# LIBERIA CIVIL AVIATION REGULATIONS



## PART 6

## APPROVED MAINTENANCE ORGANIZATION

**EDITION 3.0** 

**JULY 2021** 





## **EXTRAORDINARY**

The Government of the Republic of Liberia announces that the Liberia Civil Aviation Authority, pursuant to its mandate under the Liberia Civil Aviation Act of 2019, and specifically consistent with Subchapter XII, Section 1218 (1), has issued on August 11, 2021 its Regulation No. LCAA/LCAR/001/2021, herein under:

#### CONCERNING LIBERIA CIVIL AVIATION REGULATIONS

#### BY ORDER OF THE PRESIDENT

AMB. DEE-MAXWELL SAAH KEMAYAH, SR. MINISTER OF FOREIGN AFFAIRS

## MINISTRY OF FOREIGN AFFAIRS MONROVIA, LIBERIA





## **AUTHORITY TO PROMULGATE**

## **CIVIL AVIATION REGULATIONS**

IN EXERCISE OF THE POWERS CONFERRED ON THE DIRECTOR GENERAL OF LIBERIA CIVIL AVIATION AUTHORITY UNDER THE LIBERIA CIVIL AVIATION ACT OF 2019 THESE REGULATIONS ARE MADE.

DATE:13th July 2021

SIGNATURE:

Hon. Moses Y. Kollie **DIRECTOR GENERAL** 



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## **AMENDMENTS**

Location	Date	Description



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#### INTRODUCTION

Part 6 provides regulations for the registration and monitoring of Approved Maintenance Organizations (AMO) in Liberia. The proper maintenance of aircraft is fundamental to aviation safety, and requires meticulous record keeping.

Modern practice among Contracting States varies. Maintenance requirements for AOC holders with integral maintenance organizations with no AMO certificate approval of AMO contracted by Liberia AOC holders for the maintenance of Liberia registered aircraft is addressed in Part 9, Air Operator Certification and Administration.

Section 6.2.1.5(a)(4) requires an AMO applicant within Liberia to disclose any and all AMO certificates the applicant holds from any Contracting State other than Liberia. Many regional airline consortia use common maintenance facilities in one Contracting State. This practice does not relieve Liberia from approving the AMO that its AOC holders use. Knowledge of the other Contracting State's AMO licensing and regulating practices will allow the Authority both to communicate with the Authority overseeing the AMO certificate, and to weigh the AMO requirements of the other Contracting State for satisfaction of Liberia's own regulations.



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#### PART 6— APPROVED MAINTENANCE ORGANIZATION

#### 6.1 GENERAL

#### 6.1.1 **SCOPE**

- (a) Part 6 prescribes the requirements for issuing approvals to organizations for the maintenance preventive maintenance, and alterations of aircraft and aeronautical products.
- **(b)** Part 6 prescribes also the general operating rules for an Approved Maintenance Organization (AMO).

#### 6.1.2 **APPLICABILITY**

- (a) This regulation is applicable to any applicant or holder of a certificate of Approved Maintenance Organization issued under this regulation.
- **(b)** This regulation is applicable to the approval of organizations involved in the maintenance of aircraft, engines, propellers and associated parts.

#### 6.1.3 **DEFINITIONS**

- (a) For the purpose of Part 6, the following definitions shall apply:
  - (1) **Accountable Manager (Maintenance).** The manager who has corporate Authority for ensuring that all maintenance, preventive maintenance, and modification required by the aircraft owner/operator can be financed and carried out to the standard required by the Authority. The Accountable Manager may delegate to another person in the Organization, in writing, to become the Accountable Manager, when authorized by the Authority.

**Note:** The 'accountable manager" is either the CEO or a high-level corporate official who has financial responsibility for carrying out the maintenance functions for the entire organization. This person is either the owner of the AMO or the corporate official who signs the initial application for the AMO certification or is either the CEO, President, Managing Director, General Director, General Manager etc.

- (2) **Approval for Return to Service.** A certification by an approved maintenance Organization representative that the maintenance, preventive maintenance, or modification performed on an aircraft, airframe, aircraft engine, propeller, appliance, or component Part thereof was accomplished using the methods, techniques, and practices, prescribed in the current manufacturer's maintenance manual or instructions for continued airworthiness prepared by its manufacturer, or by using other methods, techniques, and practices acceptable to the Authority.
- (3) **Approved Data.** Technical information approved by the state of design or Authority.
- (4) **Approved Maintenance Organization (AMO).** An Organization approved to perform specific aircraft maintenance activities by the CAA of the state of jurisdiction. These activities may include the inspection, overhaul, maintenance, repair and/or modification and release to service of aircraft or aeronautical products.



- (5) **Article**. Any item, including but not limited to, an aircraft, airframe, aircraft engine, propeller, appliance, accessory, assembly, subassembly, system, subsystem, component, unit, product, or Part.
- (6) **Calibration.** A set of operations, performed in accordance with a definite documented procedure that compares the measurement performed by a measurement device or working standard for the purpose of detecting and reporting or eliminating by adjustment errors in the measurement device, working standard, or aeronautical product tested.
- (7) **Certificated Approved Maintenance Organization**. Means a maintenance organization approved by the Authority.
- (8) **Composite.** Structural materials made of substances, including, but not limited to, wood, metal, ceramic, plastic, fibre reinforced materials, graphite, boron, or epoxy, with built in strengthening agents that may be in the form of filaments, foils, powders, or flakes, of a different material.
- (9) **Computer System.** Any electronic or automated system capable of receiving, storing, and processing external data, and transmitting and presenting such data in a usable form for the accomplishment of a specific function.
- (10) **Facility.** A physical plant, including land, buildings, and equipment, which provides the means for the performance of maintenance, preventive maintenance, or modifications of any article.
- (11) **Housing.** Buildings, hangers, and other structures to accommodate the necessary equipment and materials of a maintenance Organization that:
  - (i) Provide working space for the performance of maintenance, preventive maintenance, or modifications for which the maintenance Organization is certificated and rated;
  - (ii) Provide structures for the proper protection of aircraft, airframes, aircraft engines, propellers, appliances, components, Parts, and subassemblies thereof during disassembly, cleaning, inspection, repair, modification, assembly, and testing; and
  - (iii) Provide for the proper storage, segregation, and protection of materials, Parts, and supplies.
- (12) **Line maintenance**. Any unscheduled maintenance resulting from unforeseen events, or scheduled checks that contain servicing and/or inspections that do not require specialized training, equipment, or facilities.
- (13) **Maintenance Release:** An approved maintenance Organization document signed by an authorized approved maintenance Organization representative that states that the article worked on is approved for return to service for the maintenance, preventive maintenance, or modification performed.
- (14) **Measurement Device.** A calibrated calibrator, standard, equipment and test equipment that is intended to be used to test, measure, or calibrate other measurement devices. It is not to be used to test, measure, or calibrate an aeronautical product.

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- (15) **Primary Standard.** A standard defined and maintained by a State Authority and used to calibrate secondary standards.
- (16) **Reference Standard**. A standard that is used to maintain working standards.
- (17) **Secondary Standards:** A standard maintained by comparison with a primary standard.
- (18) **Signature**. An individual's unique identification used as a means of authenticating a maintenance record entry or maintenance record. A signature may be hand-written, electronic, or any other form acceptable to the Authority.
- (19) **Specialized Maintenance**. Any maintenance not normally performed by an AMO (e.g., tire retreating, plating, etc.)
- (20) **Specific Operating Provisions.** The Specific Operating Provisions describe the ratings (Class and/or Limited) in detail and will contain or reference material and process specifications used in performing repair work, along with any limitations applied to the maintenance Organization. The Accountable Manager and the Authority sign this document.
- (21) **Standard.** An object, artifact, tool, test equipment, system, or experiment that stores, embodies, or otherwise provides a physical quantity, which serves as the basis for measurement of the quantity. It also includes a document describing the operations and process that must be performed in order for a Particular end to be achieved.
- (22) **Tools Equipment and Test Equipment.** Used by an AMO for the performance of maintenance or calibration on an aircraft or aeronautical product. See also working standard.
- (23) **Traceability.** A characteristic of a calibration, analogous to a pedigree. A traceable calibration is achieved when each measurement device and working standard, in a hierarchy stretching back to the National Standard, was itself properly calibrated, and the results properly documented. The documentation provides the information needed to show that all calibrations in the chain of calibrations were properly performed.
- (24) **Transfer Standard.** Any standard that is used to compare a measurement process, system, or device at one location or level with another measurement process, system or device at another location or level.
- (25) **Working Standard.** A calibrated standard that is used in the performance of maintenance and/or calibrations in any work area for the purpose of forming the basis for product acceptance or for making a finding of airworthiness (approval for return to service) to an aircraft or aeronautical product. A working standard may be maintained by comparison with primary standards, secondary standards, reference standards or transfer standards, as appropriate. A working standard is not to be used to test, measure, or calibrate other working standards or measurement devices.

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#### 6.1.4 **ABBREVIATIONS**

- (a) The following abbreviations are used in Part 6.
  - (1) **AAT** Approved Airworthiness Tag
  - (2) **AMO** Approved Maintenance Organization.
  - (3) **AMT** Aviation Maintenance Technician
  - (4) **ARS** Aviation Repairman Specialist
  - (5) **NDT** Non-Destructive Testing
  - (6) **PAH** Production Approval Holder
  - (7) **TSO** Technical Standard Order

#### 6.1.5 **EXEMPTION AUTHORITY**

- (a) The Authority may, upon consideration of the circumstances of a particular maintenance organization, issue an exemption providing relief from specified sections of this Part, provided that the Authority finds that the circumstances presented warrant the exemption and that a level of safety will be maintained equal to that provided by the rule from which the exemption is sought.
- **(b)** An exemption may be terminated or amended at any time by the Authority.
- (c) A request for exemption must be made in a form and manner acceptable to the Authority and submitted to the Authority at least 60 days before the date the deviation from specified sections in this part is necessary for the intended maintenance, preventive maintenance, or modification. A request for deviation authority must contain complete statement of the circumstances and justifications for the deviation requested, and show that a level of safety will be maintained equal to that provided by the rule from which the deviation is sought.
- (d) Each approved maintenance organization that receives an exemption must have a means of notifying the appropriate management, certifying staff, and personnel of the exemption including the extent of the exemption and when the exemption is terminated or amended.

#### 6.1.6 **ADVERTISING**

- (a) No approved maintenance organization may advertise as a certificated approved maintenance organization until an approved maintenance organization certificate has been issued to that facility.
- **(b)** No certificated approved maintenance organization may make any statement, either in writing or orally, about itself that is false or is designed to mislead any person.
- **(c)** Whenever the advertising of an approved maintenance organization indicates that it is certificated, the advertisement must clearly state the approved maintenance organization's certificate number.

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#### 6.2 CERTIFICATION OF A MAINTENANCE ORGANIZATION AND CONTINUED VALIDITY

#### 6.2.1 **APPLICABILITY**

(a) This section prescribes the requirements for the certification of a maintenance organization and continued validity of the certificate.

#### 6.2.2 COMPLIANCE WITH A CERTIFICATE OF AMO

- (a) No person may operate as a certificated approved maintenance organization without, or in violation of, an approved maintenance organization certificate, ratings or operations specifications issued under this part.
- **(b)** The approval of an AMO by a State shall be dependent upon the applicant demonstrating compliance with the requirements of this part and the safety management requirements of LCAR part 1.

## 6.2.3 APPROVED MAINTENANCE ORGANIZATION CERTIFICATE AND OPERATIONS SPECIFICATIONS

- (a) The AMO certificate will consist of two documents—
  - (1) A one page certificate signed by the Authority; and
  - (2) A multi-page operations specifications signed by the Accountable Manager and the Authority containing the terms, conditions, and authorizations.
- **(b)** No person may operate as an approved maintenance organization without, or in violation of, an approved maintenance organization certificate issued under this Part.
- **(c)** An approved maintenance organization may perform maintenance, preventive maintenance, or alterations on an aircraft, airframe, aircraft engine, propeller, appliance, component, or part thereof only for which it is rated and within the terms, conditions, and authorizations placed in its operations specifications.
- (d) The AMO approval certificate shall contain at least the following information:
  - (1) The certificate number specifically assigned to the AMO;
  - (2) The issuing Authority and the name, title and signature of the person issuing the certificate;
  - (3) The name and location (main place of business) of the AMO;
  - (4) The date of current issue and period of validity;
  - (5) The ratings issued to the AMO;
  - (6) The locations of the maintenance facilities, unless the information is included in a separate document referred to in the approval certificate.
- (e) The AMO operations specifications will contain—
  - (1) The certificate number specifically assigned to the AMO;
  - (2) The class or limited ratings issued in detail, including special approvals and limitations issued;
  - (3) The date issued or revised;
  - (4) Accountable manager and Authority signatures; and
  - (5) Delegated authorization



- (f) The AMO approval certificate shall follow be in a format as shown in IS: 6.2.3.
- **(g)** The certificate and operations specifications issued to each certificated maintenance organization must be available in the premises for inspection by the public and the Authority.

#### 6.2.4 APPLICATION FOR AN AMO CERTIFICATE

- (a) The Authority will require an applicant for approval of a maintenance organization to submit the following—
  - (1) An application in a form and a manner prescribed by the Authority, as contained in IS: 6.2.4;
  - (2) Its Maintenance Procedures Manual in duplicate;
  - (3) A list of the maintenance functions to be performed for it, under contract, by another AMO;

**Note:** ICAO Doc. 9642, Part 4, 2.9 states that it is accepted practice to permit AMOs to subcontract work to non-approved maintenance organizations if the contracting AMO is (1) approved for the work to be subcontracted and has the ability to assess the competency of the subcontractor, (2) retains the responsibility for the quality control and release of subcontracted activities, and (3) there exist procedures to control subcontracted activities together with terms of reference for the personnel responsible for their management. However, for these Directives, subcontracting is limited to only approved AMOs.

- (4) A list of all AMO certificates and ratings pertinent to those certificates issued by any contracting State other than Liberia;
- (5) Documentation of the maintenance organization's Quality System; and
- (6) Any additional information the Authority requires the applicant to submit.
- (b) An application for the amendment of an existing AMO certificate shall be made on a form and in a manner prescribed by the Authority. If applicable, the AMO shall submit the required amendment to the Maintenance Procedures Manual to the Authority for approval.
  - Note 1: "In a form" and "in a manner" mean that a form issued by the Authority should be completed by the accountable manager, or the manager's nominee designated in accordance with 6.2.6(a).
  - Note 2: The contents of the maintenance procedures manual is contained in 6.5.1.
  - Note 3: The requirement for listing AMO certificates, above, supports the application by Liberia of the following Articles of the Chicago Convention: Article 33 Recognition of Certificates and Licenses; Article 37(d) Adoption of International Standards and Procedures; Article 39(b) Endorsement of Certificates and Licenses; and Article 40 Validity of Endorsed Certificates and Licenses.
- (c) In the case of a Foreign AMO being used for a Liberian registered aircraft, LCAA shall validate the AMO's original Certificate issued by the host State and the validation shall be dependent upon the validity of the original certificate.
- (d) An AMO Approval, or any portion thereof, issued by the Authority is effective for a period of 12 months until-
  - (1) The Authority amends, suspends, revokes or otherwise terminates the approval;

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- (2) The AMO surrenders the approval to the Authority; or
- (3) The AMO suspends operations.
- **(e)** An AMO shall make application for renewal of its approval at least 30 days before the end of the existing period of validity.

#### 6.2.5 ISSUANCE AND ACCEPTANCE OF AN AMO CERTIFICATE

- (a) An applicant may be issued an AMO certificate if, after investigation, the Authority finds that the applicant—
  - (1) Meets the applicable regulations and standards for an AMO certificate, and
  - (2) Is properly and adequately equipped for the performance of maintenance of aircraft or aeronautical product for which it seeks approval.
- **(b)** Where Liberia accepts, in whole or in part, a maintenance organization approval issued by another Contracting State, Liberia shall establish a process for the recognition of such approval and successive changes. in such a case, the recognizing contracting State shall build an adequate liaison with the contracting that initially issued the maintenance organization approval.

#### 6.2.6 DURATION AND RENEWAL OF AMO CERTIFICATE

- (a) A certificate or rating issued to an approved maintenance organization is valid for a period of one year from the date of issue, unless the approved maintenance organization surrenders it or the Authority suspends or revokes it.
- **(b)** The holder of a certificate that expires or is surrendered, suspended, or revoked by the Authority must return the certificate and specific operating provisions to the Authority.
- (c) A certificated approved maintenance organization in Liberia that applies for a renewal of its approved maintenance organization certificate must submit its request for renewal not later than 30 days before the approved maintenance organization's current certificate expires. If a request for renewal is not made within this period, the approved maintenance organization must follow the application procedure prescribed by the Authority.
- (d) A certificated maintenance organization located outside Liberia that applies for a renewal of its maintenance organization certificate for aircraft registered in Liberia must:
  - (1) Submit its request for renewal not later than 30 days before the approved maintenance organization's current certificate expires. If a request for renewal is not made within this period, the approved maintenance organization must follow the application procedure prescribed by the Authority.
  - (2) Have a valid AMO certificate issued by the Authority that has jurisdiction over the maintenance organization.

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#### 6.2.7 **CONTINUED VALIDITY OF APPROVAL**

- (a) Unless the approval has previously been surrendered, superseded, suspended, revoked or expired by virtue of exceeding any expiration date that may be specified in the approval certificate, the continued validity of approval is dependent upon—
  - (1) The AMO remaining in compliance with this Part;
  - (2) The Authority being granted access to the organization's facilities to determine continued compliance with this regulation; and
  - (3) The payment of any charges prescribed by the Authority
- **(b)** The holder of an AMO certificate that is surrendered, suspended, or revoked, shall return it to the Authority.

#### 6.2.8 ACCESS FOR INSPECTION

- (c) Each certificated AMO shall allow the Authority to inspect that AMO and any of its contract maintenance facilities at any time to determine compliance with this Part.
- **(d)** Arrangements for maintenance, preventive maintenance, or modifications by a contractor shall include provisions for inspections of the contractor by the Authority.

#### 6.2.9 **CONDUCT OF INSPECTIONS AND AUDITS**

- (a) The Authority may, at any time, inspect an AMO holder on the AMO holder's premises to determine the AMO compliance with this Part.
- **(b)** Each certificated approved maintenance organization shall grant the Authority unlimited, unimpeded and unrestricted access to inspect that maintenance organization and any of its contract maintenance facilities and documentation at any time to determine compliance with this part. Arrangements for maintenance, preventive maintenance, or modifications by a contractor shall include provision for inspections of the contractor by the Authority.
- (c) Inspections will also be performed on the applicant for, or the holder of an AMO certificate held outside Liberia. This inspection may be delegated to the Authority of the State where the AMO is located, provided an arrangement exists.
- (d) Inspections will be conducted at least annually.
- **(e)** After an inspection is made, the certificate holder will be notified, in writing, of any deficiencies found during the inspection.
- **(f)** The findings shall be classified as follow:
  - (1) A level 1 finding is any significant non-compliance applicable requirements of this Regulation, 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.
  - (2) A level 2 finding is any non-compliance with applicable requirements of this Regulation, 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.



- (3) A level 3 finding (Observation) is a minor irregularity which is considered to be an observation and warrants attention.
- **(g)** After receipt of notification of findings according to paragraph (e), the holder of the maintenance organization approval shall, within a period prescribed by the Authority:
  - (1) identify the root cause of the non-compliance; and
  - (2) define a corrective action plan
- **(h)** Following measures taken in paragraph (g) the holder of the maintenance organization approval shall demonstrate corrective action to the satisfaction of the authority within a period agreed with the Authority.
- (i) When during oversight or by other means, evidence is found showing non-compliance with the requirements of Part 6, the Authority shall take the following actions:
  - (1) For level 1 findings, immediate action shall be taken by the Authority to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the maintenance organization approval, until successful corrective action has been taken by the organization.
  - (2) 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.
  - (3) For level 3 findings, the AMO should consider this issue and advise the Authority in writing of its thoughts and intentions with respect to corrective action.
- (j) If a maintenance organization fails to submit an acceptable corrective action plan or fails to apply the corrective measures within the time limit agreed or extended by the authority, the degree of seriousness of non-compliance increases to level 1 and the measures provided for in paragraph (i) (1).

#### 6.2.10 SUSPENSION OR REVOCATION

(a) The Authority may suspend or revoke an AMO certificate if it is established that a certificate holder has not met, or no longer meets the requirements of Part 6.

#### 6.2.11 CHANGES TO THE AMO AND CERTIFICATE AMENDMENTS

- (a) To enable the Authority to determine continued compliance with this Part, the AMO shall provide written notification to the Authority either prior to, or within a time period determined by the Authority to be as soon as practicable after, any of the following changes—
  - (1) The name of the organization;
  - (2) The location of the organization;
  - (3) The housing, facilities, equipment, tools, material, procedures, work scope and certifying staff that could affect the AMO rating or ratings;



(4) The ratings held by the AMO, whether granted by the Authority or held through an AMO certification issued by another contracting State;

Note: See section 6.2.6(a).

- (5) Additional locations of the organization;
- (6) Items in the Maintenance Procedures Manual,
- (7) The accountable manager; or
- (8) The list of management personnel identified as described in the Maintenance Procedures Manual.
- **(b)** The Authority will amend the AMO certificate if the AMO notifies the Authority of a change in—
  - (1) Location or housing and facilities;
  - (2) Additional locations of the organization;
  - (3) Rating, including deletions;
  - (4) Name of the organization with same ownership; or
  - (5) Ownership.
- (c) The Authority may amend the AMO certificate if the AMO notifies the Authority of a change in—
  - (1) The accountable manager; or
  - (2) The list of management personnel identified as described in the Maintenance Procedure Manual.
  - (3) Items in the Maintenance Procedures Manual,
- (d) When the Authority issues an amendment to an AMO certificate because of new ownership of the AMO, the Authority will assign a new certificate number to the amended AMO certificate.
- (e) The Authority may—
  - (1) Prescribe, in writing, the conditions under which the AMO may continue to operate during any period of implementation of the changes noted in subparagraph (a); and
  - (2) Hold the AMO certificate in abeyance if the Authority determines that approval of the AMO certificate should be delayed; the Authority will notify the AMO certificate holder, in writing, of the reasons for any such delay.
- (f) If changes are made by the AMO to the items listed in subparagraph (a) without notification to the Authority and amendment of the AMO certificate by the Authority, the AMO certificate may be suspended, or revoked, by the Authority.

#### 6.2.12 RATINGS OF THE AMO

- (a) The following ratings are issued under this Subpart—
  - (1) Airframe ratings

An airframe rating on a maintenance organization certificate permits that maintenance organization to perform maintenance, preventive maintenance, or modifications of airframes under the following classes:



- (i) **Class 1:** Composite construction of small aircraft.
- (ii) Class 2: Composite construction of large aircraft.
- (iii) Class 3: All-metal construction of small aircraft.
- (iv) **Class 4:** All-metal construction of large aircraft.

#### (2) Powerplant ratings

A powerplant rating on a maintenance organization certificate permits that maintenance organization to perform maintenance, preventive maintenance, or modifications of powerplants under the following classes:

- (i) **Class 1:** Piston engines of 400 horsepower or less.
- (ii) **Class 2:** Piston engines of more than 400 horsepower.
- (iii) Class 3: Turbine engines.

#### (3) Propeller ratings

A propeller rating on a maintenance organization certificate permits that maintenance organization to perform maintenance, preventive maintenance, or modifications of propellers under the following classes:

- (i) **Class 1:** Fixed-pitch and ground-adjustable propellers of wood, metal or composite construction.
- (ii) Class 2: variable- pitch propellers

#### (4) Avionics/radio ratings

An avionics rating on a maintenance organization certificate permits that maintenance organization to perform maintenance, preventive maintenance, or modifications of avionics equipment under the following ratings:

- (i) **Class 1:** Communication equipment: Radio transmitting equipment or receiving equipment, or both, used in aircraft to send or receive communications, regardless of carrier frequency or type of modulation used; including auxiliary and related aircraft interphone systems, amplifier systems, electrical or electronic inter-crew signaling devices, and similar equipment; but not including equipment used for navigation of the aircraft or as an aid to navigation, equipment for measuring altitude or terrain clearance, other measuring equipment operated on radio or radar principles, or mechanical, electrical, gyroscopic, or electronic instruments that are a part of communications radio equipment.
- (ii) **Class 2:** Navigational equipment: A radio system used in aircraft for en-route, approach navigation, to include the flight director system, except equipment operated on radar or pulsed radio frequency principles, but not including equipment for measuring altitude or terrain clearance or other distance measuring equipment operated on pulsed radio frequency principles.



(iii) **Class 3:** Pulsed equipment: Any aircraft electronic system operated on pulsed radio frequency principles.

#### (5) Computer systems ratings

A computer systems rating on a maintenance organization certificate permits that maintenance organization to perform maintenance, preventive maintenance, or modifications of digital computer systems and components thereof, that have the function of receiving external data, processing such data, and transmitting and presenting the processed data under the following classes:

- (i) **Class 1**: Aircraft computer systems.
- (ii) **Class 2**: Powerplant computer systems.
- (iii) Class 3; Avionics computer systems.

#### (6) Instrument ratings

An instrument rating on a maintenance organization certificate permits that maintenance organization to perform maintenance, preventive maintenance, or modifications of instruments under the following classes:

- (i) **Class 1:** *Mechanical:* Any diaphragm, bourdon tube, aneroid, optical, or mechanically driven centrifugal instrument that is used on aircraft or to operate aircraft, including tachometers, airspeed indicators, pressure gauges, drift sights, magnetic compasses, altimeters, or similar mechanical instruments.
- (ii) **Class 2:** *Electrical:* Any self-synchronous and electrical indicating instruments and systems, including remote indicating instruments, cylinder head temperature gauges, or similar electrical instruments.
- (iii) **Class 3:** *Gyroscopic:* Any instrument or system using gyroscopic principles and motivated by air pressure or electrical energy, including automatic pilot control units, turn and bank indicators, directional gyros, and their parts, and flux gate and gyrosyn compasses.
- (iv) **Class 4:** *Electronic:* Any instruments whose operation depends on electron tubes, transistors, electronic displays, or similar devices including capacitance type quantity gauges, system amplifiers, and engine analyzers.

#### (7) Accessory ratings

An accessory rating on a maintenance organization certificate permits that maintenance organization to perform maintenance, preventive maintenance, or modifications of accessory equipment under the following classes:



- (i) **Class 1:** Mechanical. The accessories that depend on friction, hydraulics, mechanical linkage, or pneumatic pressure for operation, including aircraft brakes, mechanically driven pumps, carburetors, aircraft wheel assemblies, shock absorber struts and hydraulic servo units.
- (ii) **Class 2:** *Electrical.* The accessories that depend on electrical energy for operation, and generators, including starters, voltage regulators, electric motors, electrically driven fuel pumps, magnetos, or similar electrical accessories
- (iii) **Class 3:** *Electronic.* The accessories that depend on the use of an electron tube transistors, or similar device, including supercharger, temperature, air conditioning controls, or similar electronic controls.
- (iv) **Class 4:** Auxiliary power units (APU's) that may be installed on aircraft as self-contained units to supplement the aircraft's engines as a source of hydraulic, pneumatic, or electrical power.

#### 6.2.13 AMO LIMITED RATINGS

- (a) Whenever the Authority finds it appropriate, it may issue a limited rating to an AMO that maintains or alters only a particular type of airframe, powerplant, propeller, radio, instrument, or accessory, or parts thereof, or performs only specialized maintenance requiring equipment and skills not ordinarily found in an AMO. Such a rating may be limited to a specific model aircraft, engine, or constituent part, or to any number of parts made by a particular manufacturer.
- (b) Limited ratings are issued for—
  - (1) Airframes of a particular make and model;
  - (2) Powerplants of a particular make and model;
  - (3) Propellers of a particular make and model;
  - (4) Radio equipment of a particular make and model;
  - (5) Instruments of a particular make and model;
  - (6) Accessories of a particular make and model;
  - (7) Landing gear components;
  - (8) Floats, by make;
  - (9) Nondestructive inspection, testing, and processing;
  - (10) Emergency equipment;
  - (11) Rotor blades, by make and model;
  - (12) Aircraft fabric work; and
  - (13) Any other purpose for which the Authority finds the applicant's request appropriate.
- **(c) Specialized service ratings.** A specialized service rating may be issued to a maintenance organization to perform specific maintenance or processes. The operating specifications of the approved maintenance organization must identify the specification used in performing that specialized service. The specification may be—



- (1) A civil or military specification that is currently used by industry and approved by the Authority; or
- (2) A specification developed by the approved maintenance organization and approved by the Authority.

#### 6.2.14 QUALITY SYSTEM

- (a) The AMO shall establish a quality system and designate a quality manager to monitor compliance with, and adequacy of, procedures required to ensure safe maintenance practices and airworthy aircraft. Compliance monitoring shall include a feedback system to the accountable manager to ensure corrective action as necessary.
- **(b)** The quality system, and the quality manager, shall be acceptable to the Authority.
- (c) Each AMO shall ensure that the quality system includes a quality assurance program that contains procedures designed to monitor compliance with required aircraft and aircraft component standards and adequacy of the procedures to ensure that such procedures invoke good maintenance practices and airworthy aircraft and aircraft components.
- (d) The quality assurance system shall include a procedure to initially qualify and periodically perform audits on persons performing work on behalf of the AMO.
- (e) The quality system shall include a feedback system to the designated management person or group of persons directly responsible for the quality system and ultimately to the accountable manager that ensures, as necessary, proper and timely corrective action is taken in response to reports resulting from the independent audits.
- (f) The AMO's quality system shall be sufficient to review all maintenance procedures, as described in the Maintenance Control Manual and the Maintenance Procedures Manual, in accordance with an approved program once a year.
- **(g)** The AMO's quality system shall indicate when audits are due, when completed, and establish a system of audit reports, which can be seen by visiting Authority staff on request. The audit system shall clearly establish a means by which audit reports containing observations about non-compliance or poor standards are communicated to the accountable manager.
- **(h)** If the AMO is a small organization, the independent audit part of the quality system may be contracted to another organization approved under this part or a person with appropriate technical knowledge and proven satisfactory audit experience such as ISO 9000 qualification.
- (i) Where the AMO is part of an air operator certificated under Part 9, the AOC holder's quality management system may be combined with the requirements of an AMO and submitted for acceptance to the Authority.
- (j) Each AMO shall describe the quality system in relevant documentation as outlined in IS: 6.2.14.

**Note** - Implementing Standard See IS: 6.2.14 for detailed requirements pertaining to the quality system, including a sample of inspection items.

#### 6.2.15 SAFETY MANAGEMENT

(a) An AMO shall implement a safety management system acceptable to the Authority as outlined in LCAR Part 1: 1.7.



#### 6.2.16 LOCATION OF THE AMO

- (a) Principal place of business. An applicant for, or holder of, a certificated AMO under this Part shall establish and maintain a principal place of business office that is physically located at the address shown on its certificate.
- **(b)** Additional fixed locations. An AMO may have additional fixed locations without certificating each facility as a stand-alone AMO, which may be approved by the Authority provided that
  - (1) All of the facilities are localized and within a defined area, and
  - (2) All locations operate under the approval of the AMO certificate and operations specifications.
- **(c)** Foreign locations of AMOs. An AMO approved by the Authority may be located in a country outside Liberia and is subject to all the applicable requirements of this Part.

#### 6.2.17 SUBMISSION AND REVISION OF POLICY AND PROCEDURE MANUALS

- (a) All the manuals required by this part must:
  - (1) Include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;
  - (2) 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;
  - (3) Have a date of the last revision on each page concerned;
  - (4) Not be contrary to any applicable Liberia regulation and the AMO holder's operations specifications; and
  - (5) Each manual shall include a reference to appropriate civil aviation regulations.
- **(b)** Each holder of a manual required by this Part shall keep it up to date with the amendments or revisions supplied by the AMO.
- (c) No person may cause the use of any policy and procedure for maintenance function prior to co-ordination with the Authority.
- (d) The AMO holder shall submit the proposed policy or procedure to the Authority at least 30 days prior to the date of intended implementation. When immediate amendments or revisions are required in the interest of safety, they may be published and applied immediately, provided that any approval required has been applied for.

#### 6.3 HOUSING, FACILITIES, EQUIPMENT, MATERIALS AND DATA

#### **6.3.1 GENERAL**

(a) A certificated approved maintenance organization must provide, housing, facilities, equipment, materials, and data in quantity and quality that meet the standards required for the issuance of the certificate and ratings that the approved maintenance organization holds.

#### 6.3.2 HOUSING AND FACILITY REQUIREMENTS

(a) Housing for the facilities, equipment, materials, and personnel shall be provided appropriate for all planned work ensuring, in particular, protection from weather.



- **(b)** Facilities for properly performing the maintenance, preventive maintenance, or modifications of articles or the specialized service for which it is rated. Facilities shall include the following:
  - (1) Work environments appropriate for the task carried out and shall not impair the effectiveness of personnel.
  - (2) Office accommodation appropriate for the management of planned work including, in particular, the management of quality, planning, and technical records.
  - (3) Specialized workshops and bays segregated, as appropriate, to insure that environmental and work area contamination is unlikely to occur.
  - (4) Secure storage facilities for parts, equipment, tools, and material.
- **(c)** Storage conditions shall provide security for serviceable parts, equipment, tools and material segregation of serviceable from unserviceable parts, equipment, tools and material and prevents deterioration of and damage to stored items.
- **(d)** The conditions of storage are in accordance with the manufacturer's instructions to prevent deterioration and damage of stored items.
- **(e)** Access to storage facilities is restricted to authorized personnel.
- (f) An AMO with an airframe rating or limited rating shall provide suitable permanent housing to enclose the largest type and model of aircraft listed on its operations specifications.
- **(g)** An AMO may perform maintenance, preventive maintenance, or modifications on articles outside of its housing if it provides suitable facilities that are acceptable to the Authority.
- **(h)** See IS: 6.3.2 for detailed requirements pertaining to housing and facilities.

#### 6.3.3 EQUIPMENT, TOOLS, AND MATERIAL

- (a) The AMO shall have available the necessary technical data, equipment, tools, and material to perform the approved scope of work and these items shall be under full control of the AMO. The availability of equipment and tools means permanent availability except in the case of any tool or equipment that is so rarely needed that its permanent availability is not necessary.
- **(b)** Notwithstanding paragraph (a), the Authority may exempt an AMO from possessing specific tools and equipment for maintenance or repair of an aircraft or aeronautical product specified in the AMO's approval, if these items can be acquired temporarily, by prior arrangement, and be under full control of the AMO when needed to perform required maintenance or repairs.
  - **Note:** The Authority need not amend the approval to delete the aircraft or aeronautical product on the basis that it is temporary situation and there is a formal agreement from the AMO to reacquire tools, equipment, etc, before performing any maintenance or repair.
- (c) The AMO shall use the equipment, tools, and material that are recommended by the manufacturer of the article or must be at least equivalent to those recommended by the manufacturer and acceptable to the Authority.
- (d) The AMO shall control all applicable tools, equipment, and test equipment used for product acceptance and/or for making a finding of airworthiness.

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- (e) An AMO approved for base maintenance shall have sufficient aircraft access equipment and inspection platforms/docking such that the aircraft can be properly inspected.
- (f) The AMO shall ensure that all applicable tools, equipment, and test equipment used for product acceptance and/or for making a finding of airworthiness are calibrated to ensure correct calibration to a standard acceptable to the Authority and traceable to a National Standards recognized by the Authority.
- **(g)** The AMO shall keep all records of calibrations and the standards used for calibration.
- **(h)** The AMO shall ensure that storage conditions provide adequate security and prevent deterioration of, and damage to , stored items such as parts, equipment, tools and material.
- (i) Implementing Standards (IS: 6.3.3) contains detailed requirements pertaining to tools, equipment, and test equipment.

#### 6.3.4 ACCEPTANCE OF COMPONENTS

- (a) All components shall be classified and appropriately segregated into the following categories:
  - (1) Components which are in a satisfactory condition, released on an Liberia Form 1 in IS 6.3.4 or equivalent and appropriately marked.
  - (2) Unserviceable components which shall be maintained in accordance with this section.
  - (3) Unsalvageable components which are classified in accordance with paragraph (d).
  - (4) Standard parts used on an aircraft, engine, propeller or other aircraft component when specified in the manufacturer's illustrated parts catalogue and/or the maintenance data.
  - (5) Material both raw and consumable used in the course of maintenance when the organization is satisfied that the material meets the required specification and has appropriate traceability. All material must be accompanied by documentation clearly relating to the particular material and containing a conformity to specification statement plus both the manufacturing and supplier source.
  - (6) Components referred to in sub-part 5.6 of Part 5.
- (b) Prior to installation of a component, the organization shall ensure that the particular component is eligible to be fitted when different modification and/or airworthiness directive standards may be applicable.
- (c) The organization may fabricate a restricted range of parts to be used in the course of undergoing work within its own facilities provided procedures are identified in the exposition.
- (d) Components which have reached their certified life limit or contain a non-repairable defect shall be classified as unsalvageable and shall not be permitted to re-enter the component supply system unless certified life limits have been extended or a repair solution has been approved according to Part 5.
- **(e)** Components referred to in sub-part 5.6 of Part 5 shall only be installed if considered eligible for installation by the aircraft owner in its own aircraft.

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#### 6.4 ADMINISTRATION

#### 6.4.1 PERSONNEL REQUIREMENTS

#### 6.4.1.1 Management Personnel

- (a) The AMO shall appoint an accountable manager, acceptable to the Authority, who has corporate authority for ensuring that all maintenance required by the customer can be financed and carried out to the standard required by this Part.
- **(b)** The appointment of the accountable manager requires the prior approval of the authority.
- (c) The accountable manager shall:
  - (1) ensure that all necessary resources are available to accomplish maintenance in accordance with this regulation to support the organization approval;
  - (2) establish and promote the safety and quality policy;
  - (3) demonstrate a basic understanding of this Part.
- **(d)** The AMO accountable manager shall nominate a person or group of persons acceptable to the Authority, whose responsibilities include ensuring that the AMO is in compliance with this regulation.
- **(e)** The person or persons nominated as manager shall:
  - (1) Represent the maintenance management structure of the AMO
  - (2) Be responsible for all functions specified in this Part.
  - (3) Be directly responsible to the accountable manager.
  - (4) Be able to demonstrate relevant knowledge, background and satisfactory experience related to aircraft or component maintenance and demonstrate a working knowledge of this Part.
- (f) In accordance with paragraph (b), the AMO shall have, dependent upon the extent of approval, the following:
  - (1) A base maintenance manager.
  - (2) A line maintenance manager.
  - (3) A workshop manager and
  - (4) A quality manager.
- **(g)** The AMO functions shall be subdivided under individual managers or combined in any number of ways, dependent upon the size of the AMO.

Note: In small AMOs, one or more of the above positions may be combined subject to approval by the Authority.

- **(h)** Procedures shall make clear who deputizes for any particular person in the case of lengthy absence of the said person.
- (i) IS: 6.4.1.1 establishes detailed management personnel requirements.



#### 6.4.1.2 Other Personnel Requirements

- (a) The AMO shall employ sufficient personnel to plan, perform, supervise and inspect and release the work in accordance with the approval.
- **(b)** The competence of personnel involved in maintenance, management and/or quality audits, shall be established and controlled in accordance with a procedure and to a standard acceptable to the Authority.
- **(c)** Each supervisor in the AMO shall be hold an AMT license issued in accordance with Part 2, Personnel Licensing.
- (d) The person signing maintenance release or an approval for return to service shall be qualified in accordance with Part 2, as appropriate to the work performed and shall be acceptable to the Authority.
- **(e)** An AMO that uses Aviation Repairman Specialists (ARS) shall ensure that each ARS is employed by the AMO and is licensed in accordance with Part 2.
- (f) The maintenance personnel and the certifying staff shall meet the qualification requirements and receive initial, recurrent, and specialized training to their assigned tasks and responsibilities in accordance with a program acceptable to the Authority. The training program established by the AMO shall include training in knowledge and skills related to human performance, including co-ordination with other maintenance personnel and flight crew.
- (g) IS: 6.4.1.2 establishes detailed other personnel requirements

#### 6.4.1.3 Certifying staff

- (a) In addition to the appropriate requirements of 6.4.1.2 (g) and (h), the organization shall ensure that certifying staff have an adequate understanding of the relevant aircraft and/or components to be maintained together with the associated organization procedures. In the case of certifying staff, this shall be accomplished before the issue or re-issue of the certification authorization.
- (b) Excepting those cases listed in subsection 6.4.1.2 and Part 2 the organization may only issue a certification authorization to certifying staff in relation to the basic categories or subcategories and any type rating listed on the aircraft maintenance license as required by Part 2, subject to the license remaining valid throughout the validity period of the authorization and the certifying staff remaining in compliance with Part 2.
- (c) The organization shall ensure that all certifying staff are involved in at least 6 months of actual relevant aircraft or component maintenance experience in any consecutive 2-year period.
- (d) For the purpose of this paragraph 'involved in actual relevant aircraft or component maintenance' means that the person has worked in an aircraft or component maintenance environment and has either exercised the privileges of the certification authorization and/or has actually carried out maintenance on at least some of the aircraft type or aircraft group systems specified in the particular certification authorization.

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- (e) The organization shall ensure that all certifying staff receive sufficient continuation training in each two year period to ensure that such staff have up-to-date knowledge of relevant technology, organization procedures and human factor issues.
- (f) The organization shall establish a programme for continuation training for certifying staff, including a procedure to ensure compliance with the relevant paragraphs of 6.4.1.2 as the basis for issuing certification authorizations under this Part to certifying staff, and a procedure to ensure compliance with Part 2.
- **(g)** Except where any of the unforeseen cases of 6.4.1.2 apply, the organization shall assess all prospective certifying staff for their competence, qualification and capability to carry out their intended certifying duties in accordance with a procedure as specified in the exposition prior to the issue or re-issue of a certification authorization under this Part.
- (h) When the conditions of paragraphs (a), (b), (d), (f) and, where applicable, paragraph (c) have been fulfilled by the certifying staff, the organization shall issue a certification authorization that clearly specifies the scope and limits of such authorization.
- (i) Continued validity of the certification authorization is dependent upon continued compliance with paragraphs (a), (b), (d), and where applicable, paragraph (c).
- (j) The certification authorization must be in a style that makes its scope clear to the certifying staff and any authorized person who may require to examine the authorization.
- **(k)** Where codes are used to define scope, the organization shall make a code translation readily available.
  - Note: 'Authorized person' means the officials of the authorities who has responsibility for the oversight of the maintained aircraft or component.
- (1) The person responsible for the quality system shall also remain responsible on behalf of the organization for issuing certification authorizations to certifying staff.
- **(m)** Such person may nominate other persons to actually issue or revoke the certification authorizations in accordance with a procedure as specified in the exposition.
- (n) The organization shall maintain a record of all certifying staff, which shall contain:
  - (1) The details of any aircraft maintenance license held under Part 2 and
  - (2) All relevant training completed; and
  - (3) The scope of the certification authorizations issued, where relevant; and
  - (4) Particulars of staff with limited or one-off certification authorizations.
- (o) The organization shall retain the record for at least three years after the staff referred to in this paragraph have ceased employment with the organization or as soon as the authorization has been withdrawn.
- **(p)** In addition, upon request, the maintenance organization shall furnish the staff referred to in this paragraph with a copy of their personal record on leaving the organization.
- (q) The staff referred to in this paragraph shall be given access on request to their personal records as detailed above.



- **(r)** The organization shall provide certifying staff with a copy of their certification authorization in either a documented or electronic format.
- **(s)** Certifying staff shall produce their certification authorization to any authorized person within 24 hours.
- (t) The minimum age for certifying staff is 21/18 years.

#### 6.4.2 INDOCTRINATION, INITIAL, RECURRENT, SPECIALIZED AND REMEDIAL TRAINING

- (a) An AMO shall have an employee training program approved by the Authority that consists of indoctrination, initial, recurrent training, specialized and remedial training.
- **(b)** The AMO shall ensure that all maintenance personnel receive initial and continuation training appropriate to their assigned tasks and responsibilities.
- (c) the training program established by the maintenance organization shall include training in knowledge and skills related to human performance, including coordination with other maintenance personnel and flight crew.
- (d) An AMO shall develop and update its training program based on the job tasks associated with its scope of operating authority and capabilities.
- **(e)** The training program shall ensure that each employee assigned to perform maintenance, preventive maintenance, or alterations, and inspection functions is capable of performing the assigned task.
- (f) Each AMO, in developing training for employees, shall take into account the various training, experience, and skill levels of its employees as follows:
  - (1) Employees that hold an AMT license;
  - (2) Employees with experience performing similar tasks at another AMO;
  - (3) Employees with applicable military aviation maintenance experience; and
  - (4) Employees with no prior skills, experience, or knowledge.
- (g) Each AMO shall have procedures to determine the frequency of recurrent training and the need for specialized and remedial training.
- **(h)** The training program and revisions of its training program shall be approved by the Authority.
- (i) Each AMO shall assess the competency of its employees for performing his or her assigned duties after completion of initial, recurrent, specialized and remedial training. This assessment of competency shall be appropriately documented in the employee's training records and shall be done by any of the following methods, depending upon the size of the AMO, its capabilities and experience of its employees:
  - (1) Written test.
  - (2) Completion of a training course.
  - (3) Skill test.
  - (4) Group exercise.
  - (5) On the job assessment.
  - (6) Oral examination in the working environment.



- (j) An AMO shall document, in a form and manner acceptable to the Authority, the individual employee training required under this section. These training records must be retained for a minimum of two years.
- **(k)** An AMO training program shall meet the detailed requirements contained in the IS: 6.4.1.2

#### 6.4.3 DANGEROUS GOODS TRAINING PROGRAM

- (a) An AMO shall have a dangerous goods training program for its employees, whether full time, part time, or temporary or contracted, who are engaged in the following activities:
  - (1) Loading, unloading or handling of dangerous goods;
  - (2) Design, manufacture, fabrication, inspection, marking, maintenance, reconditions, repairs or tests of a package, container or packaging component that is represented, marked, certified, or sold as qualified for use in transporting dangerous goods;
  - (3) Preparation of hazardous materials for transport;
  - (4) Responsibility for the safety of transportation of dangerous goods;
  - (5) Operation of a vehicle used to transport dangerous goods, or
  - (6) Supervision of any of the above listed items
- (b) An AMO employee shall not perform or directly supervise a job function listed in item (a) above unless he or she has received the approved dangerous goods training.
- (c) The AMO training shall ensure that its dangerous goods training
  - (1) Ensures that each employee performing or directly supervising any of the job functions specified in item (a) above is trained to comply with all applicable procedures; and
  - (2) Enables the trained person to recognize items that contain, or may contain, dangerous goods regulated under these regulations.
- (d) The dangerous goods training of the AMO shall be approved by the Authority and shall contain the items in IS: 6.4.3.
- (e) An AMO shall document, in a form and manner acceptable to the Authority, the individual employee training required under this section. These training records shall be retained for a minimum of two years.

## 6.4.4 REST AND DUTY LIMITATIONS FOR PERSONS PERFORMING MAINTENANCE FUNCTIONS IN AN AMO

- (a) No person may assign, nor shall any person perform maintenance functions for aircraft, unless that person has had a minimum rest period of 8 hours prior to the beginning of duty.
- **(b)** No person may schedule a person performing maintenance functions for aircraft for more than 12 consecutive hours of duty.

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- (c) In situations involving unscheduled aircraft unserviceability, persons performing maintenance functions for aircraft may be continued on duty for—
  - (1) Up to 16 consecutive hours; or
  - (2) 20 hours in 24 consecutive hours.
- **(d)** Following unscheduled duty periods, the person performing maintenance functions for aircraft shall have a mandatory rest period of 10 hours.
- (e) The AMO shall relieve the person performing maintenance functions from all duties for 24 consecutive hours during any 7 consecutive day's period.

#### 6.4.5 RECORDS OF MANAGEMENT, SUPERVISORY, INSPECTION AND CERTIFYING STAFF

- (a) The AMO shall maintain a roster of all management, supervisory, inspection and certifying staff, which includes details of the scope of their authorization.
- **(b)** Records of these individuals shall be controlled.
- (c) The number of persons authorized to access the system shall be limited to minimize the possibility of records being altered in an unauthorized manner and to limit confidential records from become accessible to unauthorized persons.
  - Note: Authorized persons, apart from the AMO's quality department or maintenance supervisors/managers, include the Authority.
- (d) Certifying staff shall be notified in writing of the scope of their authorization.
- **(e)** The authorization document shall be in a style that makes its scope clear to certifying staff and any authorized person that may be required to examine the document. Where codes are used to define scope, an interpretation document shall be readily available.
- (f) Certifying staff are not required to carry the authorization document at all times but shall produce it within a reasonable time of a request from an authorized person.
- **(g)** A certifying person shall be given reasonable access on request to his or her records.
- **(h)** The Authority is authorized to and may investigate the records system for initial and continued approval, or when the Authority has cause to doubt the competence of a particular certifying person.
- (i) The AMO shall keep the record of these individuals for at least two years after that person has ceased employment with the AMO or after withdrawal of his or her authorization. Upon request, the certifying staff shall be furnished with a copy of their record on leaving the AMO.
- (j) See IS: 6.4.5 for detailed requirements pertaining to records of management, supervisory, inspection and certifying staff.

#### 6.5 AMO OPERATING RULES



#### 6.5.1 AMO PROCEDURES MANUAL

**Note:** An AMO Procedures Manual is a document endorsed by the head of the maintenance organization which details the organization's structure and management responsibilities, scope of work, description of facilities, maintenance procedures, and quality assurance or inspection systems.

**Note:** The purpose of the AMO Procedures Manual is to set forth the guidance, instructions, and procedures of the AMO. Compliance with its contents will assure compliance with the Part 6 requirements, which is a pre-requisite to obtaining and retaining an AMO certificate.

- (a) Each AMO shall have an AMO Procedures Manual.
- **(b)** The AMO Procedures Manual and any subsequent amendments shall be approved by the Authority prior to use.
- **(c)** The AMO Procedures Manual shall provide clear guidance to personnel on how the activities included in the airworthiness authority approval are managed, on their personal responsibilities, and on how compliance with the appropriate continuing airworthiness requirements is achieved; and
- (d) If the AMO is also the AOC holder, the AMO Procedures Manual and the AOC holder's Maintenance Control Manual may be combined.
- **(e)** The AMO shall ensure that the procedures manual is amended as necessary to keep the information contained therein up to date.
- (f) The AMO shall furnish copies of all amendments to the procedures manual promptly to all organizations or persons to whom the manual has been issued.
- (g) The AMO shall provide for the use and guidance of maintenance personnel concerned an approved AMO Procedure manual which may be issued in separate parts containing the following information:
  - (1) The AMO Procedures Manual Include a statement of the organization's policies and objectives.
  - (2) A general description of the AMO's scope of work authorized under the organization's terms of approval;
  - (3) A description of the organization's procedures and quality or inspection system;
  - (4) A general description of the organization's facilities located at each address specified in the AMO's approval certificate;
  - (5) A description of the procedures used to establish the competence of maintenance personnel.
  - (6) A description of the method used for the completion and retention of the maintenance records.
  - (7) A description of the procedure for preparing the maintenance release and the circumstances under which the release is to be signed.
  - (8) A description, when applicable, of contracted activities;



- (9) A description, when applicable, of additional procedures for complying with an AOC holder's maintenance procedures and requirements;
- (10) A description of the procedures for complying with the service information reporting requirement contained in section 6.5.10.
- (11) A description of the procedure for receiving, assessing, amending and distributing within the maintenance Organization all necessary airworthiness data from the type certificate holder or the type design Organization;
- (12) A description of the procedures for implementing changes affecting the approval of the maintenance organization.
- (13) A statement signed by the accountable manager confirming that the maintenance organization AMO Procedure manual and any associated manuals define the AMO's compliance with this regulation and will be complied with at all times.
- (14) A procedure to establish and maintain a current list of the titles and names of the management personnel accepted by the Authority. The list of personnel may be separate from the AMO Procedure manual but must be kept current and available for review by the Authority when requested.
- (15) A list which describes the duties and responsibility of the management personnel and the matters on which they may deal directly with the Authority on behalf of the AMO.
- (16) An organization chart showing associated chains of responsibility of the management personnel.
- (17) A procedure to establish and maintain a current roster of certifying personnel.
  - Note: The list of certifying personnel may be separate from the AMO Procedure manual but must be kept current and available for review by the Authority when requested.
- (18) A general description of manpower resources.
  - Note: Subparagraphs (1) to (7) constitutes the management part of the maintenance organization AMO Procedure manual and therefore could be produced as one document and made available to person(s) who shall be reasonably familiar with its contents.
- (19) The notification procedure for AMO to use when requesting the approval of changes to the Organization of the AMO from the Authority;
- (20) The amendment procedure for the AMO procedures manual, including the submission to the Authority;
- (21) The AMO's procedures, acceptable to the Authority, to ensure good maintenance practices and compliance with all relevant requirements in this subsection;
- (22) The AMO's procedures to establish and maintain an independent quality system to monitor compliance with the adequacy of the procedures to ensure good quality maintenance practices and airworthy aircraft and aeronautical products. Compliance monitoring must include a feedback system to the person or group of persons specified in 6.4.1, and ultimately to the

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- Accountable Manager to ensure, as necessary, corrective action. Such a system shall be acceptable to the Authority;
- (23) The AMO procedures for self-evaluations, including methods and frequency of such evaluations, and procedures for reporting results to the Accountable Manager for review and action;
- (24) A list of operators, if appropriate, to which the AMO provides an aircraft maintenance service;
- (25) A list of Organizations performing maintenance on behalf of the AMO;
- (26) A list of the AMO's line maintenance locations and procedures, if applicable.
- **(h)** See IS: 6.5.1 for detailed requirements concerning the procedures manual and a sample maintenance procedures manual format.

#### 6.5.2 MAINTENANCE INSPECTION PROCEDURES AND QUALITY ASSURANCE SYSTEMS

- (a) The AMO shall establish procedures, acceptable to the Authority, which ensure good maintenance practices and compliance with all relevant requirements in these regulations such that aircraft and aeronautical products may be properly released to service.
- **(b)** The AMO shall ensure compliance with this paragraph by either:
  - (5) Establishing an independent quality assurance system to monitor compliance with and adequacy of the procedures; or
  - (6) Establishing a system of inspection to ensure that all maintenance is properly performed.
- (c) AMO's using an independent quality assurance system shall include the audit procedures listed in the AMO Procedures Manual at IS 6.5.1.
- (d) The maintenance procedures shall cover all aspects of maintenance activity and describe standards to which the AMO intends to work. The aircraft or aircraft component design standards and aircraft operator standards must be taken into account.
- (e) The maintenance procedures should address the provisions and limitations of Part 6.

#### 6.5.3 **CAPABILITY LIST**

- (a) Each approved maintenance organization must prepare and retain a current capability list approved by the Authority. The approved maintenance organization may not perform maintenance, preventive maintenance, or alterations, on an article until the article has been listed on the capability list in accordance with this Part.
- **(b)** The capability list must identify each article by make and model, part number, or other nomenclature designated by the article's manufacturer.

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- (c) An article may be listed on the capability list only if the article is within the scope of the ratings and classes of the approved maintenance organization's certificate, and only after the approved maintenance organization has performed a self-evaluation in accordance with 6.5.1(d)(18). The approved maintenance organization must perform the self-evaluation described in this paragraph to determine that the maintenance organization has all of the facilities, equipment, material, technical data, processes, housing, and trained personnel in place to perform the work on the article as required by this part. If the approved maintenance organization makes that determination, it may list the article on the capability list.
- (d) The document of the evaluation described in paragraph (c) of this section must be signed by the accountable manager and must be retained on file by the approved maintenance organization.
- **(e)** Upon listing an additional article on its capability list, the maintenance organization must send a copy of the list to the Authority having jurisdiction over the approved maintenance organization.
- (f) The capability list(s) must be available in the premises for inspection by the public and the Authority.
- (g) The self-evaluations must be available in the premises for inspection by the Authority.
- **(h)** The AMO shall retain the capability list(s) and self-evaluation(s) for two years from the date accepted by the accountable manager.

## 6.5.4 **CONTRACT MAINTENANCE**

- (a) The AMO must be approved for the work which is to be subcontracted and have the capability to assess the competence of the subcontractor.
- **(b)** An AMO may contract a maintenance function pertaining to an article to an outside source provided—
  - (1) The Authority approved the maintenance function to be contracted to the outside source; and
  - (2) The AMO maintains and makes available to the Authority in a format acceptable to the Authority, the following information—
    - (i) The maintenance functions contracted to each outside facility, and
    - (ii) The name of each outside facility to whom the AMO contracts maintenance functions and the type of certificate and ratings, if any, held by each facility.
- **(c)** An AMO may contract a maintenance function pertaining to an article to a unlicensed person provided—
  - (1) The unlicensed person follows a quality control system equivalent to the system followed by the AMO;
    - (i) The AMO remains directly in charge of the work performed by the unlicensed person; and
    - (ii) The AMO verifies, by test and/or inspection, that the work has been performed satisfactorily by the unlicensed person and that the article is airworthy before approving it for return to service.



- (d) The AMO, before approval for return to service, shall verify by test or inspection that the work has been performed satisfactorily following contract maintenance, preventive maintenance, or alterations in accordance with approved methods.
  - Note 1: An AMO that carries out maintenance for another AMO within its own approval scope is not considered to be subcontracting for the purpose of this paragraph.
  - Note 2: A list of contractors used by the AMO is approved by the Authority through the AMO Procedures Manual.

#### 6.5.5 PRIVILEGES OF THE APPROVED MAINTENANCE ORGANIZATION

- (a) The AMO shall carry out the following tasks as permitted by and in accordance with the AMO Procedures Manual—
  - (1) Maintain or alter any aircraft or aeronautical product for which it is rated at the location identified in the approval certificate;
  - (2) Maintain any aircraft for which it is rated at any location subject to the need for such maintenance arising from unserviceability of the aircraft;
  - (3) Perform the activities in support of a specific AOC holder where that AOC has requested the services of the AMO at locations other than the location identified on the AMO certificate and the AMO has been rated to maintain the aircraft of that specific AOC holder at the requested location in the AMO operating provisions approved by the Authority; and
  - (4) Issue an approval for return to service or a maintenance release in respect of subparagraphs (a) (1), (2), and (3) of this subsection upon completion of maintenance in accordance with limitations applicable to the AMO.
- **(b)** The AMO may maintain or alter any article for which it is rated at a place other than the AMO, if—
  - (1) The function would be performed in the same manner as when performed at the AMO and in accordance with this Subpart;
  - (2) All necessary personnel, equipment, material, and technical and/or approved standards are available at the place where the work is to be done; and
  - (3) The AMO Procedures Manual sets forth approved procedures governing work to be performed at a place other than the AMO.
- **(c)** The AMO may contract out maintenance, preventative maintenance, or alteration, other than a complete type certificated product, in accordance with 6.5.4.

#### 6.5.6 LIMITATIONS ON THE AMO

- (a) The AMO shall maintain an aircraft or aeronautical product for which it is approved only when all necessary housing, facilities, equipment, tools, material, approved technical data and certifying staff are available.
- **(b)** An AMO may not contract out the maintenance, preventive maintenance, or alteration of a complete type-certificated product,
- (c) An AMO may not provide approval for return to service of a product following contract maintenance, preventive maintenance, or alterations without verifying by test or inspection that the work has been performed satisfactorily in accordance with approved methods.

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#### 6.5.7 MAINTENANCE RELEASE OF AN AIRCRAFT, PART, COMPONENT OR ASSEMBLY

- (a) A maintenance release shall be completed and signed by appropriately authorized certifying staff to satisfy that the maintenance work performed has been completed satisfactorily and in accordance with approved data and the procedure described in the AMO Procedures Manual.
- **(b)** A maintenance release shall be issued before flight at the completion of any maintenance.
- (c) A maintenance release shall be signed and include the following:
  - (1) Basic details of the maintenance carried out including detailed reference to the approved data used;
  - (2) The date such maintenance was completed;
  - (3) The identity, including the authorization reference, of the AMO; and
  - (4) The identity of the person or persons signing the release.
- (d) The maintenance release shall contain the following items:
  - (1) The statement: "Certifies that the work specified was carried out in accordance with current regulations and in respect to that work the aircraft/aircraft component is considered approved for release to service."
  - (2) The maintenance release shall reference the data specified in the manufacturer's maintenance instructions or instructions for continued airworthiness.
  - (3) Where instructions include a requirement to insure that a dimension or test figure is within a specific tolerance as opposed to a general tolerance, the dimension or test figure shall be recorded unless the instruction permits the use of GO/NO gauges. It is not normally sufficient to state that the dimension or the test figure is within tolerance.
  - (4) The date such maintenance was carried out shall include when the maintenance took place relative to any life or overhaul limitation in terms of date/flying hours/cycles/landings etc., as appropriate.
  - (5) When extensive maintenance has been carried out, it is acceptable for the maintenance release to summarize the maintenance as long as there is a cross-reference to the work package containing full details of maintenance carried out. Dimensional information shall be retained in the work package record.
  - (6) The person issuing the release to service shall use a full signature and preferably a certification stamp except in the case where a computer release to service system is used. In this latter case, the Authority will need to be satisfied that only the particular person can electronically issue the release to service.

Note: One such method of compliance with item (c)(6) is the use of a magnetic or optical personal card in conjunction with a personal identity number (PIN) which is keyed into the computer and known only to the individual.



- (e) At the completion of any maintenance task on a part of component whilst off the aircraft, the AMO shall issue a maintenance release through the LCAA Form as contained in IS: 6.5.7.
  - Note: An aeronautical product which has been maintained off the aircraft requires the issue of a certification of release to service (Model CAA Form AAT) for such maintenance and another certification of release to service of the aircraft in regard to maintenance being properly accomplished on the aircraft. The release to service of the aircraft will typically be made by the AMO in the aircraft technical log maintenance records section.
- (f) New defects or incomplete maintenance work orders identified during the above maintenance shall be brought to the attention of the aircraft operator for the specific purpose of obtaining agreement to rectify such defects or completing the missing elements of the maintenance work order. In the case where the aircraft operator declines to have such maintenance carried out under this paragraph, paragraph (j) is applicable.
- (g) By derogation to paragraph (a), when the organization is unable to complete all maintenance ordered, it may issue a certificate of release to service within the approved aircraft limitations. The organization shall enter such fact in the aircraft certificate of release to service before the issue of such certificate.
- (h) By derogation to paragraph (a) and 6.3.4, when an aircraft is grounded at a location other than the main line station or main maintenance base due to the non-availability of a component with the appropriate release certificate, it is permissible to temporarily fit a component without the appropriate release certificate for a maximum of 30 flight hours or until the aircraft first returns to the main line station or main maintenance base, whichever is the sooner, subject to the aircraft operator agreement and said component having a suitable release certificate but otherwise in compliance with all applicable maintenance and operational requirements. Such components shall be removed by the above prescribed time limit unless an appropriate release certificate has been obtained in the meantime under paragraph (a) and 6.3.4.

#### 6.5.8 MAINTENANCE RECORDS

- (a) The AMO shall record, in a form acceptable to the Authority, all details for maintenance work performed.
- **(b)** The AMO shall retain detailed maintenance records to show that all requirements for signing of a maintenance release have been met.
- (c) The records required by (b) above shall be kept for a minimum period of one year after the signing of the maintenance release.
  - (1) The records under this paragraph shall be stored in a manner that ensures protection from damage, alteration and theft;
  - (2) The records shall be maintained in a form and format that ensures readability, security and integrity of the records at all times;
    - Note: the form and format of the records may include, for example, paper records, film records, electronic records or any combination thereof.
  - (3) Computer backup discs, tapes etc. shall be stored in a different location from that containing the working discs, tapes etc., in an environment that ensures they remain in good condition;

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- (4) Where an organization approved under this Part terminates its operation, all retained maintenance records covering the last two years shall be distributed to the last owner or customer of the respective aircraft or component or shall be stored as specified by the authority.
- (d) As a minimum, the organization shall retain records necessary to prove that all requirements have been met for issuance of the maintenance release, including subcontractor's release documents.
- **(e)** The AMO shall provide a copy of each maintenance release to the aircraft operator, together with a copy of any specific airworthiness data used for repairs/alterations performed.
- **(f)** Each person who maintains, performs preventive maintenance, rebuilds, or modifies an aircraft/aeronautical product shall make an entry in the maintenance record of that equipment:
  - (1) A description and reference to data acceptable to the Authority of work performed.
  - (2) The date of completion of the work performed.
  - (3) The name of the person performing the work if other than the person specified in this subsection.
  - (4) If the work performed on the aircraft/aeronautical product has been performed satisfactorily, the signature, certificate number, and kind of certificate held by the person approving the work.
  - (5) The authorized signature, the AMO certificate number, and kind of license held by the person approving or disapproving for return to service the aircraft, airframe, aircraft engine, propeller, appliance, component part, or portions thereof.
  - (6) The signature constitutes the approval for return to service only for the work performed.
  - (7) In addition to the entry required by this paragraph, major repairs and major alterations shall be entered on a form, and the form disposed of by the person performing the work, in the manner prescribed by the Authority in Part 5: 5.7.1.
- (g) No person shall describe in any required maintenance entry or form an aircraft or aeronautical component as being overhauled unless—
  - (1) Using methods, techniques, and practices acceptable to the Authority, it has been disassembled, cleaned, inspected as permitted, repaired as necessary, and reassembled; and
  - (2) It has been tested in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Authority, which have been developed and documented by the holder of the type certificate, supplemental type certificate, or a material, part, process, or appliance approval under a TSO.
- (h) No person may describe in any required maintenance entry or form, an aircraft or other aeronautical product as being rebuilt unless it has been—
  - (1) Disassembled, cleaned, inspected as permitted;
  - (2) Repaired as necessary; and



- (3) Reassembled and tested to the same tolerances and limits as a new item, using either new parts or used parts that either conform to new part tolerances and limits, or to approved oversized or undersized dimensions.
- (i) No person may approve for return to service any aircraft or aeronautical product that has undergone maintenance, preventive maintenance, rebuilding, or modification unless—
  - (1) The appropriate maintenance record entry has been made; and
  - (2) The repair or alteration form authorized by or furnished by the Authority has been executed in a manner prescribed by the Authority;
- (j) If a repair or modification results in any change in the aircraft operating limitations or flight data contained in the approved aircraft flight manual, those operating limitations or flight data shall be appropriately revised and set forth as prescribed by the Authority.
- **(k) Maintenance record entries for inspections.** The person approving or disapproving for return to service an aircraft/aeronautical product, after any inspection performed in accordance with this regulation, shall make an entry in the maintenance record of that equipment containing the following information—
  - (1) The type of inspection and a brief description of the extent of the inspection;
  - (2) The date of the inspection and aircraft total time in service;
  - (3) The authorized signature, the AMO certificate number, and kind of license held by the person approving or disapproving for return to service the aircraft, airframe, aircraft engine, propeller, appliance, component part, or portions thereof:
  - (4) If the aircraft is found to be airworthy and approved for return to service, the following or a similarly worded statement—I certify that this aircraft has been inspected in accordance with (insert type) inspection and was determined to be in airworthy condition;
  - (5) If the aircraft is not approved for return to service because of needed maintenance, non-compliance with the applicable specifications, airworthiness directives, or other approved data, the following or a similarly worded statement—I certify that this aircraft has been inspected in accordance with (insert type) inspection and a list of discrepancies and unairworthy items dated (date) has been provided for the aircraft owner or operator; and
  - (6) If an inspection is conducted under an inspection program provided for in this regulation, the entry shall identify the inspection program accomplished, and contains a statement that the inspection was performed in accordance with the inspections and procedures for that particular program.
- (1) **Listing of discrepancies**. If the person performing any inspection required by this regulation finds that the aircraft is not airworthy or does not meet the applicable type certificate data sheet, airworthiness directives, or other approved data upon which its airworthiness depends, that person shall give the owner or lessee a signed and dated list of those discrepancies.

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#### 6.5.9 AIRWORTHINESS DATA- INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

(a) The AMO shall hold and use all airworthiness data appropriate and current to support the maintenance work performed.

**Note:** The Authority may classify data from another authority or organization as mandatory and may require the AMO to hold such data.

- **(b)** In the case of maintenance data provided by an operator or customer, the organization shall hold such data when the work is in progress, with the exception of the need to comply with 6.5.8.
- (c) For the purposes of this Part, applicable maintenance data shall be any of the following:
  - (1) Any applicable requirement, procedure, operational directive or information issued by the authority responsible for the oversight of the aircraft or component;
  - (2) Any applicable airworthiness directive issued by the authority responsible for the oversight of the aircraft or component;
  - (3) Instructions for continuing airworthiness, issued by type certificate holders, supplementary type certificate holders, any other organization required to publish such data by Part5 and in the case of aircraft or components from third countries the airworthiness data mandated by the authority responsible for the oversight of the aircraft or component;
  - (4) Any applicable standard, such as but not limited to, maintenance standard practices recognized by the Agency as a good standard for maintenance;
  - (5) Any applicable data issued in accordance with paragraph (d).
- (d) The organization shall establish procedures to ensure that if found, any inaccurate, incomplete or ambiguous procedure, practice, information or maintenance instruction contained in the maintenance data used by maintenance personnel is recorded and notified to the author of the maintenance data.
- (e) Where the AMO modifies airworthiness data specified in paragraph (a) to a format or presentation more useful for its maintenance activities, the AMO shall submit to the Authority an amendment to the AMO Procedure manual for any such proposed modifications for acceptance.
- (f) The organization shall provide a common work card or worksheet system to be used throughout relevant parts of the organization.
- (g) In addition to paragraph (f), the organization shall either transcribe accurately the maintenance data contained in paragraphs (b) and (d) onto such work cards or worksheets or make precise reference to the particular maintenance task or tasks contained in such maintenance data.
- **(h)** Work cards and worksheets may be computer generated and held on an electronic database subject to both adequate safeguards against unauthorized alteration and a back-up electronic database which shall be updated within 24 hours of any entry made to the main electronic database.



- (i) Complex maintenance tasks shall be transcribed onto the work cards or worksheets and subdivided into clear stages to ensure a record of the accomplishment of the complete maintenance task.
- (j) Where the organization provides a maintenance service to an aircraft operator who requires their work card or worksheet system to be used then such work card or worksheet system may be used. In this case, the organization shall establish a procedure to ensure correct completion of the aircraft operators' work cards or worksheets.
- (k) All airworthiness data used by the AMO shall be kept current and made available to all personnel who require access to that data to perform their duties.
- (1) The organization shall establish a procedure to ensure that maintenance data it controls is kept up to date. In the case of operator/customer controlled and provided maintenance data, the organization shall be able to show that either it has written confirmation from the operator/customer that all such maintenance data is up to date or it has work orders specifying the amendment status of the maintenance data to be used or it can show that it is on the operator/customer maintenance data amendment list.
- (m) IS: 6.5.9 contains detailed requirements concerning airworthiness data.

#### 6.5.10 OCCURRENCE REPORTING

- (a) The AMO shall report to the Authority, the state of registry and the organization responsible for the aircraft design or component any condition of the aircraft or component identified by the organization that has resulted or may result in an unsafe condition that hazard seriously the flight safety
- **(b)** The AMO shall establish an internal occurrence reporting system as detailed in the exposition to enable the collection and evaluation of such reports, including the assessment and extraction of those occurrences to be reported under paragraph (a).
- **(c)** This procedure shall identify adverse trends, corrective actions taken or to be taken by the AMO to address deficiencies and include evaluation of all known relevant information relating to such occurrences and a method to circulate the information as necessary.
- (d) Reports shall be made on a form and in a manner prescribed by the Authority and contain all pertinent information about the condition and evaluation results known to the AMO. The report shall contain at least the following items:
  - (1) Aircraft registration number.
  - (2) Type, make and model of the article.
  - (3) Date of the discovery of the failure, malfunction, or defect.
  - (4) Time since last overhaul, if applicable.
  - (5) Apparent cause of the failure, malfunction, or defect.
  - (6) Other pertinent information that is necessary for more complete identification, determination of seriousness, or corrective action.



- (e) Where the AMO is contracted by an AOC holder to carry out maintenance, that AMO shall report to the AOC holder any condition affecting the aircraft or aeronautical product.
- (f) Reports shall be submitted to the authority as soon as practicable, but in any case within 72 hours of the AMO identifying the condition to which the report relates.

#### 6.5.11 AMO PERFORMANCE STANDARDS

- (a) Each certificated approved maintenance organization that performs any maintenance, preventive maintenance, or modifications for an air operator certificated under Part 9 having an approved maintenance program under Part 9.4.12 and approved continuous maintenance program under Part 9.4.13 shall perform that work in accordance with the AOC holder's manuals.
- **(b)** Except as provided in paragraph (a), each certificated approved maintenance organization shall perform its maintenance and modification operations in accordance with the applicable standards in Part 5, Airworthiness. It shall maintain, in current condition, all manufacturer's service manuals, instructions, and service bulletins that relate to the articles that it maintains or modifies.
- (c) It shall maintain, in current condition, all manufacturer's service manuals, instructions, and service bulletins that relate to the articles that it maintains or modifies.
- (d) In addition, each certificated approved maintenance organization with an avionics rating shall comply with those sections in Part 5 that apply to electronic systems, and shall use materials that conform to approved specifications for equipment appropriate to its rating.
- **(e)** It shall use test apparatus, shop equipment, performance standards, test methods, alterations, and calibrations that conform to the manufacturer's specifications or instructions, approved specification, and if not otherwise specified, to accepted good practices of the aircraft avionics industry.

#### 6.5.12 **PRODUCTION PLANNING**

- (a) The AMO shall have a system appropriate to the amount and complexity of work to plan the availability of all necessary personnel, tools, equipment, material, maintenance data and facilities in order to ensure the safe completion of the maintenance work.
- **(b)** The planning of maintenance tasks, and the organizing of shifts, shall take into account human performance limitations.
- **(c)** When it is required to hand over the continuation or completion of maintenance tasks for reasons of a shift or personnel changeover, relevant information shall be adequately communicated between outgoing and incoming personnel.

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# LIBERIA CIVIL AVIATION REGULATIONS

## Part 6 — IMPLEMENTING STANDARDS

For ease of reference the number assigned to each implementing standard corresponds to its associated regulation. For example IS: 6.2.3 would reflect a standard required in subsection 6.2.3.



## IS: 6.2.3 APPROVED MAINTENANCE ORGANIZATION CERTIFICATE

(a) The following is the layout of the AMO certificate.



## APPROVED MAINTENANCE ORGANISATION CERTIFICATE

Number

This certificate is issued to

Whose principal place of business address is

Upon finding that its organization complies in all respects with the requirements of the Liberia Civil Aviation Regulations Part 6, relating to the establishment of an Approved Maintenance Organization and is empowered to operate an Approved Maintenance Organization.

With the following ratings:

This certificate shall	l continue in ei	fect until	DATE , unless	cancelled, s	suspended,	. revoked.

Date of Issue:	dd/mm/yyyy	Signature:
		Printed Name:
		Title:

This certificate is non-transferable.



**(b)** The operations specifications layout shall be as follows:

			PECIFICATIONS				
(	(subject to		ns in the AMO Proced	ıre Manual <sub>,</sub>			
Issuing Authority Contact Details <sup>1</sup>							
Telephone:	Fax:		E-mail:				
AMO#2:	AMO N	ame <sup>3</sup> : Date <sup>4</sup> :			Signature:		
DBA Trading Name:							
Ratings and limitation The Certificate Holder is author	ized the fol	lowing Ratings and/or	Limitations:				
Class ratings							
Rat	ing		Limitations	Limitations			
Limited ratings							
Rating Manufacturer		turer	Make/Model		Limitations		
Limited ratings – Specialized Services							
Rating		Specifications		Limitations			

#### Notes:

- 1. Telephone and fax contact details of the Authority, including the country code. E-mail to be provided if available.
- 2. Insertion of associated ATO number.
- 3. Insertion of the AMO registered name and the AMO 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.



## IS: 6.2.4 APPLICATION FOR AN AMO CERTIFICATE

(a) The following application may be used for an AMO certificate.

LIBERIA CIVIL AVIATION AUTHORITY				Application for Approved Maintenance Organization Certificate and/or Ratings				
Approved Maintenance Organization Name, Number, Location and Address				2. Reasons for Submission				
a. Official Name of Approved Maintenance Organization:  Num				<ul> <li>☐ Original Application for Certificate and Rating</li> <li>☐ Change in Rating</li> <li>☐ Change in Location or Housing and Facilities</li> </ul>				
b. Location where business is conducted:					☐ Change in Ownership ☐ Other (Specify)			
-	Address of <b>Approved Maintenance</b> , City, State, & Postal Code)	Organizatio	n					
,	,							
d. Doing Business	As:							
3. Ratings Applied	l for:							
Airframe Class 1 Class 2 Class 3 Class 4	☐ Powerplant ☐ Propeller ☐ Class 1 ☐ Class 1 ☐ Class 2 ☐ Class 3		vionics/ F lass 1 lass 2 lass 3	Radio	Computer Class 1 Class 2 Class 3	☐ Instrument ☐ Class 1 ☐ Class 2 ☐ Class 3 ☐ Class 4		
☐ Accessories ☐ Class 1 ☐ Class 2 ☐ Class 3	☐ Limited ☐ Airframe ☐ Powerplant ☐ Propeller ☐ Instruments ☐ Accessories ☐ Landing Ge	ar	otor Blad abric mergenc on-Dest. ther	у	Specialized (List Process	Specification(s))		
4. List of Maintenance Functions contracted to an outside Maintenance Organization:								
5. Applicants Certification  Name of Owner (Include name(s) of individual Owner, all partners, or corporation name given the state, province, or country and date of incorporation)								
I hereby certify that I have been authorized by the approved maintenance organization identified in Item 1 above to make this application and that statements attached hereto are true and correct to the best of my knowledge.								
Date: Authorized Signature:								

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For LCAA Use Only	Aı	pproved l	Record of Action For LCAA Use Only wed Maintenance Organization Inspection						
6. Remarks (Identify	by item number. Inc	clude defic	ciencies found and ratings denied)		<b>-</b>				
7 Findings December	- and ations				0 Data of la	ti			
7. Findings - Recomr		equiremen	ts of Part 6		8. Date of In	spection			
	<ul> <li>A. AMO was found to comply with requirements of Part 6.</li> <li>B. AMO was found to comply with requirements of Part 6, except for deficiencies listed in Item 6.</li> </ul>								
C. Recommend Certificate with rating applied for on application be issued.									
D. Recommend Certificate with rating applied for on application (EXCEPT those listed in Item 6) be issued.									
Signature(s) of Inspector(s)			Printed Names of Inspectors						
	or Assigned Inspect		Inancetor's Cianature						
ACTION TAKEN  ☐ APPROVED	CERTIFICATE ISS	SUED	Inspector's Signature						
As shown on	Number								
certificate issued on date shown	Date		Inspector's Printed Name		Title				
DISAPPROVED	Dale		mapeolor a Finited Name		HUC				
☐ DISAFEKUVED									

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#### IS: 6.2.4(c) APPLICATION FOR AN AMO CERTIFICATE (FOREIGN AMO VALIDATION)

- (a) The individual or organization desiring to use a foreign AMO, its equipment or its personnel shall submit a letter of intent to the Authority outlining
  - (1) The intention;
  - (2) The proposed dates; and
  - (3) The justification for using a foreign entity.
- **(b)** The LCAA shall review the request and contact the foreign AMO to validate the approval documents.
- (c) A formal approval document shall be issued when the LCAA is satisfied that the maintenance organization, its equipment and its personnel—
  - (1) Hold valid approvals from their civil aviation authorities for the tasks that are proposed;
  - (2) Have demonstrated their proficiency and competency for such tasks through an internationally accepted process; and
  - (3) All necessary on-site evaluations have been conducted and found compliant.
- (d) That formal approval document shall comprise—
  - (5) A Liberia AMO Certificate; and
  - (6) Operation specifications or approval schedule.

#### IS: 6.2.14 QUALITY SYSTEM

(a) In order to show compliance with 9.2.3, an AMO should establish its quality system in accordance with the instruction and information contained in the following paragraphs.

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#### 1.0. General.

#### 1.1 Terminology.

- (a) The terms used in the context of the requirement for an AMO's quality system have the following meaning:
  - (1) Accountable Manager. The person acceptable to the Authority who has corporate authority for ensuring that all maintenance activities can be financed and carried out to the standard required by the Authority, and any additional requirements defined by the AMO.
  - (2) 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 AMO 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 LCAA Regulations together with any additional standards specified by the AMO.
- **1.2.2** The accountable manager is an essential part of the AMO management organization. The term "accountable manager" is intended to mean the Chief Executive/President/Managing Director/ General Manager, etc. of the AMO, who by virtue of his or her position has overall responsibility (including financial) for managing the organization.
- **1.2.3** The accountable manager will have overall responsibility for the AMO 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 AMO to monitor compliance with these LCAA Regulations, the AMO's manual system, and any other standards specified by the AMO, 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 Regulations may be carried out by more than one person by means of different, but complementary, quality assurance programs.
- **1.4.2** The primary role of the quality manager is to verify, by monitoring activity in the field of, maintenance, that the standards required by the Authority, and any additional requirements defined by the AMO, 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 program is properly established, implemented and maintained.

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- **1.4.4** The quality manager should:
  - (a) Report to the accountable manager;
  - **(b)** Not be one of the required management personnel; and
  - (c) Have access to all parts of the AMO's, and as necessary, any sub-contractor's organization.
- **1.4.5** In the case of small/very small AMO, the posts of the Accountable Manager and quality manager may be combined.
- 2.0 Quality System.
- 2.1 Introduction.
- **2.1.1** The AMO's quality system should ensure compliance with and adequacy of operational and maintenance activities requirements, standards, and procedures.
- **2.1.2** The AMO 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 organization to be monitored.
- 2.2 Scope.
- **2.2.1** As a minimum, the quality system should address the following:
  - (a) The provisions of these [Model Regulations];
  - **(b)** The AMO's additional standards and operating practices;
  - (c) The AMO's quality policy;
  - (d) The AMO's organizational structure;
  - **(e)** Responsibility for the development, establishment and management of the quality system;
  - (f) Documentation, including manuals, reports and records;
  - (g) Quality procedures;
  - (h) Quality assurance;
  - (i) The required financial, material and human resources;
  - (j) Training requirements.
- **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:
  - (a) Ouality policy;
  - **(b)** Terminology;
  - (c) Specified maintenance standards;
  - (d) A description of the organization;
  - (e) The allocation of duties and responsibilities;
  - **(f)** Operational procedures to ensure regulatory compliance;
  - (g) Accident prevention and flight safety program



- **(h)** The quality assurance program, reflecting:
  - (1) Schedule of the monitoring process;
  - (2) Audit procedures;
  - (3) Reporting procedures;
  - (4) Follow-up and corrective action procedures;
  - (5) Recording system;
  - (6) The training syllabus; and
  - (7) Document control

## 3.0 Quality assurance program.

#### 3.1 Introduction.

- **3.1.1** The quality assurance program should include all planned and systematic actions necessary to provide confidence that all maintenance is conducted in accordance with all applicable requirements, standards and l procedures.
- **3.1.2** When establishing a quality assurance program, consideration should be given to at least the following:
  - (a) Quality inspection;
  - (b) Audit;
  - (c) Auditors;
  - (d) Auditor's independence
  - (e) Audit scope;
  - (f) Audit scheduling;
  - (g) Monitoring and corrective action;
  - **(h)** Management evaluation

## 3.2 Quality Inspection.

- **3.2.1** The primary purpose of a quality inspection is to observe a particular event/action/document, etc. in order to verify whether established 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) Facilities size and segregation;
  - (2) Office accommodation
  - (3) Work environment
  - (4) Storage
  - (5) Management changes
  - (6) Staff numbers and man-hour plan
  - (7) Competence process
  - (8) Qualifying certifying staff;
  - (9) Records of certifying staff;
  - (10) Issue of authorizations
  - (11) Adequate equipment;
  - (12) Equipment control and calibration;
  - (13) Approved data held;
  - (14) Modified maintenance data;



- (15) Data availability;
- (16) Data up to date;
- (17) Aircraft release;
- (18) Release document contents;
- (19) Release control
- (20) Details on work documents;
- (21) Operator's copy of release;
- (22) Record retention;
- (23) Reporting unairworthy findings;
- (24) Clear work orders;
- (25) Procedures per AMO Procedures Manual;
- (26) Suppliers and subcontractors;
- (27) Acceptance of parts;
- (28) Parts control in stores;
- (29) Use of tools;
- (30) Cleanliness standards;
- (31) Control of repairs;
- (32) Aircraft Maintenance Program completion;
- (33) Airworthiness directive control;
- (34) Control of alterations;
- (35) Control of working documents;
- (36) Base maintenance defects;
- (37) Defective parts to stores;
- (38) Parts to outside contractors;
- (39) Computer maintenance systems;
- (40) Engine running;
- (41) Aircraft procedures;
- (42) Line maintenance control parts;
- (43) Line servicing control;
- (44) Line defect control;
- (45) Aircraft Technical Log Maintenance Records section completion;
- (46) Pool and loan parts;
- (47) Return defective parts to base;
- (48) Product maintenance exemption control;
- (49) Procedures deviation control;
- (50) Special services control (NDI);
- (51) Contractors working teams;
- (52) Product audit;
- (53) Privileges and locations control;
- (54) Limitation control;
- (55) Control of changes.



- **3.2.3** Typical methods for quality inspections for maintenance include:
  - (a) Product sampling the part inspection of a representative sample of the aircraft fleet;
  - **(b)** Defect sampling the monitoring of defect rectification performance;
  - **(c)** Concession sampling the monitoring of any concession to not carry out maintenance on time;

#### 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:
  - (a) A statement explaining the scope of the audit;
  - **(b)** Planning and preparation;
  - (c) Gathering and recording evidence; and
  - (d) Analysis of the evidence.
- **3.3.3** Techniques that contribute to an effective audit are:
  - (a) Interviews or discussions with personnel;
  - **(b)** A review of published documents;
  - (c) The examination of an adequate sample of records;
  - (d) The witnessing of the activities that make up the operation; and
  - **(e)** The preservation of documents and the recording of observations.

#### 3.4. Auditors.

- **3.4.1** An AMO should decide, depending upon the complexity of the organization, whether to make use of a dedicated audit team or a single auditor. In any event, the auditor or audit team should have relevant 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 maintenance activity that is to be audited. An AMO 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 AMO 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 organization or from an external source under the terms of an agreement acceptable to the Authority. In all cases the AMO 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 AMO's quality assurance program should identify the persons within the company who have the experience, responsibility and authority to:
  - (a) Perform quality inspections and audits as part of ongoing quality assurance;
  - **(b)** Identify and record any concerns or findings, and the evidence necessary to substantiate such concerns or findings;
  - **(c)** Initiate or recommend solutions to concerns or findings through designated reporting channels;
  - (d) Verify the implementation of solutions within specific timescales;
  - **(e)** Report directly to the quality manager.



## 3.6 Audit Scope.

- **3.6.1** AMOs 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:
  - (a) Organization;
  - **(b)** Plans and company objectives;
  - (c) AMO certification (AMO/Operations specifications)
  - (d) Supervision;
  - (e) Manuals, logs, and records;
  - (f) Duty time limitations, rest requirements, and scheduling;
  - (g) Maintenance programs and continued airworthiness;
  - (h) Airworthiness directives management;
  - (i) Maintenance accomplishment;
  - (i) Defect deferral;
  - (k) Dangerous goods;
  - (1) Security;
  - (m) Training.

#### 3.7 Audit Scheduling.

- **3.7.1** A quality assurance program 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 AMO 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 program unless an extension to the audit period is accepted as explained below. An AMO 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 AMO defines the audit schedule, significant changes to the management, organization, 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 and maintenance standards are continuously complied with. Monitoring activity is based upon quality inspections, audits, corrective action and follow-up. The AMO 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 program 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. Organizational 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 AMO should establish:
  - (a) The seriousness of any findings and any need for immediate corrective action;
  - **(b)** The origin of the finding;
  - (c) What corrective actions are required to ensure that the non-compliance does not recur;
  - **(d)** A schedule for corrective action;
  - **(e)** The identification of individuals or departments responsible for implementing corrective action:
  - (f) Allocation of resources by the accountable manager, where appropriate
- **3.8.5** The quality manager should:
  - (a) Verify that corrective action is taken by the manager responsible in response to any finding of non-compliance;
  - **(b)** Verify the corrective action includes the elements outlined in paragraph 3.8.4 above;
  - (c) Monitor the implementation and completion of corrective action'
  - (d) Provide management with an independent assessment of corrective action; implementation and completion;
  - **(e)** 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, policies and procedures, and should consider:
  - (a) The results of quality inspections, audits and any other indicators;
  - **(b)** The overall effectiveness of the management organization 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 program should be maintained by the AMO. Records are essential data to enable an operator to analyze 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:
  - (a) Audit schedules;
  - **(b)** Quality inspection and audit reports;
  - (c) Responses to findings;
  - (d) Corrective action reports;
  - (e) Follow-up and closure reports; and
  - **(f)** Management evaluation reports.



## 4.0 Quality Assurance Responsibility for Sub-Contractors.

#### 4.1 Sub-Contractors.

- **4.1.1** AMOs may decide to sub-contract out certain activities to external agencies for the provision of services related to areas such as:
  - (a) Maintenance;
  - **(b)** Training;
  - (c) Manual preparation.
- **4.1.2** The ultimate responsibility for the product or service provided by the sub-contractor always remains with the AMO. A written agreement should exist between the AMO 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 AMO's quality assurance program.
- **4.1.3** The AMO should ensure that the sub-contractor has the necessary authorization/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 AMO 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:
  - (a) An introduction to the concept of the quality system;
  - **(b)** Quality management;
  - **(c)** The concept of quality assurance;
  - (d) Quality manuals;
  - (e) Audit techniques;
  - (f) Reporting and recording; and
  - (g) 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 AMO.
- 5.2 Sources of Training.
- **5.2.1** Quality management courses are available from the various [National] or International Standards Institutions, and an AMO should consider whether to offer such courses to those likely to be involved in the management of quality systems. AMO's with sufficient appropriately qualified staff should consider whether to carry out in-house training.
- 6.0 Organizations with 20 or Less Full-Time Employees.
- 6.1 Introduction.
- **6.1.1** The requirement to establish and document a quality system and to employ a quality manager applies to all AMOs. References to large and small operators elsewhere in these [Model Regulations] 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 categorized according to the number of full time staff employees.



## 6.2 Scale of Operation.

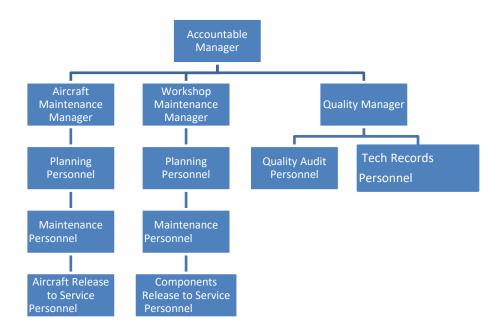
- **6.2.1** AMOs who employ 5 or less full time staff are considered to be "very small" while those employing between 6 and 20 full time employees are regarded as "small" operators as far as quality systems are concerned. Full-time in this context means employed for not less than 35 hours per week excluding 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 AMOs.
- **6.3.1** For small and very small AMOs it may be appropriate to develop a quality assurance program 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" AMO 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 organizations 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.

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## **Quality System - Organization Examples**

- (a) The following diagrams illustrate two typical examples of AMO Quality organizations.
  - (1) A typical large AMO.



(2) A typical small AMO.



## IS: 6.3.2 HOUSING AND FACILITY REQUIREMENTS

- (a) For ongoing maintenance of aircraft, aircraft hangars shall be available and large enough to accommodate aircraft during maintenance activities.
- **(b)** Where the hangar is not owned by the AMO, it is recommended to:
  - (5) Establish proof of authorization to use hangar;
  - (6) Demonstrate sufficiency of hangar space to carry out planned base maintenance by preparing a projected aircraft hangar visit plan relative to the maintenance program;
  - (7) Update the aircraft hangar visit plan on a regular basis;
  - (8) Ensure, for aircraft component maintenance, aircraft component workshops are large enough to accommodate the components on planned maintenance;



- (9) Ensure aircraft hangar and aircraft component workshop structures prevent the ingress of rain, hail, ice, snow, wind and dust, etc.;
- (10) Ensure workshop floors are sealed to minimize dust generation; and
- (11) Demonstrate access to hangar accommodation for usage during inclement weather for minor scheduled work and/or lengthy defect rectification.
- **(c)** Aircraft maintenance staff shall be provided with an area where they may study maintenance instructions and complete maintenance records in a proper manner.
  - Note: It is acceptable to combine any or all of the above requirements into one office subject to the staff having sufficient room to carry out assigned tasks.
- **(d)** Hangars used to house aircraft together with office accommodation shall be such as to insure a clean, effective and conformable working environment.
  - (1) Temperatures should be maintained at a comfortable level.
  - (2) Dust and any other airborne contamination should be kept to a minimum and not permitted to reach a level in the work task area where visible aircraft/component surface contamination is evident.
  - (3) Lighting should be such as to insure each inspection and maintenance task can be carried out.
  - (4) Noise levels should not be permitted to rise to the point of distracting personnel from carrying out inspection tasks. Where it is impractical to control the noise source, such personnel should be provided with the necessary personal equipment to stop excessive noise causing distraction during inspection tasks.
- **(e)** Where a particular maintenance task requires the application of specific environmental conditions different to the foregoing, then such conditions shall be observed. (Specific conditions are identified in the approved maintenance instructions.)
- (f) Where the working environment for line maintenance deteriorates to an unacceptable level with respect to temperature, moisture, hail, ice, snow, wind, light, dust/other airborne contamination; the particular maintenance or inspection tasks shall be suspended until satisfactory conditions are re-established.
- (g) For both base and line maintenance where dust or other airborne contamination results in visible surface contamination, all susceptible systems shall be sealed until acceptable conditions are re-established.
- **(h)** Storage facilities for serviceable aircraft components shall be clean, well ventilated and maintained at an even dry temperature to minimize the effects of condensation.
- (i) Manufacturer and standards recommendations shall be followed for specific aircraft components.
- (j) Storage racks shall provide sufficient support for large aircraft components such that the component is not distorted.
- **(k)** All aircraft components, wherever practicable, shall remain packaged in protective material to minimize damage and corrosion during storage.



#### IS: 6.3.3 EQUIPMENT, TOOLS, AND MATERIAL

- (a) All applicable tools, equipment, and test equipment used for product acceptance and/or for making a finding of airworthiness shall be traceable to the Liberia National Standards.
- **(b)** Except as provided in paragraph (a), in the case of foreign manufactured tools, equipment, and test equipment, the standard provided by the county of manufacture may be used if approved by the Authority.
- **(c)** Where the manufacturer specifies a particular tool, equipment, or test equipment then that tool, equipment, or test equipment shall be used unless the manufacturer has identified the use of an equivalent.
- (d) Except as provided in paragraph (c), tools, equipment, or test equipment other than that recommended by the manufacturer will be acceptable based on at least the following:
  - (1) The AMO shall have a procedure in the Maintenance Procedures Manual if it intends to use equivalent tools, equipment, or test equipment other than that recommended by the manufacturer.
  - (2) The AMO shall have a program to include:
    - (i) A description of the procedures used to establish the competence of personnel that make the determination of equivalency to tools, equipment, or test equipment.
    - (ii) Conducting and documenting the comparison made between the specification of the tool, equipment or test equipment recommended by the manufacturer and the equivalent tool, equipment, or test equipment proposed.
    - (iii) Ensuring that the limitations, parameters, and reliability of the proposed tool, equipment, or test equipment are equivalent to the manufacturer's recommended tools, equipment, or test equipment.
    - (iv) Ensuring that the equivalent tool, equipment, or test equipment is capable of performing the appropriate maintenance function, all normal tests, or calibrations, and checking all parameters of the aircraft or aeronautical product undergoing maintenance or calibration.
- **(e)** The AMO shall have full control of the equivalent tool, equipment, or test equipment (i.e., ownership, lease, etc.)
- **(f)** An AMO approved for base maintenance shall have sufficient aircraft access equipment and inspection platforms/docking such that the aircraft may be properly inspected.
- **(g)** The AMO shall have a procedure to inspect/service and, where appropriate, calibrate tools, equipment, and test equipment on a regular basis and indicate to users that an item is within any inspection or service or calibration time limit.
- **(h)** The AMO shall have a procedure if it uses a standard (primary, secondary or transfer standards) for performing calibration, to ensure that standard cannot be used to perform maintenance.

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- (i) A clear system of labeling all tooling, equipment and test equipment shall be used to give information on when the next inspection or service or calibration is due, and give status information if the item is unserviceable for any other reason where it may not be obvious.
- (j) A clear system of labeling all tooling, equipment, and test equipment shall be used to give information on when such tooling, equipment, and test equipment is not used for product acceptance and/or for making a finding of airworthiness.
- **(k)** A register shall be maintained for all calibrated tools, equipment and test equipment together with a record of calibrations and standards used.
- (1) Inspection, service, or calibration on a regular basis shall be in accordance with the equipment manufacturers' instructions except where the AMO can show by results that a different time period is appropriate in a particular case and is acceptable to the Authority.

#### IS: 6.4.1.1 MANAGEMENT PERSONNEL

- (a) The Accountable Manager shall be responsible for ensuring that all necessary resources are available to accomplish maintenance required to support the AMO's approval.
- (b) The minimum entry qualifications for a Base Maintenance Manager are:-
  - (1) An Aircraft Maintenance Engineer (AME) license with airframe and powerplant ratings;
  - (2) 3 years in maintaining the same category and class of aircraft maintained by the AMO, including 1 year of returning aircraft to service from base maintenance; and
  - (3) 1 year supervisory experience maintaining the same category and class of aircraft maintained by the AMO.
- (c) The Base Maintenance Manager shall be responsible for:
  - (1) Ensuring that all maintenance required to be carried out in the hangar, plus any defect rectification carried out during base maintenance, is carried out to specified design and quality standards; and
  - (2) Any corrective action resulting from quality compliance monitoring.
- (d) The minimum entry qualifications for a Line Maintenance Manager are:-
  - (1) An Aircraft Maintenance Engineer (AME) license with airframe and powerplant ratings;
  - (2) 3 years in maintaining the same category and class of aircraft maintained by the AMO, including 1 year of returning aircraft to service from line maintenance; and
  - 1 year supervisory experience maintaining the same category and class of aircraft maintained by the AMO.
- (e) The Line Maintenance Manager shall be responsible for:
  - (1) Ensuring that all maintenance required to be carried out on the line, including line defect rectification, is performed to the required standards; and



- (2) Any corrective action resulting from quality compliance monitoring.
- (f) The minimum entry qualifications for a Workshop Manager are:-
  - (1) An Aircraft Maintenance Engineer (AME) license with airframe and powerplant ratings, avionics ratings, or Aircraft Repair Specialist with 3 years experience working in the workshop; and
  - (2) 1 year supervisory workshop experience.
- (g) The Workshop Manager shall be responsible for:
  - (1) Ensuring that all work on aircraft components is performed to required standards; and
  - (2) Any corrective action resulting from quality compliance monitoring.
- (h) The minimum requirements for a Quality Manager may either:-
  - (1) Be a holder of Aircraft Maintenance Engineers' License in the following ratings: Airframes and Powerplant or Avionics, (ratings on aircraft type not essential) with five (5) years working experience in line/base maintenance, maintenance planning or technical services; or
  - (2) Be a person qualified by holding an academic degree in an aeronautical, mechanical or electrical electronic engineering discipline from a recognized university or other higher educational institution;
  - (3) A minimum of five (5) years working experience in the quality system and / or continuing airworthiness in the aviation industry.
  - (4) A person with proven satisfactory audit experience acceptable to the Authority preferably in aviation.
  - (5) Must have in-depth knowledge of Liberia Civil Aviation Regulations and Standard Maintenance Practices.
  - (6) Broad knowledge of the aviation and the organizations activities and procedures.
  - (7) Good understanding of quality management principles.
  - (8) Oral and written communication skills.
- (i) The Quality Manager shall be responsible for:
  - (1) Monitoring the AMO's compliance with Part 6; and
  - (2) Requesting remedial action as necessary by the base maintenance manager/line maintenance manager/workshop manager or the accountable manager, as appropriate.
- (j) The AMO may adopt any title for managerial positions, but shall identify to the Authority the titles and persons chosen to carry out these functions.

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- **(k)** Where an AMO chooses to appoint managers for all or any combination of the identified functions because of the size of the undertaking, these managers shall report ultimately through either the Base Maintenance Manager or Line Maintenance Manager or Workshop Manager or Quality Manager, as appropriate, to the accountable manager.
- (1) The managers specified in this subsection shall be identified and their credentials submitted to the Authority. To be accepted, such managers shall have relevant knowledge and satisfactory experience related to aircraft/aircraft component maintenance as appropriate in accordance with these regulations.

Note: Certifying staff may report to any of the managers specified depending upon which type of control the AMO uses (for example, licensed engineers, independent inspection/dual function supervisors, etc.) so long as the quality compliance monitoring staff remain independent.

#### IS: 6.4.1.2 OTHER PERSONNEL REQUIREMENTS

- (a) The AMO shall have a production man-hours plan showing that it has sufficient man-hours for the intended work.
- **(b)** If an AMO is approved for base maintenance, the plan shall relate to the aircraft hangar visit plan.
- (c) Man-hour plans shall regularly be updated.
  - Note: Work performed on any aircraft registered outside Liberia shall be taken into account where it impacts upon the production man-hours plan.
- (d) Quality monitoring compliance function man-hours shall be sufficient to meet the requirement of 6.2.1.12(b).
- **(e)** Planners, mechanics, specialized service staff, supervisors and certifying staff and support staff shall be assessed for competence before unsupervised work is permitted and competence is controlled on a continuous basis.
- **(f)** Competence shall be assessed by evaluation of:
  - (1) On-the-job performance and/or testing of knowledge by appropriately qualified personnel, and
  - (2) Records for basic, organizational, and/or product type and differences training, and
  - (3) Experience records.
- **(g)** To assist in the assessment of competence, and to establish the training needs analysis job descriptions are recommended for job functions in the organization.
- **(h)** Criteria shall allow the assessment to establish that:
  - (1) Managers are able to properly manage, processes, resources and priorities described in their assigned duties and responsibilities in safe compliant manner in accordance with the applicable requirements regulations and organization procedures.



- (2) Planners are able to interpret maintenance requirements into maintenance tasks, and have an understanding that they have no authority to deviate from the aircraft maintenance data.
- (3) Mechanics are able to carry out maintenance tasks to any standard specified in the maintenance instructions and will notify supervisors of defects or mistakes requiring rectification to re-establish required maintenance standards.
- (4) Supervisors are able to ensure that all required maintenance tasks are carried out and where not completed or where it is evident that a particular maintenance task cannot be carried out to the maintenance instructions, then such problems will be reported to and agreed by the quality organization.
- (5) Specialized services staff are able to carry out specialized maintenance tasks to the standard specified in the maintenance data. They shall be able to communicate with supervisors and report accurately when necessary.
- (6) Support staff are able to determine that relevant tasks or inspections have been carried out to the required standard.
- (7) Certifying staff are able to determine when the aircraft or aircraft component is and is not ready for release to service.
- (8) Quality audit staff are able to monitor compliance with this part identifying non-compliance in an effective and timely manner so that the organization may remain in compliance with this part.
- (i) In the case of planners, supervisors, and certifying staff, knowledge of AMO procedures relevant to their particular role shall be demonstrated.
- (j) Training of certifying staff shall be performed by the AMO or by an institute selected by the AMO. In either case, the AMO shall establish the curriculum and standards for training, as well as pre-qualification standards for the personnel intended for training. Pre-qualification standards are intended to insure that the trainee has a reasonable chance of successfully completing any course.
- (k) Examinations shall be set at the end of each training course.
- (1) Initial training shall cover:
  - (1) Basic engineering theory relevant to the airframe structure and systems fitted to the class of aircraft the AMO intends to maintain;
  - (2) Specific information on the actual aircraft type on which the person is intended to become a certifying person including the impact of repairs and system/structural defects; and
  - (3) Company procedures relevant to the certifying staff's tasks.
- (m) Continuation training shall cover changes in AMO procedures and changes in the standard of aircraft and/or aeronautical products maintained.



- (n) The training program shall include details of the number of personnel who will receive initial training to qualify as certifying staff over specified time periods.
- **(o)** The training program established for maintenance personnel and certifying staff by the AMO shall include training in knowledge and skills related to human performance including co-ordination with other maintenance personnel and flight crew

## IS 6.4.2 INDOCTRINATION, INITIAL, RECURRENT, SPECIALISED AND REMEDIAL TRAINING.

- (a) Each AMO shall provide indoctrination training for employees that includes at least 40 hours of instruction in at least the following subjects:
  - (1) Regulations of Liberia particularly those associated with AMO maintenance functions and authority as reflected on the certificate and operations specifications.
  - (2) Company manuals, policies, procedures and practices, including quality control processes, particularly those associated with ensuring compliance with maintenance (including inspection), preventive maintenance, and alteration procedures established to show compliance with Part 6:
  - (3) Dangerous goods requirements of 6.4.3, including other local, Liberia, and national laws requiring training for different categories of employees.
  - (4) Human performance, including coordination with other maintenance personnel and flight crew.
  - (5) Maintenance human factors the elements should focus on aviation maintenance and safety related issues.
  - (6) Computer systems and software as applicable to the repair station's maintenance (including inspection, preventive maintenance and alteration systems and procedures, and
  - (7) Facility security which shall include company security objectives, specific security procedures, employee responsibilities, actions to take in the event of a security breach, and the organizational security structure.

Note. – Guidance material to design training programs to develop knowledge and skills in human performance can be found in the Human Factors Training Manual (Doc 9683).

- **(b)** Initial training. Each AMO shall provide initial training for employees that includes at least 80 hours of instruction in at least the following subjects consistent with the specific employee position and assigned job activities:
  - (1) General review;
  - (2) Specific job or task training;
  - (3) Shop safety;
  - (4) Records and recordkeeping;
  - (5) Materials and parts;
  - (6) Test equipment, including ground support equipment;
  - (7) Tools;
  - (8) Maintenance human factors, and
  - (9) Any other items as required by the Authority.



- (c) Recurrent training. Each AMO shall provide recurrent training for employees that include at least 8 hours of instruction in the subjects below:
  - (1) Refresher of subjects covered in initial training
  - (2) New items introduced in the AMO since completion of initial training;
  - (3) Any other items required by the Authority.
- (d) Specialized training. Each AMO shall provide specialized training, including initial and recurrent, for employees whose duties require a specific skill. Examples of specialized skills include: flame and/or plasma spray operations, special inspection or test techniques, special machining operations, complex welding operations, aircraft inspection techniques or complex assembly operations.
- (e) Remedial training. Each AMO shall provide remedial training to rectify an employee's demonstrated lack of knowledge or skill by providing information as soon as possible. In some instances, remedial training may consist of an appropriately knowledgeable person reviewing procedures with an employee through on-the-job training. Remedial training should be designed to fix an immediate knowledge or skill deficiency and may focus on one individual. Successful remedial training should show an individual what occurred, why it occurred, and in a positive manner, how to prevent it from occurring again.
- **(f)** Each AMO, in developing training for employees, shall take into account the various training, experience, and skill levels of its employees as follows:
  - (1) Employees that hold an AMT license;
  - (2) Employees with experience performing similar tasks at another AMO;
  - (3) Employees with applicable military aviation maintenance experience; and
  - (4) Employees with no prior skills, experience, or knowledge.
- **(g)** Each AMO shall have procedures to determine the frequency of recurrent training and the need for specialized and remedial training.
- **(h)** Each AMO shall assess the competency of its employees for performing his or her assigned duties after completion of initial, recurrent, specialized and remedial training. This assessment of competency shall be appropriately documented in the employee's training records and shall be done by any of the following methods, depending upon the size of the AMO, its capabilities and experience of its employees:
  - (1) Written test.
  - (2) Completion of a training course.
  - (3) Skill test.
  - (4) Group exercise.
  - (5) On the job assessment.
  - (6) Oral examination in the working environment.

#### IS: 6.4.3 DANGEROUS GOODS TRAINING PROGRAMME

(a) Dangerous goods training, at a minimum, shall include at least 8 hours instruction in at least the following:



- (1) General awareness/familiarization training —designed to provide familiarity with the requirements of this Part and the dangerous goods regulations in Part 9 and to enable the employee to recognize and identify dangerous goods.
- (2) Function-specific training —concerning the specific requirements of this Part and the dangerous goods regulations in Part 9, or exemptions or special permits issued, relating to the specific functions the employee performs.
- (3) Safety training concerning—
  - (i) Emergency response.
  - (ii) Measures to protect the employee from the hazards associated with the dangerous goods to which they may be exposed in the workplace, including specific measures the employer has implemented to protect employees from exposure.
  - (iii) Methods and procedures for avoiding accidents, such as the proper procedures for handling packages containing dangerous goods.
- (4) Security; awareness training —addressing the security risks associated with dangerous goods transportation and methods designed to enhance transportation security. This training must also include a component covering how to recognize and respond to possible security threats.
- (5) In-depth security training —must include company security objectives, specific security procedures, employee responsibilities, actions to take in the event of a security breach, and the organizational security structure.
- (6) Any other training required by the Authority.

## IS: 6.4.5 RECORDS OF MANAGEMENT, SUPERVISORY, INSPECTION AND CERTIFYING STAFF

- (a) The following minimum information shall be kept on record in respect of each management, supervisory, inspection, and certifying person:
  - (1) Name;
  - (2) Date of birth;
  - (3) Basic training;
  - (4) Type training;
  - (5) Continuation training;
  - (6) Experience;
  - (7) Qualifications relevant to the approval;
  - (8) Scope of the authorization;
  - (9) Date of first issue of the authorization;
  - (10) Expiration date of the authorization (if appropriate); and
  - (11) Identification number of the authorization.
- (b) Records of these individuals shall be controlled.
- **(c)** The number of persons authorized to access the system shall be limited to minimize the possibility of records being altered in an unauthorized manner and to limit confidential records from become accessible to unauthorized persons.



- (d) A certifying person shall be given reasonable access on request to his or her records.
- **(e)** The Authority is authorized to and may investigate the records system for initial and continued approval, or when the Authority has cause to doubt the competence of a particular certifying person.
- **(f)** The AMO shall keep the record of these individuals for at least two years after that person has ceased employment with the AMO or after withdrawal of his or her authorization. Upon request, the certifying staff shall be furnished with a copy of their record on leaving the AMO.

Note: Authorized persons, apart from the AMO's quality department or maintenance supervisors/managers, include the Authority.

#### IS: 6.5.1 AMO PROCEDURES MANUAL

- (a) AMO personnel shall be familiar with those parts of the manuals that are relevant to the maintenance work they perform.
- **(b)** The AMO shall specify in the AMO Procedure manual who shall amend the manual, particularly in the case where the manual consists of several parts.
- (c) The Quality Manager shall be responsible for—
  - (1) Monitoring the amendment of the AMO Procedure manual, including associated procedures manuals.
  - (2) Submitting proposed amendments to the Authority for approval, unless the Authority has agreed, via a procedure stated in the amendment section of the AMO Procedure manual, that some defined class of amendments may be incorporated without approval by the Authority.
- (d) The AMO Procedure manual shall address at least five main areas—
  - (1) General.
  - (2) Maintenance procedures; including line maintenance procedures.
  - (3) Ouality system procedures.
  - (4) Documentation.
  - (5) Examples of standard documents/lists.
  - (6) Other.
- (e) The AMO Procedure manual Format must include the following information:



## Part 1 - Management

- 1.1 Corporate commitment by the accountable manager
- 1.2 The organization's safety and quality policy
- 1.3 Management personnel
- 1.4 Duties and responsibilities of the management personnel
- 1.5 Management Organization Chart
- 1.6 List of certifying staff.
- Note: A separate document may be referenced
- 1.7 Manpower resources
- 1.8 General description of the facilities at each address intended to be approved
- 1.9 Organizations intended scope of work
- 1.10 Notification procedure to the Authority regarding changes to the organization's activities/approval/location/personnel
- 1.11 Manual amendment procedures

#### Part 2 - Maintenance Procedures

- 2.1 Supplier evaluation procedure
- 2.2 Acceptance/inspection of aircraft components and material from outside contractors
- 2.3 Storage, labelling/tagging and release of aircraft components and material to aircraft maintenance
- 2.4 Acceptance of tools and equipment
- 2.5 Calibration of tools and equipment
- 2.6 Use of tools and equipment by staff (including alternate tools)
- 2.7 Cleanliness standards of maintenance facilities
- 2.8 Maintenance instructions and relationship to aircraft/aircraft component manufacturers' service information including updating and availability to staff
- 2.9 Repair procedure
- 2.10 Procedures for compliance aircraft maintenance program
- 2.11 Airworthiness Directives procedure and MCAI handling procedure
- 2.12 Optional modification procedure
- 2.13 Maintenance documentation in use and completion of same
- 2.14 Technical record control



2.15	Procedure for handling of defects arising during base maintenance
2.16	Issue of maintenance release

- 2.17 Records for the AOC holder
- 2.18 Reporting of defects to the Authority/Operator/Manufacturer
- 2.19 Return of defective aircraft components to store
- 2.20 Control of Defective components shipped to outside contractors
- 2.21 Control of computer maintenance record systems
- 2.22 Control of man-hour planning versus scheduled maintenance work
- 2.23 Control of flight safety sensitive maintenance tasks
- 2.24 Reference to specific maintenance procedures such as:
  - Engine running procedures
  - Aircraft pressure run procedures
  - Aircraft towing procedures
  - Aircraft taxiing procedures
- 2.25 Procedures to detect and rectify maintenance errors
- 2.26 Shift/task handover procedures
- 2.27 Procedures for notification of maintenance data inaccuracies and ambiguities, to the type certificate holder
- 2.28 Production planning procedures
- 2.29 sub-contract procedures
- 2.30 human factors; and manpower resources

## Part L2 - Additional Line Maintenance Procedures

- L2.1 Line maintenance control of aircraft components, tools, equipment, etc.
- L2.2 Line maintenance procedures related to servicing/fuelling/de-icing, including inspection for/removal of de-icing/anti-icing fluid residues, etc.
- L2.3 Line maintenance control of defects and repetitive defects
- L2.4 Line procedure for completion of technical log
- L2.5 Line procedure for pooled parts and loan parts
- L2.6 Line procedure for return of defective parts removed from aircraft
- L2.7 Line procedure control of critical tasks



## Part 3 - Quality System Procedures

- 3.1 Quality audit of organization procedures
- 3.2 Quality audit of aircraft
- 3.3 Quality audit remedial action procedure
- 3.4 Certifying staff qualification and training procedures
- 3.5 Certifying staff records
- 3.6 Qualification and training procedures for quality audit personnel
- 3.7 Qualifying inspectors
- 3.8 Qualifying and training procedures for mechanics
- 3.9 Exemption process control
- 3.10 Concession control for deviation from organizations' procedures
- 3.11 Qualification procedure for specialized activities such as non-destructive testing, welding, etc.
- 3.12 When required, control of manufacturers' working teams based at the premises of the organization, engaged in tasks which interface with activities included in the approval; and

#### Part 4 - Documentation

- 4.1 Contracted air operators. A list of operators, where applicable, to which the AMO provides an aircraft maintenance service;
- 4.2 Air Operator procedures and paperwork
- 4.3 Air Operator record completion

#### Part 5 -Supporting documents;

- 5.1 Sample documents, such as technical record control or rectification of defects.
- 5.2 List of subcontractors. A list of subcontracted organizations, where applicable, performing maintenance on behalf of the AMO; and
- 5.3 List of line maintenance locations. A list of the AMO's line stations locations and procedures, if applicable.
- 5.4 List of contracted organizations, a list of contracted organizations, where applicable.

## Part 6 – Other sections as the Authority may approve.

**NOTE:** The manual may be put together in any subject order so long as all applicable subjects are covered.



# IS: 6.5.7 CERTIFICATION OF RELEASE TO SERVICE OF AN AIRCRAFT, PART, COMPONENT OR ASSEMBLY

1. Liberia 2. AUTHORIZED RI AIRWORTHINE			RELEASE CER <sup>®</sup> NESS APPROVA		3. Form Tracking Number.		
			Li	beria FORM 1			
4. Organisation Name an	d Address:					5. Work Order/Contract/Invoice number	
6. Item	7. Description 8. Part Nu		8. Part Number	9. Quantity	10. Serial Number	11. Status/Work	
12. Remarks:							
13-a. Certifies that the items identified above were manufactured in conformity  14-a.   Part 6 § 6.5.7 Release to Service to:						☐ Other regulation specified in block 12	
☐ Approved design data and are in condition for safe operation Certifies that unless otherwise specified in block 1					2, the work identified in block 11 and described in art 6 and in respect to that work the item(s) is (are)		
13-b. Authorised Signature: 13-c. Approval/Authorisation 14-b. Authorised Signature: 1		14-b. Authorised Signa	ature	14-c. Certificate/Approval Ref. No			
13-d. Name		13-e. Date (dd/mm/yyyy) 14-d. Name			14-e. Date (dd/mm/yyyy)		
USER/INSTALLER RESPONSIBILITIES							
1. It is important to understand that the existence of this Document alone does not automatically constitute authority to install the part/component/assembly.							
2. Where the user/installer works in accordance with the national regulations of an Airworthiness Authority different than the Airworthiness Authority of the country specified in block 1 it is essential that the user/installer ensures that his/her Airworthiness Authority accepts parts/components/assemblies from the Airworthiness Authority of the country specified in block 1.							
	3. Statements in blocks 13-a and 14-a do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						

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#### INSTRUCTIONS FOR COMPLETION OF CAA FORM 1 AAT:

#### Line-By-Line Instructions for Completion of Model AMO LCAA Form AAT

- (a) **Block 1.** The name of the BAG STATE under whose approval the certificate was issued (Pre-printed).
- **(b) Block 2.** Model LCAA, Airworthiness Approval Tag, and Civil Aviation Administration (Pre-printed).
- (c) Block 3. System Tracking Reference Number.
  - (1) Fill in the unique number established by the LCAA-approved numbering system.
  - (2) If the form is computer-generated, it may be produced as programmed by the computer.

NOTE: Shippers must establish a numbering system for traceability in order to fill out block 3 of the form. This system must also provide a means of cross-referencing the number(s) and product(s) being shipped.

- (d) Block 4. Organization.
  - (1) Fill in the full name and address of the AMO or individual shipping the product(s)/part(s) as applicable:
    - (i) Company name and address.
    - (ii) Production Approval Holder (PAH) approval or certificate numbers as issued by the Authority of the State of Manufacturer, when applicable (e.g., production certificate number, approved maintenance organization certificate numbers, air operator certificate number.

Note: Production certificates are issued to manufacturing companies by an Authority. The LCARs presume that Liberia will not be a State of Manufacturer or Design. However, aircraft registered in State will likely be repaired, altered or rebuilt using parts and components exported from the State of Manufacturer. Companies performing the repair, alteration, rebuild and export will be certificated by the State of Manufacturer as a production approval holder. The PAH is required by the State of Manufacturer to use the airworthiness approval tag and certify their work in blocks 14-18 as described in this Part. Consequently, States which will not be filling out block 14-18 will need to be familiar with all the uses of this form in order to properly accept parts and components. Production certificates are described in 14 CFR: 21, Subpart G.

- (2) When a supplier has direct ship authorization from a PAH, the following information should be entered:
  - (i) PAH name and address.
  - (ii) PAH approval or certificate number.
  - (iii) C/o Supplier name and address.

NOTE: If an individual product/part is produced as a spare by a supplier, the supplier must have either direct ship authority or hold a production approval (TSO authorization) for all products/parts shipped. If the supplier holds its own production approval, and the products/parts were manufactured and are being shipped under that approval, the information required in paragraph (1) above should be listed.



- (e) Block 5. Work Order, Contract, or Invoice Number.
  - (1) Fill in the contract, work order, or invoice number related to the shipment list, or maintenance release, and state the number of pages attached to the form, including dates, if applicable. If the shipment list contains the information required in Blocks 6 through 12, the respective blocks may be left blank if an original, or true copy, of the list is attached to the form. In this case, the following statement should be entered in Block 13: "This is the certification statement for the products/parts listed on the attached document dated \_\_\_\_\_\_, containing pages \_\_\_\_\_ through \_\_\_\_\_."
  - (2) In addition, the shipment list must cross-reference the number located in Block 3. The shipment list may contain more than one item; but it is the responsibility of the shipper to determine if the CAA of the importing jurisdiction will accept bulk shipments under a single Model CAA Form [AAT]. If the CAA does not permit bulk shipments under a single form, Blocks 6 through 12 of each form must be filled in for each product shipped.
- **(f) Block 6.** Item. This block is provided for the convenience of the organization issuing the certificate to permit easy cross reference to the 'Remarks' Block 13 by the use of item numbers. Completion is not mandatory. Where a number of items are to be released on the certificate, it is permissible to use a separate listing cross-referencing certificate and list to each other.

NOTE: The blank form can be computer-generated. However, the format cannot be changed, nor can any words be added or deleted. Pre-printing of some information is permissible, i.e., the information in blocks 1, 2, 3, 4, and 19. The size of blocks may be varied slightly, but the form must remain readily recognizable. The form may also be reduced in overall size to facilitate placement of the wording on the back of the form onto the face of the document.

- **(g) Block 7.** Description. Enter the name or description of the product/part as shown on the design data. For products/parts that do not have design data available, the name as referenced in a part catalog, overhaul manual, etc., can be used.
- (h) Block 8. Part Number. Enter each part number of the product.
- (i) **Block 9.** Quantity. State the quantity of items being released.
- (j) **Block 10.** Serial/Batch Number. State the serial number or equivalent (identified on the part) on the form for each product/part shipped. If a serial number or equivalent is not required on the part, enter "N/A."
- **(k) Block 11.** Status/work. The following words in quotation marks, with their definitions, indicate the status of the item being released. One or a combination of these words shall be stated in this block:
  - (1) OVERHAULED. The restoration of a used item by inspection, test and replacement in conformity with an approved standard (\*) to extend the operational life.
  - (2) INSPECTED/TESTED. The examination of an item to establish conformity with an approved standard (\*).
  - (3) MODIFIED. The alteration of an item in conformity with an approved standard (\*).

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- (4) REPAIRED. The restoration of an item to a serviceable condition in conformity with an approved standard (\*).
- (5) RETREADED. The restoration of a used tyre in conformity with an approved standard (\*).
- (6) REASSEMBLED. The reassembly of an item in conformity with an approved standard (\*). (Example: A propeller after transportation.)

NOTE: This provision shall only be used in respect of items which were originally fully assembled by the manufacturer in accordance with manufacturing requirements such as, type design specifications and procedures.

NOTE: The above statements shall be supported by reference in Block 13 to the approved data/manual/specification used during maintenance.

- (\*) Approved Standard means a manufacturing/design/maintenance/quality standard approved by the competent authority.
- (1) Block 12. It is mandatory to state any information in this block either direct or by reference to supporting documentation that identifies particular data or limitations relating to the items being released that are necessary for the User/installer to make the final airworthiness determination of the item. Information shall be clear, complete, and provided in a form and manner which is adequate for the purpose of making such a determination. Each statement shall be clearly identified as to which item it relates. If there is no statement, state 'None'. Some examples of the information to be quoted are as follows:
  - (1) The identity and issue of maintenance documentation used as the approved standard.
  - (2) Airworthiness Directives carried out and/or found carried out, as appropriate.
  - (3) Repairs carried out and/or found carried out, as appropriate.
  - (4) Modifications carried out and/or found carried out, as appropriate.
  - (5) Replacement parts installed and/or parts found installed, as appropriate.
  - (6) Life limited parts history.
  - (7) Deviations from the customer work order.
  - (8) Identity of other regulation if not Part 6.
  - (9) Release statements to satisfy a foreign maintenance requirement.
  - (10) Release statements to satisfy the conditions of other CAAs.
- (m) Blocks 13-a, 13-b, 13-c, 13-d and 13-e: Must not be used for maintenance tasks by Part 6 AMOs. These blocks are specifically reserved for release/certification of newly manufactured items in accordance with certification procedures of products and parts of the State of Design or State of Manufacture.

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- (n) Block 14-a. Return to Service. The information is already pre-printed in the block. Contains the required release to service statement for all maintenance by Part 6 AMOs. When non Part-6 maintenance is being released block 13 shall specify the particular national regulation. In any case the appropriate box shall be 'ticked' to validate the release. The certification statement 'except as otherwise specified in block 13' is intended to address the following situations;
  - (1) The case where the maintenance could not be completed.
  - (2) The case where the maintenance deviated from the standard required by Part-6.
  - (3) The case where the maintenance was carried out in accordance with a non Part-6 requirement.
  - (4) Whichever case or combination of cases shall be specified in block 13.
- (o) Block 14-b. Signature. Signature of the individual authorized by the air agency, air carrier, in accordance with 5.6.1.5 (a)(2), (3), and (4). The approval signature shall be manually applied at the time and place of issuance.
- (p) Block 14-c. Certificate number. Enter the AMO or air operator operating certificate number. shall
- (q) Block 14-d. Name. The typed or printed name of the individual identified in Block 20.
- **(r)** Block 14-e. Date. The date the Model CAA Form [AAT] is signed and the product is returned to service.
- **(s)** Additional instructions:
  - (1) The certificate shall comply with the format attached including block numbers in that each block must be located as per the layout. The size of each block may however be varied to suit the individual application, but not to the extent that would make the certificate unrecognizable. The overall size of the certificate may be significantly increased or decreased so long as the certificate remains recognizable and legible.
  - (2) All printing shall be clear and legible to permit easy reading.
  - (3) Completion shall be in English when it is used for export purposes, otherwise it can be completed in the official language of Liberia.
  - (4) The details to be entered on the certificate can be either machine/computer printed or handwriting using block letters and must permit easy reading.
  - (5) Abbreviations must be restricted to a minimum.
  - (6) The original certificate must accompany the items and correlation must be established between the certificate and the items. A copy of the certificate must be retained by the organization that manufactured or maintained the item.

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- (7) Where a single certificate was used to release a number of items and those items are subsequently separated out from each other, such as through a parts distributor, then a copy of the original certificate must accompany such items and the original certificate must be retained by the organization that received the batch of items. Failure to retain the original certificate could invalidate the release status of the items.
  - NOTE: There is no restriction in the number of copies of the certificate sent to the customer or retained by the originator.
- (8) The certificate that accompanies the item may be attached to the item by being placed in an envelope for durability.

#### IS: 6.5.9 AIRWORTHINESS DATA- INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

- (a) The AMO shall be in receipt of all airworthiness data appropriate to support the work performed from the Authority, the aircraft/aeronautical product design organization, and any other approved design organization in the State of Manufacture or State of Design, as appropriate. Some examples of maintenance-related documents are:
  - (1) Civil Aviation Regulations.
  - (2) Associated advisory material.
  - (3) Airworthiness directives.
  - (4) Manufacturers' maintenance manuals.
  - (5) Repair manuals.
  - (6) Supplementary structural inspection documents.
  - (7) Service bulletins.
  - (8) Service letters.
  - (9) Service instructions.
  - (10) Modification leaflets.
  - (11) Aircraft maintenance program.
  - (12) NDT Manual, etc.
  - Note 1: Paragraph (a) primarily refers to maintenance data that has been transcribed from the Authority and all Type Certificate holders into the AMO's format, such as customized maintenance cards or computer based data.
  - Note 2: To obtain acceptance from the Authority, it is important that accuracy of transcription is assured.
- **(b)** A procedure shall be established to monitor the amendment status of all data and maintain a check that all amendments are being received by being a subscriber to any document amendment scheme.
- **(c)** Airworthiness data shall be made available in the work area in close proximity to the aircraft or aeronautical product being maintained and for supervisors, mechanics, and certifying staff to study.
- (d) Where computer systems are used to maintain airworthiness data, the number of computer terminals shall be sufficient in relation to the size of the work program to enable easy access, unless the computer system can produce paper copies. Where microfilm or microfiche readers/printers are used, a similar requirement is applicable.