CIVIL AVIATION RULES AND STANDARDS

FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

PART 5 — AIRWORTHINESS

July 2013
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5.1 GENERAL

5.1.1.1 APPLICABILITY

(a) This part prescribes the requirements for:-

(1) Original certification of aircraft and aeronautical products;

(2) Supplemental type certificates;

(3) Issuance of a Certificate of Airworthiness;

(4) Continued airworthiness of aircraft and aeronautical components;

(5) Aircraft maintenance and inspection requirements; and

(6) Maintenance records and entries.

5.1.1.2 DEFINITIONS

(a) For the purpose of this Part, the following definitions shall apply:-

(1) **Aeronautical Product:** Any aircraft, aircraft engine, propeller, or subassembly, appliance, material, part or component to be installed thereon.

(2) **Airworthiness Approval Tag** A tag that may be attached to a part. The tag must include the part number, serial number, and current life status of the part. Each time the part is removed from a type certificated product, a new tag must be created or the existing tag must be updated with the current life status. The tag has two distinct purposes:-
   1) is as a certification of release to service of a part, component or assembly after maintenance, preventive maintenance, overhaul or rebuilding, and
   2) the other is as shipping of a newly manufactured part.

(3) **Airworthiness Directive** Continuing airworthiness information that applies to the following products: aircraft, aircraft engines, propellers, and appliances. An Airworthiness Directive is mandatory if issued by the State of Design.

(4) **Alteration** The alteration of an aircraft/aeronautical product in conformity with an approved standard.

(5) **Appropriate Airworthiness Requirements** The comprehensive and detailed airworthiness codes established, adopted or accepted by a Contracting State for the class of aircraft, engine or propeller under consideration.

(6) **Life-Limited Part** Any part for which a mandatory replacement limit is specified in the type design, the Instructions for Continued Airworthiness, or the maintenance manual.
(7) **Maintenance**: The performance of tasks required to ensure the continuing airworthiness of an aircraft, including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or repair.

(8) **Major Alteration**: Major alteration means an alteration not listed in the aircraft, aircraft engine, or propeller specifications:
   1) that might appreciably affect weight, balance, structural strength, performance, powerplant, operations, flight characteristics, or other qualities affecting airworthiness; or
   2) that cannot be done by elementary operations. Described in IS: 5.1.1.2(a)(8).

(9) **Major Repair**: Major repair means a repair:
   1) that if improperly done might appreciably affect weight, balance, structural strength, performance, powerplant, operations, flight characteristics, or other qualities affecting airworthiness; or
   2) that is not done according to accepted practices or cannot be done by elementary operations. Described in IS: 5.1.1.2(a)(9).

(10) **Overhaul**: The restoration of an aircraft/aeronautical product using methods, techniques, and practices acceptable to the Authority, including disassembly, cleaning, and inspection as permitted, repair as necessary, and reassembly; and 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 State of Design, holder of the type certificate, supplemental type certificate, or a material, part, process, or appliance approval under a Technical Standard Order (TSO).

(11) **Preventive Maintenance**: Simple or minor preservation operations and the replacement of small standard parts not involving complex assembly operations. Described in IS: 5.1.1.2(a)(11).

(12) **Rebuild**: The restoration of an aircraft/aeronautical product by using methods, techniques, and practices acceptable to the Authority, when it has been disassembled, cleaned, inspected as permitted, repaired as necessary, reassembled, and tested to the same tolerances and limits as a new item, using either new parts or used parts that conform to new part tolerances and limits.

(13) **Repair**:
   1) The restoration of an aeronautical product to an airworthy condition as defined by the appropriate airworthiness requirements.
   2) The restoration of an aeronautical product to an airworthy condition to ensure that the aircraft continues to comply with the design aspects of the appropriate airworthiness requirements used for the issuance of the type certificate for the respective aircraft type, after it has been damaged or subjected to wear.

(14) **Required Inspection Items**: Maintenance items and/or alterations that must be inspected by a qualified and authorized person other than the one performing the work, and include at least those that could result in a failure, malfunction, or defect endangering the safe operation of the aircraft, if not properly performed or if improper parts or materials are used.

(15) **State of Design**: The State having jurisdiction over the organization responsible for the type design.

(16) **State of Manufacture**: The State having jurisdiction over the organization responsible for the final assembly of the aircraft.

(17) **State of Registry**: The State on whose register the aircraft is entered.
(18) **Type Certificate.** A document issued by a Contracting State to define the design of an aircraft type and to certify that this design meets the appropriate airworthiness requirements of that State.

(19) **Validation of a Certificate of Airworthiness.** The action taken by a Contracting State, as an alternative to issuing its own Certificate of Airworthiness, in accepting a Certificate of Airworthiness issued by any other Contracting State as the equivalent of its own Certificate of Airworthiness.

### 5.1.1.3 ABBREVIATIONS

(a) The following acronyms are used in Part 5:

(1) AOC – Air Operator Certificate.

(2) AMO – Approved Maintenance Organization.

(3) AMT – Aviation Maintenance Technician.

(4) ECAA- Ethiopian Civil Aviation Authority

(5) ECARAS- Ethiopian Civil Aviation Rules and Standards

(6) IA – Inspection Authorization.

(7) MEL – Minimum Equipment List.

(8) PIC – Pilot in Command.

(9) STC – Supplemental type Certificate.

(10) TSO – Technical Standard Order.

### 5.2 ORIGINAL CERTIFICATION OF AIRCRAFT AND AERONAUTICAL PRODUCTS

#### 5.2.1.1 APPLICABILITY

(a) This Subpart describes the procedures and designation of applicable rules for original type certification of aircraft and related aeronautical products.

(b) This Subpart is reserved.

#### 5.2.1.2. APPLICABLE CODE OF AIRWORTHINESS

(a) Until Ethiopia develops a comprehensive Code of Airworthiness design, the mandatory requirements and design standards of the State of Design, shall be mandatory on all aircraft registered in Ethiopia;

(b) The Authority will apply the detailed comprehensive code of airworthiness issued by the State of Design, provided:

(1) The issuing State is an ICAO Contracting State;
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(2) The Code of Airworthiness is in conformance with the Standards of ICAO Annex 8;

(3) A copy of the rules and standards conforming the Code of Airworthiness is provided with the application for the Type Acceptance Certificate and is published in the English Language;

(4) There is a satisfactory method of updating the Authority’s copy of the rules and standards conforming the Code of Airworthiness, throughout the time the aircraft is registered in Ethiopia;

(c) The Codes of Airworthiness which are accepted and applied by the Authority in the determination for the issuance of a certificate of airworthiness and continuing airworthiness are those of the:

(1) United States Federal Aviation Administration;

(2) European Aviation Safety Agency;

(3) Canadian Ministry of Transport;

5.2.1.3. UNDER LICENSE PRODUCTION OF TYPE CERTIFICATED CIVIL AERONAUTICAL PRODUCTS

5.2.1.3.1 GENERAL

Until such a time that a comprehensive and detailed Ethiopian Airworthiness Code is established, the following requirement shall be conditions for the issuance of production Certificate of Airworthiness.

(a) The product shall be designed, constructed, manufactured and/or assembled, and type certificated by the State of prime Manufacturer or another ICAO member State in accordance with Airworthiness Code acceptable to the Authority.

(b) Compliance with applicable standards of the International Civil Aviation Organization (ICAO).

(c) There shall not be any substantial modification or change other than those approved and issued as supplemental Type Certificate by the State of Prime Manufacturer.

(d) Manufacturing and/or assembling instruction, tools, jigs, fixtures, and drawings shall be of the type, standard and specification approved by the state of Prime Manufacturer for the type certificated product.

(e) Manufacturing and/or assembling, installing, disassembling and operation of airframe, engine, propeller, accessories, and avionics systems and components shall be performed by appropriately qualified personnel.

5.2.1.3.2 ACCEPTANCE OF TYPE CERTIFICATE

(1) The Authority accepts type certificate based on the satisfactory evidence that the aircraft is in compliance with the mandatory requirements and design standards of the State of Design. Described in IS: 5.2.1.2.2

(a) The Authority will not issue type certificates for aircraft or aeronautical products until such time an application is made and the Authority provides suitable rules and standards or provisions for the issuance of an airworthiness certificate, or airworthiness document as appropriate for the product concerned.

(b) An applicant intending to import a first of type aircraft or aeronautical product to Ethiopia shall apply to the Authority for the issuance of an Acceptance Type Certificate, in a form and manner prescribed by the Authority

(c) The Authority may accept a type certificate or equivalent document issued by a State of Design in respect of an aircraft or aircraft component if:
(1) The type certificate or equivalent document was issued based on an airworthiness code recognized by the Authority; or

(2) The design, materials, construction equipment, performance and maintenance of aircraft or aircraft component technical evaluation against a recognized airworthiness code has been carried out by the Authority and has been found to –
   (i) Meet the required standards of the recognized airworthiness code;
   (ii) Has complied with any other requirements prescribed by the Authority.

(3) The aircraft or aeronautical product for which an Acceptance Type Certificate is sought meets the requirements of these rules and standards.

(d) The Authority may deny the issuance of an acceptance type certificate if it is considered by the Authority that such issuance is contrary to the public interest, in which case the Authority will notify in writing the applicant of the reasons for the denial;

(e) Upon acceptance of the type certificate by the Authority, the Authority may, prior to issue of standard or special certificate of airworthiness, require the applicant to comply with any additional requirements as prescribed by the Authority.

(f) In this regulation, recognized airworthiness code means standards relating to the design, materials, construction equipment, performance and maintenance of aircraft or aircraft component issued by the State of Design and accepted and prescribed by the Authority.

(2) The applicant for a Production Certificate shall submit to the Authority a copy of each of the following: -
   (a) Notification of any special condition to be met (if applicable)
   (b) Type design record
   (c) Type certificate data sheet
   (d) Statement from the state of manufacturer confirming that in the type certification the product has been examined, tested, and was in accordance with the applicable airworthiness requirement acceptable to the Authority.
   (e) Necessary drawing and instructional manuals.

5.2.1.3.3 ISSUANCE OF A PRODUCTION CERTIFICATE OF AIRWORTHINESS

(1) If an aeronautical product has been issued with a Type Certificate by the State of Prime Manufacturer, and if that Type certificate is validated by the Authority, then a Production Certificate of Airworthiness shall be issued for each serial product produced by an approved manufacturing and/or assembling organization provided the applicant satisfies the requirement in this chapter.

(2) The organization seeking Production Certificate as per this chapter shall designate appropriate but separate organizational set-ups at least for the following distinct functions.
   (a) Engineering and planning
   (b) Production
   (c) Quality control and inspection
(d) Stores

(3) Before commencing production of aircraft and/or component for which a type certificate has been issued by the State of Prime Manufacturer, a manufacturing and/or assembling organization shall obtain approval of the following:

(a) Organizational structure
(b) Housing and production
(c) Policy and procedures

5.2.1.3.4 ORGANIZATION

There shall be a statement describing assigned responsibilities and delegated authorities, together with a chart to indicate the functional relationship of engineering, production, and quality control to management and other organization setups.

5.2.1.3.5 HOUSING AND PRODUCTION FACILITIES

(1) There shall be appropriate and adequate hangar, workshops, offices, and storage area.

(2) Production facilities, parts, materials, accessories, equipment, and necessary tooling required for the manufacture and/or assembly of the aircraft shall be of the type, specification, and quality standard approved by the state of Prime Manufacturer or it shall be of a standard acceptable to the Authority.

5.2.1.3.6 POLICY AND PROCEDURES

(1) An assembling and/or manufacturing organization should establish and maintain policy and procedures on the following:

(a) Production system
(b) Quality Control and Production Inspection System
(c) Production test and/or flight test system
(d) Personnel qualification
(e) Stores

5.2.1.3.7 PRODUCTION SYSTEM

(1) The production system should be in accordance with the prime manufacturer's requirement as approved by the state of prime manufacturer during type certification or should be of an acceptable standard to the Authority.
5.2.1.3.8 QUALITY CONTROL AND PRODUCTION INSPECTION SYSTEM

(1) The organization should develop a quality control, which establishes a Material Review Board and Production Inspection System.

5.2.1.3.9 MATERIAL REVIEW BOARD

(1) The Material Review Board shall include at least engineering and inspection units, which develops systems to: -

(a) Maintain complete record of inspection and Material Review Board action.

(b) Provide a means whereby the Material Review Board may determine at least the following: -

(1) Incoming materials used in the finished product meet the specification indicated in the design data.

(2) Current design drawings are readily available to manufacturing and inspection personnel.

(3) Design changes, including material substitutions are controlled and approved before being incorporated in the finished product.

(4) Material and parts that are withheld because of departure from the design data for specification, and that are to be considered for installation in the finished product, are processed through the material review board.

(5) The materials and parts determined by the board to be serviceable are properly identified and inspected if rework or repair is necessary.

(6) The materials and parts rejected by the board are marked and disposed of to ensure that they are not incorporated in the final product.

5.2.1.3.10 PRODUCTION INSPECTION

(1) An assembling and/or a manufacturing organization should establish and maintain a production inspection system to ensure at least the following: -

(a) Each product meets the design provision of the type certificate.

(b) The process affecting safety and quality of the finished product are accomplished in accordance with the Specification approved by the Authority.

(c) Parts and components in process are inspected for conformity with the type design data at points in production where accurate determination can be made.

(d) The quality standards are according to the design specification and at least equivalent to those currently maintained by the prime manufacturer and approved by that state.
5.2.1.3.11 PRODUCTION TEST AND/OR FLIGHT TEST

(1) Aircraft manufacturing and/or assembling organization shall establish a production/flight test procedure and a flight check-off form and perform the flight test according to that form.

(2) The production flight test procedure should include at least the following:

   (a) A check of the operational characteristic of the aircraft on ground.

   (b) Determination that all instrument are properly marked, and that all placards are installed in appropriate places.

   (c) An operational check of the trim, controllability, or other flight characteristic, to establish that the production aircraft has the same range and degree of control as specified in the Type Certificate data sheet.

   (d) An operational check of each part of the system operated by the crew while in flight to establish that during flights instrument readings are within the normal range.

   (e) A check on any other items peculiar to the aircraft being tested that can be done during ground or flight operation of the aircraft.

5.2.1.3.12 PERSONNEL QUALIFICATION

Personnel qualification and experience requirement should be as recommended by the Prime Manufacturer and will be approved by the authority.

5.2.1.3.13 STORES

(1) A manufacturing and/or assembling organization should have a storage facilities and quarantine area to suitably store and adequately protect raw materials, purchased items, assemblies, and finished products.

(2) There shall be storage procedure, which includes at least location, identification, segregation inspection and discard of an item.

5.2.1.3.14 APPROVAL

(1) The following are subjected to approval by the Authority.

   (a) Any change in the production inspection and quality control system, which may affect the inspection, conformity or airworthiness of the product.

   (b) Any change or substitute to the original design.

   (c) Any change in service, maintenance, overhaul and operation manual.

   (d) Any change to flight test procedures and flight check-off form.

(2) All modifications, improvement, addition and development of design information and technical data that would result in the design and construction of a new model aircraft with a new type certificate requires approval and Type Certification by the State of Design and subsequent acceptance by the Authority.
(3) In the event that the Authority reasonably judges (based upon its inspection, investigation, examination and/or test and research) that the product does not meet the quality standard the Authority shall be obliged to refuse the issuance of Production Certificate of Airworthiness.

(4) The manufacturing and/or assembling organization shall facilitate the Authority or its representative to enter the plant and any premises where the product or part are stored, manufactured and/or assembled in order to:

(a) Inspect the plant
(b) Review the engineering practice
(c) Examine its production methods and procedures
(d) Examine its production and quality control inspections, systems and procedures to ensure the product manufacture meets the quality standard approved by the State of Prime Manufacturer.
(e) Review records regarding to manufacturing and/or assembling, servicing and operation of the product to be certificated.

5.3 SUPPLEMENTAL TYPE CERTIFICATES

5.3.1.1 APPLICABILITY

(a) This Subpart prescribes procedural requirements for the issue of supplemental type certificates.

5.3.1.2 ACCEPTANCE OF A SUPPLEMENTAL TYPE CERTIFICATE

(a) Any person who proposes to alter a product by introducing a major change in type design, not great enough to require a new application for a type certificate, shall apply for a Supplemental Type Certificate to the regulatory agency of the State of Design that approved the type certificate for that product,

(b) Or to the State of Registry of the aircraft provided that the State of Registry has the technical expertise to evaluate the proposed change in accordance with the type design. The applicant shall apply in accordance with the procedures prescribed by that State.

(c) No person shall alter a product by introducing a major change in type design before acceptance is granted by the Authority even if the state of design approved the STC.

(d) The organization proposing modification on its Ethiopian registered aircraft shall submit application to ECAA prior to incorporating the modification regardless of the previous approval of the data package by foreign CAA.

(e) The Authority, upon receiving a request for a supplemental type certificate for an aircraft registered in Ethiopia shall forward the request to the State of Design if technical evaluation of the proposed change in accordance with the type design is beyond technical capability of the Authority.

5.3.1.3 MODIFICATION OF AIRCRAFT

(a) All modifications and repairs on Ethiopian registered aircraft shall comply with the airworthiness requirements acceptable to the ECAA.
(b) Modifications other than those made mandatory by the Authority and traceable to any approved continuing airworthiness information disseminated by the manufacturer, such as Service Bulletin, shall be approved by the Authority.

(c) The modification must meet all the relevant requirements specified in the certification basis of the aeronautical product and the applicant is responsible for substantiating the modification that the modified aircraft/engine/propeller complies with the applicable airworthiness requirements.

(d) Data submittals for modification application must contain sufficient descriptive and substantiating/compliance data to completely describe the design of the modification or installation, and demonstrate that the modification design meets the applicable rules and standards.

(e) All modifications must be classified as major or minor prior to submittal of the application to the Authority. Assessment of modification classification shall be referred to the guidelines in ECARAS Part 5 IS:5.1.1.2

(f) ECAA unapproved and/or unaccepted modified aircraft may be subject to grounding and suspension of Certificate of Airworthiness.

(g) For major modification, application has to be substantiated by approved modification design data such as Supplemental Type Certificate (STC) traceable to the State of Design.

(h) The person responsible for the modification must have sound knowledge of aircraft certification and design principles embodied in the aircraft type being modified and shall state any particular requirements to be observed when the modification is completed and before an aircraft, component or equipment is released for service. The following aspects shall be considered:

   (1) Whether tests or inspections during the progress or after the completion of the modification are necessary to ensure it complies with the specified requirements.

   (2) The qualifications of persons who may be required to assess completed work and certify that it complies with the approved design.

   (3) Whether significant changes in the weight and centre of gravity position of the aircraft will occur and if re-weighing or preparation of a new weight and balance report is necessary.

   (4) Whether the flight or operating characteristics of an aircraft may have been affected by the work and the necessity to have the aircraft inspected and certified as fit for flight and flight tested.

   (6) Whether amendments are necessary to the aircraft flight manual, maintenance programme, minimum equipment list or any other documents approved for maintenance or operation of the aircraft. Note: All such amendments must be approved prior to the first flight after the modification is embodied. Such approvals must be applied separately but could be applied simultaneously with the modification approval.

   (7) Whether there are any amendments of instruction to continuing airworthiness and operational requirements in relation to the modification.
(i) Compliance with each certification basis of the type design and environmental protection requirements affected by modification must be clearly demonstrated.

(j) A Modification Approval and/or acceptance shall only be granted by the Authority after it is shown that:

1. The modification meets the applicable certification basis.

2. No feature or characteristic makes the product unsafe for the uses for which certification is requested.

(k) The Authority may require compliance checks and conformity inspections after the completion of the modification and before an aircraft, component or equipment is released for service. The modification approval applicant shall arrange for such checks to be carried out by the Authority.

(l) When flight testing is necessary to demonstrate the embodied modification complies with the applicable airworthiness standards, the applicant shall submit application to ECAA for flight test permit.

5.3.1.4 REPAIR OF AIRCRAFT

(a) Where a repair falls outside the scope of maintenance data as specified in aircraft structural repair manual, then such a repair will require the approval and/or acceptance of the Authority.

(b) The applicant must classify the repair as major or minor. Assessment of repair classification shall be referred to the guidelines in ECARAS Part 5 IS: 5.1.1.2. All repair design should have been classified prior to submission to the ECAA.

(c) The Authority will only approve or accept repair design data traceable to approval from States considered having equivalent safety standards to the State of Design.

(d) Applications for repair approval by the Authority shall be made on appropriate form and be submitted to the Authority together with the repair scheme and supporting documents.

(e) The person responsible for the repair design must have sound knowledge of aircraft certification and design principles embodied in the aircraft type being repaired.

5.3.1.5 COMPATABILITY OF MODIFICATIONS AND REPAIRS

(a) Consideration should be given during the design process to compatibility between the proposed design change and other existing design changes, such as modifications, repairs and airworthiness directives (AD).

(b) The operator has responsibility to inform the TC or STC holder for any airworthiness deficiencies discovered in service which relate to the design change. The TC or STC holder has responsibility to assist the operator and the approving airworthiness authority to correct such deficiencies being informed.

(c) The installer of the modifications or repairs on the aircraft has responsibility to verify compatibility with other existing modifications and repairs before installing any design change.
(d) The operator has the overall responsibility to ensure the compatibility of all design changes incorporated in their aircraft. The operator should report any design change incompatibilities detected during installation or in service to the TC or STC holder, to the installer and to the approving airworthiness authority.

5.4 ISSUANCE OF CERTIFICATES OF AIRWORTHINESS

5.4.1.1 APPLICABILITY

(a) This Subpart prescribes procedures required for the issue of airworthiness certificates and other certifications for aeronautical products registered in Ethiopia.

(b) The Authority shall issue a certificate of airworthiness for aircraft registered in Ethiopia based on satisfactory evidence that the aircraft complies with the design aspects of the appropriate airworthiness requirements (type certificate) and is in a condition for safe operation.

5.4.1.2 ELIGIBILITY

(a) Any registered owner of Ethiopian registered aircraft, or agent of the owner, may apply for an airworthiness certificate for that aircraft.

(b) Each applicant for an airworthiness certificate shall apply in a form and manner acceptable to the Authority.

5.4.1.3 AIRCRAFT IDENTIFICATION

(a) Each applicant for a certificate of airworthiness shall show that the aircraft has the proper identification plates.

5.4.1.4 CLASSIFICATIONS OF AIRWORTHINESS CERTIFICATES

(a) A standard Certificate of Airworthiness will be issued for aircraft in the specific category and model designated by the State of Design in the type certificate. The types of standard certificates of airworthiness includes:-

(1) Normal;
(2) Utility;
(3) Acrobatic;
(4) Transport;
(5) Commuter;
(6) Balloon;
(7) Other.

(b) A Special Airworthiness Certificate will be issued for aircraft that do not meet the requirements of the State of Design for a standard airworthiness certificate. The types of special airworthiness certificates include:-

(1) Primary;
(2) Restricted;
(3) Limited;
(4) Provisional
(5) Experimental
(6) Special flight permits;
(7) Other.

5.4.1.5 ISSUANCE OF A STANDARD AIRWORTHINESS CERTIFICATE

(a) The Authority will issue a standard certificate of airworthiness if:-

(1) The applicant presents evidence to the Authority that the aircraft conforms to a type design approved under a type certificate or a supplemental type certificate and to the applicable Airworthiness Directives of the State of Manufacture;

(2) The aircraft has been inspected in accordance with the performance rules of section 5.6 of this regulation for inspections and found airworthy by persons authorized by the Authority to make such determinations within the last 30 calendar days; and

(3) The Authority finds after an inspection that the aircraft conforms to type design and is in condition for safe operation.

(b) The Authority issues a certificate of airworthiness to the aircraft upon registration of the aircraft in Ethiopia on the basis of Export certificate of airworthiness issued by another Contracting State and fulfillment of the conditions stated in 5.4.1.5 (a) above.

(c) The Standard Airworthiness Certificate shall contain the information in IS 5.4.1.5

(d) The Standard Airworthiness Certificate shall be issued in English language.

5.4.1.6 ISSUANCE OF SPECIAL AIRWORTHINESS CERTIFICATES

(a) The Authority may issue a Special Airworthiness Certificate to the aircraft that does not qualify for a Standard Certificate of Airworthiness.

(b) Aircraft holding Special Airworthiness Certificates shall be subject to operating limitations within Ethiopia and may not make international flights. The Authority shall issue specific operating limitations for each Special Airworthiness Certificate.

5.4.1.7 ISSUANCE OF SPECIAL FLIGHT PERMITS

(a) The Authority may issue a Special Flight Permit to an aircraft that is capable of safe flight, but unable to meet applicable airworthiness requirements, for the purpose of:-
(1) Flying to a base where repairs, alterations, maintenance, or inspections are to be performed, or to a point of storage;

(2) Testing after repairs, alterations, or maintenance have been performed;

(3) Delivering or exporting the aircraft;

(4) Evacuating aircraft from areas of impending danger; and

(5) Operating at weight in excess of the aircraft's maximum Certified Takeoff Weight for flight beyond normal range over water or land areas where adequate landing facilities or appropriate fuel is not available. The excess weight is limited to additional fuel, fuel-carrying facilities, and navigation equipment necessary for the flight.

(b) The Authority may issue a special flight permit with continuing authorization issued to an aircraft that may not meet applicable airworthiness requirements but are capable of safe flight, for the purpose of flying aircraft to a base where maintenance or alterations are to be performed. The permit issued under this paragraph is an authorization, including conditions and limitations for flight, which is set forth in the AOC Holder's specific operating provisions. This permit under this paragraph may be issued to an AOC Holder certificated under Part 9.

(c) In the case of Special Flight Permits, the Authority shall require a properly executed maintenance endorsement in the aircraft permanent record by a person or organization, authorized in accordance to Part 5, stating that the subject aircraft has been inspected and found to be safe for the intended flight.

(d) The operator shall obtain all required over flight authorizations from countries to be overflown on flights outside Ethiopia.

5.4.1.8 CONDITIONS ON THE SPECIAL FLIGHT PERMIT

(a) A person shall not fly an aircraft on a special flight permit unless that person has complied with conditions of this Regulation.

(b) A person who flies an aircraft on a special flight permit referred in 5.4.1.7 shall ensure that:

(1) The flight is made under the supervision of a person approved by the Authority for such flight, subject to any additional conditions which may be specified in the permit;

(2) A copy of the permit is carried on board the aircraft at all times when the aircraft is operating under the conditions of the permit;

(3) The aircraft registration markings assigned to the aircraft is displayed;

(4) No persons or property are carried on board for hire or reward;

(5) Only persons essential for the safe operation of the aircraft, who must be advised of the contents of the permit, are carried on the aircraft.

(6) The aircraft is operated only by flight crew holding appropriate type ratings or validations with sufficient experience to appreciate the reasons for the aircraft non-compliance to the prescribed airworthiness standards;
(7) The flight is conducted in accordance with applicable flight operating rules and procedures of the States of the intended routing;

(8) The routing is such that areas of heavy air traffic, areas of heavy human concentration of a city town or settlement or any other areas where the flight might create hazardous exposure to persons or property are avoided;

(9) The flight is performed in accordance to the performance limitations prescribed in the aircraft flight manual and any other limitation that the Authority may impose on such flight;

(10) All flights are conducted prior to the expiry date of the special flight permit or at any other time the Authority declares so in writing; and

(11) The aircraft shall not depart for the flight on a special flight permit unless the aircraft has on board the required authorizations from the State(s) of intended routing.

5.4.1.9 DURATION OF CERTIFICATES OF AIRWORTHINESS

(a) A certificate of airworthiness or special airworthiness certificate is effective as follows unless sooner surrendered, suspended or revoked, or a special termination date is otherwise established by the Authority:-

(1) A Certificate of Airworthiness shall be renewed every year.

(2) The validity of a validation certificate issued by the Authority shall not extend beyond the period of validity of the Certificate of Airworthiness issued by the State of Registry, or one year, whichever is less; and

(3) A special airworthiness certificate, such as a special flight permit, is valid for the period of time specified in the permit.

(b) The continuing airworthiness of the aircraft shall be determined by a periodical inspection performed at appropriate intervals having regard to lapse of time and type of service.

(c) Failure to maintain an aircraft in an airworthy condition as defined by the appropriate airworthiness requirements of the Authority shall render the aircraft ineligible for operations until the aircraft is restored to an airworthy condition and the certificate of airworthiness shall not be in force for such time.

(d) A Certificate of Airworthiness shall automatically cease to be valid at any time when;

(1) The aircraft sustains a major damage that affects its airworthiness.

(2) The aircraft could not be maintained in an airworthy condition.

(3) The aircraft is removed from the Ethiopian Civil Aircraft Register.

5.4.1.10 COOPERATION AMONG STATES FOR CONTINUING AIRWORTHINESS INFORMATION, INCLUDING AIRWORTHINESS DIRECTIVES

(a) Upon registration of an aircraft in Ethiopia, the Authority will notify the State of Design of the aircraft of the registration in Ethiopia, and request that the Authority receives any and all Airworthiness Directives addressing that aircraft, airframe, aircraft engine, propeller, appliance, or component part and any requirements for the establishment of specific continuing airworthiness programs.
(b) Whenever the State of Design considers that a condition in an aircraft, airframe, aircraft engine, propeller, appliance, or component part is unsafe as shown by the issuance of an Airworthiness Directive by that State, the Authority will make the requirements of such directives apply to Ethiopian registered civil aircraft of the type identified in that Airworthiness Directive.

(c) The Authority may identify and distribute respectively manufacturer’s service bulletins and other sources of data of mandatory continuing airworthiness information received from the State of Design and control and monitor for mandatory compliance pertaining to affected aircraft in Ethiopia.

(d) No person may operate any Ethiopian registered civil aircraft to which the measures of this subsection apply, except in accordance with the applicable Airworthiness Directives and service bulletins.

5.4.11 AMENDMENT OF AIRWORTHINESS CERTIFICATE

(a) The Authority may amend or modify a Certificate of Airworthiness or a special airworthiness certificate:-

(1) Upon application from an owner or operator.

(2) On its own initiative.

(b) Amendment may be made under the following conditions:

(1) Alteration; (STC or amended TC).

(2) A change to the authority and basis for issue.

(3) A change in the aircraft model.

(4) A change in the operating limitations for an aircraft with a special airworthiness certificate.

5.4.12 TRANSFER OR SURRENDER OF A CERTIFICATE OF AIRWORTHINESS

(a) An owner shall transfer a certificate of airworthiness:-

(1) To the lessee upon lease of an aircraft within or outside Ethiopia.

(2) To the buyer upon sale of the aircraft within Ethiopia.

(b) An owner shall surrender the certificate of airworthiness for the aircraft to the issuing Authority upon sale of that aircraft outside of Ethiopia.

5.4.13 COMMERCIAL AIR TRANSPORT

(a) The Authority will consider an airworthiness certificate valid for commercial air transport only when accompanied by operations specifications issued by the Authority which identifies the specific types of commercial air transport authorized.
5.5 CONTINUED AIRWORTHINESS OF AIRCRAFT AND COMPONENTS

5.5.1.1 APPLICABILITY

(a) This Subpart prescribes rules governing the continued airworthiness of civil aircraft registered in Ethiopia whether operating inside or outside the borders of Ethiopia.

(b) The registered owner or Operator of an aircraft shall monitor and assess maintenance and operational experience with respect to airworthiness.

(c) The registered owner or Operator of an aircraft shall obtain and assess continuing airworthiness information from the type design organization.(Type Certificate holder). The operator shall have properly established system of recurring interface with the relevant manufacturers and type certificate holders of aeronautical products the operator is operating in order to be able to receive applicable continuing airworthiness information in respect of the aeronautical products.

5.5.1.2 RESPONSIBILITY

(a) The registered owner or Operator of an aircraft or, in the case of a leased aircraft, the lessee, shall be responsible for maintaining the aircraft in an airworthy condition by ensuring that:-

(1) All maintenance, overhaul, alterations and repairs which affect airworthiness are performed as prescribed by the State of Registry;

(2) Maintenance personnel make appropriate entries in the aircraft maintenance records certifying that the aircraft is airworthy;

(3) The approval for return to service (maintenance release) is completed to the effect that the maintenance work performed has been completed satisfactorily and in accordance with the prescribed methods; and

(4) In the event there are open discrepancies, the maintenance release includes a list of the uncorrected maintenance items for which temporary relief is provided in the MEL and these items are made a part of the aircraft permanent record.

5.5.1.3 GENERAL

(a) No person may perform maintenance, preventive maintenance, or alterations on an aircraft other than as prescribed in this regulation.

(b) No person may operate an aircraft for which a manufacturer’s maintenance manual or instructions for continued airworthiness has been issued that contains an airworthiness limitation section unless the mandatory replacement times, inspection intervals, and related procedures specified in that section or alternative inspection intervals and related procedures set forth in the operations specifications approved under part 9, or in accordance with the inspection program approved under Part 8 have been complied with.
(c) No person may operate an aircraft, aeronautical product, or accessory to which an Airworthiness Directive applies, issued either by the State of Design, or State of Manufacture and adopted for Ethiopian-registered aircraft by the Authority, or by the State of Registry for aircraft operated within Ethiopia, except in accordance with the requirements of that Airworthiness Directive.

(d) When the Authority determines that an airframe or aeronautical product has exhibited an unsafe condition and that condition is likely to exist or to develop in other products of the same type design, the Authority may issue an Airworthiness Directive prescribing inspections and the conditions and limitations, if any, under which those products may continue to be operated.

(e) The Authority shall report any Airworthiness Directives or continuing additional airworthiness requirements that it issues or any malfunction or defect reports to the State of Design.

5.5.1.4 REPORTING OF FAILURES, MALFUNCTIONS, AND DEFECTS

(a) The registered owner or Operator of an aircraft shall report to the Authority, the State of Design and the organization responsible for the type design of the aircraft any failures, malfunctions, or defects that result in at least the following:-

(1) Fires during flight and whether the related fire-warning system properly operated;

(2) Fires during flight not protected by a related fire-warning system;

(3) False fire warning during flight;

(4) An engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components;

(5) An aircraft component that causes accumulation or circulation of smoke, vapour, or toxic or noxious fumes in the crew compartment or passenger cabin during flight;

(6) Engine shutdown during flight because of flameout;

(7) Engine shutdown during flight when external damage to the engine or aircraft structure occurs;

(8) Engine shutdown during flight due to foreign object ingestion or icing;

(9) Shutdown during flight of more than one engine;

(10) A propeller feathering malfunction or inability of the system to control overspeed during flight;

(11) A fuel or fuel-dumping system failure that affects fuel flow or causes hazardous leakage during flight;

(12) An unintended landing gear extension or retraction, or opening or closing of landing gear doors during flight;

(13) Brake system components failure that results in loss of brake actuating force when the aircraft is in motion on the ground;
(14) Aircraft structure that requires major repair;

(15) Cracks, permanent deformation, or corrosion of aircraft structure, if more than the maximum acceptable to the manufacturer or the Authority;

(16) Aircraft components or systems malfunctions that result in taking emergency actions during flight (except action to shut down an engine);

(17) Each interruption to a flight, unscheduled change of aircraft en route, or unscheduled stop or diversion from a route, caused by known or suspected technical difficulties or malfunctions;

(18) Any abnormal vibration or buffeting caused by a structural or system malfunction, defect, or failure; and

(19) A failure or malfunction of more than one attitude, airspeed, or altitude instrument during a given operation of the aircraft.

(b) The registered owner or Operator of an aircraft shall report to the Authority:-

(1) The number of engines removed prematurely because of malfunction, failure or defect, listed by make and model and the aircraft type in which it was installed; and

(2) The number of propeller featherings in flight, listed by type of propeller and engine and aircraft on which it was installed.

(c) Each report required by this Subsection shall:-

(1) Be made within 3 days after determining that the failure, malfunction, or defect required to be reported has occurred; and

(2) Include as much of the following information as is available and applicable:-

(i) Aircraft serial number;

(ii) When the failure, malfunction, or defect is associated with an article approved under a TSO authorization, the article serial number and model designation, as appropriate;

(iii) When the failure, malfunction or defect is associated with an engine or propeller, the engine or propeller serial number, as appropriate;

(iv) Product model;

(v) Identification of the part, component, or system involved, including the part number; and

(vi) Nature of the failure, malfunctions, or defects.

(d) The Authority shall upon receipt of the report for aircraft registered in Ethiopia, submit the report to the State of Design.

(e) The Authority shall upon receipt of the report for foreign registered aircrafts operating in Ethiopia, submit the report to the State of Registry.
5.6 AIRCRAFT MAINTENANCE AND INSPECTION REQUIREMENTS

5.6.1.1 APPLICABILITY

(a) This Subpart prescribes rules governing the maintenance and inspection of any aircraft having a Certificate of Airworthiness issued by Authority or associated aeronautical products.

5.6.1.2 GENERAL REQUIREMENTS FOR MAINTENANCE AND INSPECTIONS

(a) No person may operate an aircraft unless the aircraft and its components are maintained and inspected in accordance with an ECAA approved maintenance program and/or an inspection program approved by the manufacturer and acceptable to the Authority. The operator of any Ethiopian registered aircraft shall have Ethiopian Civil Aviation Authority approved maintenance program for its aircraft.

(b) The maintenance program shall include a description of the aircraft and components and recommended methods for the accomplishment of maintenance tasks. Such information shall include guidance on defect diagnosis.

(c) The maintenance program shall include the maintenance tasks and the recommended intervals at which these tasks are to be performed.

(d) Maintenance tasks and frequencies that have been specified as mandatory by the State of Design in approval of the type design shall be identified in the maintenance program.

(e) A maintenance programme for each aeroplane shall contain when applicable, a continuing structural integrity programme;

(f) The maintenance program shall have a maintenance release process, including signed documentation, in a manner satisfactory to the Authority, indicating that the maintenance performed has been completed satisfactorily. A maintenance release shall contain a certification including:

1. Basic details of the maintenance carried out;
2. Date such maintenance was completed;
3. When applicable, the identity of the approved maintenance organization, AMT, or AOC holder; and
4. The identity of the person or persons signing the release.

(g) The owner or operator shall use one of the following inspection programs as appropriate for the aircraft and the type of operation.

1. Annual inspection,
2. Annual/100 hour inspections,
3. Progressive, or
4. Continuous airworthiness maintenance program.

(h) The design and application of the operator’s maintenance programme shall observe Human Factors principles.
5.6.1.3 PERSONS AUTHORISED TO PERFORM MAINTENANCE, PREVENTIVE MAINTENANCE, AND ALTERATIONS

(a) No person may perform any task defined as maintenance on an aircraft or aeronautical products, except as provided in the following:-

(1) A pilot licensed by the Authority may perform preventive maintenance on any aircraft owned or operated by that pilot so long as the aircraft is not listed for use by an AOC holder.

(2) A person working under the supervision of an aviation maintenance technician may perform the maintenance, preventive maintenance, and alterations that the supervisory aviation maintenance technician is authorized to perform:-

(i) If the supervisor personally observes the work being done to the extent necessary to ensure that it is being done properly, and

(ii) If the supervisor is readily available, in person, for consultation.

(3) A licensed aviation maintenance technician may perform or supervise the maintenance or alteration of an aircraft or aeronautical product for which he or she is rated subject to the limitation of Part 2 of these rules and standards.

(4) An AMO may perform aircraft maintenance within the limits specified by the Authority.

(5) The AOC holder may perform aircraft maintenance as specified by the Authority.

(6) A manufacturer holding an AMO may:-

(i) Rebuild or alter any aeronautical product manufactured by that manufacturer under a type or production certificate;

(ii) Rebuild or alter any aeronautical product manufactured by that manufacturer under a TSO authorization, a Parts Manufacturer Approval by the State of Design, or Product and Process Specification issued by the State of Design; and

(iii) Perform any inspection required by Part 8 on aircraft it manufacturers, while currently operating under a production certificate or under a currently approved production inspection system for such aircraft.

5.6.1.4 AUTHORISED PERSONNEL TO APPROVE FOR RETURN TO SERVICE

(a) No person or entity, other than Authorized, may approve an aircraft, airframe, aircraft engine, propeller, appliance, or component part for return to service after it has undergone maintenance, preventive maintenance, rebuilding, or alteration, except as provided in the following:

(1) A pilot licensed by the Authority may return his or her aircraft to service after performing authorized preventive maintenance.

(2) A licensed aviation maintenance technician may approve aircraft and aeronautical products for return to service after he or she has performed, supervised, or inspected its maintenance subject to the limitation of Part 2, Section 2.4.4 of these rules and standards.
3. An AMO may approve aircraft and aeronautical products for return to service as provided in the operations specifications approved by the Authority.

4. An AOC holder may approve aircraft and aeronautical products for return to service as specified by the Authority.

5.6.1.5 PERSONS AUTHORISED TO PERFORM INSPECTIONS

(a) No person, other than the Authority, may perform the inspections required by 8.2.1.7 for aircraft and aeronautical products prior to or after it has undergone maintenance, preventive maintenance, rebuilding, or alteration, except as provided in the following:

1. An aviation maintenance technician may conduct the required inspections of aircraft and aeronautical products for which he or she is rated and current.

2. An AMO may perform the required inspections of aircraft and aeronautical products as provided in the operations specifications approved by the Authority.

3. An AOC holder may perform the required inspections of aircraft and aeronautical products in accordance with specifications issued by the Authority.

5.6.1.6 PERFORMANCE RULES: MAINTENANCE

(a) Each person performing maintenance, preventive maintenance, or alteration on an aeronautical product shall use the methods, techniques, and practices prescribed in:-

1. The current manufacturer's maintenance manual or instructions for Continued Airworthiness prepared by its manufacturer; and

2. Additional methods, techniques and practices required by the Authority; or methods, techniques and practices designated by the Authority where the manufacturer's documents were not available.

(b) Each person shall use the tools, equipment, and test apparatus necessary to assure completion of the work in accordance with accepted industry practices. If the manufacturer involved recommends special equipment or test apparatus, the person performing maintenance shall use that equipment or apparatus or its equivalent acceptable to the Authority.

(c) Each person performing maintenance, preventive maintenance, or alteration on an aeronautical product shall do that work in such a manner, and use materials of such a quality, that the condition of the aeronautical product worked on will be at least equal to its original or properly altered condition with regard to aerodynamic function, structural strength, resistance to vibration and deterioration, and other qualities affecting airworthiness.

(d) The methods, techniques, and practices contained in an AOC holder’s maintenance control manual and continuous maintenance program, as approved by the Authority, will constitute an acceptable means of compliance with the requirements of this subsection.
5.6.1.7 PERFORMANCE RULES: INSPECTIONS

(a) General. Each person performing an inspection required by the Authority shall perform the inspection so as to determine whether the aircraft, or portion(s) thereof under inspection, meets all applicable airworthiness requirements; and

(b) Rotorcraft. Each person performing an inspection required on a rotorcraft shall inspect the following systems in accordance with the maintenance manual or Instructions for Continued Airworthiness of the manufacturer concerned:—

(1) The drive shafts or similar systems;
(2) The main rotor transmission gear box for obvious defects;
(3) The main rotor and centre section (or the equivalent area); and
(4) The auxiliary rotor on helicopters.

(c) Annual and 100-hour inspections.

(1) Each person performing an annual or 100-hour inspection shall use a checklist while performing the inspection. The checklist may be of the person's own design, one provided by the manufacturer of the equipment being inspected, or one obtained from another source. This checklist shall include the scope and detail of the items prescribed by the Authority. See IS: 5.6.1.7 for components to be included in an annual or 100-hour inspection.

(2) Each person approving a piston-engined aircraft for return to service after an annual or 100-hour inspection shall, before that approval, run the aircraft engine or engines to determine satisfactory performance in accordance with the current manufacturer's recommendations of:—

(i) Power output (static and idle rpm);
(ii) Magnetos;
(iii) Fuel and oil pressure; and
(iv) Cylinder and oil temperature.

(3) Each person approving a turbine-engined aircraft for return to service after an annual or 100-hour inspection shall, before that approval, run the aircraft engine or engines to determine satisfactory performance in accordance with the current manufacturer's recommendations.

(d) Progressive inspections.

(1) Each person performing a progressive inspection shall, at the start of a progressive inspection, inspect the aircraft completely. After this initial inspection, routine and detailed inspections must be conducted as prescribed in the progressive inspection schedule. Routine inspections consist of visual examination or check of the appliances the aircraft and its components and systems, insofar as practicable without disassembly. Detailed inspections consist of a thorough examination of the appliances, the aircraft, and
its components and systems, with such disassembly as is necessary. For the purposes of this subparagraph, the overhaul of a component or system is considered to be a detailed inspection.

(2) If the aircraft is away from the station where inspections are normally conducted, an appropriately rated AMT, an AMO or the manufacturer of the aircraft may perform inspections in accordance with the procedures and using the forms of the person who would otherwise perform the inspection.

(e) Continuous airworthiness maintenance program inspections.

(1) Each person performing the inspection program required for an AOC holder's aircraft or aircraft maintained under a continuous airworthiness maintenance program, shall perform the inspection in accordance with the instructions and procedures set forth in the inspection program.

5.6.1.8 PERFORMANCE RULES: AIRWORTHINESS LIMITATIONS

(a) Each person performing an inspection or other maintenance specified in an airworthiness limitations section of a current manufacturer's maintenance manual, or Instructions for Continued Airworthiness, shall perform the inspection or other maintenance in accordance with that section, or in accordance with specifications approved by the Authority.

5.7 MAINTENANCE AND INSPECTION RECORDS AND ENTRIES

5.7.1.1 CONTENT, FORM, AND DISPOSITION OF RECORDS FOR MAINTENANCE, PREVENTIVE MAINTENANCE, REBUILDING, AND ALTERATION OF AIRCRAFT AND LIFE LIMITED PARTS

(a) Each person who maintains, performs preventive maintenance, rebuilds, or alters an aircraft or life limited parts shall, when the work is performed satisfactorily, make an entry in the maintenance record of that equipment as follows:-

(1) A description (or reference to data acceptable to the Authority) of work performed, including-

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

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

(iii) Appropriate details of alterations and repairs;

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

(v) The current status of the aircraft’s compliance with the maintenance program; and the detailed maintenance records to show that all requirements for signing of a maintenance release have been met.

(2) Completion date of the work performed; and

(3) Name, signature, certificate number, and kind of license held by the person approving the work.
(b) In addition to the entry required by paragraph (a), major repairs and alterations shall be entered on a form, and the form disposed of, in the manner prescribed in IS: 5.7.1.1, by the person performing the work.

5.7.1.2 CONTENT, FORM AND DISPOSITION OF RECORDS FOR MAINTENANCE, PREVENTIVE MAINTENANCE, OVERHAUL AND REBUILDING OF A PRODUCT

(a) No person shall approve for return to service any aeronautical product that has undergone maintenance, preventive maintenance, overhaul or rebuilding of a product unless:–

(1) The appropriate maintenance record entry has been made;

(2) The repair or alteration form authorized by or furnished by the Authority has been executed in a manner prescribed by the Authority;

(3) If a repair or alteration 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 are appropriately revised and set forth as prescribed.

(b) Additional entries for overhaul and rebuilding.

(1) No person shall describe in any required maintenance entry or form, an aeronautical product as being overhauled or rebuilt unless:

(i) It has been disassembled, cleaned, inspected as permitted, repaired as necessary, and reassembled using methods, techniques, and practices acceptable to the Authority; and

(ii) 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 manufacturing approval.

(2) No person shall describe in any required maintenance entry or form an aircraft or other aeronautical product as being rebuilt unless it has been disassembled, cleaned, inspected as permitted, repaired as necessary, reassembled, and tested to the same tolerances and limits as a new item, using either new parts or used parts that conform to new part tolerances and limits.

(c) If the maintenance, preventive maintenance, overhaul or rebuilding of a product is performed by an AMO, the AMO shall complete an airworthiness approval tag as prescribed in Part 6.

5.7.1.3 CONTENT, FORM, AND DISPOSITION OF RECORDS OF INSPECTIONS FOR RETURN TO SERVICE

(a) Inspection record entries. The person approving or disapproving the return to service of an aeronautical product after any inspection performed in accordance with Part 8, shall make an entry in the maintenance record of that equipment containing the following information:–

(1) Type of inspection and a brief description of the extent of the inspection;

(2) Date of the inspection and aircraft or component total time in service;

(3) Signature, the license number, and kind of license held by the person approving or disapproving for return to service the aeronautical product;
(4) If the aircraft or component is found to be airworthy and approved for return to service, the following or a similarly worded statement—“I certify that this aircraft/ component has been inspected in accordance with (insert type) inspection and was determined to be in airworthy condition”;

(5) If the aircraft or component 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/component 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 Part 8, the person performing the inspection shall make an entry identifying the inspection program accomplished, and containing a statement that the inspection was performed in accordance with the inspections and procedures for that particular program.

(b) Listing of discrepancies. The person performing any inspection required in Part 8 who 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, shall give the owner/operator a signed and dated list of those discrepancies.

5.8 AIRCRAFT MASS SCHEDULE

(a) An aircraft in respect of which a standard certificate of airworthiness is issued under these Rules and standards shall be weighed, and the position of the aircraft’s centre of gravity determined, at such periodicity and in such manner as the Authority may require or approve in the case of that aircraft.

(b) Upon the aircraft being weighed, the owner or operator of the aircraft shall prepare a mass schedule showing-

(1) The basic mass of the aircraft, namely the mass of the empty aircraft together with the mass of unusable fuel and unusable oil in the aircraft and of such items of equipment as are indicated in the mass schedule, or such other mass as may be approved by the Authority in the case of that aircraft; and

(2) The position of the centre of gravity of the aircraft when the aircraft contains only the items included in the basic mass or such other position of the centre of gravity as may be approved by the Authority in the case of that aircraft.

(c) The mass schedule shall be preserved by the operator of the aircraft until the expiration of a period of six months following the next occasion on which the aircraft is weighed for the purpose of this regulation.

(d) Requirements of periodic mass and balance reports for all aircrafts are as indicated in paragraphs (d) (1) and (d) (2) below.

1. Each aircraft in the category of light aircraft shall be re-weighed and a current empty weight and empty weight center of gravity established when:

   (a) The aircraft is overhauled;

   (b) Additional equipment is installed or previously installed equipment is removed;

   (c) The mass of the aircraft is known to have changed for any other reason;
(d) The time since the last weighing is due by 36 calendar months.

2. An operator shall ensure that a current empty weight and empty weight center of gravity is established for each aircraft (large aircraft) it operates when:

(a) The aircraft is overhauled;
(b) Additional equipment is installed or previously installed equipment is removed;
(c) The weight of the aircraft is known to have changed for any other reason;
(d) The time since the last weighing is due by 60 calendar months.

5.9 AIRCRAFT NOISE CERTIFICATION

5.9.1.1 REQUIREMENTS OF NOISE CERTIFICATION

(a) An aircraft to which this regulation applies shall not land or take off in Ethiopia unless there is in force a noise certificate issued or rendered valid by the competent authority of the State of Registry.

(b) A registered owner of Ethiopian registered aircraft, or agent of the owner, shall apply for a noise certificate in a form and manner prescribed by the Authority.

(c) The applicant for a noise certificate shall provide evidence acceptable to the Authority that the aircraft meets the noise certification levels for which the applicant requests certification. Such evidence may include documentation from the manufacturer approved aircraft flight manual or other documents evidencing noise compliance as approved by the State of Design of that aircraft.

5.9.1.2 ISSUE, SUSPENSION, REVOCATION OF NOISE CERTIFICATE

(a) An aircraft included in the classification defined for noise certification purpose in IS 5.9.1.2: b) shall be issued with a noise certificate or a suitable statement attesting noise certification contained in another document approved by the state of registry and required by that state to be carried in the aircraft.

(b) The noise certificate referred to in a) above shall be issued or validated by the Authority on the basis of satisfactory evidence that the aircraft complies with the requirements which are at least equal to the applicable standards specified in the Annex 16 Volume 1 to the Chicago Convention.

(c) The document attesting noise certification of an aircraft shall provide information in accordance with IS: 5.9.1.2 a) of these Rules and standards and shall contain an English translation.

(d) The Authority shall-

(1) Suspend or revoke the noise certificate of aircraft on the civil aircraft register if the aircraft ceases to comply with the applicable noise standards;
(2) Not re-instate or grant a new noise certificate unless the aircraft is found on reassessment to comply with the applicable noise standards.

(e) Upon surrender or revocation, the certificate shall be returned to the authority.
5.9.1.3 DURATION AND CONTINUED VALIDITY OF NOISE CERTIFICATE

(a) A noise certificate shall be issued for an unlimited duration. It shall remain valid subject to:

(1) Compliance with the applicable type design, environmental protection and continuing airworthiness requirements; and

(2) The aircraft remaining on the Ethiopia register; and

(3) The type-certificate under which it is issued not being previously invalidated;

(4) The certificate not being surrendered or revoked under 5.9.1.2;

5.10.1 AIRWORTHINESS APPROVALS FOR EXPORTS

(a) Ethiopia facilitates the transfer of aircraft onto the register of another State by the issue of an Export Certificate of Airworthiness.

(b) While not valid for the purpose of flight Export Certificate of Airworthiness issued by Ethiopian Civil Aviation Authority provides confirmation of a recent satisfactory review of the airworthiness status of the aircraft.

(c) Guidance on the issue of an “Export Certificate of Airworthiness” is contained in the Airworthiness Inspector Handbook.

(d) In producing procedures for facilitating the export of aircraft, Ethiopia has adopted “Export Certificate of Airworthiness” for the export document. Such certifications is intended to achieve the goal which is a statement by the exporting State confirming to the importing State the acceptable airworthiness status of the aircraft.

(e) In the case of a complete aircraft the Export Certificate of Airworthiness confirms the aircraft’s conformity with the approved design data and its acceptable airworthiness status and that the aircraft standard complies with the requirements of the importing State.

5.10.2 EXPORT CERTIFICATE OF AIRWORTHINESS STATUS

(a) It shall be known that an export certificate of airworthiness is not a Certificate of Airworthiness as defined by Article 31 of the Convention and therefore does not confer the right of international flight unless otherwise rendered valid by the importing State.

(b) To fly internationally, an aircraft having an Export Certificate of Airworthiness will require a valid Certificate of Airworthiness issued by the State of Registry or some equivalent document mutually acceptable to the exporting and importing States and accepted by any State over which the aircraft will fly on its delivery flight.
IS: 5.1.1.2 DEFINITIONS

IS: 5.1.1.2 (A)(8) MAJOR ALTERATIONS

(a) **Airframe Major Alterations:** Major alterations include alterations to the listed aircraft parts, or the listed types of alterations (when not included in the applicable aircraft specifications):

1. Wings.
2. Tail surfaces.
3. Fuselage.
4. Engine mounts.
5. Control system.
7. Hull or floats.
8. Elements of an airframe including spars, ribs, fittings, shock absorbers, bracing, cowlings, fairings, and balance weights.
9. Hydraulic and electrical actuating system of components.
10. Rotor blades.
11. Changes to the empty weight or empty balance which result in an increase in the maximum Certified weight or centre of gravity limits of the aircraft.
12. Changes to the basic design of the fuel, oil, cooling, heating, cabin pressurisation, electrical, hydraulic, de-icing, or exhaust systems.
13. Changes to the wing or to fixed or movable control surfaces which affect flutter and vibration characteristics.

(b) **Powerplant Major Alterations:** Major powerplant alterations, even when not listed in the applicable engine specifications, include:

1. Conversion of an aircraft engine from one approved model to another, involving any changes in compression ratio, propeller reduction gear, impeller gear ratios or the substitution of major engine parts which requires extensive rework and testing of the engine.
2. Changes to the engine by replacing aircraft engine structural parts with parts not supplied by the original manufacturer or parts not specifically approved by the Authority.
3. Installation of an accessory which is not approved for the engine.
4. Removal of accessories that are listed as required equipment on the aircraft or engine specification.
(5) Installation of structural parts other than the type of parts approved for the installation.

(6) Conversions of any sort for the purpose of using fuel of a rating or grade other than that listed in the engine specifications.

(c) **Propeller Major Alterations:** Major propeller alterations, when not authorized in the applicable propeller specifications, include:-

1. Changes in blade design.
2. Changes in hub design.
3. Changes in the governor or control design.
4. Installation of a propeller governor or feathering system.
5. Installation of propeller de-icing system.
6. Installation of parts not approved for the propeller.

(d) **Appliance Major Alterations:** Alterations of the basic design not made in accordance with recommendations of the appliance manufacturer or in accordance with applicable Airworthiness Directives are appliance major alterations. In addition, changes in the basic design of radio communication and navigation equipment approved under type certification or other authorization that have an effect on frequency stability, noise level, sensitivity, selectivity, distortion, spurious radiation, automated volume control (AVC) characteristics, or ability to meet environmental test conditions and other changes that have an effect on the performance of the equipment are also major alterations.

**IS: 5.1.1.2 (A)(9) MAJOR REPAIRS (DEFINITION)**

(a) **Airframe Major Repairs:** Repairs to the following parts of an airframe and repairs of the following types, involving the strengthening, reinforcing, splicing, and manufacturing of primary structural members or their replacement, when replacement is by fabrication such as riveting or welding, are airframe major repairs.

1. Box beams.
2. Monocoque or semimonocoque wings or control surfaces
3. Wing stringers or chord members
4. Spars.
5. Spar flanges.
6. Members of truss-type beams.
7. Thin sheet webs of beams.
8. Keel and chine members of boat hulls or floats.
9. Corrugated sheet compression members which act as flange material of wings or tail surfaces.
(10) Wing main ribs and compression members.
(11) Wing or tail surface brace struts.
(12) Engine mounts.
(13) Fuselage longerons.
(14) Members of the side truss, horizontal truss, or bulkheads.
(15) Main seat support braces and brackets.
(16) Landing gear brace struts.
(17) Axles.
(18) Wheels.
(19) Parts of the control system such as control columns, pedals, shafts, brackets, or horns.
(20) Repairs involving the substitution of material.
(21) The repair of damaged areas in metal or plywood stressed covering exceeding six inches in any direction.
(22) The repair of portions of skin sheets by making additional seams.
(23) The splicing of skin sheets.
(24) The repair of three or more adjacent wing or control surface ribs or the leading edge of wings and control surfaces, between such adjacent ribs.
(25) Repair of fabric covering involving an area greater than that required to repair two adjacent ribs.
(26) Replacement of fabric on fabric covered parts such as wings, fuselages, stabilisers, and control surfaces.
(27) Repairing, including rebottoming, of removable or integral fuel tanks and oil tanks.

(b) **Powerplant Major Repairs:** Repairs of the following parts of an engine and repairs of the following types, are powerplant major repairs:-

(1) Separation or disassembly of a crankcase or crankshaft of a piston engine equipped with an integral supercharger.
(2) Separation or disassembly of a crankcase or crankshaft of a piston engine equipped with other than spur-type propeller reduction gearing.
(3) Special repairs to structural engine parts by welding, plating, metalising, or other methods.
(c) **Propeller Major Repairs**: Repairs of the following types to a propeller are propeller major repairs—

(1) Any repairs to or straightening of steel blades.
(2) Repairing or machining of steel hubs.
(3) Shortening of blades.
(4) Retipping of wood propellers.
(5) Replacement of outer laminations on fixed pitch wood propellers.
(6) Repairing elongated bolt holes in the hub of fixed pitch wood propellers.
(7) Inlay work on wood blades.
(8) Repairs to composition blades.
(9) Replacement of tip fabric.
(10) Replacement of plastic covering.
(11) Repair of propeller governors.
(12) Overhaul of controllable pitch propellers.
(13) Repairs to deep dents, cuts, scars, nicks, etc., and straightening of aluminium blades. (14)

The repair or replacement of internal elements of blades.

(d) **Appliance Major Repairs**: Repairs of the following types to appliances are appliance major repairs—

1) Calibration and repair of instruments.
(2) Calibration of avionics or computer equipment.
(3) Rewinding the field coil of an electrical accessory.
(4) Complete disassembly of complex hydraulic power valves.
(5) Overhaul of pressure type carburetors, and pressure type fuel, oil, and hydraulic pumps.

**IS: 5.1.1.2 (A)(11) PREVENTIVE MAINTENANCE (DEFINITION)**

(a) **Preventive Maintenance**: Preventive maintenance is limited to the following work, provided it does not involve complex assembly operations.

(1) Removal, installation and repair of landing gear tires.
(2) Replacing elastic shock absorber cords on landing gear.
(3) Servicing landing gear shock struts by adding oil, air, or both.

(4) Servicing landing gear wheel bearings, such as cleaning and greasing.

(5) Replacing defective safety wiring or cotter keys.

(6) Lubrication not requiring disassembly other than removal of non-structural items such as cover plates, cowlings, and fairings.

(7) Making simple fabric patches not requiring rib stitching or the removal of structural parts or control surfaces.

(8) Replenishing hydraulic fluid in the hydraulic reservoir.

(9) Refinishing decorative coating of fuselage, wings, tail group surfaces (excluding balanced control surfaces), fairings, cowling, landing gear, cabin, or cockpit interior when removal or disassembly of any primary structure or operating system is not required.

(10) Applying preservative or protective material to components where no disassembly of any primary structure or operating system is involved and where such coating is not prohibited or is not contrary to good practices.

(11) Repairing upholstery and decorative furnishings of the cabin or cockpit when the repairing does not require disassembly of any primary structure or operating system or interfere with an operating system or affect primary structure of the aircraft.

(12) Making small simple repairs to fairings, non-structural cover plates, cowlings, and small patches and reinforcements not changing the contour so as to interfere with proper airflow.

(13) Replacing side windows where that work does not interfere with the structure of any operating system such as controls, electrical equipment, etc.

(14) Replacing safety belts.

(15) Replacing seats or seat parts with replacement parts approved for the aircraft, not involving disassembly of any primary structure or operating system.

(16) Troubleshooting and repairing broken circuits in landing light wiring circuits.

(17) Replacing bulbs, reflectors, and lenses of position and landing lights.

(18) Replacing wheels and skis where no weight and balance computation is involved.

(19) Replacing any cowling not requiring removal of the propeller or disconnection of flight controls.

(20) Replacing or cleaning spark plugs and setting of spark plug gap clearance.

(21) Replacing any hose connection except hydraulic connections.

(22) Replacing prefabricated fuel lines.

(23) Cleaning fuel and oil strainers.
(24) Replacing and servicing batteries.

(25) Replacement or adjustment of non-structural fasteners incidental to operations.

(26) The installation of anti-misfueling devices to reduce the diameter of fuel tank filler openings provided the specific device has been made a part of the aircraft type certificate data by the aircraft manufacturer, the manufacturer has provided appropriately approved instructions acceptable to the Authority for the installation of the specific device, and installation does not involve the disassembly of the existing filler opening.

**IS 5.2.1.2.2 TYPE CERTIFICATE ACCEPTANCE PROCEDURE**

The Authority accepts the type certificates issued by the Federal Aviation Administration (FAA), European Aviation Safety Agency (EASA), and Transport Canada (TC). Type certificates of other States of Design will be accepted if they are validated or accepted by FAA and/or EASA.


Part 5 - Airworthiness

ECAA FORM AWS 003

<table>
<thead>
<tr>
<th>Certificate No. __________</th>
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Ethiopian Civil Aviation Authority
Certificate of Airworthiness

<table>
<thead>
<tr>
<th>3. Nationality and Registration Mark</th>
<th>2. Manufacturer and Manufacturer’s Designation of aircraft</th>
<th>3. Aircraft Serial Number</th>
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</table>

4. Categories and/or operation __________________________________________________________

5. This Certificate of Airworthiness is issued pursuant to the convention on international Civil Aviation dated 7 December 1944 and the Civil Aviation Proclamation No. 616 of 2008 in respect of civil aircraft. The aircraft is considered to be airworthy when maintained in accordance with the approved and appropriate maintenance manuals and operated in accordance with approved flight manual by persons holding appropriate and valid Ethiopian CAA License.

Date of Issue ________________ Signature _______________________
For Ethiopian Civil Aviation Authority

<table>
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<tr>
<th>Renewal Date</th>
<th>Valid until</th>
<th>ECAA Certification</th>
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Notes:

1. No entries or endorsements may be made on this certificate except in the manner and by the persons authorized for the purpose.

2. If this certificate is lost, the issuing Authority should be informed at once, the certificate number being quoted.

3. Any person finding this certificate being lost should forward it immediately to Ethiopian Civil Aviation Authority.

4. Original copy of this certificate shall be displayed on board the aircraft.
IS: 5.4.1.5  ISSUANCE OF A STANDARD CERTIFICATE OF AIRWORTHINESS

(a) The standard Certificate of Airworthiness issued by the Authority shall be as follows.

1. For use of the State of Registry.
2. Manufacturer's designation of aircraft should contain the aircraft type and model.
3. This space is normally used to indicate the certification basis, i.e., certification code, with which the particular aircraft complies and/or its permitted operational category, e.g., commercial air transportation, aerial work, or private.
4. This space shall be used either for periodic endorsement (giving date of expiry) or for a statement that the aircraft is being maintained under a system of continuous inspection.

IS: 5.6.1.7  PERFORMANCE RULES: INSPECTIONS

(a) Each person performing an annual or 100-hour inspection shall, before that inspection, thoroughly clean the aircraft and aircraft engine and remove or open all necessary inspection plates, access doors, fairings, and cowlings.

(b) Each person performing an annual or 100-hour inspection shall inspect, where applicable, the following components:-

(1) Fuselage and hull group:-

(i) Fabric and skin - for deterioration, distortion, other evidence of failure, and defective or insecure attachment of fittings.

(ii) Systems and components - for improper installation, apparent defects, and unsatisfactory operation.

(iii) The cabin and cockpit group.

(iv) Generally - for uncleanness and loose equipment that might foul the controls.

(v) Seats and safety belts - for poor condition and apparent defects.

(vi) Windows and windshields - for deterioration and breakage.

(vii) Instruments - for poor condition, mounting, marking, and (where practicable) for improper operation.

(viii) Flight and engine controls - for improper installation and improper operation.

(ix) Batteries - for improper installation and improper charge.

(x) All systems - for improper installation, poor general condition, apparent and obvious defects, and insecurity of attachment.
(2) Engine and nacelle group:-

(i) Engine section - for visual evidence of excessive oil, fuel, or hydraulic leaks, and sources of such leaks.

(ii) Studs and nuts - for improper torquing and obvious defects.

(iii) Internal engine - for cylinder compression and for metal particles or foreign matter on screens and sump drain plugs. If there is weak cylinder compression, for improper internal condition and improper internal tolerances.

(iv) Engine mount - for cracks, looseness of mounting, and looseness of engine to mount.

(v) Flexible vibration dampeners - for poor condition and deterioration.

(vi) Engine controls - for defects, improper travel, and improper safetying.

(vii) Lines, hoses, and clamps - for leaks, improper condition, and looseness.

(viii) Exhaust stacks - for cracks, defects, and improper attachment.

(ix) Accessories - for apparent defects in security of mounting.

(x) All systems - for improper installation, poor general condition, defects, and insecure attachment.

(xi) Cowling - for cracks and defects.

(3) Landing gear group:-

(i) All units - for poor condition and insecurity of attachment. (ii)
   Shock absorbing devices - for improper oleo fluid level.

(iii) Linkage, trusses, and members - for undue or excessive wear, fatigue, and distortion. (iv)
   Retracting and locking mechanism - for improper operation.

(v) Hydraulic lines - for leakage.

(vi) Electrical system - for chafing and improper operation of switches. (vii)
   Wheels - for cracks, defects, and condition of bearings.

(viii) Tires - for wear and cuts.

(ix) Brakes - for improper adjustment.

(x) Floats and skis - for insecure attachment and obvious or apparent defects.
(4) Wing and centre section assembly for: -
   (i) Poor general condition.
   (iii) Fabric or skin deterioration.
   (iii) Distortion.
   (iv) Evidence of failure.
   (v) Insecurity of attachment.

(5) Complete empennage assembly for:-(i) Poor general condition.
   (ii) Fabric or skin deterioration.
   (iii) Distortion.
   (iv) Evidence of failure.
   (v) Insecure attachment.
   (vi) Improper component installation.
   (vii) Improper component operation.

(6) Propeller group: -
   (i) Propeller assembly - for cracks, nicks, binds, and oil leakage.
   (ii) Bolts - for improper torquing and lack of safety.
   (iii) Anti-icing devices - for improper operations and obvious defects.
   (iv) Control mechanisms - for improper operation, insecure mounting, and restricted travel.

(7) Avionics/instrument group: -
   (i) Avionics/instruments equipment - for improper installation and insecure mounting.
   (ii) Wiring and conduits - for improper routing, insecure mounting, and obvious defects.
   (iii) Bonding and shielding - for improper installation and poor condition.
   (iv) Antenna including trailing antenna - for poor condition, insecure mounting, and improper operation.
(8) Electronic/electrical group:-

(i) Wiring and conduits - for improper routing, insecure mounting, and obvious defects.

(ii) Bonding and shielding - for improper installation and poor condition.

(iii) Each installed miscellaneous item that is not otherwise covered by this listing and/or has instructions for continued airworthiness - for improper installation and improper operation.

IS: 5.7.1.1 CONTENT, FORM AND DISPOSITION OF RECORDS FOR MAINTENANCE, PREVENTIVE MAINTENANCE, REBUILDING AND ALTERATION OF AIRCRAFT AND LIFE LIMITED PARTS

IS: 5.7.1.1(B) RECORDING OF MAJOR REPAIRS AND ALTERATIONS

(a) Each person performing a major repair or major alteration shall:-

1. Execute the appropriate form prescribed by the Authority at least in duplicate;

2. Give a signed copy of that form to the aircraft owner/operator; and

3. Forward a copy of that form to the Authority, in accordance with Authority instructions, within 48 hours after the aeronautical product is approved for return to service.

(b) In place of the requirements of paragraph (a), major repairs made in accordance with a manual or specifications acceptable to the Authority, an AMO may:-

1. Use the customer's work order upon which the repair is recorded;

2. Give the aircraft owner a signed copy of the work order and retain a duplicate copy for at least one year from the date of approval for return to service of the aeronautical product;

3. Give the aircraft owner a maintenance release signed by an authorized representative of the AMO and incorporating the following information:-

   (i) Identity of the aeronautical product;

   (ii) If an aircraft, the make, model, serial number, nationality and registration marks, and location of the repaired area; and

   (iii) If an aeronautical product, give the manufacturer's name, name of the part, model, and serial numbers (if any).

4. Include the following or a similarly worded statement:-
ECAA FORM AWS 007

The aeronautical product identified above was repaired, overhauled and inspected in accordance with currently effective, applicable instructions of the State of Design and regulatory requirements of the Authority, and is approved for return to service.
Pertinent details of the repair are on file at this maintenance organization. Order No. Date
Signed
(Signature of authorized representative)

(Facility Name) (AMO Certificate Number)

(Address)
The following sample form may be used to record major alterations and repairs.

ECAA form AWS 0012

<table>
<thead>
<tr>
<th>MAJOR REPAIR AND ALTERATION</th>
<th>Ethiopia</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Airframe, Powerplant, Propeller, or Appliance)</td>
<td>For CAA Use Only</td>
</tr>
<tr>
<td>INSTRUCTIONS: Print or type all entries. See Ethiopian Civil Aviation Regulation Part 5, 5.7.1.1(b) and IS: 5.7.1.1 for instructions and disposition of this form.</td>
<td></td>
</tr>
</tbody>
</table>

1. Aircraft
   - Make
   - Model
   - Serial Number
   - Nationality and Registration Mark

2. Owner
   - Name (As shown on certificate of registration)
   - Address (As shown on registration certificate)

3. For Office Use Only

4. Unit Identification
<table>
<thead>
<tr>
<th>Unit</th>
<th>Make</th>
<th>Model</th>
<th>Serial Number</th>
<th>Repair</th>
<th>Alteration</th>
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</thead>
<tbody>
<tr>
<td>Airframe</td>
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<td>Propeller</td>
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<tr>
<td>Appliance</td>
<td>Type</td>
<td>Manufacturer</td>
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</table>

5. Type

6. Conformity Statement

   A. Organization Name and Address
   B. Kind of License/Organization
      - Licensed (AMT) A or A/P
      - Approved Maintenance Organization
      - Manufacturer AMO

   C. Certificate/License Number
      (For an AMO include the appropriate ratings issued for the major repair or alteration)

   D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 5 of the Ethiopian Civil Aviation Rules and standards and that the information furnished herein is true and correct to the
      Date  
      Signature of Authorized Individual

7. Approval for Return To Service

   Pursuant to the authority given persons specified below, the unit(s) identified in item 4 was inspected in the manner prescribed by the Authority is
   APPROVED  REJECTED

   BY
   - CAA Inspector
   - Inspection Authorization
   - Other (Specify)
   - Maintenance Organization
   - Other

   Date of Approval or Rejection  
   Certificate or Designation Number  
   Signature or Authorized Individual

Page 1
NOTICE
Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished
   (If more space is required, attach additional sheets. Identify each page with aircraft nationality and registration mark and date work completed.)
INSTRUCTIONS FOR COMPLETION OF MAJOR REPAIR AND ALTERATION FORM

Item 1 – Aircraft.

Information to complete the “make,” “model,” and “serial number” blocks will be found on the aircraft manufacturer’s identification plate. The “Nationality and Registration Mark” is the same as shown on Certificate of Aircraft Registration.

Item 2 – Owner.

Enter the aircraft owner’s complete name and address as show on the Certificate of Aircraft Registration.

Item 3 – For Office use only.

Approval may be indicated in Item 3 when the Authority determines that data to be used in performing a major alteration or a major repair complies with accepted industry practices and all applicable Ethiopia rules and standards. Approval is indicated in one of the following methods:

(1) Approval by examination of data only – one aircraft only: “The data identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspection by a person authorised in § 5.6.1.4.

(2) Approval by physical inspection, demonstration, testing, etc. of the data and aircraft – one aircraft only: “The alteration or repair identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspections by a person in § 5.6.1.4.”

(3) Approval by examination of data only – duplication on identical aircraft. “The alteration identified herein complies with the applicable airworthiness requirements and is approved for duplication on identical aircraft make, model, and altered configuration by the original modifier.”

A signature in item 3, “For Office Use Only,” indicates approval of the data described in that section for use in accomplishing the work described under item 8, “Description of the Work Accomplished.” This signature does not indicate CAA approval of the work described under item 8 for return to service.

Item 4 – Unit Identification.

The information blocks under item 4 are used to identify the airframe, powerplant, propeller, or appliance repaired or altered. It is only necessary to complete the blocks for the unit repaired or altered.

Item 5 – Type.

Enter a checkmark in the appropriate column to indicate if the unit was repaired or altered. Item 6 – Conformity Statement.

“A” – Agency’s name and address. Enter name of the AMT, AMO or manufacturer accomplishing the repair or alteration. AMT’s should enter their name and permanent mailing address. Manufacturers and AMOs should enter the name and address under which they do business.
“B” – Kind of Licence/ Organisation. Check the appropriate box to indicate the type of person or organisation who performed the work.

“C” – Certificate/license number. AMT’s should enter their AMT license number in this block. AMO’s should enter their AMO certificate number and the rating or ratings under which the work was performed.

Manufacturers should enter their type production or Supplemental Type Certificate (STC) number. Manufacturers of Technical Standard Orders (TSO) appliances altering these appliances should enter the TSO number of the appliance altered.

“D” – Compliance Statement. This space is used to certify that the repair or alteration was made in accordance with Part 5 of these rules and standards. When work was performed or supervised by licensed AMT’s not employed by a manufacturer or AMO, they should enter the date the repair or alteration was completed and sign their full name. AMO’s are permitted to authorize persons in their employee to date and sign this conformity statement.

A signature in item 6, “Conformity Statement,” is a certification by the person performing the work that it was accomplished in accordance with applicable CAA and CAA-approved and/or accepted data. The certification is only applicable to that work described under item 8, “Description of Work Accomplished.” This signature does not indicate CAA approval of the work described under item 8 for return to service.

Item 7 – Approval for Return to Service.

ECARAS Part 5 establishes the conditions under which major repairs and alterations to airframes, powerplants, propellers, and/or appliances may be approved for return to service. This portion of the form is used to indicate approval or rejection of the repair or alteration of the unit involved and to identify the person or agency making the airworthiness inspection. Check the “approved” or “rejected” box to indicate the finding. Additionally, check the appropriate box to indicate who made the finding. Use the box labeled “other” to indicate a finding by a person other than those listed. Enter the date the finding was made. The authorized person who made the finding should sign the form and enter the appropriate certificate or designation number.

(1) Previously Approved Data. The forms will be completed as instructed ensuring that Item 7 is completed as noted above.

(2) Non-previously Approved Data. The form will be completed as instructed, leaving item 7, “Approval for Return to Service” blank and both copies of the form will be sent to the Authority with supporting data. When the Authority determines that the major repair or alteration data complies with the applicable rules and standards and is in conformity with accepted industry practices, data approval will be recorded by entering an appropriate statement in item 3, “for CAA use only.” Both forms and supporting data will be returned to the applicant who will complete item 7 “Approval for Return to Service.” The applicant will give the original of the form, with its supporting data to the aircraft owner or operator and return the duplicate copy to the Authority for inclusion in the aircraft records at its Aircraft Registry.

(3) A signature in item 7, “Approval for Return to Service,” does not signify the Authority approval unless the box to the left of “CAA Inspector” has been checked. The other persons listed in item 7 are authorized to “approve for return to service” if the repair or alteration is accomplished using the Authority -approved and/or accepted data, performed in accordance with this part of ECARAS and found to conform.
Item 8 – Description of Work Accomplished.

A clear, concise, and legible statement describing the work accomplished should be entered in the item 8 on the reverse side of the form. It is important that the location of the repair or alteration, relative to the aircraft or component, be described. The approved data used as the basis for approving the major repair or alteration for the return to service should be identified and described in this area.

(1) For example, if a repair was made to a buckled spar, the description and entered in this part might begin by stating, “Removed wing from aircraft and removed skin from outer 6 feet. Repaired buckled spar 49 inches from the tip in accordance with . . . . “and continue with a description of the repair. The description should refer to applicable rules and standards and approved data used to substantiate the airworthiness of the repair or alteration. If the repair or alteration is subject to being covered by skin or other structures, statement should be made certifying that a precover inspection was made and that covered areas were found satisfactory.

(2) Data used as a basis for the approving major repairs or alterations for return to service shall be approved prior to its use for that purpose and includes: Airworthiness Directives, Advisory Circulars under certain circumstances, TSO parts manufacturing approval, Approved Manufacturer’s instructions, kits and service handbooks, type certificates data sheets, and aircraft specifications. Supporting data such as stress analyses, test reports, sketches or photographs should be submitted on the form. These supporting data will be returned to the applicant by the Authority.

(3) If additional space is needed to describe the repair or alteration, attach sheets bearing the aircraft nationality and registration mark and the date work was completed.

(4) Showing weight and balance computations under this item is not required; however, it may be done. In all cases where weight and balance of the aircraft are affected, the changes should be entered in the aircraft weight and balance records with the date, signature, and reference to the work performed on the [ECAA Form AWS012] that required the changes.

(5) ECAA Form AWS012 is not authorized for use on other than Ethiopian-registered aircraft. If a foreign CAA requests the form, as a record of work performed, it may be provided.
IS 5.9 ISSUE, SUSPENSION, REVOCATION OF NOISE CERTIFICATE

(a) The following information shall be included on the document attesting noise certification of an aircraft:

1. State of Registry; nationality and registration marks
2. Manufacturer’s serial number
3. Manufacturer’s type and model designation; engine type and model; propeller type and model (if applicable)
4. Statement of any additional modifications incorporated for the purposes of compliance with the applicable noise certification standards;
5. The maximum mass at which compliance with the applicable noise certification standards has been demonstrated (only one maximum takeoff and landing pair shall be certified for each individual aircraft);
6. For aeroplanes for which application for certification of the prototype was submitted on or after 6th October 1977, and for helicopters for which application for certification of the prototype was submitted on or after 1st January 1985 the average noise level at the reference point for which compliance with the applicable standards has been demonstrated to the satisfaction of the certificating authority;
7. The Chapter of Annex 16 Volume 1, according to which the aircraft was certificated.
8. The height above the runway at which thrust/power is reduced following full thrust/power take-off.

(b) The following table includes the noise certification classifications as per ICAO Annex 16 Volume 1 to the Chicago Convention.

<table>
<thead>
<tr>
<th>Annex 16 Chapter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>(a) Subsonic Jet Aeroplanes – Application for Standard Certificate of Airworthiness for the prototype accepted on or after 6th October 1977 and before 1st January 2006.</td>
</tr>
<tr>
<td></td>
<td>(b) Propeller-Driven Aeroplanes Over 5,700kg – Application for Standard Certificate of Airworthiness for the Prototype accepted on or after 1st January 1985 and before 17th November 1988.</td>
</tr>
<tr>
<td></td>
<td>(c) Propeller-Driven Aeroplanes over 8,618kg – Application for Standard Certificate of Airworthiness for the Prototype accepted on or after 17th November 1988 and before 1st January 2006.</td>
</tr>
<tr>
<td></td>
<td>2. Propeller driven aeroplanes over 8,618 kg – Application for Standard Certificate of Airworthiness for the prototype accepted on or after 1st January 2006.</td>
</tr>
<tr>
<td>7</td>
<td>Propeller driven STOL Aeroplane.</td>
</tr>
<tr>
<td>8</td>
<td>Helicopters</td>
</tr>
<tr>
<td>9</td>
<td>Installed Auxilliary power unit (APU) and associated power systems during ground operations.</td>
</tr>
<tr>
<td>10</td>
<td>Propeller-Driven Aeroplanes Not Exceeding 8,618kg – Application for Standard Certificate of Airworthiness for the Prototype or derived version accepted on or after 17th November 1988.</td>
</tr>
<tr>
<td>11</td>
<td>Helicopters Not Exceeding 3,175kg Maximum Certified Take-off Mass</td>
</tr>
<tr>
<td>12</td>
<td>Supersonic aeroplanes</td>
</tr>
<tr>
<td>13</td>
<td>Tilt-rotor aircraft</td>
</tr>
</tbody>
</table>
IS: 5.10 PROCEDURES FOR ISSUE OF EXPORT CERTIFICATE OF AIRWORTHINESS

(a) The Ethiopian Civil Aviation Authority when intending to issue an Export Certificate of Airworthiness will follow closely the procedures required to be followed for the renewal of a Certificate of Airworthiness and any applicable requirements specified by the importing State.

(b) The depth to which the Aircraft Registration and Airworthiness Certification Directorate wishes to apply these procedures will however depend to a large extent on how recent its involvement with the aircraft in question has been.

(c) The records to be produced may also be restricted to those covering maintenance performed since the Authority last carried out an inspection on the aircraft.
ETHIOPIAN CIVIL AVIATION AUTHORITY

Export Certificate of Airworthiness (For Aircraft)

This certifies that the aircraft identified below has been examined and as of the date of this certificate is considered airworthy in accordance with the applicable rules and standards of Ethiopian Civil Aviation Authority and is in compliance with those special requirements of the importing State, except as stated below.

Note: This certificate in no way attests to compliance with any agreements or contracts between the vendor and purchaser, nor does it constitute authority to operate an aircraft.

Aircraft Manufacturer ___________________________
Aircraft Model _________________________________
Aircraft Serial No. ______________________________

Engine Manufacturer ___________________________
  Engine Model _________________________________
  Engine Serial No. ______________________________
    1. __________________________
    2. __________________________
    3. __________________________
    4. __________________________

Propeller Manufacturer __________________________
Propeller Model _________________________________
Propeller Serial No. ______________________________
    1. __________________________
    2. __________________________
    3. __________________________
    4. __________________________

☐ NEW    ☐ USED

State to which exported __________________________

Date: __________________________

for Ethiopian Civil Aviation Authority