable en route.

(f) Appropriate formation from the en route specific operating provisions, including for each approved route the types of aircraft authorised, the type of operation such as VFR, IFR, day, night, etc and any other pertinent information.

(g) Appropriate information from the airport specific operating provisions, including for each airport-

(i) Its location (domestic and flag operations only);

(ii) Its designation (regular, alternate, provisional, etc) (domestic and flag operations only);

(iii) The types of aircraft authorised (domestic and flag operations only);

(iv) Instrument approach procedures;

(v) Landing and takeoff minimums, and

(vi) Any other pertinent information.

(h) Procedures for familiarising passengers with the use of emergency equipment, during the flight,

(i) Emergency equipment and procedures.

(j) The method of designating succession of command of flight crew members.

(k) Procedures for determining the usability of landing and takeoff areas, and for disseminating pertinent information thereon to operations personnel.

(l) Procedures for operating in periods of ice, hail, thunderstorms, turbulence, or any potentially hazardous meteorological condition.

(m) Airman training programs, including appropriate ground, flight, and emergency phases.

(n) Procedures for refueling aircraft, eliminating fuel contamination, protection from fire (including electrostatic protection), and supervising and protecting passengers during refueling.

(o) Methods and procedures for maintaining the aircraft weight and centre of gravity within approved limits.

(p) Where applicable, pilot and dispatcher route and airport qualification procedures.

(q) Accident notification procedures.

(r) Procedures and information to assist personnel to identify packages marked or labeled as containing hazardous materials and, if these materials are to be carried, stored, or handled, procedures and instructions relating to the carriage, storage, or handling of hazardous materials, including the following:

(i) Procedures for determining the proper shipper certification and proper packaging, marking, labeling, shipping documents, compatibility of materials, and instructions on the loading, storage, and handling.
(ii) Notification procedures for reporting hazardous material incidents.
(iii) Instructions and procedures for the notification of the pilot in command when there are hazardous materials aboard.

(s) Other information or instructions relating to safety.

(4) The operations manual may be based upon the following outline:

1.0 ADMINISTRATION AND CONTROL OF OPERATIONS MANUAL

Administration and Control of Operations Manual

1.1 Introduction

A statement that the manual complies with all applicable Authority Directives and requirements and with the terms and conditions of the applicable Air Operator Certificate.

A statement that the manual contains operational instructions that are to be complied with by the relevant personnel in the performance of their duties.

A list and brief description of the various operations manual parts, their contents, applicability and use.

Explanations and definitions of terms and words used in the manual.

1.2 System of Amendment and Revision

An operations manual shall describe who is responsible for the issuance and insertion of amendments and revisions.

A record of amendments and revisions with insertion dates and effective dates is required.

A statement that hand-written amendments and revisions are not permitted except in situations requiring immediate amendment or revision in the interest of safety.

A description of the system for the annotation of pages and their effective dates.

A list of effective pages and their effective dates.

Annotation of changes (on text pages and as practicable, on charts and diagrams).

A system for recording temporary revisions.

A description of the distribution system for the manuals, amendments and revisions.

A statement of who is responsible for notifying the Authority of proposed changes and working with the Authority on changes requiring Authority approval.

2.0 Organisation and Responsibilities

2.1 Organisational Structure

A description of the organisational structure including the general company organisation and operations department organisation. The relationship between the operations department and the other departments of the company. In particular, the subordination and reporting lines of all divisions, departments etc., which pertain to the safety of flight operations shall be shown. Instructions outlining the responsibilities of operations personnel pertaining to the conduct of flight operations.

2.2 Responsible Manager

The name of each manager responsible for flight operations, the maintenance system, crew training and ground operations shall be listed. A description of their function and responsibilities shall be included.

2.3 Responsibilities and Duties of Operations Management Personnel

A description of the duties, responsibilities, and authority of operations management personnel pertaining to the safety of flight operations and with compliance with applicable Directives shall be listed.

2.4 Authority, Duties and Responsibilities of a PIC

A statement defining the authority, duties and responsibilities of the PIC shall be listed.

2.5 Duties and Responsibilities of Crew Members Other Than the PIC

A statement defining the authority, duties, and responsibilities of all required aircraft crew members shall be listed.

3.0 Operational Control And Supervision

3.1 Supervision of the Operation by the AOC Holder

A description of the system for supervision of the operation by the AOC holder shall be listed. This description shall show how the safety of flight operations and the qualifications of personnel involved in all such operations are supervised and monitored. In particular, the procedures related to the following items shall be described:

Specifications for the operational flight plan

Competence of operations personnel; and

Control, analysis and storage of records, flight documents, additional information, and safety related data.

3.2 System of Promulgation of Additional Operational Instructions and Information

A description of any system for promulgating information which may be of an operational nature but is supplementary to that in the operations manual. The applicability of this information and the responsibilities for its promulgation shall be included

3.3 Safety Management System (SMS)

A description of the main aspects of the SMS programme required by Part 36 of the Ghana Civil Aviation Directives, including:

(1) Safety Policy: General Expectations;

Safety Risk Management: General Expectations;

Safety Assurance: General Expectations; and

Safety Promotion: General Expectations.

3.4 Operational Control

A description of the objectives, procedures, and responsibilities necessary to exercise operational control with respect to flight safety.

4.0 Quality System

A description of the quality system adopted.

5.0 Crew

5.1 Crew Composition

An explanation of the method for determining crew compositions taking into account of the following:

Experience (total and on type), recency and qualification of the crew members; and

The designation of the PIC and, if required by the duration of the flight, the procedures for the relief of the PIC or other members of the flight crew.

The flight crew for each type of operation including the designation

of the succession of

5.2 Designation of the PIC

The rules applicable to the designation of a PIC.

5.3 Flight Crew Incapacitation

Instructions on the succession of command in the event of flight crew incapacitation.

6.0 Flight Crew, Cabin Crew, Flight Operations Officer, and Other Operations Personnel Qualifications

6.1 Qualifications

A description of the required licence rating(s), qualification or competency (e.g., for routes and airports) experience, training, checking and recency of experience for operations personnel to conduct their duties. Consideration shall be given to the aircraft type, kind of operation, and composition of the crew.

6.2 Flight Crew

Operation on more than one type or variant.

6.3 Cabin Crew

Senior cabin crew member.

Cabin crewmember.

(a) Required cabin crewmember.
(b) Additional cabin crewmember, and
(c) Cabin crewmember during familiarisation flights.

Operation on more than one type or variant.

6.4 Other Operations Personnel

7.0 Fatigue Management

7.1 Flight and Duty Time Limitations and Rest Schemes

Flight Crew

Cabin Crew

Flight Operations Officer or Flight Dispatcher

7.2 FRMS (if authorised by the Authority)

8.0 Crew Health

8.1 Crew Health Precautions

The relevant directives and guidance for crew members concerning health including:

Alcohol and other intoxicating liquor;

Narcotics;

Drugs;

Sleeping tablets;

Pharmaceutical preparations;

Immunisation;

SCUBA diving;

Blood donation;

Meal precautions prior to and during flight;

Sleep and rest; and

Surgical operations.

9.0 Operating Procedures

9.1 Flight Preparation Instructions

As applicable to the operation:

9.1.1 Criteria for Determining the Usability of Airports

9.1.2 The method for determining minimum flight altitudes

9.1.3 The method for determining aerodrome operating minima

9.1.4 En route Operating Minima for VFR Flights

A description of en route operating minima for VFR flights or VFR portions of a flight and, where single-engine aircraft are used, instructions for route selection with respect to the availability of surfaces which permit a safe forced landing.

9.1.5 Presentation and Application of Airport and En route Operating Minima

9.1.6 Interpretation of Meteorological Information.

Explanatory material on the decoding of MET forecasts and MET reports relevant to the area of operations, including the interpretation of conditional expressions.

9.1.7 Determination of the Quantities of Fuel, Oil, and Water Methanol Carried.

The specific instructions and methods by which the quantities of fuel, oil and water methanol to be carried are determined and monitored in flight. This section shall also include instructions on the measurement and distribution of the fluid carried on board. Such instructions shall take account of all circumstances likely to be encountered on the flight, including the possibility of in-flight replanning and of failure of one or more of the aircraft's power plants, and possible loss of pressurisation. The system for maintaining fuel and oil records shall also be described.

9.1.8 Mass and Centre of Gravity.

The general principles of mass and centre of gravity including:

The policy for using either standard and/or actual masses;

The method for determining the applicable passenger, baggage and cargo mass;

The applicable passenger and baggage masses for various types of operations and aircraft type;

General instruction and information necessary for verification of the various types of mass and balance documentation in use;

Last minute changes procedures;

Seating policy or procedures; and

List of documents, forms, and additional information to be carried during a flight.

9.2 Ground Handling Arrangements and Procedures

9.2.1 Fuelling Procedures.

A description of fuelling procedures, including:

Safety precautions during refuelling and defueling including when an APU is in operation or when a turbine engine is running and, if applicable, the propeller brakes are on;

Refuelling and defueling when passengers are embarking, on board or disembarking;

Precautions to be taken to avoid mixing fuels; and

Method to ensure the required amount of fuel is loaded.

9.2.2 Aircraft, Passengers, and Cargo Handling Procedures Related To Safety.

A description of the handling procedures to be used when allocating seats and embarking and disembarking passengers and when loading and unloading the aircraft. Further procedures, aimed at achieving safety whilst the aircraft is on the ramp, shall also be given. Handling procedures shall include:

Sick passengers and persons with reduced mobility;

Permissible size and weight of hand baggage;

Loading and securing of items in the aircraft;

Special loads and classification of load compartments (i.e., dangerous goods, live animals, etc.);

Positioning of ground equipment;

Operation of aircraft doors;

Safety on the ramp, including fire prevention, blast and suction areas;

Start-up, ramp departure and arrival procedures;

Servicing of aircraft;

Documents and forms;

Multiple occupancy of aircraft seats.

9.2.3 Procedures for the Refusal of Embarkation.

Procedures to ensure that persons who appear to be intoxicated or who demonstrate by manner or physical indications that they are under the influence of alcohol or drugs, except medical patients under proper care, are refused embarkation.

9.2.4 Deicing and Anti-Icing on the Ground.

Instructions for the conduct and control of ground de-icing/anti-icing operations. A description of the deicing and anti-icing policy and procedures for aircraft on the ground. These shall include descriptions of the types and effects of icing and other contaminants on aircraft while stationary, during ground movements and during take-off. In addition, a description of the fluid types used shall be given including:

Proprietary or commercial names;

Characteristics;

Effects on aircraft performance;

Precautions during usage.

9.3 Flight Procedures and Flight Navigation Equipment

A description of flight procedures, including:

Standard operating procedures (SOP) for each phase of flight.

Instructions on the use of normal checklists and the timing of their use.

Departure contingency procedures

Instructions on the maintenance of altitude awareness and the use of automated or flight crew altitude call-outs.

Instructions on the use of autopilots and auto-throttles in IMC.

Instructions on the clarification and acceptance of ATC clearances, particularly where terrain clearance is involved.

Departure and approach briefings

Procedures for familiarisation with areas, routes, and aerodromes

Stabilized approach procedure

Limitation on high rates of descent near the surface

Conditions required to commence or to continue an instrument approach.

Instructions for the conduct of precision and non-precision instrument approach procedures.

Allocation of flight crew duties and procedures for the management of crew workload during night and IMC instrument approach and landing operations.

The circumstances in which a radio listening watch is to be maintained.

Instructions and training requirements for the use of head-up-displays (HUD) and enhanced vision systems (EVS) equipment as applicable.

9.3.1 Navigation Equipment

A list of the navigational equipment to be carried including any requirements relating to operations where performance-based navigation is prescribed.

9.3.2 Navigation Procedures

A description of all navigation procedures relevant to the type(s) and area(s) of operation. Consideration shall be given to:

Standard navigational procedures including policy for carrying out independent cross-checks of keyboard entries where these affect the flight path to be followed by the aircraft,

In-flight replanning,

Procedures in the event of system degradation,

Where relevant to the operations, the long range navigation procedures, engine failure procedure for EDTO and the nomination and utilisation of diversion aerodromes

Instructions and training requirements for the avoidance of controlled flight into terrain and policy for the use of the ground proximity warning system (GPWS).

Policy, instructions, procedures and training requirements for the avoidance of collisions and the use of the airborne collision avoidance system (ACAS).

Information and instructions relating to the interception of civil aircraft including:

(a) Procedures, as prescribed in Part 8, IS: 8.8.1.29, for pilots-in-command of intercepted aircraft; and

(b) Visual signals for use by intercepting and intercepted aircraft, as contained in Part 8, IS: 8.8.1.29.

For aeroplanes intended to be operated above 49, 000 ft. (15,000 m)

(c) information which will enable the pilot to determine the best course of action to take in the event of exposure to solar cosmic radiation; and

(d) procedures in the event that a decision to descend is taken, covering:

(i) the necessity of giving the appropriate ATS unit prior warning of the situation and of obtaining a provisional descent clearance; and

(ii) the action to be taken in the event that communication with ATS unit cannot be established or is interrupted.

9.3.3 Policy and Procedures for In-flight Fuel Management

9.4.3 Adverse and Potentially Hazardous Atmospheric Conditions.

Procedures for operating in, and/or avoiding, potentially hazardous atmospheric conditions including:

Thunderstorms;

Icing conditions;

Turbulence,

Wind shear;

Jet stream;

Volcanic ash clouds;

Heavy precipitation;

Sand storms;

Mountain waves; and

Significant Temperature inversions.

9.3.5 Operating Restrictions

Cold weather operations

Take-off and landing in turbulence

Low-level wind shear operations

Cross-wind operations (including tail wind components)

High temperature operations

High altitude operations

9.3.6 Incapacitation of Crew Members.

Procedures to be followed in the event of incapacitation of crew members in flight. Examples of the types of incapacitation and the means for recognising them shall be included.

9.3.7 Cabin Safety Requirements.

Procedures covering:

Cabin preparation for flight, in-flight requirements and preparation for landing including procedures for securing cabin and galleys.

Procedures to ensure that passengers are seated where, in the event that an emergency evacuation is required, they may best assist and not hinder evacuation from the aircraft;

Procedures to be followed during passenger embarkation and disembarkation; and

Procedures for fuelling with passengers on board, embarking, or disembarking.

Smoking on board.

Use of portable electronic equipment and cellular telephones

9.3.8 Passenger Briefing Procedures.

The contents, means, and timing of passenger briefing.

9.3.9 Procedures for Use of Cosmic or Solar Radiation Detection Equipment - Aeroplanes.

Procedures for the use of cosmic or solar radiation detection equipment and for recording its readings including actions to be taken in the event that limit values specified in the operations manual are exceeded. In addition, the procedures, including ATC procedures, to be followed in the event that a decision to descend or re-route is taken.

9.4 All Weather Operations

9.5 Use of the Minimum Equipment and Configuration Deviation List(s)

9.6 Non Revenue Flights

Procedures and limitations for:

Training flights;

Test flights;

Delivery flights,

Ferry flights;

Demonstration flights; and

Positioning flights, including the kind of persons who may be carried on such flights.

9.7 Oxygen Requirements

An explanation of the conditions under which oxygen shall be provided and used.

10.0 Dangerous Goods And Weapons

10.1 Transport of Dangerous Goods

Information, instructions and general guidance on the transport of dangerous goods including:

AOC holder's policy on the transport of dangerous goods;

Guidance on the requirements for acceptance, labelling, handling, stowage and segregation of dangerous goods;

Procedures and actions to be taken for responding to emergency situations involving dangerous goods;

Duties of all personnel involved; and

Instructions on the carriage of the AOC holder’s employees

10.2 Transport of Weapons

The conditions under which weapons, munitions of war and sporting weapons may be carried.

11.0 Security

11.1 Security Policies and Procedures

A description of security policies and procedures for handling and reporting crime on board such as unlawful interference, sabotage, bomb threats, and hijacking.

11.2 Security Instructions and Guidance

Security instructions and guidance of a non-confidential nature which shall include the authority and responsibilities of operations personnel.

11.3 Preventative Security Measures and Training

A description of preventative security measures and training.

Note: Parts of the security instructions and guidance may be kept confidential.

12.0 Handling of Accidents and Occurrences

Procedures for the handling, notifying and reporting of accidents and occurrences. This section shall include:

Definitions of accidents and occurrences and the relevant responsibilities of all persons involved;

The descriptions of which company departments, Authorities or other institutions have to be notified by which means and in which sequence in case of an accident;

Special notification requirements in the event of an accident or occurrence when dangerous goods are being carried;

A description of the requirements to report specific occurrences and accidents;

The forms used for reporting and the procedure for submitting them to the Authority shall also be included; and

If the AOC holder develops additional safety related reporting procedures for its own internal use, a description of the applicability and related forms to be used.

Procedures for pilots-in-command observing an accident.

13.0 Rules of the Air

Rules of the Air including:

Territorial application of the Rules of the Air;

The circumstances during which a radio listening watch shall be maintained;

ATC clearances, adherence to flight plan and position reports;

The ground or air visual codes for use by survivors, description and use of signal aids; and

Distress and urgency signals.

IS 9.3.3 TRAINING PROGRAMMES MANUAL

Each AOC holder and AOC applicant shall submit and maintain training programme manuals based on the following outline:

1.0 TRAINING SYLLABI AND CHECKING PROGRAMMES

1.1 General Requirements.

Training syllabi and checking programmes for all operational duties in connection with the preparation and or conduct of a flight shall be developed to meet the respective requirements of the Authority. An AOC holder may not use, nor may any person serve in a required crewmember capacity or operational capacity unless that person meets the training and currency requirements established by the Authority for that respective position.

1.2 Flight Crew

The training syllabi and checking programme for flight crew members shall include:

(a) A written training programme acceptable to the Authority that provides for basic indoctrination, initial, transition, difference, and recurrent training, as appropriate, for flight deck crew members for each type of aircraft flown by that crew member. This written training programme shall include both normal and emergency procedures training applicable for each type of aircraft flown by the crewmember.

(b) Adequate ground and flight training facilities and properly qualified instructors required to meet training objectives and needs.

(c) A current list of approved training materials, equipment training devices, simulators, and other required training items needed to meet the training needs for each type and variation of aircraft flown by the AOC holder.

(d) Adequate number of ground check personnel and flight check pilots to ensure adequate training and checking of flight crew members

(e) A record system acceptable to the Authority to show compliance with appropriate training and currency requirements.

(f) Information on knowledge and skills related to human performance.

(g) include upset prevention and recovery training.

1.3 Cabin Crew.

The training syllabi and checking programmes for cabin crew members shall include:

(a) Basic initial ground training covering duties and responsibilities.

(b) Appropriate Authority rules and Directives.

(c) Appropriate portions of the AOC holder's operating manual.

(d) Appropriate emergency training as required by the Authority and the AOC holder's operating manual.

(e) Appropriate flight training.

(f) Appropriate recurrent, upgrade, or differences training, as required, to maintain currency in both type and any variance the crew member may be required to work in.

(g) A current list of approved training materials, equipment, training devices, simulators, and other required training items needed to meet the training needs for each type and variation of aircraft flown by the AOC holder

(h) Adequate number of ground check personnel and flight check personnel to ensure adequate training and checking of crew members, and

(i) Maintain a training record system acceptable to the Authority to show compliance with a required training.

(j) Awareness of the types of dangerous goods which may, or may not, be carried in a passenger cabin; and

(k) Knowledge about human performance as related to passenger cabin safety duties including flight crew-cabin crew coordination

1.4 All Aircraft Crew

A written training programme shall be developed for all aircraft crew members on the emergency procedures appropriate to each make and model of aircraft flown in by the crew member. Areas shall include:

(a) Instruction on emergency procedures, assignments, and crew co-operation.

(b) Individual instruction on the use of onboard emergency equipment such as fire extinguishers, emergency breathing equipment, first aid equipment and its proper use, emergency exits and evacuation slides, and the aircraft's oxygen system including the use of portable emergency oxygen bottles. Flight deck crewmembers shall also practice using their emergency equipment designed to protect them in case of a cockpit fire or smoke.

(c) Instruction on potential emergencies such as rapid decompression, ditching, fire fighting, aircraft evacuation, medical emergencies, hijacking, and disruptive passengers.

(d) Scheduled recruitment training to meet Authority requirements.

(e) Information on knowledge and skills related to human performance

1.5 All Operations Personnel.

The training syllabi and checking programmes for all operations personnel shall include:

(a) Training in the safe transportation and recognition of all dangerous goods permitted by the Authority to be shipped by air. Training shall include the proper packaging, marking, labeling, and documentation of dangerous articles and magnetized materials.

(b) All appropriate security training required by the Authority.

(c) A method of providing any required notification of an accident or incident involving dangerous goods.

(d) Information on knowledge and skills related to human performance.

1.6 Operations Personnel Other than Aircraft Crew.

(a) Operations personnel other than aircraft crew (e.g. flight operations officer, handling personnel etc.), a written training programme shall be developed that pertains to their respective duties. The training programme shall provide for initial, recurrent, and any required upgrade training.

(b) Information on knowledge and skills related to human performance.

2.0 PROCEDURES FOR TRAINING AND CHECKING.

2.1 Proficiency Checking Procedures.

Procedures to be applied in the event that personnel do not achieve or maintain the required standards.

2.2 Procedures Involving the Simulation of Abnormal or Emergency Situations.

Procedures to ensure that abnormal or emergency situations requiring the application of part or all of the abnormal or emergency procedures, and simulation of IMC by artificial means, are not simulated during commercial air transportation flights.

3.0 DOCUMENT RETENTION.

3.1 Documentation to be Stored and Storage Periods.

An AOC holder shall retain all documentation required by appropriate Authority or the Authority of a foreign country in which the AOC holder is operating for the time specified by the respective Authority or for the time period needed to show compliance with appropriate Directives or this operations manual, whichever is longer.

IS 9.3.4 AIRCRAFT OPERATING INFORMATION MANUAL

Each AOC applicant and AOC holder should submit and maintain an aircraft operating information manual as part of its operations manual containing at least the following.

1.0 GENERAL INFORMATION AND UNITS OF MEASUREMENT

General information (e.g aircraft dimensions), including a description of the units of measurement used for the operation of the aircraft type concerned and conversion labels.

2.0 LIMITATIONS

2.1 Certification and Operational Limitation.

A description of the certified limitations and the applicable operational limitation including:
(a) Certification status;
(b) Passenger seating configuration for each aircraft type including a pictorial presentation;
(c) Types of operation that are approved (e.g. IFR/VFR, CAT II/III, flights in known icing conditions etc.);
(d) Crew composition;
(e) Operating within mass and center of gravity limitations;
(f) Speed limitations;
(g) Flight envelopes;

(h) Wind limits including operations on contaminated runways;
(i) Performance limitations for applicable configurations;
(j) Runway slope;
(k) Limitations on wet or contaminated runways;
(l) Airframe contamination; and
(m) Post landing.

3.0 NORMAL PROCEDURES:

3.1 Normal Procedures:

The Normal Procedures and duties assigned to the crew, the appropriate checklists, the system for use of the checklists and a statement covering the necessary co-ordination procedures between flight and cabin crew. The following normal procedures and duties shall be included:
(a) Pre-flight;
(b) Pre-departure and loading'
(c) Altimeter setting and checking;
(d) Taxi, Take-off and Climb;
(e) Noise abatement;
(f) Cruise and descent;
(g) Approach, landing preparation and briefing;
(h) VFR approach;
(i) Instrument approach;
(j) Visual approach and circling;
(k) Missed approach;
(l) Normal landing;
(m) Post landing; and
(n) Operation on wet and contaminated runways.

3.2 Specific Flight Deck Procedures

(a) Determining airworthiness of aircraft
(b) Obtaining flight release
(c) Initial cockpit preparation'
(d) standard operating procedures
(e) Cockpit discipline
(f) Standard call-outs
(g) Communications
(h) Flight safety
(i) Push-back and towing procedures
(j) Taxi guidelines and ramp signals
(k) Take-off and climb out procedures
(l) Choice of runway'
(m) Take off in limited visibility
(n) Take-off in adverse weather
(o) Use of landing lights
(p) Monitoring of flight instruments
(q) Power settings for take-off
(r) Malfunctions during take-off
(s) Rejected take-off decision
(t) Climb, best angle, best rate
(u) Sterile cockpit procedures

(v) En route and holding procedure
(w) Cruise control
(x) Navigation log book
(y) Descent, approach and landing procedures
(z) Standard call-outs
(aa) Reporting maintenance problems
(bb) How to obtain maintenance and service en route

4.0 ABNORMAL AND EMERGENCY PROCEDURES

4.1 Abnormal and Emergency Procedures and Duties

The manual shall contain a listing of abnormal and emergency procedures assigned to crew members with appropriate check-lists that include a system for use of the check-lists and a statement covering the necessary co-ordination procedures between flight and cabin crew. The following abnormal and emergency procedures and duties shall be included:

(a) Crew incapacitation;
(b) Fire and smoke drills;
(c) Unpressurised and partially pressurized flight;
(d) Exceeding structural limits such as overweight landing;
(e) Exceeding cosmic radiation limits;
(f) Lightning strikes
(g) Distress communications and alerting ATC to emergencies;
(h) Engine failure;
(i) System failures;
(j) Guidance for diversion in case of serious technical failure;
(k) Ground proximity warning;
(l) TCAS warning;
(m) Windshear; and
(n) Emergency landing/ditching
(o) Aircraft evacuation;
(p) Fuel Jettisoning and Overweight landing;
. General considerations and policy
. Fuel jettisoning procedures and precautions;
(q) Emergency Procedures
. Emergency descent
. Low fuel
. Dangerous goods incident or accident
(r) Interception procedures
(s) Communication Procedures
(t) Radio listening watch

5.0 PERFORMANCE DATA

Performance data shall be provided in a form in which it can be used without difficulty.

5.1 Performance data

Performance material which provides the necessary data to allow the flight crew to comply with the approved aircraft flight manual performance requirements shall be included to allow the determination of –

(a) Take-off climb limits – Mass, altitude, Temperature;
(b) Take-off field length (dry, wet, contaminated)
(c) Net flight path data for obstacle clearance calculation or, where applicable, take-off flight path;
(d) The gradient losses for banked climb outs;
(e) En route climb limits;
(f) Approach climb limits;
(g) Landing climb limits;
(h) Landing field length (dry, wet, contaminated) including the effects of an in-flight failure of a system or device, if it affects the landing distance;
(i) Brake energy limits; and
(j) Speeds applicable for the various flight stages (also considering wet or contaminated runways).

5.1.1 Supplementary Performance Data

Supplementary data covering:

a. Flights in icing conditions

b. The maximum crosswind and tailwind components for each aeroplane type operated and the reductions to be applied to these values having regard to gust, low visibility, runway surface conditions, crew experience, use of autopilot, abnormal or emergency circumstances, or any other relevant operational factors.

c. Any certified performance related to an allowable configuration, or configuration deviation, such as anti-skid inoperative, shall be included.

5.1.2 Other Acceptable Performance Data

If performance data, as required for the appropriate performance class, is not available in the approved AFM, then other data acceptable to the Authority shall be included. Alternatively, the operations manual may contain cross-reference to the approved data contained in the AFM where such data is not likely to be used often or in an emergency.

5.2 ADDITIONAL PERFORMANCE DATA

Additional performance data where applicable including:
(a) All engine climb gradients
(b) Drift-down data;
(c) Effect of de-icing/anti-icing fluids;
(d) Flight with landing gear down;
(e) For aircraft with 3 or more engines, one engine inoperative ferry flights; and
(f) Flights conducted under the provision of a configuration deviation list (CDL).

6.0 FLIGHT PLANNING

6.1 Flight Planning Data

Specific data and instructions necessary for pre-flight and in-flight planning including factors such as speed schedules and power settings. Where applicable, procedures for engine(s) out operations, EDTO and flights to isolated airports shall be included for the flight plan and the operational flight plan.

6.2 Fuel and Oil Calculations

The method for calculating fuel needed for the various stages of flight.

7.0 MASS AND BALANCE

7.1 Calculating Mass and Balance

Instructions and data for the calculation of mass and balance including;

(a) Calculation system (e.g index system);
(b) Information and instruction for completion of mass and balance documentation, including manual and computer generated type;
(c) Limiting mass and centre of gravity of the various versions;
(d) Dry operating mass and corresponding centre of gravity or index;

8.0 LOADING

8.1 Loading Procedures

Instructions for loading and securing the load in the aircraft.

(a) Use of aircraft systems and associated controls

8.2 Loading Dangerous Goods

The operations manual shall contain a method to notify the PIC when dangerous goods is loaded in the aircraft.

9.0 SURVIVAL AND EMERGENCY EQUIPMENT INCLUDING OXYGEN

9.1 List of survival Equipment to be Carried

A list of the survival equipment to be carried for the routes to be flown and the procedures for checking the serviceability of this equipment prior to take-off. Instructions regarding the location accessibility and use of survival and emergency equipment and its associated check list(s) shall also be included.

9.2 Ground - Air Visual Signal

Instructions illustrating the ground-air visual signal code for use by survivors shall also be included.

9.3 Oxygen Usage

The procedure for determining the amount of oxygen required and the quantity that is available. The flight profile number of occupants and possible cabin decompression shall be considered. The information

provided shall be in a form in which it can be used without difficulty

9.3 Emergency Equipment Usage.

A description of the proper use of the following emergency equipment:
(a) Life jackets
(b) Life rafts
(c) Medical kits/first aid kits
(d) Survival kits
(e) Emergency locator transmitter (ELT)
(f) Visual signalling devices
(g) Evacuation slides
(h) Emergency lighting

10.0 EMERGENCY EVACUATION PROCEDURES

10.1 Instructions for Emergency Evacuation

Instructions for preparation for emergency evacuation including, crew co-ordination and emergency station assignment.

10.2 Emergency Evacuation Procedures

A description of the duties of all members of the crew for the rapid evacuation of an aircraft and the handling of the passengers in the event of a forced landing, ditching or other emergency.

11.0 AIRCRAFT SYSTEMS.

11.1 Aircraft System

A description of the aircraft systems, related controls and indications and operating instructions.

12.0 ROUTE AND AIRPORT INSTRUCTIONS AND INFORMATION (OPTIONAL FOR THIS MANUAL)

12.1 Instructions and information

Instructions and information relating to communications, navigation and airports including minimum flight levels and altitudes for each route to be flown and operating minima for each airport planned to be used including:
(a) Minimum flight level/altitude;
(b) Operating minima for departure, destination and alternate airports;
(c) Communication facilities and navigation aids;
(d) Runway data and airport facilities;

(e) Approach, missed approach and departure procedures including noise abatement procedures;
(f) Communications-failure procedures;
(g) Search and rescue facilities in the area over which the aircraft is to be flown;
(h) A description of the aeronautical charts that shall be carried on board in relation to the type of flight and the route to be flown, including the method to check their validity;
(i) Availability of aeronautical information and MET services;
(j) En route COM/NAV procedures, including holding;
(k) Airport categorization for flight crew competence qualification.

IS: 9.3.18 PASSENGER BRIEFING CARDS

(1) Each AOC holder shall, at each exit seat, provide passenger information cards that include the following information in the primary language in which emergency commands are given by the crew:

(a) Functions required of a passenger in the event of an emergency in which a crew member is not available to assist-

(i) Locate the emergency exit;

(ii) Recognise the emergency exit opening mechanism;

(iii) Comprehend the instructions for operating the emergency exits;

(iv) Operate the emergency exit;

(v) Assess whether opening the emergency exit will increase the hazards to which passengers may be exposed;

(vi) Follow oral directions and hand signals given by a crew member;

(vii) Stow or secure the emergency exit door so that it will not impede use of the exit;

(viii) Assess the condition of an escape slide, activate the slide, and stabilize the slide after deployment to assist others in getting off the slide;

(ix) Pass expeditiously through the emergency exit; and

(x) Assess, select, and follow a safe path away from the emergency exit.

(b) A request that a passenger identify himself or herself to allow reseating if he or she-

(i) Cannot perform the emergency functions stated in the information card;

(ii) Has a nondiscernible condition that will prevent him or her from performing the functions;

(iii) May suffer bodily harm as the result of performing one or more of those functions; or

(iv) Does not wish to perform those functions;

(v) Lacks the ability to read, speak, or understand the language or the graphic form in which instructions are provided by the AOC holder.

IS: 9.3.19 AERONAUTICAL DATA CONTROL SYSTEM

(1) Each AOC holder shall provide aeronautical data for each airport used by the AOC holder which includes the following;

(a) Airports;

(i) Facilities

(ii) Navigational and communications aids;

(iii) Construction affecting takeoffs, landing, or ground operations

(iv) Air traffic facilities.

(b) Runways, clearways, and stopways:

(i) Dimensions,

(ii) Surface

(iii) Marking and lighting systems

(iv) Elevation and gradient

(c) Displaced thresholds;

(i) Location

(ii) Dimensions

(iii) Takeoff or landing or both

(d) Obstacles:

(i) Those affecting takeoff and landing performance computations.

(ii) Controlling obstacles

(iii) Instrument flight procedures

(iv) Departure procedure

(v) Approach procedure

(vi) Missed approach procedure

(e) Special information:

(i) Runway visual range measurement equipment

(ii) Prevailing winds under low visibility conditions.

IS: 9.3.20 ROUTE GUIDE - AREAS, ROUTES AND AERODROMES

Each AOC applicant and AOC holder shall submit and maintain a route guide containing specifics on areas, routes and aerodromes, as part of its operations manual that contains at least the information in (3) below.

The route guide will ensure that the flightcrew will have for each flight, information relating to communication facilities, navigation aids, aerodromes, instrument approaches, instrument arrivals and instrument departures as applicable for the operation, and such other information as the operator may deem necessary in the proper conduct of flight operations.

Each route guide shall contain at least the following information:

(a) The minimum flight altitudes for each aircraft to be flown

(b) Aerodrome operating minima for each of the aerodromes that are likely to be used as aerodromes of intended landing or as alternate aerodromes.

(c) The increase of aerodrome operating minima in case of degradation of approach or aerodrome facilities

(d) The necessary information for compliance with all flight profiles required by the Directives, including but not limited to, the determination of:

(i) Take-off runway length requirements for dry, wet and contaminated conditions, including those dictated by systems failures which affect the take-off distance;

(ii) Take-off climb limitations:

(iii) En-route climb limitations;

(iv) Approach climb limitations and landing climb limitations;

(v) Landing runway length requirements for dry, wet and contaminated conditions, including systems failures which affect the landing distance; and

(vi) Supplementary information, such as tire speed limitations

IS: 9.3.21 WEATHER REPORTING SOURCES

(1) The Authority approves and considers the following sources of weather reports satisfactory for flight planning or controlling flight movement:

(a) Ghana Meteorological Office.

(b) Ghana - operated automated surface observation stations.

Note: *Some automated systems cannot report all required items for a complete surface aviation weather report.*

(c) Ghana-operated supplemental aviation weather reporting stations

(d) Observations taken by airport traffic control towers.

(e) Ghana-contracted weather observatories.

(f) Any active meteorological office operated by a foreign state which subscribed to the standards and practices of ICAO conventions.

(g) Any military weather reporting sources approved by the Authority.

Note: Use of military sources is limited to control of those flight operations which use military airports as departure destination, alternate or diversionary airports.

(h) Near real time reports such as pilot reports, radar reports, radar summary charts, and satellite imagery reports made by commercial weather sources or other sources specifically approved by the Authority.

(i) An AOC holder operated and maintained weather-reporting system approved by the Authority.

IS: 9.3.22 DE-ICING AND ANTI-ICING PROGRAMME

(1) Contents of the AOC holder's ground de-icing and anti-icing programme shall include a detailed description of-

(a) How the AOC holder determines that conditions are such that frost, ice, or snow may reasonably be expected to adhere to the aircraft and that ground de-icing and anti-icing operational procedures shall be in effect;

(b) Who is responsible for deciding the ground de-icing and anti-operational procedures; and

(c) The procedures for implementing ground de-icing and anti-icing operational procedures shall be in effect; and

(d) The specific duties and responsibilities of each operational position or group responsible for getting the aircraft safely airborne while ground de-icing and anti-icing operational procedures are in effect.

(2) Initial and annual recurrent ground training for flight crew and all other affected personnel (e.g. dispatchers/flight operations officers, ground crews, contract personnel) concerning the specific requirements of the approved programme and each person's responsibilities and duties under the approved programme specifically covering the following areas:

(a) The use of holdover times;

(b) Aircraft deicing/anti-icing procedures including inspection and check procedures and responsibilities;

(c) Communication procedures;

(d) Aircraft surface contamination (i.e., adherence of frost, ice or snow) and critical area identification, and how contamination adversely affects aircraft performance and flight characteristics;

(e) Types and characteristics of deicing/anti-icing fluids;

(f) Cold weather pre-flight inspection procedures; and

(g) Techniques for recognising contamination on the aircraft.

(3) The AOC holder's programme shall include procedures for flight crew members to increase or decrease the determined holdover time in changing conditions. The holdover time shall be supported by data acceptable to the Authority. If the

maximum holdover time is exceeded, takeoff is prohibited unless at least one of the following conditions exists-

(a) A pre-takeoff contamination check is conducted outside the aircraft (within five minutes prior to beginning take off) to determine that the wings, control surfaces, and other critical surfaces, as defined in the certificate holder's programme, are free of frost, ice, or snow;

(b) It is otherwise determined by an alternate procedure, approved by the Authority and in accordance with the AOC holder's approved programme, that the wings, control surfaces, and other critical surfaces are free of frost, ice, or snow; or

(c) The wings, control surfaces, and other critical surfaces are de-iced again and a new holdover time is determined.

IS: 9.3.23 FLIGHT MONITORING SYSTEM

(1) Each AOC holder shall have an approved flight following system established and adequate for the proper monitoring of each flight, considering the operations to be conducted.

(2) For AOC holders having flight following centres, these centres shall be located at those points necessary to ensure-

(a) The proper monitoring of the progress of each flight with respect to its departure at the point of origin and arrival at its destination, including intermediate stops and diversions, and

(b) That the PIC is provided with all information necessary for the safety of the flight.

(3) An AOC holder conducting charter operations may arrange to have flight following facilities provided by persons other than its employees, but in such a case the AOC holder continues to be primarily responsible for operational control of each flight.

(4) Each AOC holder conducting charter operations using a flight following system shall show that the system has adequate facilities and personnel to provide the information necessary for the initiation and safe conduct of each flight to-

(a) The flight crew of each aircraft, and

(b) The persons designated by the certificate holder to perform the function of operational control of the aircraft.

(5) Each AOC holder conducting charter operations shall show that the personnel required to perform the function of operational control are able to perform their duties.

IS: 9.3.24 FATIGUE RISK MANAGEMENT SYSTEM REQUIREMENTS

A Fatigue Risk Management System (FRMS) shall contain as a minimum:

(a) FRMS policy and documentation

(b) Fatigue risk management processes

(c) FRMS safety assurance process

(d) FRMS promotion processes

The operator shall define its FRMS policy, with all elements of the FRMS clearly identified

The policy shall require that the scope of FRMS operations be clearly defined in the Operations Manual.

The FRMS policy shall:

(e) Reflect the shared responsibility of management, flight and cabin crews, and other involved personnel;

(f) Clearly state the safety objectives of the FRMS;

(g) Be signed by the accountable executive of the organisations;

(h) Be communicated, with visible endorsement, to all the relevant areas and levels of the organisation;

(i) Declare management commitment to effective safety reporting;

(j) Declare management commitment to the provision of adequate resources for the FRMS;

(k) Declare management commitment to continuous improvement of the FRMS;

(l) Require that clear lines of accountability for management, flight and cabin crews, and all other involved personnel are identified; and

(m) Require periodic reviews to ensure it remains relevant and appropriate.

Note. Effective safety reporting is described in Doc 9859, Safety Management Manual (SMM)

FRMS documentation

(n) An operator shall develop and keep current FRMS documentation that describes and records:

(i) FRMS policy and objectives;

(ii) FRMS processes and procedures;

(iii) Accountabilities, responsibilities and authorities for these processes and procedures;

(iv) Mechanisms for ongoing involvement of management, flight and cabin crew members, and all other involved personnel;

(v) FRMS training programmes, training requirements and attendance records;

(vi) Scheduled and actual flight times, duty periods and rest periods with significant deviations and reasons for deviations noted; and

Note. Significant deviations are described in the FRMS Manual (Doc 9966)

(vii) FRMS outputs including findings from collected data, recommendations, and actions taken.

Fatigue Risk Management Processes –Identification of hazards, an operator shall develop and maintain three fundamental and documented processes for fatigue hazard identification:

(o) Predictive – The predictive process shall identify fatigue hazards by examining crew scheduling and taking into account factors known to affect sleep and fatigue and their effects on performance. Methods of examination may include but are not limited to:

(i) Operator or industry operational experience and data collected on similar types of operations;

(ii) Evidence-based scheduling practices; and

(iii) Bio-mathematical models.

(p) Proactive – The proactive process shall identify fatigue hazards within current flight operations. Methods of examination may include but are not limited to:

(i) Self-reporting of fatigue risks;

(ii) Crew fatigue surveys;

(iii) Relevant flight and cabin crew performance data;

(iv) Available safety databases and scientific studies; and

(v) Analysis of planned versus actual time worked.

(q) Reactive – The reactive process shall identify the contribution of fatigue hazards to reports and events associated with potential negative safety consequences in order to determine how the impact of fatigue could have been minimised. At a minimum, the process may be triggered by any of the following:

(i) Fatigue reports;

(ii) Confidential reports;

(iii) Audit reports;

(iv) Incidents; and

(v) Flight data analysis events.

Risk assessment

(r) An operator shall develop and implement risk assessment procedures that determine the probability and potential severity of fatigue-related events and identify when the associated risks require mitigation. The risk assessments procedures shall review identified hazards and link them to:

(i) Operational processes;

(ii) Their probability;

(iii) Possible consequences; and

(iv) The effectiveness of existing safety barriers and controls.

Risk mitigation

(s) An operator shall develop and implement risk mitigation procedures that:

(i) Select the appropriate mitigation strategies;

(ii) Implement the mitigation strategies; and

(iii) Monitor the strategies implementation and effectiveness.

FRMS Safety Assurance Process – The operator shall develop and maintain FRMS safety assurance process to:

(t) Provide for continuous FRMS performance monitoring, analysis of trend, and measurement to validate the effectiveness of the fatigue safety risk controls. The sources of data may include, but are not limited to:

(i) Hazard reporting and investigations;

(ii) Audits and surveys; and

(iii) Reviews and fatigue studies;

(u) Provide a formal process for the management of change which shall include but is not limited to:

(i) Identification of changes in the operational environment that may affect FRMS;

(ii) Identification of changes within the organisation that may affect FRMS; and

(iii) Consideration of available tools which could be used to maintain or improve FRMS performance prior to implementing changes; and

(v) Provide for the continuous improvement of the FRMS. This shall include but is not limited to:

(i) The elimination and/or modification of risk controls have had unintended consequences or that are no longer needed due to changes in the operational or organisational environment;

(ii) Routine evaluations of facilities, equipment, documentation and procedures; and

(iii) The determination of the need to introduce new processes and procedures to mitigate emerging fatigue-related risks.

FRMS Promotion Process – support the ongoing development of the FRMS, the continuous improvement of its overall performance, and attainment of optimum safety levels. The following shall be established and implemented by the operator as part of its FRMS:

(w) Training programmes to ensure competency commensurate with the roles and responsibilities of management, flight and cabin crew, and all other involved personnel under the planned FRMS; and

(x) An effective FRMS communications plan that:

(i) Explains FRMS policies, procedures and responsibilities to all relevant stakeholders; and

(ii) Describes communication channels used to gather and disseminate FRMS-related information.

IS: 9.4.4 MAINTENANCE CONTROL MANUAL

Each AOC applicant and AOC holder shall submit and maintain a maintenance control manual containing at least the following:

Note: The manual may be put together in any subject order and subjects combined so long as all applicable subjects are covered in this manual

1.0 Administration and Control of the Maintenance Control Manual

1.1 Introduction

(1) A statement that the manual complies with all applicable Directives and requirements of the Authority and with the terms and conditions of the applicable Air Operator Certificate.

(2) A statement that the manual contains maintenance and operational instructions that are to be complied with by the relevant personnel in the performance of their duties.

(3) A list and brief description of the various Maintenance Control Manual parts, their contents, applicability and use.

(4) Explanations and definitions of terms and words used in the manual.

1.2 System of Amendment and Revision

(1) A Maintenance Control Manual shall describe who is responsible for the issuance and insertion of amendments and revisions.

(2) A record of amendments and revisions with insertion dates and effective dates is required.

(3) A statement that hand-written amendments and revisions are not permitted except in situations requiring immediate amendment or revision in the interest of safety.

(4) A description of the system for the annotation of pages and their effective dates.

(5) A list of effective pages and their effective dates.

(6) Annotation of changes (on text pages and as practicable, on charts and diagrams).

(7) A system for recording temporary revisions.

(8) A description of the distribution system for the manuals, amendments and revisions.

(9) A statement of who is responsible for notifying the Authority of proposed changes and working with the Authority on changes requiring Authority approval.

2.0 General Organisation

2.1 Corporate Commitment by the AOC

2.2 General Information

(1) Brief description of organisation
(2) Relationship with other organisations
(3) Fleet composition
(4) Type of operation
(5) Line station locations

2.3 Maintenance Management Personnel

Accountable manager

Nominated post holder

Maintenance co-ordination

Duties and responsibilities

Organisation chart(s)

Manpower resources and training policy

2.4 Notification Procedure to the Authority Regarding Changes to the Maintenance Arrangements Locations, Personnel, Activities, or Approval

3.0: Maintenance Procedures

3.1 Aircraft Logbook Utilisation and MEL Application

3.2 Aircraft Maintenance Programme Development and Amendment

3.3 Time and Maintenance Records, Responsibilities, Retention

3.4 Accomplishment and Control of Mandatory Continued Airworthiness Information (Airworthiness Directives)

3.5 Analysis of the Effectiveness of the Maintenance Programme

3.6 Non-mandatory Modification Embodiment Policy

3.7 Major Modification Standards

3.8 Defect Reports:

(1) Analysis
(2) Liaison with manufacturers and Regulatory Authorities
(3) Deferred defect policy

3.9 Engineering Activity

3.10 Reliability Programmes

(1) Airframe
(2) Propulsion

(3) Components

3.11 Pre Flight Inspection:

(1) Preparation of aircraft for flight
(2) Subcontracted ground handling functions
(3) Security of cargo and baggage loading
(4) Control of refuelling, Quantity/Quality
(5) Control of snow, ice, dust and sand contamination to an approved aviation standard

3.12 Aircraft Weighing

3.13 Flight Test Procedures

3.14 Sample of Documents, Tags and Forms Used

3.15 Appropriate portions of the AOC holder's operations manual.

IS 9.6 AOC DANGEROUS GOODS MANAGEMENT

1. PURPOSE AND SCOPE

This section provides guidance regarding the carriage of dangerous goods as cargo. These dangerous goods operational requirements apply to all operators. Operators that are approved to transport dangerous goods as cargo however need to meet additional requirements. In addition to the operational requirements contained in this Part, there are other requirements in Part 18 and the Technical Instructions that also need to be complied with.

Note - Carriage of dangerous goods other than as cargo (e.g. medical flights, search and rescue) are addressed in Part 1, Chapter 1, of the Technical Instructions. The exceptions for the carriage of dangerous goods that are either equipment or for use on board the aircraft during flight are detailed in Part 1, 2.2.1, of the Technical Instructions.

2. DEFINITIONS

Where the following term is used in this section, it has the meaning indicated:

Cargo. Any property carried on an aircraft other than mail and accompanied or mishandled baggage.

Note 1.— This definition differs from the definition of "cargo" given in Annex 9 — Facilitation.

Note 2.— COMAT that meets the classification criteria of dangerous goods and which is transported in accordance with

Part 1;2.2.2 or Part 1;2.2.3 or Part 1;2.2.4 of the Technical Instructions are considered as "cargo" (e.g. aircraft parts such as chemical oxygen generators, fuel control units, fire extinguishers, oils, lubricants, cleaning products).

3. REQUIREMENTS

3.1 The Authority shall indicate in the operations specification if the operator is approved or is not approved to transport dangerous goods as cargo. When the operator is approved to transport dangerous goods as cargo, the specific limitations shall be included.

3.2 An operational approval may be granted for the transport of specific types of dangerous goods only (e.g. dry ice; biological substance, Category B; and dangerous goods in excepted quantities) or COMAT.

4. OPERATORS

4.1 The operator's training programme shall cover, as a minimum, the aspects of the transport of dangerous goods listed in the Technical Instructions in Table 1-4 for operators holding an approval or Table 1-5 for operators without an approval. Recurrent training must be provided within 24 months of previous training, except as otherwise provided by the Technical Instructions.

4.2 Details of the dangerous goods training programme including the policies and procedures regarding third-party personnel involved in the acceptance, handling, loading and unloading of dangerous goods cargo should be included in the operations manual.

4.3 The Technical Instructions require that operators provide information in the operations manual and/or other appropriate manuals that will enable flight crews, other employees and ground handling agents to carry out their responsibilities with regard to the transport of dangerous goods and that initial training be conducted prior to performing a job function involving dangerous goods.

4.4 Operators should meet and maintain requirements established by the Authority in in accordance with the Flight Standards Directives.

4.5 Operators may seek approval to transport, as cargo, specific dangerous goods only, such as dry ice, biological substances, Category B, COMAT and dangerous goods in excepted quantities.

4.6 Attachment 1 to Part S-7, Chapter 7, of the Supplement to the Technical Instructions contains additional guidance and information on requirements regarding operators not approved to transport dangerous goods as cargo and for operators that are approved to transport dangerous goods as cargo.

4.7 All operators shall develop and implement a system that ensures they will remain current with regulatory changes and updates. The Technical Instructions contain detailed instructions necessary for the safe transport of dangerous goods by air. These instructions are issued biennially, becoming effective on 1 January of an odd-numbered year.