

Part 4
CONTINUING AIRWORTHINESS OF AIRCRAFT

SUBPART A: GENERAL 3

 4.001 APPLICABILITY 3

 4.003 DEFINITIONS 3

 4.005 ACRONYMS..... 4

SUBPART B: CERTIFICATE OF AIRWORTHINESS..... 5

 4.010 APPLICABILITY 5

 4.013 LEGAL STATUS 5

 4.015 CLASSIFICATION OF AIRWORTHINESS CERTIFICATE 5

 4.017 AMENDMENT OF AIRWORTHINESS CERTIFICATE..... 5

 4.020 TRANSFER OR SURRENDER OF AIRWORTHINESS CERTIFICATE 5

 4.023 EFFECTIVE DATES OF AIRWORTHINESS CERTIFICATE..... 5

 4.025 AIRCRAFT IDENTIFICATION 6

 4.027 ISSUE OF STANDARD AIRWORTHINESS CERTIFICATES 6

 4.030 AIRWORTHINESS DIRECTIVE 6

 4.033 ISSUE AND EXTENSION OF NOISE CERTIFICATE..... 7

 4.035 ISSUE OF SPECIAL AIRWORTHINESS CERTIFICATES 7

 4.037 AIRCRAFT FLIGHT MANUAL..... 8

SUBPART C: CONTINUING AIRWORTHINESS OF AIRCRAFT AND COMPONENT 8

 4.040 APPLICABILITY 8

 4.043 RESPONSIBILITIES 8

 4.045 GENERAL..... 8

 4.047 REPORT OF TECHNICAL INCIDENTS 9

SUBPART D: REQUIREMENTS FOR AIRCRAFT MAINTENANCE..... 9

 4.050 APPLICABILITY 9

 4.053 REPAIR ASSESSMENT FOR PRESURIZED FUSELAGES 9

 4.055 MAINTENANCE REQUIRED..... 10

 4.057 INSPECTIONS..... 10

 4.060 PROGRESSIVE INSPECTIONS 11

 4.063 INSPECTION PROGRAMS FOR LARGE AND TURBINE AIRCRAFT 12

4.065 AMENDMENT OF AIRCRAFT MAINTENANCE PROGRAM 13

4.067 OWNER OR LESSEE’S RESPONSIBILITIES 13

SUBPART E: PERFORMANCE STANDARDS 13

4.070 APLICABILITY 13

4.073 (BLANK)..... 14

4.075 PERSONS AUTHORIZED TO PERFORM MAINTENANCE 14

4.077 AUTHORIZED PERSONNEL TO CERTIFY FOR MAINTENANCE RELEASE..... 14

4.080 PERSONS AUTHORISED TO PERFORM INSPECTIONS..... 15

4.083 PERFORMANCE RULES: MAINTENANCE..... 15

4.085 PERFORMANCE RULES: INSPECTIONS (GENERAL) 16

4.090 PERFORMANCE RULES: INSPECTIONS (GENERAL) 16

4.093 PERFORMANCE RULES: ANNUAL AND 100 HOUR INSPECTIONS 16

4.095 PERFORMANCE RULES: AIRWORTHINESS LIMITATIONS 17

SUBPART F: MAINTENANCE RECORDS AND CONTENTS..... 17

4.100 MAINTENANCE RECORDS OF OWNER..... 17

4.103 RETENTION OF OWNER MAINTENANCE RECORDS 17

4.105 TRANSFER OF MAINTENANCE RECORDS 18

4.107 MAINTENANCE RELEASE ENTRIES 19

4.110 ENTRIES REQUIRED FOLLOWING OVERHAUL AND REBUILDING..... 19

4.113 ENTRIES FOR APPROVAL FOR MAINTENANCE RELEASE 19

4.115 CONTENT AND FORM FOR ENTRIES FOLLOWING INSPECTION 20

SUBPART G: MAINTENANCE PERSONNEL LIMITATIONS, PRIVILEGES AND REGENCY 21

4.120 REST AND DUTY LIMITATIONS FOR PERSONS PERFORMING MAINTENANCE FUNCTIONS..... 21

4.127 INSPECTION AUTHORISATION PRIVILEGES AND LIMITATIONS 21

4.130 AVIATION REPAIR SPECIALIST LICENCES: PRIVILEGES AND LIMITATIONS..... 22

APPENDICIES 22

APPENDIX 1 TO 4.003: MAJOR MODIFICATIONS (DEFINITION)..... 22

APPENDIX 2 TO 4.003: MAJOR REPAIRS (DEFINITION)..... 23

APPENDIX 3 TO 4.103: PREVENTIVE MAINTENANCE (DEFINITION)..... 25

APPENDIX 1 TO 4.093: PERFORMANCE RULES: 100-HOUR INSPECTIONS 27

APPENDIX 1 TO 4.107: RECORDING OF MAJOR REPAIRS AND MAJOR MODIFICATIONS..... 29

SUBPART A: GENERAL**4.001 APPLICABILITY**

- (a) This Part prescribes the requirements for:
- (1) Certification of aircraft and aircraft components;
 - (2) Issuance of Airworthiness Certificates and other certifications for aircraft components;
 - (3) Continued airworthiness of aircraft and components;
 - (4) Rebuilding and modifications of aircraft and components;
 - (5) Maintenance and preventive maintenance;
 - (6) Requirements of Aircraft inspection;
 - (7) Air operator aircraft maintenance and inspection requirements; and
 - (8) Record and store the aircraft maintenance records.
- (b) This Part is applicable to the owners and operators of aircraft registered in Vietnam and the persons and organizations that provide maintenance services for these aircraft.

4.003 DEFINITIONS

- (a) In this Part, the following terms shall apply:

Note: Additional aviation-related terms are defined in Part 1 of these regulations.

- (1) **Inspection:** The examination of an aircraft or aircraft component to establish conformity with a standard approved by the CAAV;
- (2) **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;
- (3) **Maintenance control manual:** A document which describes the operator's procedures necessary to ensure that all scheduled and unscheduled maintenance is performed on the operator's aircraft on time and in a controlled and satisfactory manner;
- (4) **Maintenance organization's procedures manual:** A document endorsed by the head of the maintenance organization which details the maintenance organization's structure and management responsibilities, scope of work, description of facilities, maintenance procedures and quality assurance or inspection systems;
- (5) **Maintenance release:** A document which contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner, either in accordance with the approved data and the procedures described in the maintenance organization's procedures manual or an equivalent system acceptable to CAAV. The person signing this release is indicating that all items that are required to be inspected have been inspected, the aircraft or component conforms to the applicable airworthiness standards and no condition exists which make the aircraft unsafe;
- (6) **Major modification:** Described in Appendix 1 to 4.003;

- (7) **Major repair:** Described in Appendix 2 to 4.003;
- (8) **Modification:** The alteration of an aircraft/component in conformity with an approved standard;
- (9) **Preventative maintenance:** Described in Appendix 3 to 4.003;
- (10) **Overhaul:** The restoration of an aircraft/aircraft component using methods, techniques, and practices acceptable to CAAV, 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 CAAV, 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 Parts Manufacturing Authorization (PMA) or Technical Standard Order (TSO);
- (11) **Rebuild:** The restoration of an aircraft/aircraft component by using methods, techniques, and practices acceptable to CAAV, 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. This work will be performed by only the manufacturer or an organization approved by the manufacturer, and authorized by the State of Registry;
- (12) **Repair:** The restoration of an aircraft/aircraft component to a serviceable condition in conformity with an approved standard. The restoration of an aircraft component to an airworthy condition to ensure that the aircraft continues to comply with the design aspects of the appropriate air-worthiness requirements used for the issuance of the Type Certificate for the respective aircraft type, after it has been damaged or subjected to wear;
- (13) **The items must be double checked:** . Maintenance items and/or modifications that must be inspected by a 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.

Note: Refer Appendix 1 to 4003 of the major modification (definition)

Refer Appendix 2 to 4003 of the major repair (definition)

4.005 ACRONYMS

- (a) The following acronyms are used in this Part:
 - (1) AOC (Air Operator Certificate);
 - (2) AMO (Approved Maintenance Organization);
 - (3) MEL (Minimum Equipment List);
 - (4) TSO (Technical Standard Order);
 - (5) AMT (Aircraft Maintenance Technician).

SUBPART B: CERTIFICATE OF AIRWORTHINESS**4.010 APPLICABILITY**

- (a) This Subpart prescribes the rules applicable to issue, renewal, transfer and surrender of airworthiness certificates.¹

4.013 LEGAL STATUS

- (a) Any registered owner of a Vietnam 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 CAAV.
- (c) CAAV may issue an Export Certificate of Airworthiness for aircraft registered in Vietnam that are being exported to the registry of another Contracting State²

4.015 CLASSIFICATION OF AIRWORTHINESS CERTIFICATE

- (a) Standard Airworthiness Certificates will be issued for aircraft in the specific category and model designated by the State of Design in the type certificate.
- (b) CAAV may issue a Special Airworthiness Certificate in the form of a restricted certificate or special flight permit.
- (c) CAAV may issue an Export Certificate of Airworthiness for aircraft registered in Vietnam that are being exported to the registry of another Contracting State.

4.017 AMENDMENT OF AIRWORTHINESS CERTIFICATE

- (a) CAAV may amend or modify an Airworthiness Certificate:
- (1) Upon application from an operator;
 - (2) On its own initiative.
- (b) In cases where the aircraft operator has application to modify the content of airworthiness certificate, within 7 working days from the date of receipt, CAAV reviews, issues Certificate of Airworthiness or notice of refusal in writing, stating the reasons.

4.020 TRANSFER OR SURRENDER OF AIRWORTHINESS CERTIFICATE

- (a) An owner shall transfer an Certificate of Airworthiness:
- (1) To the lessee upon lease of an aircraft within or outside Vietnam;
 - (2) To the buyer upon sale of the aircraft within Vietnam.
- (b) An owner shall surrender the Airworthiness Certificate for the aircraft to the issuing CAAV upon sale of that aircraft outside of Vietnam.

4.023 EFFECTIVE DATES OF AIRWORTHINESS CERTIFICATE

- (a) Airworthiness Certificates are effective as follows unless sooner surrendered, suspended or revoked, or a special termination date is otherwise established by CAAV:
- (1) A special flight permit is valid for the period of time specified in the permit;

¹ This content is revised according to Appendix I to Circular 03/2016/TT-BGTVT dated 31 March 2016

² This content is revised according to Appendix I to Circular 03/2016/TT-BGTVT dated 31 March 2016

- (2) A Certificate of Airworthiness shall be renewed or shall remain valid, provided that the continuing airworthiness of the aircraft shall be determined by a periodical inspection at appropriate intervals required by CAAV having regard to lapse of time and type of service.
- (b) When an aircraft imported for registration in Vietnam has a Certificate of Airworthiness issued by another Contracting State, Vietnam may, as an alternative to issuance of its own Certificate of Airworthiness, establish validity by suitable authorization to be carried with the former Certificate of Airworthiness accepting it as the equivalent of a Certificate of Airworthiness issued by Vietnam. The validity of the authorization shall not extend beyond the period of validity of the Certificate of Airworthiness or one year whichever is less.

4.025 AIRCRAFT IDENTIFICATION

- (a) Each applicant for an airworthiness certificate shall show that the aircraft is properly registered and marked, including identification plates.

4.027 ISSUE OF STANDARD AIRWORTHINESS CERTIFICATES

- (a) CAAV will issue a Standard Airworthiness certificate if:
 - (1) The applicant presents evidence to CAAV 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 this Part for inspections found airworthy by persons authorized by CAAV to make such determinations within the last 30 calendar days; and
 - (3) CAAV finds after an inspection that the aircraft conforms to type design and is in condition for safe operation.
- (b) CAAV may validate an airworthiness certificate issued by another Contracting State upon registration of the aircraft in Vietnam for the period specified in that certificate.

4.030 AIRWORTHINESS DIRECTIVE

- (a) Upon registration of an aircraft in Vietnam, CAAV will notify the State of Design of the aircraft of the registration in Vietnam, and request that CAAV receives any and all airworthiness directives addressing that aircraft, airframe, aircraft engine, propeller, appliance, or component part.
- (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, CAAV will make the requirements of such directives apply to Vietnam registered civil aircraft of the type identified in that airworthiness directive.
- (c) CAAV may identify manufacturer's service bulletins and other sources of data, or develop and prescribe inspections, procedures and limitations, for mandatory compliance pertaining to affected aircraft in Vietnam.
- (d) No person may operate any Vietnam registered civil aircraft to which the measures of this subsection apply, except in accordance with the applicable directives.

4.033 ISSUE AND EXTENSION OF NOISE CERTIFICATE

- (a) Civil Authority of Vietnam issues, recognizes, extends the noise certificate validity for Vietnamese nationality aircraft, foreign nationality aircraft which is operated under AOC which issued by Civil Authority of Vietnam if it meets the following requirements: ³
- (1) Accordance with the certificate of CAAV-approved or recognized for that type of aircraft;
 - (2) In good condition to ensure safe operations.
- (b) Noise certification is issued, recognized at the same time of issue, recognition, extension of the airworthiness certificate validity. ⁴

4.035 ISSUE OF SPECIAL AIRWORTHINESS CERTIFICATES

- (a) CAAV may issue a Special Airworthiness Certificate to the aircraft that does not qualify for a Standard Certificate.
- (b) Aircraft holding Special Airworthiness Certificates shall be subject to operating limitations within Vietnam and may not make international flights. CAAV shall issue specific operating limitations for each Special Airworthiness Certificate.
- (c) CAAV may issue Special Flight Permits to an aircraft that is capable of safe flight, but unable to meet applicable airworthiness requirements, for the follow purpose:
- (1) Flying to a base where maintenance is to be performed, or to a point of storage;
 - (2) Testing after maintenance has been performed;
 - (3) Delivering or exporting the aircraft;
 - (4) Evacuating aircraft from areas of impending danger;
 - (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.
- (d) The CAAV 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 modifications 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 12. The operator shall obtain all required over flight authorizations from countries to be over flown on flights outside Vietnam.

³ This content is revised according to Appendix I to Circular 03/2016/TT-BGTVT dated 31 March 2016

⁴ This content is revised according to Appendix I to Circular 03/2016/TT-BGTVT dated 31 March 2016

§4.037 AIRCRAFT FLIGHT MANUAL

- (a) The owner or the operator shall provide to the CAAV an aircraft flight manual specific to the aircraft when applying for a certificate of airworthiness.
- (b) The CAAV shall determine the validity and conformance of the aircraft flight manual with regard to the specific aircraft prior to issue, recognize, extend of the certificate of airworthiness.
- (c) The aircraft flight manual shall be updated by implementing changes made mandatory by the State of Registry.

SUBPART C: CONTINUING AIRWORTHINESS OF AIRCRAFT AND COMPONENT**4.040 APPLICABILITY**

- (a) This Subpart states provisions for continuing the airworthiness standards:
 - (1) Aircraft registered in Vietnam, whether operating inside or outside the borders of Vietnam;
 - (2) Aircraft will be registered foreign nationality if CAAV is transferred some functions of the aviation authorities of the country of aircraft registration which related to continuing standards of airworthiness for the aircraft in accordance with Article 83bis of the Convention.

4.043 RESPONSIBILITIES

- (a) The owner 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 which effects airworthiness is performed as prescribed by the CAAV;
 - (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 by a person qualified in accordance with 4.077 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 and these items are made a part of the aircraft permanent record.

4.045 GENERAL

- (a) No person may perform aircraft maintenance that does not comply with the requirements of this Part.
- (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 specific

operating provisions approved under Part 12, or in accordance with the inspection program approved under this Part has been complied with.

- (c) No person may operate an aircraft/aircraft component to which an Airworthiness Directive applies, issued either by the State of Design, or State of Manufacture and adopted for Vietnam-registered aircraft by the CAAV, or by the State of Registry for aircraft operated within Vietnam, except in accordance with the requirements of that Airworthiness Directive.
- (d) When the CAAV determines that an airframe or aircraft component has exhibited an unsafe condition and that condition is likely to exist or to develop in other products of the same type design, the CAAV may issue an Airworthiness Directive prescribing inspections and the conditions and limitations, if any, under which those products may continue to be operated.

4.047 REPORT OF TECHNICAL INCIDENTS

- (a) The owner or operator of the aircraft which has over 5700 kg or helicopter over 3180 kg maximum take-off weight shall report to CAAV any technical problems which specified in Part 19.
- (b) For aircraft registered Vietnamese nationality, based on specific incidents, CAAV perform the obligation to report problems in accordance with the law and international standards (ICAO); may request the owners or operators of aircraft to report to the design countries.
- (c) For aircraft registered foreign nationality, CAAV transfers the incident report to the registry countries when getting them.

SUBPART D: REQUIREMENTS FOR AIRCRAFT MAINTENANCE

4.050 APPLICABILITY

- (a) This Subpart prescribes the rules governing the maintenance and inspection of Vietnam registered civil aircraft operating within or outside Vietnam.
- (b) Unless otherwise approved by the CAAV, this Subpart prescribes the minimum requirements that apply to aircraft operated by the holder of an AOC issued by Vietnam.
- (c) Subsections 4.057 and 4.060 do not apply to aircraft subject to an approved continuous maintenance program approved by the CAAV for an AOC holder in Part 12.

4.053 REPAIR ASSESSMENT FOR PRESURIZED FUSELAGES

- (a) No person may operate an aeroplane with a gross takeoff weight of 5700 Kg beyond the flight cycles prescribed by CAAV for such aircraft unless repair assessment guidelines applicable to the fuselage pressure boundary (fuselage skin, door skin and bulkhead webs) that have been approved by the competent Authority of the State of Design or Manufacture having cognizance over the type certificate for the affected aeroplane are incorporated within its inspection program.

4.055 MAINTENANCE REQUIRED

- (a) The owners and operators must ensure:
- (1) The aircraft inspected as prescribed in this Part and discrepancies repaired as prescribed in the Performance Rules of this Part;
 - (2) Repair, replace, remove, or inspect any inoperative instruments or items of equipment prior to the next flight, except when the provisions of an approved Minimum Equipment List (MEL) allow for operations with such items inoperative;
 - (3) Identifying placard(s) have been installed on the aircraft when listed discrepancies include inoperative instruments or equipment; and
 - (4) Maintenance personnel make appropriate entries in the aircraft maintenance records indicating the aircraft has been certified for return to service.

4.057 INSPECTIONS

- (a) Except as provided in paragraph (c), no person may operate an aircraft unless, within the preceding 12 calendar months, the aircraft has had:
- (1) An annual inspection in accordance with this Part and has been certified for maintenance release by a person authorized under this Part; or
 - (2) An inspection for the issuance or renewal of an airworthiness certificate in accordance with this Part.

Note 1: The test as specified in paragraph (b) of this Article shall not be replaced for inspection as requirement of this subsection, unless it is carried out by personnel who authorized to perform the annual inspection and documented annual inspection as required.

Note 2: The annual inspection can be applied to aircraft with less than 5700 kg allowed maximum take-off weight which is not operated.

Note 3: (Removed)⁶

- (b) Except as provided in paragraph (c), no person may operate an aircraft carrying any person (other than a crew member) for hire, and no person may give flight instruction for hire in an aircraft which that person provides, unless within the preceding 100 hours of time in service:
- (1) The aircraft has received an annual or 100-hour inspection and been certified for maintenance release in accordance with this Part; or
 - (2) The aircraft has not received an inspection for the issuance of an airworthiness certificate in accordance with this Part.

Note: The 100-hour limitation may be exceeded by not more than 10 hours while en route to reach a place where the inspection can be done. The excess time used to reach a place where the inspection can be done must be included in computing the next 100 hours of time in service.

- (c) Paragraphs (a) and (b) of this section do not apply to:

⁶ This content is removed according to Appendix III to Circular 03/2016/TT-BGTVT dated 31 March 2016

- (1) An aircraft that carries a special flight permit, a current experimental certificate, or a provisional airworthiness certificate;
 - (2) An aircraft subject to the requirements of subsection 4.060 of this section;
 - (3) Turbine-powered rotorcraft when the operator elects to inspect that rotorcraft in accordance with 4.060 of this section.
- (d) Inspections: The altimeter, altimeter system, transponder and VOR inspections required by Part 10 should be accomplished as prescribed by CAAV.

4.060 PROGRESSIVE INSPECTIONS

- (a) Each registered owner or operator of an aircraft desiring to use a progressive inspection program shall submit a written request to CAAV, and shall provide:
- (1) A licensed AMT holding an inspection authorization in accordance with Part 7, an AMO appropriately rated in accordance with Part 5, or the manufacturer of the aircraft to supervise or conduct the progressive inspection;
 - (2) A current inspection procedures manual available and readily understandable to pilot and maintenance personnel containing, in detail:
 - (i) An explanation of the progressive inspection, including the continuity of inspection responsibility, the making of reports, and the keeping of records and technical reference responsibility, the making of reports, and the keeping of records and technical reference;
 - (ii) An inspection schedule, specifying the intervals in hours or days when routine and detailed inspections will be performed and including instructions for exceeding an inspection interval by not more than 10 hours while en-route and for changing an inspection interval because of service experience;
 - (iii) Sample routine and detailed inspection forms and instructions for their use; and
 - (iv) Sample reports and records and instructions for their use;
 - (3) Enough housing and equipment for necessary disassembly and proper inspection of the aircraft; and
 - (4) Enough current technical information on the types of aircraft.

Note 1: The frequency and detail of the progressive inspection shall provide for the complete inspection of the aircraft within each 12 calendar months and be consistent with the current manufacturer's recommendations, field service experience, and the kind of operation in which the aircraft is engaged.

Note 2: The progressive inspection schedule shall ensure that the aircraft, at all times, will be airworthy and will conform to all applicable aircraft specifications, type certificate data sheets, airworthiness directives, and other approved data acceptable to CAAV. If the progressive inspection is discontinued, the owner or operator shall immediately notify CAAV, in writing, of the discontinuance.

Note 3: After the discontinuance, the first annual inspection under Part 10 is due within 12 calendar months after the last complete inspection of the aircraft under the progressive inspection.

Note 4: The 100-hour inspection under this Subpart is due within 100 hours after that complete inspection.

Note 5: A complete inspection of the aircraft, for the purpose of determining when the annual and 100 hour inspections are due, requires a detailed inspection of the aircraft and all its components in accordance with the progressive inspection.

Note 6: A routine inspection of the aircraft and a detailed inspection of several components are not considered to be a complete inspection.

4.063 INSPECTION PROGRAMS FOR LARGE AND TURBINE AIRCRAFT

- (a) Except for operator operating under an AOC, the registered owner or operator of each large aeroplane, turbojet multi-engine aeroplane, turbo propeller-powered multi-engine aeroplane, and turbine-powered rotorcraft shall select, identify in the aircraft maintenance records, and use one of the following program for the inspection of the aircraft:⁷
- (1) A current inspection program recommended by the manufacturer;
 - (2) A inspection program that is part of a continuous maintenance program for that make and model of aircraft currently approved by CAAV for use by an AOC holder;
 - (3) Any other inspection program established by the registered owner or operator of that aircraft and approved by CAAV.
- (b) Each owner/operator shall include in the selected program the name and address of the person responsible for the scheduling of the inspections required by the program and provide a copy of the program to the person performing inspection on the aircraft.
- (c) No aircraft shall be certified for maintenance release unless the replacement times for life-limited parts specified in the aircraft specification-type data sheets are complied with and the aircraft, including airframe, engines, propellers, rotors, appliances, and survival and emergency equipment, is inspected in accordance with an inspection program selected.
- (d) Each person wishing to establish or change an approved inspection program shall submit the program for approval by CAAV and shall include in writing:
- (1) Instructions and procedures for the conduct of inspection for the particular make and model aircraft, including necessary tests and checks. The instructions shall set forth in detail the parts and areas of the aircraft components, including survival and emergency equipment required to be inspected;

⁷ This content is revised according to Appendix I to Circular 03/2016/TT-BGTVT dated 31 March 2016

- (2) A schedule for the inspections that shall be performed expressed in terms of time in service, calendar time, number of system cycles or any combination of these.
- (e) When an operator changes from one inspection program to another, the operator shall apply the time in service, calendar times, or cycles of operation accumulated under the previous program, in determining time the inspection is due under the new program.

4.065 AMENDMENT OF AIRCRAFT MAINTENANCE PROGRAM

- (a) Whenever CAAV finds that revisions to an approved inspection program are necessary for the continued adequacy of the program, the owner or operator shall, after notification by CAAV, make any changes in the program found to be necessary.
- (b) CAAV shall consider an approval for the aircraft maintenance program within 30 calendar days after receiving the petition from the owner or operator.
- (c) Except in the case of an emergency requiring immediate action in the interest of safety, CAAV shall consider the recommendations of the owner or operator for a period of 7 working days from the date of receipt of the petition and inform recommenders.⁹

4.067 OWNER OR LESSEE'S RESPONSIBILITIES¹⁰

- (a) The owner of an Vietnam-registered aircraft, or in the case where it is leased, the lessee, shall ensure that, in accordance with procedures acceptable to the CAAV, the:
 - (1) Aircraft is maintained in an airworthy condition;
 - (2) Operational and emergency equipment necessary for an intended flight is serviceable; and
 - (3) Certificate of airworthiness of the aircraft remains valid.
- (b) The owner or the lessee shall not operate the Vietnam-registered aircraft unless it is maintained and released to service by a maintenance organization approved by the CAAV or under an equivalent system of maintenance approved by the CAAV in accordance with Part 5 of these regulations.

The owner or the lessee shall ensure that the maintenance of the aeroplane is performed in accordance with a maintenance programme acceptable to the State of Registry.

SUBPART E: PERFORMANCE STANDARDS

4.070 APPLICABILITY

⁸ This content is revised according to Appendix III to Circular 03/2016/TT-BGTVT dated 31 March 2016

⁹ This content is revised according to Appendix I to Circular 03/2016/TT-BGTVT dated 31 March 2016

¹⁰ This content is revised according to Appendix I to Circular 03/2016/TT-BGTVT dated 31 March 2016

- (a) This Subpart prescribes performance standards governing the maintenance and inspection of any aircraft having an Airworthiness Certificate issued by Vietnam or associated aircraft components.

4.073 (BLANK)

4.075 PERSONS AUTHORIZED TO PERFORM MAINTENANCE ¹¹

- (a) The following persons are authorized to perform any task defined as maintenance on an aircraft or aircraft components:
- (1) Aviation maintenance technician, aviation repair specialist authorized by an Approved Maintenance Organisation within the approved functions;
 - (2) Aviation maintenance technician, aviation repair specialist authorized by an AOC holder having a maintenance system to maintain an aircraft or aircraft components in accordance with Part 5 of these regulations;
- (b) A manufacturer holding an AMO may:
- 1) Rebuild or alter any aircraft component manufactured by that manufacturer under a type or production certificate;
 - 2) Rebuild or alter any aircraft component manufactured by that manufacturer under a TSO Authorisation, a Parts Manufacturer Approval by the State of Design, or Product and Process Specification issued by the State of Design; and
 - 3) Perform any inspection required by this Part on aircraft it manufactures, while currently operating under a production certificate or under a currently approved production inspection system for such aircraft.

4.077 AUTHORIZED PERSONNEL TO CERTIFY FOR MAINTENANCE RELEASE

- (a) ¹²The following persons are authorized to approve an aircraft, airframe, aircraft engine, propeller, appliance, or component part for maintenance release after it has undergone maintenance, preventive maintenance, rebuilding, or modification:
- (1) Aviation maintenance technician, aviation repair specialist authorized by an Approved Maintenance Organisation within the approved functions;¹³
 - (2) Aviation maintenance technician, aviation repair specialist authorized by an AOC holder having an equivalent approved maintenance system to maintain an aircraft or aircraft components in accordance with Part 5 of these regulations within the approved functions; ¹⁴
 - (3) An AMO may approve aircraft and aircraft components for maintenance release as provided in the specifications approved by the CAAV.
 - (4) An AOC holder may approve aircraft and aircraft components for maintenance release as specified by the CAAV
- (b) Where necessary, CAAV may require examining the performance of maintenance, preventive maintenance, rebuilding or improvement in order to

¹¹ This content is revised according to Appendix III to Circular 03/2016/TT-BGTVT dated 31 March 2016

¹² This content is revised according to Appendix III to Circular 03/2016/TT-BGTVT dated 31 March 2016

¹³ This content is revised according to Appendix III to Circular 03/2016/TT-BGTVT dated 31 March 2016

¹⁴ This content is revised according to Appendix I to Circular 03/2016/TT-BGTVT dated 31 March 2016

certify allowing operation which defined in paragraph (a) above and approve in writing.

4.080 PERSONS AUTHORISED TO PERFORM INSPECTIONS¹⁵

CAAV safety inspector and following persons are authorised to perform inspections for aircraft and aircraft components prior to or after it has undergone maintenance:

- a) Aviation maintenance technician, aviation repair specialist authorized by an Approved Maintenance Organisation within the approved functions;
- b) Aviation maintenance technician, aviation repair specialist authorized by an AOC holder having an equivalent approved maintenance system to maintain an aircraft or aircraft components in accordance with Part 5 of these regulations within the approved functions.

4.083 PERFORMANCE RULES: MAINTENANCE

- (a) Each person performing maintenance, preventive maintenance, or modification on an aircraft component 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 CAAV; or methods, techniques and practices designated by CAAV 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 recommends special equipment or test apparatus, the person performing maintenance shall use that equipment or apparatus or its equivalent acceptable to CAAV.
- (c) 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 recommends special equipment or test apparatus, the person performing maintenance shall use that equipment or apparatus or its equivalent acceptable to CAAV.
- (d) The methods, techniques, and practices contained in an AOC holder's maintenance control manual and continuous maintenance program, will constitute an acceptable means of compliance with the requirements of this subsection.
- (e) Each person performing a major modification or repair defined in this Part will use technical data approved by CAAV:
 - (1) The approved data used must be referenced on the form or log entry used to certify the modification or repair for maintenance release;
 - (2) Acceptable "Approved Data" is data specifically approved by the following for the modification or repair:

- (i) CAAV;
- (ii) The State of Manufacture;
- (iii) A Designee authorized by the State of Manufacture for that type modification or repair;
- (iv) The State of Design or A Designee authorized by the State of Design for that type modification or repair.

4.085 PERFORMANCE RULES: INSPECTIONS (GENERAL)

- (a) Each person performing an inspection required by CAAV shall:
 - (1) Perform the inspection so as to determine whether the aircraft, or portion(s) thereof under inspection, meets all applicable airworthiness requirements; and
 - (2) If there is an inspection program required or accepted for the specific aircraft being inspected, perform the inspection in accordance with the instructions and procedures set forth in the inspection program.

4.090 PERFORMANCE RULES: INSPECTIONS (GENERAL)

- (a) 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.

4.093 PERFORMANCE RULES: ANNUAL AND 100 HOUR INSPECTIONS

- (a) Each person performing an annual or 100-hour inspection shall use a checklist while performing the inspection:
 - (1) 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;
 - (2) This checklist shall include the scope and detail of the items prescribed by CAAV.

Note: Appendix 1 to 4.093 lists the components to be included in an annual or 100-hour inspection.

- (b) Each person approving a reciprocating-engine-powered aircraft for maintenance release 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:
 - (1) Power output (static and idle rpm);
 - (2) Magnetos;
 - (3) Fuel and oil pressure; and
 - (4) Cylinder and oil temperature.

- (c) Each person approving a turbine-engine-powered aircraft for maintenance release 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.

4.095 PERFORMANCE RULES: AIRWORTHINESS LIMITATIONS

- (a) Each person performing an inspection or other maintenance specified in the 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 CAAV.

SUBPART F: MAINTENANCE RECORDS AND CONTENTS

4.100 MAINTENANCE RECORDS OF OWNER¹⁶

- (a) The owner of an aircraft, or in the case where it is leased, the lessee, shall keep a maintenance record of the entire aircraft to include:
 - (1) Total time in service (hours, calendar time and cycles, as appropriate) of the aircraft and all life limited parts;
 - (2) The current status of compliance with all applicable mandatory continuing airworthiness information, including a chronological list of compliance with Airworthiness Directives and methods of compliance;
 - (3) Appropriate details of modifications and repairs, including when work was performed and the addition or removal of equipment;
 - (4) The time in service (hours, calendar time and cycles, as appropriate) since the last overhaul of the aircraft or its components subject to a mandatory overhaul life, to include:
 - (i) Total time in service;
 - (ii) Date of the last overhaul;
 - (iii) Time in service since the last overhaul; and
 - (iv) Date of the last inspection.
 - (5) The current status of the aircraft's compliance with the maintenance programme, to include the current inspection status of aircraft;
 - (6) The detailed maintenance records to show that all requirements for the signing of a maintenance release have been met.

4.103 RETENTION OF OWNER MAINTENANCE RECORDS

- (a) Each registered owner, operator or lessee, of an aircraft shall retain the following records until the work is repeated or superseded by other work of equivalent scope and detail, or for one year after the work is performed:
 - (1) Records of the maintenance, preventive maintenance, minor modifications, and records of the 100-hour, annual, and other required or approved inspections, as appropriate, for each aircraft (including the airframe) and each engine, propeller, rotor, and appliance of an aircraft to include:

¹⁶ This content is revised according to Appendix I to Circular 03/2016/TT-BGTVT dated 31 March 2016

- (i) A description (or reference to data acceptable to CAAV) of the work performed;
 - (ii) The date of completion of the work performed; and;
 - (iii) The signature and certificate number of the person approving the aircraft for maintenance release.
- (b) Each registered owner, operator or lessee, of an aircraft shall retain the following records until the aircraft is sold or leased and/or a minimum period of 12 months after the unit to which they refer as been permanently withdrawn from service:
 - (1) Records containing the following information:
 - (i) The total time-in-service of the airframe, each engine, each propeller, and each rotor;
 - (ii) The current status of all life-limited aircraft components;
 - (iii) The time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis;
 - (iv) The current inspection status of the aircraft, including the time since the last inspection required by the inspection program under which the aircraft and its appliances are maintained;
 - (v) The current status of applicable Airworthiness Directives including, for each, the method of compliance, the Airworthiness Directive number, and revision date. If the Airworthiness Directive involves recurring action, the time and date when the next action is required;
 - (vi) Copies of the forms prescribed by this chapter for each major modification to the airframe and currently installed engines, rotors, propellers, and appliances.
- (c) Each AOC holder, whether owner or lessee, shall retain the additional records as required by Part 12.240.

Note: Appendix 3 to 4.103 preventive maintenance (definition)

4.105 TRANSFER OF MAINTENANCE RECORDS¹⁷

- (a) In the event of a temporary change of owner or lessee, the owner or operator of the Vietnam-registered aircraft shall transfer to the new owner or lessee, at the time of sale or lease, the records identified in this Subpart for that aircraft;
- (b) In the event of a permanent change of owner or lessee, the owner or operator of the Vietnam-registered aircraft shall transfer to the purchaser/lessor, at the time of sale or lease, the records identified in this Subpart for that aircraft;
- (c) These records may be made available or transferred in plain language form or in coded form at the election of the purchaser/lessor if the coded form provides for the preservation and retrieval of information in a manner acceptable to the CAAV.
- (d) ¹⁸ As of 5 November 2020, records kept and transferred in accordance with Subpart F shall be maintained in a form and format that ensures readability, security and integrity of the records at all times. The form and format of the records may include, for example, paper records, film records, electronic records or any combination thereof.

¹⁷ This content is revised according to Appendix III to Circular 03/2016/TT-BGTVT dated 31 March 2016

¹⁸ This content is revised according to Appendix II to Circular 56/2018/TT-BGTVT dated 11 December 2018

4.107 MAINTENANCE RELEASE ENTRIES¹⁹

- (a) Each person who maintains, performs preventive maintenance, rebuilds, or modifies an aircraft or aircraft component shall, when the work is performed satisfactorily, make a certifying entry in the maintenance record of that the maintenance work performed has been completed satisfactorily and in accordance with data and procedures acceptable to the CAAV.
- (b) The minimum contents of this maintenance release shall be:
 - (1) The basic details (or reference to data acceptable to the CAAV) of the maintenance performed;
 - (2) The date such maintenance was completed;
 - (3) When applicable, the identity of the approved maintenance organization;
 - (4) The identity of the authorized person or persons signing the release (name, signature, license number, and kind of license held by the person).
 - (5) The signature constitutes the approval for maintenance release only for the work performed.
- (c) The person performing the work shall enter records of major repairs and major modifications, and dispose of that form in the manner prescribed by the CAAV in the Appendix 1 to 4.107 for additional maintenance form completion requirements.
- (d) A person working under supervision of an aviation maintenance technician may not perform any inspection required in this Part or any inspection performed after a major repair or modification.

4.110 ENTRIES REQUIRED FOLLOWING OVERHAUL AND REBUILDING

- (a) No person may describe in any required maintenance entry or form, an aircraft component as being overhauled unless:
 - (1) It has been disassembled, cleaned, inspected as permitted, repaired as necessary, and reassembled using methods, techniques, and practices acceptable to CAAV; and
 - (2) It has been tested in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to CAAV, 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;
- (b) No person may describe in any required maintenance entry or form an aircraft or other aircraft component 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.

4.113 ENTRIES FOR APPROVAL FOR MAINTENANCE RELEASE

¹⁹ This content is revised according to Appendix I to Circular 03/2016/TT-BGTVT dated 31 March 2016

- (a) Certificate for maintenance release for any aircraft, aircraft component that has undergone maintenance shall be issued or made if:
- (1) The appropriate maintenance record entry has been made;
 - (2) The repair or modification form authorized by or furnished by CAAV has been executed in a manner prescribed by CAAV;
 - (3) If a repair or modification results in any change in the aircraft operating limitations or flight data contained in the approved aircraft flight manual, those operating limitations or flight data are appropriately revised and set forth as prescribed.

Note: Appendix 1 to 4.107 provides the repair or modification requirements and form.

4.115 CONTENT AND FORM FOR ENTRIES FOLLOWING INSPECTION

- (a) Maintenance record entries: The person approving or disapproving the maintenance release of an aircraft component after any inspection performed in accordance with this Part, 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 total time in service;
 - (3) Signature, the license number, and kind of license held by the person approving or disapproving for maintenance release the aircraft component;
 - (4) If the aircraft is found to be airworthy and certified for maintenance release, the following or a similarly worded statement— “I certify that this aircraft has been inspected in accordance with (insert type) inspection and was determined to be in airworthy condition”;
 - (5) If the aircraft is rejected for maintenance release because of needed maintenance, non-compliance with the applicable specifications, airworthiness directives, or other approved data, the following or a similarly worded statement—I certify that this aircraft has been inspected in accordance with (insert type) inspection and a list of discrepancies and unairworthy items dated (date) has been provided for the aircraft owner or operator; and
 - (6) If an inspection is conducted under an inspection program provided for in this Part, 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 this Part 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.
- (c) The list of defects of defects described in paragraph (b) shall be retained until the defects are repaired and the aircraft is certified for maintenance release.

SUBPART G: MAINTENANCE PERSONNEL LIMITATIONS, PRIVILEGES AND RECENCY**4.120 REST AND DUTY LIMITATIONS FOR PERSONS PERFORMING MAINTENANCE FUNCTIONS**

- (a) No person may assign, nor shall any person perform maintenance functions for aircraft, unless that person has had a minimum rest period of 8 hours prior to the beginning of duty.
- (b) No person may schedule a person performing maintenance functions for aircraft for more than 12 consecutive hours of duty.
- (c) In situations involving unscheduled aircraft unserviceability, persons performing maintenance functions for aircraft may be continued on duty for:
 - (1) Up to 16 consecutive hours; or
 - (2) 20 hours in 24 consecutive hours.
- (d) Following unscheduled duty periods, the person performing maintenance functions for aircraft shall have a mandatory rest period of 10 hours.
- (e) An AMO or AOC holder shall relieve the person performing maintenance functions from all duties for 24 consecutive hours during any 7 consecutive day period.

4.123. (Removed)²⁰

4.125. (Removed)²¹

4.127 INSPECTION AUTHORISATION PRIVILEGES AND LIMITATIONS

- (a) Except as specified in paragraphs (b) and (c) of this subsection, the holder of an Inspection Authorization (IA) may:
 - (1) Inspect and certify for maintenance release any aircraft, airframe, aircraft engine, propeller appliance, component, or part thereof after completion of a major repair or major modification performed in accordance with this Part and done in accordance with technical data approved by CAAV;
 - (2) Perform an annual inspection, or perform or supervise a progressive inspection, according to this Part on any aircraft, and certify the aircraft for maintenance release.
- (b) Any IA holder who granted valid AMT may not inspect and certify for maintenance release any aircraft with maximum take-off weight 5700 kg more, or airframe, aircraft engine, propeller appliance, component, or part thereof, are the subjects of maintenance program under this Part or Part 12.

²⁰ This content is revised according to Appendix III to Circular 03/2016/TT-BGTVT dated 31 March 2016

²¹ This content is revised according to Appendix III to Circular 03/2016/TT-BGTVT dated 31 March 2016

- (c) Any IA holder who granted valid AMT may not inspect and certify for maintenance release any aircraft to be maintained under the continuous maintenance program which approved under this Part or Part 12.
- (d) When exercising the privileges of an IA, the holder shall keep it available for inspection by the aircraft owner and the AMT submitting the aircraft repair or modification for approval (if any), and shall present it at the request of CAAV or any law enforcement officer.
- (e) If the holder of an Inspection Authorization changes his or her fixed base of operation, the holder may not exercise the privileges of the authorization until he or she has notified CAAV in writing of the change.
- (f) No person may exercise any privilege of an Inspection Authorization whenever that person no longer:
 - (1) Has a fixed base of operation;
 - (2) Has the equipment, facilities, or inspection data required by Part 4; or
 - (3) Holds a current and valid AMT license.

4.130 AVIATION REPAIR SPECIALIST LICENCES: PRIVILEGES AND LIMITATIONS

- (a) An aviation repair specialist may perform or supervise the maintenance, preventive maintenance, or modification of aircraft, airframes, aircraft engines, propellers, appliances, components, and parts appropriate to the designated specialty area for which the aviation repair specialist is licensed and rated, but only in connection with employment by an AMO approved under Part 5 or an AOC holder that is authorized to perform maintenance, preventive maintenance, or modifications under an equivalent system in accordance with Part 12.
- (b) An aviation repair specialist may not perform or supervise duties unless the aviation repair specialist understands the current instructions of the employing certificate holder and the instructions for continued airworthiness, which relate to the specific operations concerned.

APPENDICIES

APPENDIX 1 TO 4.003: MAJOR MODIFICATIONS (DEFINITION)

- (a) Airframe Major Modifications include:
 - (1) Wings;
 - (2) Tail surfaces;
 - (3) Fuselage;
 - (4) Engine mounts;
 - (5) Control system;
 - (6) Landing gear;
 - (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 pressurization, 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 Modifications 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 CAAV;
 - (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 Modifications 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 parts not approved for the propeller.
- (d) Appliance Major Modifications: Modifications of the basic design not made in accordance with recommendations of the appliance manufacturer or in accordance with applicable Airworthiness Directive are appliance major modifications. 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, 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 modifications.

APPENDIX 2 TO 4.003: 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 of 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) Repairs involving the substitution of material;
 - (20) Repairs involving the substitution of material;
 - (21) The repair of damaged areas in metal or plywood stressed covering exceeding six inches (15.24cm) 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, stabilizers, 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 reciprocating engine equipped with an integral supercharger;
 - (2) Separation or disassembly of a crankcase or crankshaft of a reciprocating engine equipped with other than spur-type propeller reduction gearing;
 - (3) Special repairs to structural engine parts by welding, plating, metalizing, 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.

APPENDIX 3 TO 4.103: PREVENTIVE MAINTENANCE (DEFINITION)

- (a) Preventive Maintenance: Preventive maintenance is limited to the following work, provided it does not involve complex assembly operations:
- (1) Removal and installation 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 aircraft system is not required;
- (10) Applying preservative or protective material to components where no disassembly of any primary structure or aircraft 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 aircraft system or interfere with an aircraft 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 aircraft system such as flight 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 aircraft 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 CAAV for the installation of the specific device, and installation does not involve the disassembly of the existing filler opening.

APPENDIX 1 TO 4.093: PERFORMANCE RULES: 100-HOUR 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.
 - (2) The cabin and cockpit group:
 - (i) Generally - for uncleanness and loose equipment that might foul the controls;
 - (ii) Seats and safety belts - for poor condition and apparent defects;
 - (iii) Windows and windshields - for deterioration and breakage;
 - (iv) Instruments - for poor condition, mounting, marking, and (where practicable) for improper operation;
 - (v) Flight and engine controls - for improper installation and improper operation;
 - (vi) Batteries - for improper installation and improper charge;
 - (vii) All systems - for improper installation, poor general condition, apparent and obvious defects and insecurity of attachment.
 - (3) 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 Internal engine - for cylinder compression and for metal particles or foreign matter on screens 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.
- (4) 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.
- (5) Wing and centre section assembly for:
- (i) General condition;
 - (ii) Fabric or skin deterioration;
 - (iii) Distortion;
 - (iv) Evidence of failure; and
 - (v) Insecurity of attachment.
- (6) Complete empennage assembly for:
- (i) General condition;
 - (ii) Fabric or skin deterioration;
 - (iii) Distortion;
 - (iv) Evidence of failure;
 - (v) Insecure attachment;
 - (vi) Improper component installation; and
 - (vii) Improper component operation.
- (7) 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; and
 - (iv) Control mechanisms - for improper operation, insecure mounting, and restricted travel.
- (8) 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.
- (9) 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.
- (10) 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.

APPENDIX 1 TO 4.107: RECORDING OF MAJOR REPAIRS AND MAJOR MODIFICATIONS

- (a) Each person, organization performing a major repair or major modification shall:
- (1) Execute the major repair and modification form prescribed by CAAV at least in duplicate that references the approved data used;
 - (2) Give a signed copy of that form to the aircraft owner/operator; and
 - (3) Forward a copy of that form to CAAV, in accordance with Authority instructions, within 48 hours after the aircraft component is certification for maintenance release.
- (b) Instead of the requirements of paragraph (a), major repairs made in accordance with a manual or specifications acceptable to CAAV, 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 certification for maintenance release of the aircraft component;
 - (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 aircraft component;
 - (ii) If an aircraft, the make, model, serial number, nationality and registration marks, and location of the repaired area;
 - (iii) If an aircraft component, give the manufacturer's name, name of the part, model, and serial numbers (if any).
 - (4) Include the following or a similarly worded statement:
 - (i) The aircraft component identified above was repaired, overhauled and inspected in accordance with currently effective, applicable instructions of the State of Design and regulatory requirements of CAAV, and is certified for maintenance release ;
 - (ii) Pertinent details of the repair are on file at..... (or are attached).