



Republic of the Philippines

CIVIL AVIATION REGULATIONS (CAR)

PART 5

AIRWORTHINESS

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Republic of the Philippines
Department of Transportation and Communications

CIVIL AVIATION AUTHORITY OF THE PHILIPPINES

1300 MIA Road, Pasay City, Metro Manila
www.caap.gov.ph

BOARD RESOLUTION NO. 2011-025

WHEREAS, the Civil Aviation Authority of the Philippines (CAAP) was created by virtue of Republic Act 9497 which took effect on 23 March 2008;

WHEREAS, under Section 23, paragraph (j) of the same law, the Board is empowered to promulgate rules and regulations as may be necessary in the interest of safety in air commerce pertaining to the issuance of the airman's certificate including the licensing of operating and mechanical personnel, type certificate for aircraft, aircraft engines, propellers and appliances, airworthiness certificates, air carrier operating certificates, air agency certificates, navigation facility and aerodrome certificates; air traffic routes; radio and aeronautical telecommunications and air navigation aids; aircraft accident inquiries; aerodromes, both public and private-owned; construction of obstructions to aerodromes; height of buildings, antennae and other edifices; registration of aircraft; search and rescue; facilitation of air transports; operations of aircraft, both for domestic and international, including scheduled and non-scheduled; meteorology in relation to civil aviation; rules of the air; air traffic services; rules for prevention of collision of aircraft, identification of aircraft; rules for safe altitudes of flight; and such other rules and regulations, standards, governing other practices, methods and/or procedures as the Director General may find necessary and appropriate to provide adequately for safety regularity and efficiency in air commerce and air navigation;

WHEREAS, in the October 2009 ICAO-USOAP and 2010 EASA Audits, it was noted that portion of the Philippine Civil Aviation Regulations (PCAR) of 2008 is outdated and requires amendments/revisions;

WHEREAS, the CAAP Board of Directors, in its 03 March 2011 Board Meeting, approved the request of the Director General to initiate amendments and or revision of the Philippine Civil Aviation Regulations of 2008, subject to public consultations/hearings;

WHEREAS, the proposed PCARs cover the following regulatory/oversight functions:

Part I	General Policies, Procedures, Definitions
Part II	Personnel Licensing
Part III	Approved Training Organizations
Part IV	Aircraft Registration and Markings

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Chief, Central Records
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Part V	Airworthiness
Part VI	Approved Maintenance Organizations
Part VII	Instruments and Organization
Part VIII	Operations
Part IX	Air Operator Certification and Administration
Part X	Commercial Air Transport by Foreign Air Carriers within Republic of the Philippines
Part XI	Aerial Work and Non-certificated Aircraft: Operating Limitations

WHEREAS, the Board finds the 2011 Revised Philippine Civil Aviation Regulation (PCAR) sufficient in form and substance, and fully comply with the standards set forth by FAA/ICAO/EASA;

WHEREFORE, RESOLVE, as it is hereby **RESOLVED**, that the 2011 Revised Philippine Civil Aviation Regulations Parts I to XI be **APPROVED**, and shall be valid and effective upon completion of the requisite publication and a copy filed with the University of the Philippines Law Center-Office of the National Administrative Register (UP-ONAR);

RESOLVED further that the Director General shall fully implement the approved, 2011 Revised PCAR Parts I to XI with the accompanying information campaign to the Philippine civil aviation industry.

Adopted this 11th day of April 2011 at the Department of Transportation and Communications, Columbia Tower, Mandaluyong City.

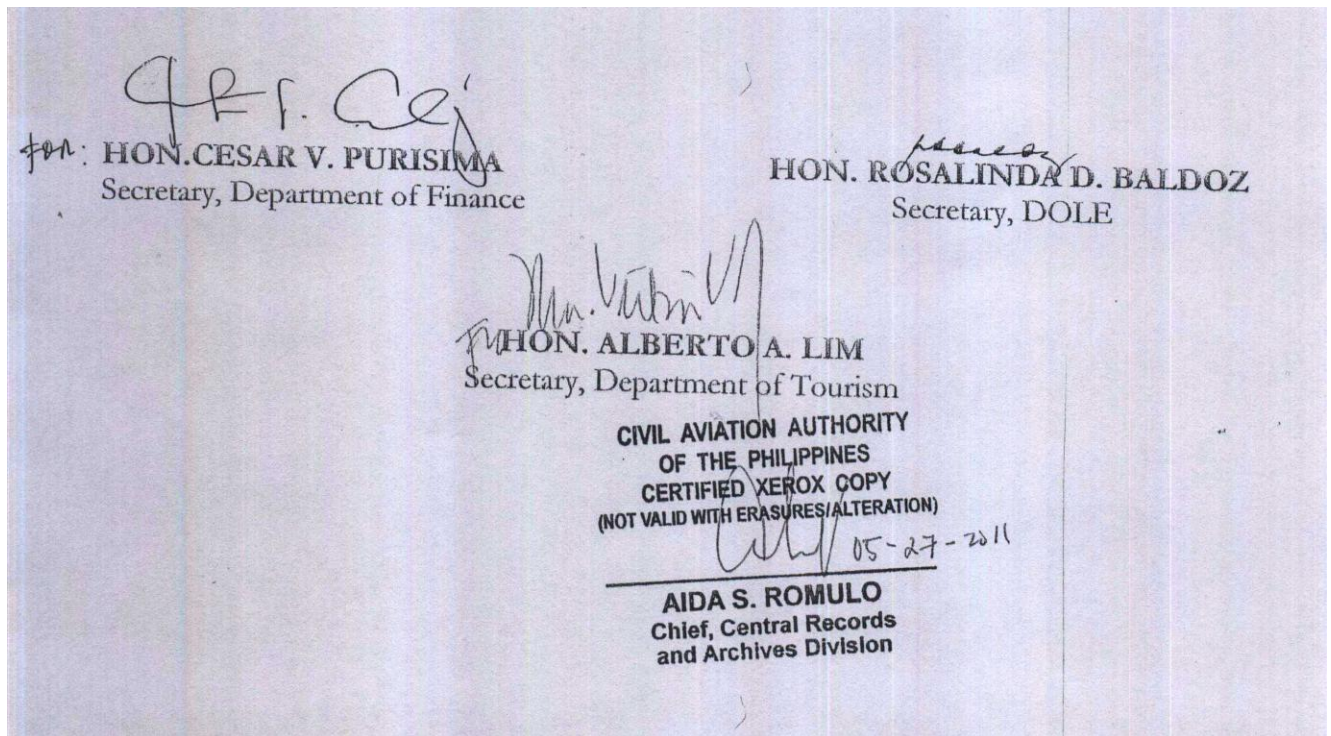
HON. JOSE P. DE JESUS
Chairman/Secretary, DOTC

[Signature]
HON. RAMON S. GUTIERREZ
Vice-Chairman/Director General, CAAP

HON. LEILA M. DE LIMA
Secretary, Department of Justice

[Signature]
HON. ALBERT F. DEL ROSARIO
Secretary, Department of Foreign Affairs

HON. JESSE M. ROBREDO
Secretary, DILG



RECORD OF AMENDMENTS

Amendment No.	Date	Subject	Incorporated By
Initial Issue	23 June 2008		Ruben F. Ciron
First Amendment	21 March 2011	1. Definition <ul style="list-style-type: none"> Continuing Airworthiness 2. Eligibility (a) and (b) 3. Weighing of Aircraft 4. Reporting of failures, malfunctions, and defects 5. Damage to Aircraft 6. Performance Rules: modifications and repairs	Ramon S. Gutierrez
Second Amendment	01 August 2013	Inserted vertical bars on the previous amendments	LT GEN William K Hotchkiss III AFP (Ret)
Third Amendment	21 November 2014	5.5.1.3 General (e) 5.5.1.4 Reporting of Failures, Malfunctions, and Defects (a)	LT GEN William K Hotchkiss III AFP (Ret)
Fourth Amendment	24 November 2016	5.1.1.2 Definitions 11. State of Manufacture 5.5.1.3 General (e) 5.5.1.4 Reporting of Failures, Malfunctions, and Defects (a), (e) & (f)	Capt. Jim C. Sydiongco
Fifth Amendment	04 January 2022	5.1.1.2 Definitions (Removed and transferred to PCAR Part 1 Appendix A: Definitions)	Capt. Jim C. Sydiongco

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CIVIL AVIATION REGULATIONS

PART 5

AIRWORTHINESS

Introduction

CAR Part 5 presents regulatory requirements for the airworthiness of aircraft expected to operate in the Republic of the Philippines using the standards and recommended practices in ICAO Annexes 6 and 8.

Part 5 is designed to address the complex situation faced by most countries today respecting the airworthiness of aircraft operating within the country and in international aviation. In most such cases, there are aircraft registered in the Republic of the Philippines that were designed and manufactured in another Contracting State, and aircraft registered in the Republic of the Philippines that were designed in one Contracting State and manufactured in another Contracting State. In addition, the Republic of the Philippines may have AOC holders who operate aircraft registered in another Contracting State, with different states of design and manufacture. Additionally, the Republic of the Philippines may have AOC holders who are part of a regional consortium, with maintenance facilities in a neighboring country. Proper airworthiness of aircraft registered in the Republic of the Philippines is the result of communication between all parties.

CAR Part 5 requires all persons operating Republic of the Philippines registered aircraft to notify the Authority when certain events occur. The Authority is required to open lines of communication with the State of Design and/or the State of Manufacture so that the Authority can receive all safety bulletins and airworthiness directives for each type of aircraft operating in the Republic of the Philippines.

Maintenance requirements are set forth in Part 5 for persons who are neither employees of an Approved Maintenance Organization (AMO).

5.1 GENERAL**5.1.1.1 APPLICABILITY**

- (a) This regulation prescribes the requirements for—
- (1) Certification of aircraft and aeronautical components;
 - (2) Issuance of Certificate of Airworthiness and other certifications for aeronautical products;
 - (3) Continued airworthiness of aircraft and aeronautical components;
 - (4) Rebuilding and modifications of aircraft and aeronautical components;
 - (5) Maintenance and preventive maintenance of aircraft and aeronautical components;
 - (6) Aircraft inspection requirements; and
 - (7) Air operator aircraft maintenance and inspection requirements.

5.1.1.2 RESERVED

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) MEL – Minimum Equipment List
- (4) PIC – Pilot in command
- (5) TSO – Technical Standard Order

5.2 AIRCRAFT AND COMPONENT ORIGINAL CERTIFICATION**5.2.1.1 APPLICABILITY**

- (a) This Subpart describes the procedures and designation of applicable rules for original certification of aircraft and related aeronautical products.
- (b) The Authority will hold this Subpart reserved until such time as it has received an application for Type Certificates, Production Certificates or other related approvals including but not limited to airworthiness directives (AD), Supplemental Type Certificates (STC), Technical Standard Orders (TSO), and Part Manufacturer Approvals.
- (c) Any applicant for a production certificate for any aircraft or aeronautical product thereof for manufacture in the Republic of the Philippines shall comply with the type certificate as required by the State of Design for approval.
- (d) At such time as the application for production is presented the Authority will make available suitable regulations or provisions for the issuance of an Certificate of Airworthiness, or airworthiness document as appropriate for the product concerned.(e) Any component or product installed or to be installed in a Philippine Registered aircraft shall have an airworthiness approval tag traceable to an approved airworthiness standard accepted by the Authority, issued by an authorized person on the basis of inspection and operation tests, certifying that those products conform to a type design included in a Type Certificate validated by the Authority and is in condition for safe operation.

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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 ISSUANCE OF A SUPPLEMENTAL TYPE CERTIFICATE

- (a) Any person who alters 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, or to the State of Registry of the aircraft. The applicant shall apply in accordance with the procedures prescribed by that State.

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5.4 CERTIFICATE OF AIRWORTHINESS**5.4.1 AIRWORTHINESS CERTIFICATES****5.4.1.1 APPLICABILITY**

- (a) This Subpart prescribes procedures required for the issue of Certificate of Airworthiness.

5.4.1.2 ELIGIBILITY

- (a) Any registered owner of Republic of the Philippines registered aircraft, or agent of the owner, may apply for a Certificate of Airworthiness for that aircraft.
- (b) Each applicant for a Certificate of Airworthiness shall apply in a form and manner acceptable to the Authority.

5.4.1.3 CLASSIFICATIONS OF CERTIFICATE OF AIRWORTHINESS

- (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.
- (b) The Authority may issue a Special Certificate of Airworthiness in the form of a restricted certificate or special flight permit.

5.4.1.4 AMENDMENT OF CERTIFICATE OF AIRWORTHINESS

- (a) The Authority may amend or modify a Certificate of Airworthiness:
 - (1) Upon application from an operator.
 - (2) On its own initiative.

5.4.1.5 TRANSFER OR SURRENDER OF CERTIFICATE OF AIRWORTHINESS

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

5.4.1.6 EFFECTIVE DATES OF A CERTIFICATE OF AIRWORTHINESS

- (a) Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Authority, Certificate of Airworthiness are effective as follows:
 - (1) Standard Certificate of Airworthiness, special Certificate of Airworthiness, and Certificate of Airworthiness issued for restricted or limited category aircraft are effective for one year as long as the maintenance, preventive maintenance, and alterations are performed in accordance with this CAR and the aircraft is registered in the Republic of the Philippines
 - (2) A special flight permit is effective for the period of time specified in the permit.

- (3) An experimental certificate for research and development, showing compliance with regulations, crew training, or market surveys is effective for 1 year after the date of issue or renewal unless the Authority prescribes a shorter period. The duration of an experimental certificate issued for operating amateur-built aircraft, exhibition, air-racing, operating primary kit-built aircraft, unless the Authority establishes a specific period for good cause.
- (b) The owner, operator, or bailee of the aircraft shall, upon request, make it available for inspection by the Authority.
- (c) Upon suspension, revocation, or termination by order of the Authority of a Certificate of Airworthiness, the owner, operator, or bailee of an aircraft shall, upon request, surrender the certificate to the Authority.
- (d) When an aircraft imported for registration in Republic of the Philippines has a Certificate of Airworthiness issued by another Contracting State, Republic of the Philippines 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 Republic of the Philippines. The validity of the Authorization shall not extend beyond the period of validity of the Certificate of Airworthiness or one year, whichever is less.

5.4.1.7 AIRCRAFT IDENTIFICATION

- (a) Each applicant for a Certificate of Airworthiness shall show that the aircraft is properly registered and marked, including identification plates, as required by CAR Part 4.

5.4.1.8 ISSUE OF STANDARD CERTIFICATE OF AIRWORTHINESS

- (a) An applicant for a standard Certificate of Airworthiness for an import aircraft type certificated in accordance with this Part is entitled to a Certificate of Airworthiness if the country in which the aircraft was manufactured or previously registered certifies, and the Authority finds, that:
 - (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 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 may validate a Certificate of Airworthiness issued by another Contracting State upon registration of the aircraft in Republic of the Philippines for the period specified in that certificate.
- (c) Likewise, all Class I Aeronautical Products, such as aircraft, engine and propeller that are first of its kind to be placed under Philippine registry must undergo type certificate validation to become eligible for importation and to obtain Certificate of Airworthiness.

5.4.1.9 AIRWORTHINESS DIRECTIVES

- (a) Upon registration of an aircraft in the Republic of the Philippines, the Authority will notify the State of Design of the aircraft of the registration in the Republic of the Philippines, and request that the Authority 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, the requirements of such directives shall apply to the Republic of the Philippines registered civil aircraft of the type identified in that airworthiness directive.
- (c) The Authority may identify manufacturer's service bulletins and other sources of data, or develop and prescribe inspections, procedures and limitations, in the form of an airworthiness directive for mandatory compliance pertaining to affected aircraft in the Republic of the Philippines.
- (d) No person may operate any Republic of the Philippines registered civil aircraft to which the measures of this subsection apply, except in accordance with the applicable directives.

5.4.1.10 COMMERCIAL AIR TRANSPORT

- (a) The Authority will consider a Certificate of Airworthiness valid for commercial air transport only when that aircraft is included in the AOC's Specific Operating Provisions in accordance with CAR Part 9, issued by the Authority which identifies the specific types of commercial air transport Authorized.

5.4.1.11 ISSUE OF SPECIAL CERTIFICATE OF AIRWORTHINESS**5.4.1.11.1 ISSUE OF CERTIFICATE OF AIRWORTHINESS FOR RESTRICTED CATEGORY AIRCRAFT**

- (a) An applicant for the original issue of a restricted category Certificate of Airworthiness for an aircraft type certificated in the restricted category, that was not previously type Part.
- (b) *Import aircraft.* An applicant for a special Certificate of Airworthiness for an import aircraft type certificated in accordance with this Part is entitled to an restricted Certificate of Airworthiness if the country in which the aircraft was manufactured or previously registered certifies, and:
 - (1) The applicant presents evidence to the Authority that the aircraft conforms to a type design approved under a type certificate or supplemental type certificate and to applicable Airworthiness Directives;
 - (2) The aircraft has been inspected in accordance with the performance rules for a 100-hour inspections set forth in these CAR and found airworthy by an authorized person; and
 - (3) The Authority finds after inspection, that the aircraft conforms to the type design, and is in condition for safe operation.

5.4.1.11.2 ISSUE OF CERTIFICATE OF AIRWORTHINESS FOR LIMITED CATEGORY AIRCRAFT

- (a) An applicant for a Certificate of Airworthiness for an aircraft in the limited category is entitled to the certificate when—
 - (1) He shows that the aircraft has been previously issued a limited category type certificate and that the aircraft conforms to that type certificate; and
 - (2) The Authority finds, after inspection (including a flight check by the applicant), that the aircraft is in a good state of preservation and repair and is in a condition for safe operation.
- (b) The Authority prescribes limitations and conditions necessary for safe operation.

5.4.1.11.3 EXPERIMENTAL CERTIFICATES

Experimental certificates are issued for the following purposes:

- (a) *Research and development.* Testing new aircraft design concepts, new aircraft equipment, new aircraft installations, new aircraft operating techniques, or new uses for aircraft.
- (b) *Showing compliance with regulations.* Conducting flight tests and other operations to show compliance with the airworthiness regulations including flights to show compliance for issuance of type and supplemental type certificates, flights to substantiate major design changes, and flights to show compliance with the function and reliability requirements of the regulations.
- (c) *Crew training.* Training of the applicant's flight crews.
- (d) *Exhibition.* Exhibiting the aircraft's flight capabilities, performance, or unusual characteristics at air shows, motion picture, television, and similar productions, and the maintenance of exhibition flight proficiency, including (for persons exhibiting aircraft) flying to and from such air shows and productions.
- (e) *Air racing.* Participating in air races, including (for such participants) practicing for such air races and flying to and from racing events.
- (f) *Market surveys.* Use of aircraft for purposes of conducting market surveys, sales demonstrations, and customer crew training only.
- (g) *Operating amateur-built aircraft.* Operating an aircraft the major portion of which has been fabricated and assembled by persons who undertook the construction project solely for their own education or recreation.
- (h) *Operating kit-built aircraft.* Operating an aircraft that meets the criteria of this Part that was assembled by a person from a kit manufactured by the holder of a production certificate for that kit, without the supervision and quality control of the production certificate holder.

5.4.1.11.4 SPECIAL FLIGHT PERMITS

- (a) A special flight permit may be issued for an aircraft that may not currently meet applicable airworthiness requirements but is capable of safe flight, for the following purposes:
 - (1) Flying the aircraft to a base where repairs, alterations, or maintenance are to be performed, or to a point of storage.

- (2) Delivering or exporting the aircraft.
- (3) Production flight testing new production aircraft.
- (4) Evacuating aircraft from areas of impending danger.
- (5) Conducting customer demonstration flights in new production aircraft that have satisfactorily completed production flight tests.
- (b) A special flight permit may also be issued to authorize the operation of an aircraft at a weight in excess of its maximum certificated takeoff weight for flight beyond the normal range over water, or over land areas where adequate landing facilities or appropriate fuel is not available. The excess weight that may be authorized under this paragraph is limited to the additional fuel, fuel-carrying facilities, and navigation equipment necessary for the flight.
- (c) Upon application, a special flight permit may be issued for 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..
- (d) The permit issued under this paragraph is an authorization, including any conditions and limitations for flight, which is set forth with the certificate.

5.4.1.11.5 ISSUE OF SPECIAL FLIGHT PERMITS

- (a) An applicant for a special flight permit must submit a statement in a form and manner prescribed by the Authority, indicating—
 - (1) The purpose of the flight.
 - (2) The proposed itinerary.
 - (3) The crew required to operate the aircraft and its equipment, e.g., pilot, co-pilot, navigator, etc.
 - (4) The ways, if any, in which the aircraft does not comply with the applicable airworthiness requirements.
 - (5) Any restriction the applicant considers necessary for safe operation of the aircraft.
 - (6) Any other information considered necessary by the Authority for the purpose of prescribing operating limitations.
- (b) The Authority may make, or require the applicant to make appropriate inspections or tests necessary for safety.

5.4.2 AIRWORTHINESS APPROVALS FOR EXPORT

5.4.2.1 APPLICABILITY

- (a) This subpart prescribes—
 - (1) Procedural requirements for the issue of Airworthiness Approvals for Export; and
 - (2) Rules governing the holders of those approvals.
- (b) For the purposes of this subpart—
 - (1) A Class I product is a complete aircraft, aircraft engine, or propeller, which—

- (i) Has been type certificated in accordance with the applicable CAR and for which Specifications or type certificate data sheets have been issued; or
 - (ii) Is identical to a type certificated product specified in paragraph (b)(1)(i) of this section in all respects except as is otherwise acceptable to the civil aviation authority of the importing state.
- (2) A Class II product is a major component of a Class I product (e.g., wings, fuselages, empennage assemblies, landing gears, power transmissions, control surfaces, etc), the failure of which would jeopardize the safety of a Class I product; or any part, material, or appliance, approved and manufactured under the Technical Standard Order (TSO) system in the “C” series.
- (3) A Class III product is any part or component which is not a Class I or Class II product and includes standard parts, i.e., those designated as AN, NAS, SAE, etc.
- (4) The words “newly overhauled” when used to describe a product means that the product has not been operated or placed in service, except for functional testing, since having been overhauled, inspected and approved for return to service in accordance with the applicable CAR.

5.4.2.2 ELIGIBILITY

- (a) Any exporter or his authorized representative may obtain an Airworthiness Approval for Export for a Class I or Class II product.

5.4.2.3 AIRWORTHINESS APPROVALS FOR EXPORT

(a) *Kinds of approvals:*

- (1) Airworthiness Approvals for Export of Class I products. Such approval does not authorize the operation of aircraft.
- (2) Airworthiness Approval for Export of Class II and III products is issued in the form of Airworthiness Approval Tags, CAA Form AAT.

(b) *Products which may be approved.* Airworthiness Approvals for Export are issued for—

- (1) Aircraft and other Class I products located in the Republic of the Philippines, except that an Airworthiness Approval for Export may be issued for any of the following without assembly or flight-test:
 - (i) A small airplane type certificated under Part 3 or 4 (a) of the Civil Air Regulations, or Part 23 of the Federal Aviation Regulations, and manufactured under a production certificate;
 - (ii) A glider compliant with the type certification requirements of this Part and manufactured under a production certificate; or
 - (iii) A normal category rotorcraft type certificated under Part 6 of the Civil Air Regulations or Part 27 of the Federal Aviation Regulations and manufactured under a production certificate.
- (2) Used aircraft possessing a valid RP Certificate of Airworthiness, or other used Class I products that have been maintained in accordance with the applicable CAR and are located in a foreign country, if the Authority finds that the location

places no undue burden upon the CAA in administering the provisions of this regulation.

5.4.2.4 APPLICATION

- (a) An application for Airworthiness Approval for Export for a Class I or Class II product is made on a form and in a manner prescribed by the Authority
- (b) A separate application must be made for—
 - (1) Each aircraft;
 - (2) Each engine and propeller, except that one application may be made for more than one engine or propeller, if all are of the same type and model and are exported to the same purchaser and country; and
 - (3) Each type of Class II product, except that one application may be used for more than one type of Class II product when—
 - (i) They are separated and identified in the application as to the type and model of the related Class I product; and
 - (ii) They are to be exported to the same purchaser and country.
- (c) Each application must be accompanied by a written statement from the importing country that will validate the Airworthiness Approval for Export if the product being exported is—
 - (1) A product that does not meet the special requirement of the importing country; or
 - (2) A product that does not meet a requirement specified in this Part for Class I, Class II or Class III products, as applicable, for the issuance of an Airworthiness Approval for Export. The written statement must list the requirements not met.
- (d) Each application for Airworthiness Approval for Export of a Class I product must include, as applicable:
 - (1) A weight and balance report, with a loading schedule when applicable, for each aircraft in accordance with these regulations. For transport aircraft and commuter category airplanes this report must be based on an actual weighing of the aircraft within the preceding twelve months *and* shall be witnessed by the Authority or authorized Aeronautical Engineer representative, and after any major repairs or alterations to the aircraft. Changes in equipment not classed as major changes that are made after the actual weighing may be accounted for on a “computed” basis and the report revised accordingly. Manufacturers of new non-transport category airplanes, normal category rotorcraft, and gliders may submit reports having computed weight and balance data, in place of an actual weighing of the aircraft, if fleet weight control procedures approved by the *Authority* have been established for such aircraft. In such a case, the following statement must be entered in each report: “The weight and balance data shown in this report are computed on the basis of *Authority* approved procedures for establishing fleet weight averages.” The weight and balance report must include an equipment list showing weights and moment arms of all required and optional items of equipment that are included in the certificated empty weight.
 - (2) A maintenance manual for each new product when such a manual is required by the applicable airworthiness rules.
 - (3) Evidence of compliance with the applicable airworthiness directives. A suitable notation must be made when such directives are not complied with.

- (4) When temporary installations are incorporated in an aircraft for the purpose of export delivery, the application form must include a general description of the installations together with a statement that the installation will be removed and the aircraft restored to the approved configuration upon completion of the delivery flight.
- (5) Historical records such as aircraft and engine log books, repair and alteration forms, etc., for used aircraft and newly overhauled products.
- (6) For products intended for overseas shipment, the application form must describe the methods used, if any, for the preservation and packaging of such products to protect them against corrosion and damage while in transit or storage. The description must also indicate the duration of the effectiveness of such methods.
- (7) The Airplane or Rotorcraft Flight Manual when such material is required by the applicable airworthiness regulations for the particular aircraft.
- (8) A statement as to the date when title passed or is expected to pass to a foreign purchaser.
- (9) The data required by the special requirements of the importing country.

5.4.2.5 ISSUE OF EXPORT AIRWORTHINESS APPROVAL FOR CLASS I PRODUCTS

- (a) An applicant is entitled to an Export Airworthiness Approval for a Class 1 product if that applicant shows at the time the product is submitted to the Authority for export airworthiness approval that it meets the requirements of this section, as applicable, except as provided in paragraph (g) of this section:
- (b) New or used aircraft must meet the airworthiness requirement for a standard Certificate of Airworthiness, or meet the airworthiness certification requirements for a "restricted" Certificate of Airworthiness.
- (c) New or used aircraft manufactured outside the Republic of the Philippines must have a valid Certificate of Airworthiness.
- (d) Used aircraft must have undergone an annual type inspection and be approved for return to service in accordance with these CAR. The inspection must have been performed and properly documented within 30 days before the date the application is made for an Airworthiness Approval for Export. In complying with this paragraph, consideration may be given to the inspections performed on an aircraft maintained in accordance with a maintenance program under Part 9 or a progressive inspection program under Part 8, within the 30 days prior to the date the application is made for an Airworthiness Approval for Export.
- (e) New engines and propellers must conform to the type design and must be in a condition for safe operation.
- (f) Used engines and propellers which are not being exported as part of a certificated aircraft must have been newly overhauled.
- (g) The special requirements of the importing country must have been met.
- (h) A product need not meet a requirement specified in paragraphs (a) through (g) of this section, as applicable, if acceptable to the importing country and the importing country indicates that acceptability in writing.

5.4.2.6 ISSUE OF AIRWORTHINESS APPROVAL TAGS FOR CLASS II PRODUCTS

- (a) An applicant is entitled to an export airworthiness approval tag for Class II products if that applicant shows, except as provided in paragraph (b) of this section, that—
 - (1) The products are new or have been newly overhauled and conform to the approved design data;
 - (2) The products are in a condition for safe operation;
 - (3) The products are identified with at least the manufacturer's name, part number, model designation (when applicable), and serial number or equivalent; and
 - (4) The products meet the special requirements of the importing country.
- (b) A product need not meet a requirement specified in paragraph (a) of this section if acceptable to the importing country and the importing country indicates that acceptability in writing.

5.4.2.7 RESPONSIBILITIES OF EXPORTERS

Each exporter receiving an export airworthiness approval for a product shall—

- (a) Forward to the air authority of the importing country all documents and information necessary for the proper operation of the products being exported, e.g., Flight Manuals, Maintenance Manuals, Service Bulletins, and assembly instructions, and such other material as is stipulated in the special requirements of the importing country. The documents, information, and material may be forwarded by any means consistent with the special requirements of the importing country;
- (b) Forward the manufacturer's assembly instructions and an Authority's approved flight test form to the civil aviation authority of the importing country when unassembled aircraft are being exported. These instructions must be in sufficient detail to permit whatever rigging, alignment, and ground testing is necessary to ensure that the aircraft will conform to the approved configuration when assembled;
- (c) Remove or cause to be removed any temporary installation incorporated on an aircraft for the purpose of export delivery and restore the aircraft to the approved configuration upon completion of the delivery flight;
- (d) Secure all proper foreign entry clearances from all the countries involved when conducting sales demonstrations or delivery flights; and
- (e) When title to an aircraft passes or has passed to a foreign purchaser—
 - (1) After the issuance of the Export Airworthiness Approval, request cancellation of the RP registration and Certificate of Airworthiness, giving the date of transfer of title, and the name and address of the foreign owner;
 - (2) Return the Registration and Certificate of Airworthiness to the Authority
 - (3) Submit a statement certifying that the RP's identification and registration numbers have been removed from the aircraft in compliance with Part 4.

5.4.2.8 PERFORMANCE OF INSPECTIONS AND OVERHAULS

Unless otherwise provided for in this subpart, each inspection and overhaul required for export airworthiness approval of Class I and Class II products must be performed and approved by one of the following:

- (a) The manufacturer of the product.
- (b) An Approved Maintenance Organization (AMO) in accordance with Part 6.
- (c) An appropriately Approved Maintenance Organization (AMO) having adequate overhaul facilities, and maintenance organization appropriate to the product involved, when the product is a Class I product located in a foreign country and has the approval by the Authority.

5.4.3 CERTIFICATE OF NOISE COMPLIANCE

- (a) If an application for a certificate of noise compliance is made in respect of an aircraft under Subpart 5.4.3.1 below and the aircraft meets the applicable noise emission levels specified in IS 5.4.3.1 the Authority shall issue the certificate.

5.4.3.1 APPLICATION FOR A CERTIFICATE OF NOISE COMPLIANCE

- (a) An application for a certificate of noise compliance shall be signed by the owner or operator of the aircraft.
 - (1) The applicant shall include evidence that the aircraft meets the noise emission levels as detailed in IS: 5.4.3.1.
 - (2) This evidence can be supplied from data contained in an aircraft Type Certificate, an approved flight manual or other formats acceptable to the Authority.

Note: See IS: 5.4.3.1 for Noise Certification Methods and Certification Documentation

5.4.4 WEIGHING OF AIRCRAFT

- (a) All Philippine registered aircraft shall be re-weighed at the following periods:
 - (1) When used for commercial or aerial work operations every three (3) years;
 - (2) When used for commercial operations and with CAAP approved weight control program, at such periods as determined by the weight control program;
 - (3) When used in general aviation every five (5) years, or
 - (4) For any aircraft at such times as the Director General may direct.
- (b) A complete and continuous record of a modification performed and their resultant change to the Mass and CG limits shall be maintained for all aircraft.
- (c) A revised Load Data sheet shall be issued before flight.
 - (1) For airplanes, when the empty weight has changed by more than one half of one percent of the max. T.O.W. or 10 kg, whichever is the greater, or the empty weight center of gravity position has changed by more than 2% of the maximum permissible center of gravity range or 5 mm, whichever is the greater;
 - (2) For rotorcraft, when the empty weight has changed by more than one percent of the max. T.O.W. or 10 kg, whichever is the greater, or the empty weight center of gravity position has changed by more than 10 mm or 10 percent of the maximum permissible center of gravity range whichever is the less.

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 the Republic of the Philippines whether operating inside or outside the borders of the Republic of the Philippines.

5.5.1.2 RESPONSIBILITY

- (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, overhaul, modifications and repairs which affect airworthiness are performed as prescribed by the State of Registry;
 - (2) Authorized maintenance personnel make appropriate entries in the aircraft maintenance records certifying that the aircraft is airworthy;
 - (3) A maintenance release is completed to certify 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.

5.5.1.3 GENERAL

- (a) No person may perform maintenance, repairs, or modifications 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 specific operating provisions 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 aeronautical product to which an Airworthiness Directive applies, issued either by the State of Design, the State of Registry, or the Authority, 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 ensure that all mandatory continuing airworthiness information which it, as the State of Registry, originated in respect of that aircraft, is transmitted to the appropriate State of Design.

5.5.1.4 REPORTING OF FAILURES, MALFUNCTIONS, AND DEFECTS

- (a) Owners or operators of airplane over 5,700 kg and helicopters over 3,175 maximum take-off weight shall report to the Authority and to the organization responsible for the aircraft type design any failure, malfunction, or defect that result in at least the following.
- (1) Fires during flight and whether the related fire-warning system properly operated;
Fires during flight not protected by a related fire-warning system;
 - (2) False fire warning during flight;
 - (3) An engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components;
 - (4) An aircraft component that causes accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight;
 - (5) Engine shutdown during flight because of flameout;
 - (6) Engine shutdown during flight when external damage to the engine or aircraft structure occurs;
 - (7) Engine shutdown during flight due to foreign object ingestion or icing;
 - (8) Shutdown during flight of more than one engine;
 - (9) A propeller feathering system or ability of the system to control overspeed during flight;
 - (10) A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight;
 - (11) An unintended landing gear extension or retraction, or opening or closing of landing gear doors during flight;
 - (12) Brake system components that result in loss of brake actuating force when the aircraft is in motion on the ground;
 - (13) Aircraft structure that requires major repair;
 - (14) Cracks, permanent deformation, or corrosion of aircraft structure, if more than the maximum acceptable to the manufacturer or the Authority;
 - (15) Aircraft components or systems malfunctions that result in taking emergency actions during flight (except action to shut down an engine);
 - (16) 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;
 - (17) Any abnormal vibration or buffeting caused by a structural or system malfunction, defect, or failure;
 - (18) A failure or malfunction of more than one attitude, airspeed, or altitude instrument during a given operation of the aircraft.
 - (19) 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;
or
 - (20) The number of propeller featherings in flight, listed by type of propeller and engine and aircraft on which it was installed.

- (b) Each report required by this Subsection shall—
 - (1) Be made within three (3) working 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, malfunction, or defect.
- (c) The Authority, if the State of Registry of the aircraft, will submit all such reports upon receipt to the State of Design.
- (d) The Authority, if not the State of Registry of the aircraft, will submit all such reports upon receipt to the State of Registry.
- (e) Whenever this information relates to an engine or propeller, such information shall be transmitted to both the organization responsible for engine or propeller type design and the organization responsible for aircraft type design.
- (f) Where a continuing airworthiness safety issue is associated with a modification, the State of Registry shall ensure that there exists a system whereby the above information is transmitted to the organization responsible for the design of the modification.

5.5.1.5 APPROVAL OF MATERIALS, PARTS, PROCESSES, AND APPLIANCES

5.5.1.5.1 APPLICABILITY

- (a) This subpart prescribes procedural requirements for the approval of certain materials, parts, processes, and appliances.

5.5.1.5.2 REPLACEMENT AND MODIFICATION PARTS

- (a) Except as provided in paragraph (b) of this section, no person may produce a modification or replacement part for sale for installation on a type certificated product unless it is produced pursuant to a Parts Manufacturer Approval issued under this subpart.
- (b) This section does not apply to the following:
 - (1) Parts produced under a type or production certificate.
 - (2) Parts fabricated by an owner or an AMO for maintaining his own product or for the maintenance of a specific aircraft.
 - (3) Standard parts (such as bolts and nuts) conforming to established industry standards or specifications

- (c) An application for a Parts Manufacturer Approval is made to the Authority and must include the following:
 - (1) The identity of the product on which the part is to be installed.
 - (2) The name and address of the manufacturing facilities at which these parts are to be manufactured.
 - (3) The design of the part, which consists of—
 - (i) Drawings and specifications necessary to show the configuration of the part; and
 - (ii) Information on dimensions, materials, and processes necessary to define the structural strength of the part.
 - (4) Test reports and computations necessary to show that the design of the part meets the airworthiness requirements of these CAR applicable to the product on which the part is to be installed, unless the applicant shows to the Authority that the design of the part is identical to the design of a part that is covered under a type certificate. If the design of the part was obtained by a licensing agreement, evidence of that agreement must be furnished.
- (d) An applicant is entitled to a Parts Manufacturer Approval for a replacement or modification part if—
 - (1) The Authority finds, upon examination of the design and after completing all tests and inspections, that the design meets the airworthiness requirements of the CAR applicable to the product on which the part is to be installed; and
 - (2) He submits a statement certifying that he has established the fabrication inspection system required by paragraph (h) of this section.
- (e) Each applicant for a Parts Manufacturer Approval must allow the Authority to make any inspection or test necessary to determine compliance with the applicable CAR. However, unless otherwise authorized by the Authority
 - (1) No part may be presented to the Authority for an inspection or test unless compliance with paragraphs (f) (2) through (4) of this section has been shown for that part; and
 - (2) No change may be made to a part between the time that compliance with paragraphs (f) (2) through (4) of this section is shown for that part and the time that the part is presented to the Authority for the inspection or test.
- (f) Each applicant for a Parts Manufacturer Approval must make all inspections and tests necessary to determine—
 - (1) Compliance with the applicable airworthiness requirements;
 - (2) That materials conform to the specifications in the design;
 - (3) That the part conforms to the drawings in the design; and
 - (4) That the fabrication processes, construction, and assembly conform to those specified in the design.
- (g) The Authority does not issue a Parts Manufacturer Approval if the manufacturing facilities for the part are located outside of the republic of the Philippines, unless the Authority finds that the location of the manufacturing facilities places no burden on the Authority in administering applicable airworthiness requirements.
- (h) Each holder of a Parts Manufacturer Approval shall establish and maintain a fabrication inspection system that ensures that each completed part conforms to its

design data and is safe for installation on applicable type certificated products. The system shall include the following:

- (1) Incoming materials used in the finished part must be as specified in the design data.
- (2) Incoming materials must be properly identified if their physical and chemical properties cannot otherwise be readily and accurately determined.
 - (a) Materials subject to damage and deterioration must be suitably stored and adequately protected.
 - (b) Processes affecting the quality and safety of the finished product must be accomplished in accordance with acceptable specifications.
 - (c) Parts in process must be inspected for conformity with the design data at points in production where accurate determination can be made. Statistical quality control procedures may be employed where it is shown that a satisfactory level of quality will be maintained for the particular part involved.
- (3) Current design drawings must be readily available to manufacturing and inspection personnel, and used when necessary.
- (4) Major changes to the basic design must be adequately controlled and approved before being incorporated in the finished part.
- (5) Rejected materials and components must be segregated and identified in such a manner as to preclude their use in the finished part.
- (6) Inspection records must be maintained, identified with the completed part, where practicable, and retained in the manufacturer's file for a period of at least 12 years after the part has been completed.
- (i) A Parts Manufacturer Approval issued under this section is not transferable and is effective until surrendered or withdrawn or otherwise terminated by the Authority.
- (j) The holder of a Parts Manufacturer Approval shall notify the Authority in writing within 10 days from the date the manufacturing facility at which the parts are manufactured is relocated or expanded to include additional facilities at other locations.
- (k) Each holder of a Parts Manufacturer Approval shall determine that each completed part conforms to the design data and is safe for installation on type certificated products.

5.5.1.5.3 APPROVAL OF MATERIALS, PARTS, PROCESSES, AND APPLIANCES

Whenever a material, part, process, or appliance is required to be approved under this chapter, it may be approved—

- (a) Under a Parts Manufacturer Approval;
- (b) Under a Technical Standard Order issued by the Federal Aviation Administration of the United States of America..
- (c) In conjunction with type certification procedures for a product; or
- (d) In any other manner approved by the Authority.

5.5.1.6 DAMAGE TO AIRCRAFT

- (a) When the aircraft has sustained damage that requires major repair or replacement of the affected component, the CAAP shall judge whether the damage is of a nature such that the aircraft is no longer airworthy as defined by the appropriate airworthiness requirements.
- (b) If the damage is sustained or ascertained when the aircraft is in the territory of another Contracting State, the authorities of that Contracting State shall be entitled to prevent the aircraft from resuming its flight on the condition that they shall advise the CAAP immediately, communicating to all details necessary to formulate the judgment referred to in (a).
- (c) When CAAP considers that the damage sustained is of a nature such that the aircraft is still airworthy, the aircraft shall be allowed to resume its flight.

5.6 AIRCRAFT MAINTENANCE AND INSPECTION**5.6.1.1 APPLICABILITY**

- (a) This Subpart prescribes rules governing the maintenance and inspection of any aircraft having a Republic of the Philippines Certificate of Airworthiness or associated aeronautical products.

5.6.1.2 PERSONS AUTHORIZED TO PERFORM MAINTENANCE, PREVENTIVE MAINTENANCE, AND MODIFICATIONS

- (a) Except as specified in (b), the persons authorized to perform maintenance subject to this Subpart include—
 - (1) A person performing maintenance under the supervision of appropriately rated aviation maintenance technician;
 - (2) An aviation maintenance technician with the appropriate ratings;
- (b) All aircraft involved in commercial operations, shall be maintained and returned to service after a maintenance release has been signed by an organization approved in accordance with Part 6.
- (c) This Subpart outlines the privileges and limitations of these entities with respect to the extent and type of work they may perform regarding—
 - (1) Maintenance,
 - (2) Preventive Maintenance,
 - (3) Modification,
 - (4) Inspection, and
 - (5) Approvals for return to service.

5.6.1.3 PERSONS AUTHORIZED TO PERFORM MAINTENANCE

- (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 elementary work as specified in IS: 5.6.1.3 (a).
 - (2) A person working under the supervision of a aviation maintenance technician, may perform the maintenance, preventive maintenance, and modifications 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 modification of an aircraft or aeronautical product for which he or she is rated subject to the limitation of Part 2, Section 2.4.4 of these regulations.
 - (4) An AMO may perform aircraft maintenance within the limits specified by the Authority.
 - (5) No AOC holder may perform aircraft maintenance unless approved under Part 6 of these regulations.

- (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 manufactures, while currently operating under a production certificate or under a currently approved production inspection system for such aircraft.

5.6.1.4 AUTHORIZED PERSONNEL TO APPROVE FOR RETURN TO SERVICE

- (a) No person or entity, other than the Authority, 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 modification, 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, paragraph 2.6.2.8 of these regulations.
 - (3) An AMO may approve aircraft and aeronautical products for return to service as provided in the specifications approved by the Authority.

5.6.1.5 PERSONS AUTHORIZED TO PERFORM INSPECTIONS

- (a) No person, other than the Authority, may perform the inspections required by Subpart 8.2.1.7 for aircraft and aeronautical products prior to or after it has undergone maintenance, preventive maintenance, rebuilding, or modification, 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, except on aircraft involved in commercial operations.
 - (2) An AMO may perform the required inspections of aircraft and aeronautical products as provided in the specifications approved by the Authority.

5.6.1.6 PERFORMANCE RULES: MAINTENANCE

- (a) Each person performing maintenance, preventive maintenance, or modification 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 modification 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 Subpart.

5.6.1.7 PERFORMANCE RULES: INSPECTIONS

- (a) General. Each person performing an inspection required by the Authority 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.
- (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 center 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.

Implementing Standard: See IS: 5.6.1.7 for components to be included in an annual or 100-hour inspection.
 - (2) Each person approving a reciprocating-engine-powered 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-engine-powered 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.

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.

5.6.1.9 PERFORMANCE RULES: MODIFICATIONS AND REPAIRS

All modifications and repairs shall comply with airworthiness requirements of this CAR and be acceptable to the State of Design or the CAAP. The owner or operator shall ensure that the substantiating data supporting compliance with the airworthiness requirements are retained. However, in the case of a major repair or major modification, the work must have been done in accordance with technical data approved by the State of Design or the CAAP before returning the aircraft to service. Approval or acceptance of a specific modification or repair on a specific aircraft by the State of Design shall constitute approval by the CAAP and no further approvals will be required.

5.7 MAINTENANCE RECORDS AND ENTRIES**5.7.1.1 CONTENT, FORM, AND DISPOSITION OF MAINTENANCE, PREVENTIVE MAINTENANCE, REBUILDING, AND MODIFICATION RECORDS**

- (a) Each person who maintains, performs preventive maintenance, rebuilds, or modifies an aircraft or aeronautical product 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;
 - (2) Completion date of the work performed;
 - (3) Name, signature, certificate number, and kind of license held by the person approving the work.

Note: The signature constitutes the approval for return to service only for the work performed.

- (b) 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 Authority.

Implementing Standard: See IS: 5.7.1.1 for the maintenance form requirements and a sample major repair and modification form.

- (c) A person working under supervision of an aviation maintenance technician may not perform any inspection required in Part 8 or any inspection performed after a major repair or modification.

5.7.1.2 RECORDS OF OVERHAUL AND REBUILDING

- (a) No person may describe in any required maintenance entry or form, an aeronautical product 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 the Authority; and
 - (2) It has been tested in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Authority, which have been developed and documented by the holder of the type certificate, supplemental type certificate, or a material, part, process, or appliance manufacturing approval.
- (b) No person may 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.

Note: Part 5.7.1.2 (a) reflects the required maintenance entry for rebuilt. As identified in Part 5.6.1.3 (a) (6) only a manufacturer holding an AMO can rebuild an aeronautical product.

5.7.1.3 APPROVAL FOR RETURN TO SERVICE AFTER MAINTENANCE, PREVENTIVE MAINTENANCE, REBUILDING, OR MODIFICATION

- (a) No person may approve for return to service any aeronautical product that has undergone maintenance, preventive maintenance, rebuilding, or modification unless—
- (1) The appropriate maintenance record entry has been made;
 - (2) The repair or modification form Authorized by or furnished by the Authority has been executed in a manner prescribed by the Authority;
 - (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.

Implementing Standard: See IS: 5.7.1.1 for the repair or modification form requirements.

5.7.1.4 CONTENT, FORM, AND DISPOSITION OF RECORDS FOR INSPECTIONS

- (a) Maintenance 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 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 is found to be airworthy and approved for return to service, the following or a similarly worded statement— *“I certify that this aircraft has been inspected in accordance with (insert type) inspection and was determined to be in airworthy condition”*;
 - (5) If the aircraft is not approved for return to service because of needed maintenance, non-compliance with the applicable specifications, airworthiness directives, or other approved data, the following or a similarly worded statement—*I certify that this aircraft has been inspected in accordance with (insert type) inspection and a list of discrepancies and un-airworthy 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.

Republic of the Philippines
CIVIL AVIATION REGULATIONS
PART 5: IS
AIRWORTHINESS:
IMPLEMENTING STANDARDS

IS: 5.1.1.2 (A) (1) MAJOR MODIFICATIONS (DEFINITION)

- (a) **Airframe Major Modifications.** Major modifications include modifications to the listed aircraft parts, or the listed types of modifications (when not included in the applicable aircraft specifications)—
- (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) **Power-plant Major Modifications.** Major power-plant modifications, 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 Modifications.** Major propeller modifications, 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 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, 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.

IS: 5.1.1.2(A)(3) 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) 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, stabilizers, and control surfaces.
 - (27) Repairing, including re-bottoming, of removable or integral fuel tanks and oil tanks.
- (b) **Power-plant Major Repairs.** Repairs of the following parts of an engine and repairs of the following types, are power-plant 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) Re-tipping 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 aluminum 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) (5) 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, cowlings, 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 cowlings 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: 5.4.3 Noise Emission Standards

- (a) The standards related to aircraft noise emission are those contained in the following Chapters of ICAO Annex 16, Volume I, Part II:
 - (1) Chapter 2, entitled "Subsonic jet airplanes - Application for certificate of airworthiness for the prototype accepted before 6 October 1977".
 - (2) Chapter 3, entitled:
 - "1. Subsonic jet airplanes - Application for certificate of airworthiness for the prototype accepted on or after 6 October 1977 and before 1 January 2006".
 - "2. Propeller-driven airplanes over 5700 kg - Application for certificate of airworthiness for the prototype accepted on or after 1 January 1985 and before 17 November 1988".
 - "3. Propeller-driven airplanes over 8618 kg - Application for certificate of airworthiness for the prototype accepted on or after 17 November 1988 and before 1 January 2006".
 - (3) Chapter 4, entitled:
 - "1. Subsonic jet airplanes - Application for certificate of airworthiness for the prototype accepted on or after 1 January 2006".
 - "2. Propeller-driven airplanes over 8618 kg - Application for certificate of airworthiness for the prototype accepted on or after 1 January 2006".
 - (4) Chapter 5, entitled "Propeller-driven airplanes over 5700 kg - Application for certificate of airworthiness for the prototype accepted before 1 January 1985".
 - (5) Chapter 6, entitled "Propeller-driven airplanes not exceeding 8618 kg- Application for certificate of airworthiness for the prototype accepted before 17 November 1988".
 - (6) Chapter 8, entitled "Helicopters".
 - (7) Chapter 10, entitled "Propeller-driven airplanes not exceeding 8618 kg - Application for certificate of airworthiness for the prototype or derived version accepted on or after 17 November 1988".

- (8) Chapter 11, entitled "Helicopters not exceeding 3,175 kg maximum certificated take-off mass".

IS: 5.4.3.1 NOISE EVALUATION METHODS AND CERTIFICATION DOCUMENTATION

(a) Noise Evaluation Methods

The methods for the evaluation of aircraft noise are those contained in the following Appendices of ICAO Annex 16, Volume I:

- (1) APPENDIX 1, entitled "Evaluation method for noise certification of subsonic jet airplanes - Application for certificate of airworthiness for the prototype accepted before 6 October 1977".
- (2) APPENDIX 2, entitled "Evaluation method for noise certification of":
 - "1. Subsonic jet airplanes - Application for certificate of airworthiness for the prototype accepted on or after 6 October 1977".
 - "2. Propeller-driven airplanes over 5,700 kg - Application for certificate of airworthiness for the prototype accepted on or after 1 January 1985 and before 17 November 1988".
 - "3. Propeller-driven airplanes over 8,618 kg - Application for certificate of airworthiness for the prototype accepted on or after 17 November 1988".
 - "4. Helicopters".
- (3) APPENDIX 3, entitled "Noise evaluation method for noise certification of propeller-driven airplanes not exceeding 8,618 kg - Application for certificate of airworthiness for the prototype accepted before 17 November 1988".
- (4) APPENDIX 4, entitled "Evaluation method for noise certification of helicopters not exceeding 3175 kg maximum certificated take-off mass".
- (5) APPENDIX 6, entitled "Noise evaluation method for noise certification of propeller-driven airplanes not exceeding 8618 kg- Application for certificate of airworthiness for the prototype accepted on or after 17 November 1988".

(b) Noise Certification Documentation

INFORMATION TO BE PROVIDED

The document attesting noise certification for an aircraft shall provide at least the following information. All items are numbered in accordance with ICAO guidelines as detailed in Annex 16 Volume I. This is to facilitate access to the information when the noise certification documentation is examined by another State's aviation Authority using a language other than English. Some items are relevant to certain chapters only. In these cases, the relevant chapters are indicated in the item description.

ITEMS 1 TO 3 INCORPORATED IN THE FOLLOWING SAMPLE NOISE CERTIFICATE.

ITEM 4 - REGISTRATION MARKS

The nationality or common mark and registration marks issued by the State of Registry in accordance with Annex 7. This item shall correspond with the information on the certificate of registration and the certificate of airworthiness.

ITEM 5 - MANUFACTURER AND MANUFACTURER'S DESIGNATION OF AIRCRAFT

The type and model of the subject aircraft. This item shall correspond with the information on the certificate of registration and the certificate of airworthiness.

ITEM 6 - AIRCRAFT SERIAL NUMBER

The aircraft serial number as given by the manufacturer of the aircraft. This item shall correspond with the information on the certificate of registration and the certificate of airworthiness.

ITEM 7 - ENGINE MANUFACTURER, TYPE AND MODEL

The designation of the installed engine(s) for identification and verification of the aircraft configuration. It shall contain the type and model of the subject engine(s). The designation shall be in accordance with the type certificate or supplemental type certificate for the subject engine(s).

ITEM 8 - PROPELLER TYPE AND MODEL FOR PROPELLER-DRIVEN AEROPLANES

The designation of the installed propeller(s) for identification and verification of the aircraft configuration. It shall contain the type and model of the subject propeller(s). The designation shall be in accordance with the type certificate or supplemental type certificate for the subject propeller(s). This item is included only in the noise certification documentation for propeller-driven airplanes. Use Attachment #1 table for applicability requirements.

ITEM 9 - MAXIMUM TAKE-OFF MASS AND UNIT

The maximum take-off mass, in kilograms, associated with the certificated noise levels of the aircraft.

ITEM 10 - MAXIMUM LANDING MASS AND UNIT FOR CERTIFICATES ISSUED UNDER CHAPTERS 2, 3, 4, 5 AND 12

The maximum landing mass, in kilograms, associated with the certificated noise levels of the aircraft. The unit (kg) shall be specified explicitly in order to avoid misunderstanding. If the primary unit of mass of the State of Design of the aircraft is different from kilograms. The conversion factor used shall be in accordance with Annex 5. This item is included only in the noise certification documentation for documents issued under Chapters 2, 3, 4, 5 and 12.

ITEM 11 - NOISE CERTIFICATION STANDARD

The chapter and section of Annex 16, Volume I, according to which the aircraft is certificated. For Chapters 2, 8, 10 and 11, the section specifying the noise limits should also be included.

ITEM 12 - ADDITIONAL MODIFICATIONS INCORPORATED, FOR THE PURPOSE OF COMPLIANCE WITH THE APPLICABLE NOISE CERTIFICATION STANDARDS

This item shall contain, as a minimum, all additional modifications to the basic aircraft as defined by Items 5, 7 and 8 that are essential in order to meet the requirements of the chapter of Annex 16, Volume I, to which the aircraft is noise certificated as given under Item 11. Other modifications that are not essential to meet the stated chapter but are needed to attain the certificated noise levels as given may also be included at the discretion of the Authority. The additional modifications should be given using unambiguous references, such as supplemental type certificate (STC) numbers, unique part numbers or type/model designators given by the manufacturer of the modification.

ITEM 13 - THE LATERAL/FULL-POWER NOISE LEVEL IN THE CORRESPONDING UNIT FOR DOCUMENTS ISSUED UNDER CHAPTERS 2, 3, 4, 5 AND 12

The lateral/full-power noise level as defined in the relevant chapter. It shall specify the unit (e.g. EPNdB) of the noise level, and the noise level shall be stated to the nearest tenth of a dB. This item is included only in the noise certification documentation for aircraft certificated to Chapters 2, 3, 4, 5 and 12.

ITEM 14 – THE APPROACH NOISE LEVEL IN THE CORRESPONDING UNIT FOR DOCUMENTS ISSUED UNDER CHAPTERS 2, 3, 4, 5, 8 AND 12

The approach noise level as defined in the relevant chapter. It shall specify the unit (e.g. EPNdB) of the noise level, and the noise level shall be stated to the nearest tenth of a dB. This item is included only in the noise certification documentation for aircraft certificated to Chapters 2, 3, 4, 5, 8 and 12.

ITEM 15 – THE FLYOVER NOISE LEVEL IN THE CORRESPONDING UNIT FOR DOCUMENTS ISSUED UNDER CHAPTERS 2, 3, 4, 5, AND 12

The flyover noise level as defined in the relevant chapter. It shall specify the unit (e.g. EPNdB) of the noise level, and the noise level shall be stated to the nearest tenth of a dB. This item is included only in the noise certification documentation for aircraft certificated to Chapters 2, 3, 4, 5, and 12.

ITEM 16 – THE OVERFLIGHT NOISE LEVEL IN THE CORRESPONDING UNIT FOR DOCUMENTS ISSUED UNDER CHAPTERS 6, 8, AND 11

The overflight noise level as defined in the relevant chapter. It shall specify the unit (e.g. EPNdB or dB(A)) of the noise level, and the noise level shall be stated to the nearest tenth of a dB. This item is included only in the noise certification documentation for aircraft certificated to Chapters 6, 8, and 11.

ITEM 17 – THE TAKE-OFF NOISE LEVEL IN THE CORRESPONDING UNIT FOR DOCUMENTS ISSUED UNDER CHAPTERS 8 AND 10

The take-off noise level as defined in the relevant chapter. It shall specify the unit (e.g. EPNdB or dB(A)) of the noise level, and the noise level shall be stated to the nearest tenth of a dB. This item is included only in the noise certification documentation for aircraft certificated to Chapters 8 and 10.

ITEM 18 – STATEMENT OF COMPLIANCE

A statement that the subject aircraft complies with the applicable noise requirements. References should be made to annex 16, volume 1.

ITEM 19 – DATE OF ISSUE


The date on which the noise certification document was issued.

ITEM 20 – SIGNATURE

The signature of the officer issuing the noise certification document. In addition the seal will be added.

REMARKS

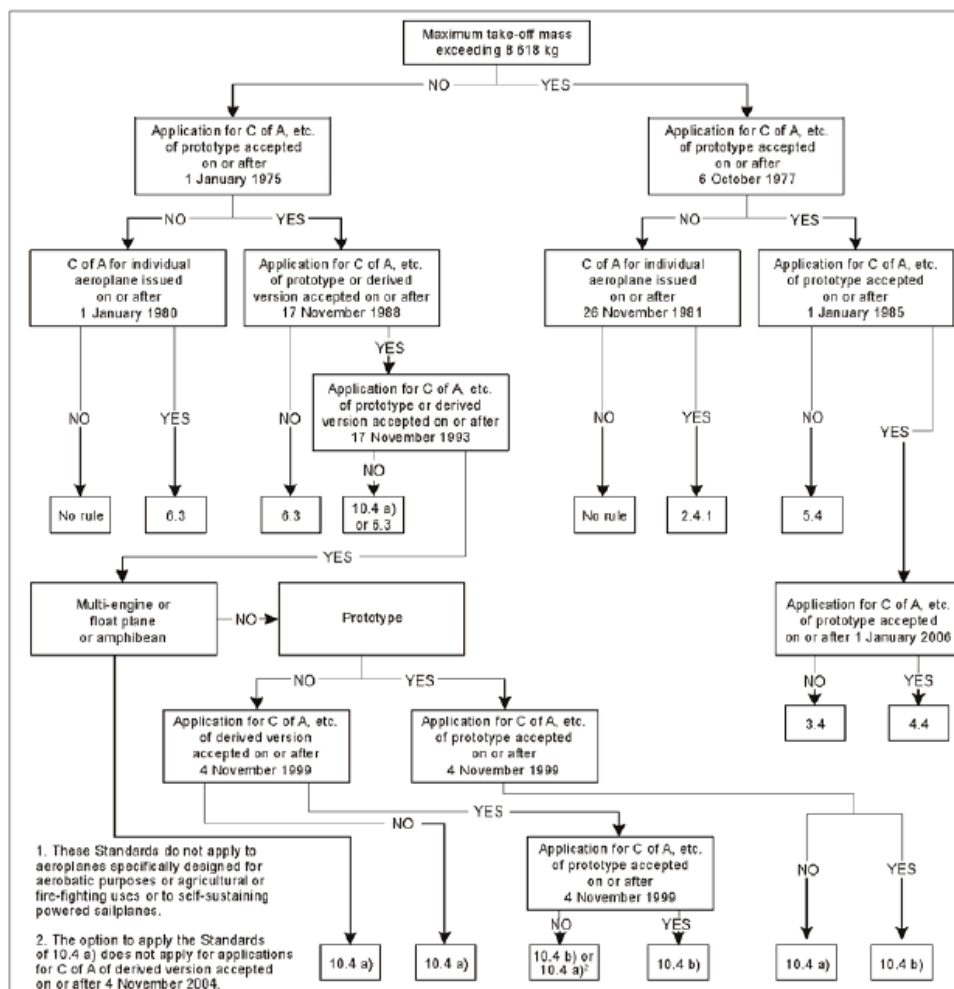
This box is not numbered, in order to avoid non-standardized numbering. The box is for additional information. Caution should be exercised to ensure that the information provided will not be confused with the official noise certification levels. In particular, noise levels taken under conditions other than the noise certification conditions should be clearly marked as supplementary information. The box should contain an adequate description of what additional information is provided.

		Republic of the Philippines NOISE CERTIFICATE		
4. Registration:		5. Manufacturer and manufacturers designation of aircraft:		6. Aircraft serial number:
RP-				
7. Engine:		8. Propeller: *		
9. Maximum take-off mass:	10. Maximum landing mass: *		11. Noise certification Standard:	
12. Additional modifications incorporated for the purpose of compliance with the applicable noise certification Standards:				
13. Lateral/full-power noise level:*	14. Approach noise level:*	15. Flyover noise level:*	16. Overflight noise level: *	17. Take-off noise level:*
Remarks:				
18. This noise certificate is issued pursuant to Volume I of Annex 16 to the Convention on International Civil Aviation, in respect of the above mentioned aircraft, which is considered to comply with the indicated noise Standard when maintained and operated in accordance with the relevant requirements and operating limitations				
19. Date of issue:		20. Signature:		
Form Revision date: 30 April 2008		* The information in these boxes may be omitted depending on the noise certification standard		

Noise Certification Standards for Propeller driven Airplanes

Attachment #1

Attachment #1 **APPLICABILITY OF ANNEX 16**
NOISE CERTIFICATION STANDARDS FOR PROPELLER-DRIVEN AEROPLANES¹



ANNEX 16 — VOLUME I

ATT E-1

24/11/05

IS: 5.6.1.3 (A) ELEMENTARY WORK

The following list is exhaustive; if a task is not listed, it is not elementary work. Elementary work is a form of maintenance that is not subject to a maintenance release. Hence, it need not be performed by a holder of an AMT license, or by persons working under an AMO certificate. The owner is responsible for controlling authorizations to persons who may perform elementary work.

Individuals including pilots are permitted to perform these tasks only after they have been trained for the specific task by a licensed AMT. For aircraft operated in Commercial Air Service, the applicable tasks listed below are elementary work, provided they are individually listed in the operator's maintenance control manual and or operational

manual as applicable, along with a reference to the training to be undertaken by persons authorized to perform them in accordance with the CAR.

The performance of all tasks designated as elementary work shall be entered in the technical record for the aeronautical product, as required by the CAR.

Information Note: *Under the CAR, every person who makes an entry in a technical record shall enter the person's name and, if the entry is in respect of the performance of maintenance or elementary work, the signature or employee identifier or, where the record is kept as electronic data, enter the person's user code or an equivalent security designation.*

ELEMENTARY WORK TASK LISTINGS

- (1) fabric patches measuring not more than 15 cm (6 in) in any direction and not requiring rib stitching or the removal of control surfaces or structural parts, on small privately operated aircraft;
- (2) removal and replacement of tires, wheels, landing skids or skid shoes, not requiring separation of any hydraulic lines, on small privately operated aircraft;
- (3) removal and replacement of skis on fixed landing gear, not requiring separation of any hydraulic lines, on small privately operated aircraft;
- (4) repair of non-structural fairings, cover plates and cowlings, on small privately operated aircraft;
- (5) cleaning and replacement of spark plugs, on small privately operated aircraft;
- (6) checking of cylinder compression, on small privately operated aircraft;
- (7) cleaning or changing of fuel, oil, and air filters, on small privately operated aircraft;
- (8) draining and replenishing engine oil, on small privately operated aircraft;
- (9) checking the electrolyte level and specific gravity of lead acid batteries, on small privately operated aircraft;
- (10) adjustment of generator or alternator drive belt tension, on small privately operated aircraft;
- (11) cleaning of balloon burner nozzles;
- (12) removal and replacement of balloon baskets, burners and gas tanks that are designed for rapid change in service;
- (13) removal and replacement of glider wings and tail surfaces that are designed for quick assembly;
- (14) repair of upholstery, trim and cabin furnishings;
- (15) removal and replacement of role equipment designed for rapid removal and replacement;
- (16) removal and replacement of passenger seat belts and harnesses;
- (17) removal and replacement of fuses, light bulbs and reflectors;
- (18) removal and replacement of avionics components that are rack mounted or otherwise designed for rapid removal and replacement, where the work does not require testing other than an operational check;
- (19) removal and replacement of aircraft batteries;

- (20) removal and replacement of co-pilot control levers, wheels, pedals and pedal guard plates that are designed for rapid removal and replacement, on other than transport category aircraft;
- (21) opening and closing of non-structural access panels;
- (22) removal and replacement of cabin doors on unpressurized aircraft, where the door is designed for rapid removal and replacement;
- (23) removal, replacement and repositioning of non structural partitions in the passenger cabin;
- (24) inspection and continuity checking of self-sealing chip detectors;
- (25) removal and replacement of induction system anti-icing baffles, scoops and deflectors that are designed for rapid removal and replacement;
- (26) removal, cleaning, replacement and adjustment of external components of chemical dispersal systems that are designed for rapid removal and replacement;
- (27) deactivating or securing inoperative systems which may be included in an approved MEL, including the installation of devices specifically intended for system deactivation, where the work does not involve disassembly, the installation of parts, or testing other than operational checks;
- (28) checking and adjusting air pressure in helicopter floats, and aircraft tires having an operating pressure below 100 psi.
- (29) repetitive visual inspections or operational checks (including inspections and tests required by airworthiness directives) not involving disassembly or the use of visual aids, performed out of phase with the aircraft's scheduled check cycle at intervals of less than 100 hours air time, provided the tasks are also included in the most frequent scheduled maintenance check.

Information Notes:

- (i) *An operational check referred to in (27) above constitutes a check to determine if the unit is working. Operational checks do not involve measuring the unit's performance against a predetermined standard. Where the testing procedures require such measurement, replacement of the unit shall not constitute Elementary Work.*
- (ii) *Tasks referred to in (29) above are elementary work when performed out of phase, but require a maintenance release when done as part of a scheduled maintenance check.*

IS: 5.6.1.7 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.

- (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,
 - (ii) Fabric or skin deterioration,
 - (iii) Distortion,
 - (iv) Evidence of failure, and
 - (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, and
 - (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, and
 - (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.
- (9) 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 RECORDING OF MAJOR REPAIRS AND MAJOR MODIFICATIONS

- (a) Each person performing a major repair or major modification 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;
 - (iii) If an aeronautical product, give the manufacturer's name, name of the part, model, and serial numbers (if any); and
 - (4) Include the following or a similarly worded statement—

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)

(AMO Certificate Number) (Facility Name)

(Address)

(c) The following form shall be used to record major alterations and repairs.

MAJOR REPAIR AND MODIFICATION (Airframe, Power-plant, Propeller, or Appliance)					Republic of the Philippines	
					For CAA Use Only	
					Office Identification	
INSTRUCTIONS: Print or type all entries. See CAR Part 5. 5.7.1.1 and IS:5.7.1.1 for instructions and disposition of this form.						
1. Aircraft	Make			Model		
	Serial Number			Nationality and Registration Mark		
2. Owner	Name (As shown on registration certificate)			Address (As shown on registration certificate)		
3. For Authority Use Only						
4. Unit Identification				5. Type		
Unit	Make	Model	Serial Number	Repair	Modification	
Airframe	_____ (As described in item 1 above) _____					
Power-plant						
Propeller						
Appliance	Type					
	Manufacture					
6. Conformity Statement						
A. Organization Name and Address		B. Kind of License/Organization		C. Certificate/License Number		
		<input type="checkbox"/> (For Licensed (AMT) DADP or A/P		an AMO include the appropriate ratings issued for the major repair or modification)		
		<input type="checkbox"/> Approved Maintenance Organization				
		<input type="checkbox"/> Manufacturer				
D. I certify that the repair and/or modification made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in						
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 Director General of the Civil Aviation Authority, and is <input type="checkbox"/> APPROVED or <input type="checkbox"/> REJECTED						
By	<input type="checkbox"/> CAA Inspector		<input type="checkbox"/> Inspection Authorization		Other (Specify)	
	<input type="checkbox"/> Maintenance Organization		<input type="checkbox"/> Other			
Date of Approval or Rejection			Certificate or Designation Number		Signature or Authorized Individual	

CAA MR-MR&M Form (1/2008)

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NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. A modification must be compatible with all previous modifications 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.)

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