



## **Sint Maarten Civil Aviation Authority**

Ministry of Tourism, Economic Affairs,  
Traffic and Telecommunication

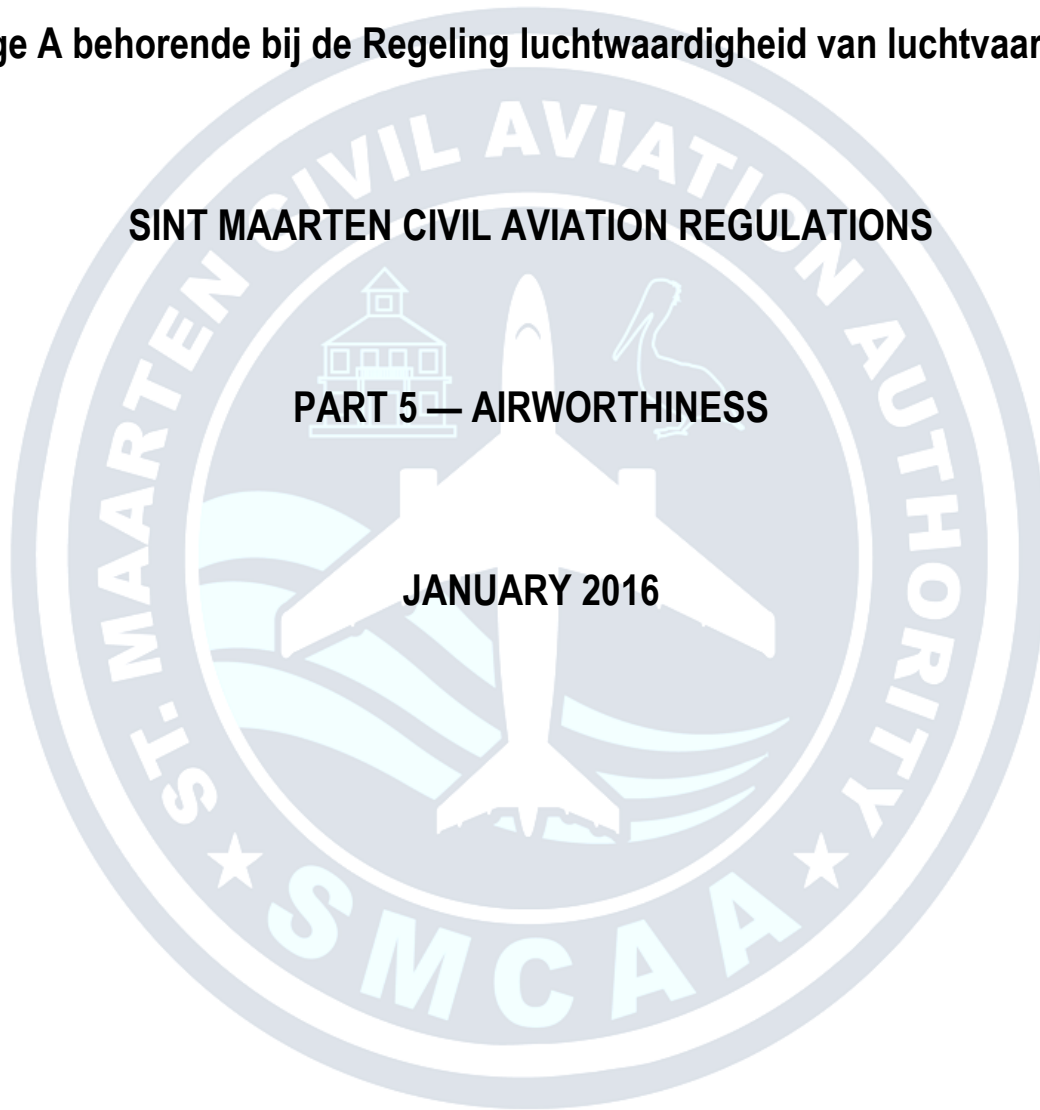
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**Bijlage A behorende bij de Regeling luchtwaardigheid van luchtvaartuigen**

**SINT MAARTEN CIVIL AVIATION REGULATIONS**

**PART 5 — AIRWORTHINESS**

**JANUARY 2016**



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## Part 5 – Airworthiness

### 5.1 GENERAL

*Note: ICAO cross references are to Amendment 103 to Annex 8.*

#### 5.1.1.1 APPLICABILITY

- (a) This regulation prescribes the requirements for—
  - (1) Certification of aircraft and aeronautical products
  - (2) Issuance of Certificates of Airworthiness;
  - (3) Continued airworthiness of aircraft and aeronautical components;
  - (4) Aircraft maintenance and inspection requirements; and
  - (5) Maintenance and inspection records and entries

#### 5.1.1.2 DEFINITIONS

- (a) Definitions are contained in SMCAR Part 1.

#### 5.1.1.3 ABBREVIATIONS

- (a) The following acronyms are used in Part 5:
  - (1) AOC – Air Operator Certificate
  - (2) AMO – Approved Maintenance Organisation
  - (3) AMT – Aviation Maintenance Technician
  - (4) IA – Inspection Authorisation
  - (5) MEL – Minimum Equipment List
  - (6) PIC – Pilot in command
  - (7) STC – Supplemental Type Certificate
  - (8) TSO – Technical Standard Order

## 5.2 CERTIFICATION OF AIRCRAFT AND AERONAUTICAL PRODUCTS

*Note: Part 5 presumes that the Sint Maarten does not presently have the capabilities or demand to issue its own original type certification and will therefore not be the State of Design or State of Manufacture. Therefore the Sint Maarten will either issue its own Certificate of Airworthiness or validate the Certificate of Airworthiness issued by another State in accordance with this part. In either case, the Sint Maarten is responsible for the continuing airworthiness of aircraft on its registry and for ensuring that non-Sint Maarten registered aircraft operated within Sint Maarten are maintained in accordance with continuing airworthiness requirements of the State of Registry. See ICAO Annex 8, Part II, Chapter 4: 4.2 for responsibilities for Contracting States in respect to continuous airworthiness.*

### 5.2.1.1 APPLICABILITY

- (a) This Part applies to operators of aircraft within Sint Maarten;
- (b) No person may operate an aircraft within Sint Maarten, or apply for registration of an aircraft in Sint Maarten, unless that aircraft and the aeronautical products therein have received type certification from the State of Design and production approval from the State of Manufacture by the appropriate regulatory agency of those States in accordance with the requirements of ICAO Annex 8.

### 5.2.1.2 ORIGINAL CERTIFICATION OF AIRCRAFT AND AERONAUTICAL PRODUCTS

- (a) This Section describes the procedures and designation of applicable rules for original type certification of aircraft and related aeronautical products.
- (b) This Section is reserved.

### 5.2.1.3 ISSUANCE OF A SUPPLEMENTAL TYPE CERTIFICATE

- (a) Any person who proposes to modify 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 provided that the State of Registry has the technical expertise to evaluate the proposed change in accordance with the type design. The applicant shall apply in accordance with the procedures prescribed by that State.
- (b) Sint Maarten, upon receiving a request for a supplemental type certificate for an aircraft registered in Sint Maarten
  - (1) shall forward the request to the State of Design, or
  - (2) if applicable, issue a supplemental type certificate using the same regulatory and other guidance of the State of Design and State of Manufacture.

*Note: Technical expertise needed by the Authority in order to approve an STC includes aeronautical engineers with specific expertise in the field to be approved.*

*Note: If the State of Registry is not the State of Design, the State of Registry may elect to forward a request for a supplemental type certificate to the State of Design.*

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## 5.3 ISSUANCE OF CERTIFICATES OF AIRWORTHINESS

### 5.3.1.1 APPLICABILITY

- (a) This Subpart prescribes procedures required for the issue of airworthiness certificates and other certifications for aeronautical products registered in Sint Maarten.
- (b) The Sint Maarten shall issue a certificate of airworthiness for aircraft registered in Sint Maarten based on satisfactory evidence that the aircraft complies with the design aspects of the appropriate airworthiness requirements (type certificate).

### 5.3.1.2 ELIGIBILITY

- (a) Any registered owner of Sint Maarten registered aircraft, or agent of the owner, may apply for an airworthiness certificate for that aircraft.
- (b) Each applicant for an airworthiness certificate shall apply in a form and manner acceptable to the Authority.

### 5.3.1.3 AIRCRAFT IDENTIFICATION

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

### 5.3.1.4 CLASSIFICATIONS OF AIRWORTHINESS CERTIFICATES

- (a) A standard Certificate of Airworthiness will be issued for aircraft in the specific category and model designated by the State of Design in the type certificate. The types of standard certificates of airworthiness include —
  - (1) Normal;
  - (2) Utility;
  - (3) Acrobatic;
  - (4) Transport;
  - (5) Commuter;
  - (6) Balloon;
  - (7) Other
- (b) A Special Airworthiness Certificate will be issued for aircraft that do not meet the requirements of the State of Design for a standard airworthiness certificate. The types of special airworthiness certificates include—
  - (1) Primary;
  - (2) Restricted;
  - (3) Limited;
  - (4) Provisional
  - (5) Experimental
  - (6) Special flight permits;

- (7) Other.

#### 5.3.1.5 ISSUANCE OF A STANDARD AIRWORTHINESS CERTIFICATE

- (a) The Authority will issue a standard certificate of airworthiness if—
- (1) The applicant presents evidence to the Authority that the aircraft conforms to a type design approved under a type certificate or a supplemental type certificate and to the applicable Airworthiness Directives of the State of Design;
  - (2) The aircraft has been inspected in accordance with the performance rules of section 5.6 of this regulation for inspections and found airworthy by persons authorised 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, when issuing its Certificate of Airworthiness, may consider the previous Certificate of Airworthiness issued by another Contracting State, as satisfactory evidence, in whole or in part, that the aircraft complies with the applicable requirements of this Part

*Note: Some Contracting States facilitate the transfer of aircraft onto the register of another State by the issuance of an “Export Certificate of Airworthiness” or similarly titled document. While not valid for the purpose of flight, such a document provides confirmation by the exporting State of a recent satisfactory review of the airworthiness status of the aircraft. Guidance on the issue of an “Export Certificate of Airworthiness” is contained in ICAO Doc 9760, Airworthiness Manual.*

- (c) The Standard Airworthiness Certificate shall contain the information in IS: 5.3.1.5
- (d) The Standard Airworthiness Certificate shall be issued in the language of Sint Maarten and shall include an English translation.

#### 5.3.1.6 ISSUANCE OF SPECIAL AIRWORTHINESS CERTIFICATES

- (a) The Authority may issue a Special Airworthiness Certificate to an aircraft that does not qualify for a Standard Certificate of Airworthiness.
- (b) The Authority, when issuing its Special Airworthiness Certificate, may consider the previous Special Airworthiness Certificate, issued by another Contracting State, as satisfactory evidence, in whole or in part, for the issuance of a Special Airworthiness Certificate.
- (c) Aircraft holding Special Airworthiness Certificates shall be subject to operating limitations within Sint Maarten and may not make international flights except as specified in (d) below. The Authority shall issue specific operating limitations for each Special Airworthiness Certificate.
- (d) The Special Airworthiness Certificate shall contain the information in IS: 5.3.1.6.
- (e) No person may operate an aircraft with a special airworthiness certificate
- (1) except in accordance with the applicable MCAR and in accordance with conditions and limitations which may be prescribed by the Authority as part of this certificate, or
  - (2) over any foreign country without the permission of that country

#### 5.3.1.7 ISSUANCE OF SPECIAL FLIGHT PERMITS AS SPECIAL AIRWORTHINESS CERTIFICATES

- (a) The Authority may issue a Special Flight Permit, using the certificate as specified in IS: 5.3.1.7, to an aircraft that is capable of safe flight, but unable to meet applicable airworthiness requirements, for the purpose of—



- (1) Flying to a base where repairs, modifications, maintenance, or inspections are to be performed, or to a point of storage;
  - (2) Testing after repairs, modifications, or maintenance have been performed;
  - (3) Delivering or exporting the aircraft;
  - (4) Evacuating aircraft from areas of impending danger; and
  - (5) Operating at weight in excess of the aircraft's maximum Certified Takeoff Weight for flight beyond normal range over water or land areas where adequate landing facilities or appropriate fuel is not available. The excess weight is limited to additional fuel, fuel-carrying facilities, and navigation equipment necessary for the flight.
- (b) The Authority may issue a special flight permit with continuing authorisation issued to an aircraft that may not meet applicable airworthiness requirements but are capable of safe flight, for the purpose of flying aircraft to a base where maintenance or modifications are to be performed. The permit issued under this paragraph is an authorisation, including conditions and limitations for flight, which is set forth in the AOC Holder's specific operating provisions. This permit under this paragraph may be issued to an AOC Holder certificated under SMCAR Part 9.
- (c) In the case of Special Flight Permits, the Authority shall require a properly executed maintenance endorsement in the aircraft permanent record by a person or organisation, authorised in accordance to SMCAR Part 5, stating that the subject aircraft has been inspected and found to be safe for the intended flight.
- (d) The operator shall obtain all required overflight authorisations from countries to be overflown on flights outside Sint Maarten.

#### 5.3.1.8 DURATION OF CERTIFICATES OF AIRWORTHINESS

- (a) A certificate of airworthiness or special airworthiness certificate is effective as follows unless sooner surrendered, suspended or revoked, or a special termination date is otherwise established by the Authority—
- (1) A Certificate of Airworthiness shall be renewed or shall remain in effect, subject to the laws of Sint Maarten Registry,
    - (i) as long as the aircraft is maintained in accordance with the continuing airworthiness requirements of the State of Registry;
    - (ii) until sold to a person outside of Sint Maarten;
    - (iii) until the aircraft is leased for operations, registered in another country, and is removed from the registry of Sint Maarten, or
    - (iv) revoked by the State of Registry.
  - (2) A special airworthiness certificate, such as a special flight permit, is valid for the period of time specified in the permit.
- (b) The continuing airworthiness of the aircraft shall be determined by a periodical inspection at appropriate intervals having regard to lapse of time and type of service.
- (c) Failure to maintain an aircraft in an airworthy condition, as defined by the appropriate airworthiness requirements of the State of Registry, shall render the aircraft ineligible for operations until the aircraft is restored to an airworthy condition.

**5.3.1.9 COOPERATION AMONG STATES FOR CONTINUING AIRWORTHINESS INFORMATION, INCLUDING AIRWORTHINESS DIRECTIVES**

- (a) Upon registration of an aircraft in Sint Maarten, the Authority will notify the State of Design of the aircraft of the registration in Sint Maarten, and request that the Authority receives any and all airworthiness directives addressing that aircraft, airframe, aircraft engine, propeller, appliance, or component part and any requirements for the establishment of specific continuing airworthiness programs.
- (b) Whenever the State of Design considers that a condition in an aircraft, airframe, aircraft engine, propeller, appliance, or component part is unsafe as shown by the issuance of an airworthiness directive by that State, the Authority will make the requirements of such directives apply to Sint Maarten 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, for mandatory compliance pertaining to affected aircraft in Sint Maarten.
- (d) No person may operate any Sint Maarten registered civil aircraft to which the measures of this subsection apply, except in accordance with the applicable airworthiness directives and service bulletins.

**5.3.1.10 AMENDMENT OF AIRWORTHINESS CERTIFICATE**

- (a) The Authority may amend or modify a Certificate of Airworthiness or a special airworthiness certificate
  - (1) Upon application from an owner or operator
  - (2) On its own initiative
- (b) Amendment may be made under the following conditions:
  - (1) Modification; (STC or amended TC)
  - (2) A change to the authority and basis for issue;
  - (3) A change in the aircraft model
  - (4) A change in the operating limitations for an aircraft with a special airworthiness certificate

**5.3.1.11 TRANSFER OR SURRENDER OF A CERTIFICATE OF AIRWORTHINESS**

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

**5.3.1.12 COMMERCIAL AIR TRANSPORT**

- (a) The Authority will consider an airworthiness certificate valid for commercial air transport only when accompanied by operations specifications issued by the Authority which identifies the specific types of commercial air transport authorised.

**5.3.1.13 DISPLAY OF CERTIFICATE OF AIRWORTHINESS**

- (a) No person may operate a civil aircraft in Sint Maarten or registered in Sint Maarten unless the Certificate of Airworthiness required by this subpart, or a special flight permit, is displayed at the cabin or cockpit entrance so that it is legible to the passengers or crew.

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## 5.4 CONTINUED AIRWORTHINESS OF AIRCRAFT AND AERONAUTICAL COMPONENTS

### 5.4.1.1 APPLICABILITY

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

### 5.4.1.2 GENERAL

- (a) No person may perform maintenance, preventive maintenance, 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 operations specifications approved under part 9, or in accordance with the inspection program approved under Part 8 have been complied with.
- (c) No person may operate an aircraft, aeronautical product, or accessory to which an Airworthiness Directive applies, issued either by the State of Design, or State of Manufacture and adopted for Sint Maarten-registered aircraft by the Authority, or by the State of Registry for aircraft operated within Sint Maarten, except in accordance with the requirements of that Airworthiness Directive.
- (d) When the Authority determines that an airframe or aeronautical product has exhibited an unsafe condition and that condition is likely to exist or to develop in other products of the same type design, the Authority may issue an Airworthiness Directive prescribing inspections and the conditions and limitations, if any, under which those products may continue to be operated.
- (e) The Authority shall report any airworthiness directives or continuing additional airworthiness requirements that it issues or any malfunction or defect reports to the State of Design.

### 5.4.1.3 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) Maintenance personnel make appropriate entries in the aircraft maintenance records certifying that the aircraft is airworthy;
  - (3) The approval for return to service (maintenance release) is completed to the effect that the maintenance work performed has been completed satisfactorily and in accordance with the prescribed methods; and
  - (4) In the event there are open discrepancies, the maintenance release includes a list of the uncorrected maintenance items for which temporary relief of provided in the MEL and these items are made a part of the aircraft permanent record.

- (b) The owner or operator of an aeroplane over 5,700 kg maximum certificated take-off mass shall obtain and assess continuing airworthiness information and recommendations available from the organisation responsible for the type design and shall implement resulting actions considered necessary in accordance with a procedure acceptable to the Authority.

#### 5.4.1.4 MAINTENANCE AND OPERATIONAL EXPERIENCE

- (a) The owner or operator of an aeroplane over 5,700 kg maximum certificated take-off mass shall monitor and assess maintenance and operational experience with respect to continuing airworthiness and have a system whereby information on faults, malfunctions, defects and other occurrences that cause or might cause adverse effects on the continuing airworthiness of the aircraft is transmitted to the organisation responsible for the type design of the aircraft.
- (b) The owner or operator and maintenance organisations shall report to the Authority in respect of aeroplanes over 5,700 kg and helicopters over 3,175 kg maximum certificated take-off mass the service information required by the authority according to the procedure, established by the Authority.
- (c) The owner or operator and maintenance organisations shall transmit to the organisation responsible for the type design of aircraft respect of aeroplanes over 5,700 kg and helicopters over 3,175 kg maximum certificated take-off mass information on faults, malfunction, defects and other occurrences that cause or might cause adverse effect on the continuing airworthiness of the aircraft.

#### 5.4.1.5 REPORTING OF FAILURES, MALFUNCTIONS, AND DEFECTS

- (a) Owners or operators of aircraft over 5,700 kg maximum take-off weight shall report to the Authority any failures, malfunctions, or defects that result in at least the following—
  - (1) Fires during flight and whether the related fire-warning system properly operated;
  - (2) Fires during flight not protected by a related fire-warning system;
  - (3) False fire warning during flight;
  - (4) An engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components;
  - (5) An aircraft component that causes accumulation or circulation of smoke, vapour, or toxic or noxious fumes in the crew compartment or passenger cabin during flight;
  - (6) Engine shutdown during flight because of flameout;
  - (7) Engine shutdown during flight when external damage to the engine or aircraft structure occurs;
  - (8) Engine shutdown during flight due to foreign object ingestion or icing;
  - (9) Shutdown during flight of more than one engine;
  - (10) A propeller feathering malfunction or inability of the system to control overspeed during flight;
  - (11) A fuel or fuel-dumping system failure that affects fuel flow or causes hazardous leakage during flight;
  - (12) An unintended landing gear extension or retraction, or opening or closing of landing gear doors during flight;

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- (13) Brake system components failure that result in loss of brake actuating force when the aircraft is in motion on the ground;
  - (14) Aircraft structure that requires major repair;
  - (15) Cracks, permanent deformation, or corrosion of aircraft structure, if more than the maximum acceptable to the manufacturer or the Authority;
  - (16) Aircraft components or systems malfunctions that result in taking emergency actions during flight (except action to shut down an engine);
  - (17) Each interruption to a flight, unscheduled change of aircraft en route, or unscheduled stop or diversion from a route, caused by known or suspected technical difficulties or malfunctions;
  - (18) Any abnormal vibration or buffeting caused by a structural or system malfunction, defect, or failure; and
  - (19) A failure or malfunction of more than one attitude, airspeed, or altitude instrument during a given operation of the aircraft
- (b) Owners or operators of aircraft over 5,700 kg maximum take-off weight shall report to the Authority—
- (1) The number of engines removed prematurely because of malfunction, failure or defect, listed by make and model and the aircraft type in which it was installed; and
  - (2) The number of propeller featherings in flight, listed by type of propeller and engine and aircraft on which it was installed.
    - (i) Each report required by this Subsection shall—
    - (ii) Be made within 3 days after determining that the failure, malfunction, or defect required to be reported has occurred; and
    - (iii) Include as much of the following information as is available and applicable—
    - (iv) Aircraft serial number;
    - (v) When the failure, malfunction, or defect is associated with an article approved under a TSO authorisation, the article serial number and model designation, as appropriate;
    - (vi) When the failure, malfunction or defect is associated with an engine or propeller, the engine or propeller serial number, as appropriate;
    - (vii) Product model;
    - (viii) Identification of the part, component, or system involved, including the part number; and
    - (ix) Nature of the failure, malfunction, or defect
- (c) The Authority, if it is the Authority of the State of Registry of the aircraft, will submit all such reports upon receipt to the State of Design.
- (d) The Authority, if it is not the Authority of the State of Registry of the aircraft, will submit all such reports upon receipt to the State of Registry.

*Note: If the State of Design and the State of Manufacture are different countries, ICAO Annex 8, Part 2, Chapter 4: 4.2.1.1(d) requires the State of Design and the State of Manufacture to have a mutual*

*arrangement for the transmission of continuing airworthiness information for appropriate action on the part of each country.*

## **5.5 AIRCRAFT MAINTENANCE AND INSPECTION REQUIREMENTS**

### **5.5.1.1 APPLICABILITY**

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

### **5.5.1.2 GENERAL REQUIREMENTS FOR MAINTENANCE AND INSPECTIONS**

- (a) No person may operate an aircraft unless the aircraft and its components are maintained in accordance with a maintenance program and the aircraft is inspected according to an inspection program approved by the Authority.
- (b) The maintenance program shall include a description of the aircraft and components and recommended methods for the accomplishment of maintenance tasks. Such information shall include guidance on defect diagnosis.
- (c) The maintenance program shall include the maintenance tasks and the recommended intervals at which these tasks are to be performed.
- (d) Maintenance tasks and frequencies that have been specified as mandatory by the State of Design in approval of the type design shall be identified in the maintenance program.
- (e) The maintenance program shall have a maintenance release process, including signed documentation, in a manner satisfactory to the Authority, indicating that the maintenance performed has been completed satisfactorily. A maintenance release shall contain a certification including—
  - (1) Basic details of the maintenance carried out;
  - (2) Date such maintenance was completed;
  - (3) When applicable, the identity of the approved maintenance organisation, AMT, or AOC holder; and
  - (4) The identity of the person or persons signing the release
- (f) The owner or operator shall use one of the following inspection programs as appropriate for the aircraft and the type operation.
  - (1) Annual inspection,
  - (2) Annual/100 hour inspections,
  - (3) Progressive, or
  - (4) Continuous airworthiness maintenance program

*Note: Mandatory requirements identified as part of the type design approval are often referred to as Certification Maintenance Requirements (CMR) and/or airworthiness limitations.*

**5.5.1.3 PERSONS AUTHORISED TO PERFORM MAINTENANCE, PREVENTIVE MAINTENANCE, REBUILDING AND MODIFICATIONS**

- (a) No person may perform any task defined as maintenance on an aircraft or aeronautical products, except as provided in the following—
- (1) A pilot licensed by the Authority may perform preventive maintenance on any aircraft owned or operated by that pilot so long as the aircraft is not listed for use by an AOC holder.
  - (2) A person working under the supervision of an aviation maintenance technician, may perform the maintenance, preventive maintenance, rebuilding and modifications that the supervisory aviation maintenance technician is authorised 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 of these regulations.
  - (4) An AMO may perform aircraft maintenance within the limits specified by the Authority.
  - (5) The AOC holder may perform aircraft maintenance as specified by the Authority.
  - (6) A manufacturer holding an AMO may—
    - (i) Rebuild or modify any aeronautical product manufactured by that manufacturer under a type or production certificate;
    - (ii) Rebuild or modify any aeronautical product manufactured by that manufacturer under a TSO Authorisation, a Parts Manufacturer Approval by the State of Design, or Product and Process Specification issued by the State of Design; and
    - (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.

**5.5.1.4 AUTHORISED 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 authorised preventive maintenance.
  - (2) A licensed aviation maintenance technician may approve aircraft and aeronautical products for return to service after he or she has performed, supervised, or inspected its maintenance subject to the limitation of Part 2, Section 2.4.4 of these regulations.
  - (3) An AMO may approve aircraft and aeronautical products for return to service as provided in the operations specifications approved by the Authority.
  - (4) An AOC holder may approve aircraft and aeronautical products for return to service as specified by the Authority.



**5.5.1.5 PERSONS AUTHORISED TO PERFORM INSPECTIONS**

- (a) No person, other than the Authority, may perform the inspections required by 8.2.1.7 for aircraft and aeronautical products prior to or after it has undergone maintenance, preventive maintenance, rebuilding, or 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.
  - (2) An AMO may perform the required inspections of aircraft and aeronautical products as provided in the operations specifications approved by the Authority.
  - (3) An AOC holder may perform the required inspections of aircraft and aeronautical products in accordance with specifications issued by the Authority.

**5.5.1.6 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, rebuilding 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 modified condition with regard to aerodynamic function, structural strength, resistance to vibration and deterioration, and other qualities affecting airworthiness.
- (d) The methods, techniques, and practices contained in an AOC holder's maintenance control manual and continuous maintenance program, as approved by the Authority, will constitute an acceptable means of compliance with the requirements of this subsection.

**5.5.1.7 PERFORMANCE RULES: INSPECTIONS**

- (a) General. Each person performing an inspection required by the Authority shall perform the inspection so as to determine whether the aircraft, or portion(s) thereof under inspection, meets all applicable airworthiness requirements; and
- (b) Rotorcraft. Each person performing an inspection required on a rotorcraft shall inspect the following systems in accordance with the maintenance manual or Instructions for Continued Airworthiness of the manufacturer concerned—
  - (1) The drive shafts or similar systems,
  - (2) The main rotor transmission gear box for obvious defects,
  - (3) The main rotor and centre section (or the equivalent area), and
  - (4) The auxiliary rotor on helicopters

- 
- (c) Annual and 100-hour inspections
- (1) Each person performing an annual or 100-hour inspection shall use a checklist while performing the inspection. The checklist may be of the person's own design, one provided by the manufacturer of the equipment being inspected, or one obtained from another source. This checklist shall include the scope and detail of the items prescribed by the Authority. See IS: 5.6.1.7 for components to be included in an annual or 100-hour inspection.
  - (2) Each person approving a piston-engine 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 aircraft for return to service after an annual or 100-hour inspection shall, before that approval, run the aircraft engine or engines to determine satisfactory performance in accordance with the current manufacturer's recommendations.
- (d) Progressive inspections
- (1) Each person performing a progressive inspection shall, at the start of a progressive inspection shall, at the start of a progressive inspection system, inspect the aircraft completely. After this initial inspection, routine and detailed inspections must be conducted as prescribed in the progressive inspection schedule. Routine inspections consist of visual examination or check of the appliances the aircraft and its components and systems, insofar as practicable without disassembly. Detailed inspections consist of a thorough examination of the appliances, the aircraft, and its components and systems, with such disassembly as is necessary. For the purposes of this subparagraph, the overhaul of a component or system is considered to be a detailed inspection.
  - (2) If the aircraft is away from the station where inspections are normally conducted, an appropriately rated AMT, an AMO or the manufacturer of the aircraft may perform inspections in accordance with the procedures and using the forms of the person who would otherwise perform the inspection.
- (e) Continuous airworthiness maintenance program inspections
- (1) Each person performing the inspection program required for an AOC holder's aircraft or aircraft maintained under a continuous airworthiness maintenance program, shall perform the inspection in accordance with the instructions and procedures set forth in the inspection program.

#### 5.5.1.8 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 MAINTENANCE AND INSPECTION RECORDS AND ENTRIES

### 5.6.1.1 CONTENT, FORM, AND DISPOSITION OF RECORDS FOR MAINTENANCE, PREVENTIVE MAINTENANCE, REBUILDING, AND MODIFICATION OF AIRCRAFT AND LIFE LIMITED PARTS

- (a) Each person who maintains, performs preventive maintenance, rebuilds, or modify an aircraft or life limited parts shall, when the work is performed satisfactorily, make an entry in the maintenance record of that equipment as follows—
- (1) A description (or reference to data acceptable to the Authority) of work performed, including-
    - (i) The total time in services (hours, calendar time and cycles, as appropriate) of the aircraft and all life-limited components;
    - (ii) The current status of compliance with all mandatory continuing airworthiness information;
    - (iii) Appropriate details of modifications and repairs;
    - (iv) Time in service (hours, calendar time and cycles, as appropriate) since last overhaul of the aircraft or its components subject to a mandatory overhaul life;
    - (v) The current status of the aircraft's compliance with the maintenance program; and the detailed maintenance records to show that all requirements for signing of a maintenance release have been met.
  - (2) Completion date of the work performed;
  - (3) Name, signature, certificate number, and kind of licence held by the person approving the work

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

- (b) In addition to the entry required by paragraph (a), major repairs and modifications shall be entered on a form, and the form disposed of, in the manner prescribed in IS: 5.7.1.1, by the person performing the work.

### 5.6.1.2 CONTENT, FORM AND DISPOSITION OF RECORDS FOR MAINTENANCE, PREVENTIVE MAINTENANCE, OVERHAUL, MODIFICATION AND REBUILDING OF A PRODUCT

- (a) No person shall approve for return to service any aeronautical product that has undergone maintenance, preventive maintenance, overhaul modification or rebuilding of a product unless—
- (1) The appropriate maintenance record entry has been made;
  - (2) The repair or modification form authorised 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.
- (b) Additional entries for overhaul and rebuilding.
- (1) No person shall describe in any required maintenance entry or form, an aeronautical product as being overhauled or rebuilt unless—

- (i) It has been disassembled, cleaned, inspected as permitted, repaired as necessary, and reassembled using methods, techniques, and practices acceptable to the Authority; and
  - (ii) It has been tested in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Authority, which have been developed and documented by the holder of the type certificate, supplemental type certificate, or a material, part, process, or appliance manufacturing approval.
- (2) No person shall describe in any required maintenance entry or form an aircraft or other aeronautical product as being rebuilt unless it has been disassembled, cleaned, inspected as permitted, repaired as necessary, reassembled, and tested to the same tolerances and limits as a new item, using either new parts or used parts that conform to new part tolerances and limits.
- (c) If the maintenance, preventive maintenance, overhaul, modification or rebuilding of a product is performed by an AMO, the AMO shall complete an airworthiness approval tag (CAA form) as prescribed in SMCAR Part 6.

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

- (a) Inspection record entries. The person approving or disapproving the return to service of an aeronautical product after any inspection performed in accordance with SMCAR Part 8, shall make an entry in the maintenance record of that equipment containing the following information—
- (1) Type of inspection and a brief description of the extent of the inspection;
  - (2) Date of the inspection and aircraft or component total time in service;
  - (3) Signature, the licence number, and kind of licence held by the person approving or disapproving for return to service the aeronautical product;
  - (4) If the aircraft or component is found to be airworthy and approved for return to service, the following or a similarly worded statement— “I certify that this aircraft/ component has been inspected in accordance with (insert type) inspection and was determined to be in airworthy condition”;
  - (5) If the aircraft or component is not approved for return to service because of needed maintenance, non-compliance with the applicable specifications, airworthiness directives, or other approved data, the following or a similarly worded statement—I certify that this aircraft/component has been inspected in accordance with (insert type) inspection and a list of discrepancies and unairworthy items dated (date) has been provided for the aircraft owner or operator; and
  - (6) If an inspection is conducted under an inspection program provided for in SMCAR 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 SMCAR Part 8 who find 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.

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**SINT MAARTEN CIVIL AVIATION REGULATIONS**

**PART 5 — IMPLEMENTING STANDARDS**

**JANUARY 2016**

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## PART 5 — IMPLEMENTING STANDARDS

### IS: 5.1.1.2 MODIFICATION, REPAIRS AND PREVENTIVE MAINTENANCE

#### IS: 5.1.1.2(A)(8) MAJOR MODIFICATIONS

- (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 manufacturer specifications or type certificate data sheet (TCDS)—
- (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 pressurisation, electrical, hydraulic, de-icing, or exhaust systems.
  - (13) Changes to the wing or to fixed or movable control surfaces which affect flutter and vibration characteristics.
- (b) **Powerplant Major Modifications.** Major powerplant 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 authorised 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 Directives are appliance major modifications. In addition, changes in the basic design of radio communication and navigation equipment approved under type certification or other authorisation that have an effect on frequency stability, noise level, sensitivity, selectivity, distortion, spurious radiation, automatic volume control (AVC) characteristics, or ability to meet environmental test conditions and other changes that have an effect on the performance of the equipment are also major modifications.

### IS: 5.1.1.2(A)(9) MAJOR REPAIRS

- (a) **Airframe Major Repairs.** Repairs to the following parts of an airframe and repairs of the following types, involving the strengthening, reinforcing, splicing, and manufacturing of primary structural members or their replacement, when replacement is by fabrication such as riveting or welding, are airframe major repairs.
- (1) Box beams.
  - (2) Monocoque or semimonocoque wings or control surfaces
  - (3) Wing stringers or chord members
  - (4) Spars.
  - (5) Spar flanges.
  - (6) Members of truss-type beams.
  - (7) Thin sheet webs of beams.
  - (8) Keel and chine members of boat hulls or floats.
  - (9) Corrugated sheet compression members which act as flange material of wings or tail surfaces.
  - (10) Wing main ribs and compression members.
  - (11) Wing or tail surface brace struts.
  - (12) Engine mounts.
  - (13) Fuselage longerons.
  - (14) Members of the side truss, horizontal truss, or bulkheads.
  - (15) Main seat support braces and brackets.
  - (16) Landing gear brace struts.

- (17) Axles.
  - (18) Wheels.
  - (19) Parts of the control system such as control columns, pedals, shafts, brackets, or horns.
  - (20) Repairs involving the substitution of material.
  - (21) The repair of damaged areas in metal or plywood stressed covering exceeding six inches in any direction.
  - (22) The repair of portions of skin sheets by making additional seams.
  - (23) The splicing of skin sheets
  - (24) The repair of three or more adjacent wing or control surface ribs or the leading edge of wings and control surfaces, between such adjacent ribs.
  - (25) Repair of fabric covering involving an area greater than that required to repair two adjacent ribs.
  - (26) Replacement of fabric on fabric covered parts such as wings, fuselages, stabilizers, and control surfaces.
  - (27) Repairing, including rebottoming, of removable or integral fuel tanks and oil tanks.
- (b) **Powerplant Major Repairs.** Repairs of the following parts of an engine and repairs of the following types, are powerplant major repairs—
- (1) Separation or disassembly of a crankcase or crankshaft of a piston engine equipped with an integral supercharger.
  - (2) Separation or disassembly of a crankcase or crankshaft of a piston engine equipped with other than spur-type propeller reduction gearing.
  - (3) Special repairs to structural engine parts by welding, plating, metalising, or other methods.
  - (4) Propeller Major Repairs. Repairs of the following types to a propeller are propeller major repairs—
  - (5) Any repairs to or straightening of steel blades.
  - (6) Repairing or machining of steel hubs.
  - (7) Shortening of blades.
  - (8) Retipping of wood propellers.
  - (9) Replacement of outer laminations on fixed pitch wood propellers.
  - (10) Repairing elongated bolt holes in the hub of fixed pitch wood propellers.
  - (11) Inlay work on wood blades.
  - (12) Repairs to composition blades.
  - (13) Replacement of tip fabric.
  - (14) Replacement of plastic covering.
  - (15) Repair of propeller governors.
  - (16) Overhaul of controllable pitch propellers.
  - (17) Repairs to deep dents, cuts, scars, nicks, etc., and straightening of aluminum blades.

- (18) The repair or replacement of internal elements of blades.
- (c) **Appliance Major Repairs.** Repairs of the following types to appliances are appliance major repairs—
  - (1) Calibration and repair of instruments.
  - (2) Calibration of avionics or computer equipment.
  - (3) Rewinding the field coil of an electrical accessory.
  - (4) Complete disassembly of complex hydraulic power valves.
  - (5) Overhaul of pressure type carburetors, and pressure type fuel, oil, and hydraulic pumps.

### IS: 5.1.1.2(A)(11) PREVENTIVE MAINTENANCE

- (a) **Preventive Maintenance.** Preventive maintenance is limited to the following work, provided it does not involve complex assembly operations.
  - (1) Removal, installation and repair of landing gear tires.
  - (2) Replacing elastic shock absorber cords on landing gear.
  - (3) Servicing landing gear shock struts by adding oil, air, or both.
  - (4) Servicing landing gear wheel bearings, such as cleaning and greasing.
  - (5) Replacing defective safety wiring or cotter keys.
  - (6) Lubrication not requiring disassembly other than removal of non-structural items such as cover plates, cowlings, and fairings.
  - (7) Making simple fabric patches not requiring rib stitching or the removal of structural parts or control surfaces.
  - (8) Replenishing hydraulic fluid in the hydraulic reservoir.
  - (9) Refinishing decorative coating of fuselage, wings, tail group surfaces (excluding balanced control surfaces), fairings, cowling, landing gear, cabin, or cockpit interior when removal or disassembly of any primary structure or operating system is not required.
  - (10) Applying preservative or protective material to components where no disassembly of any primary structure or operating system is involved and where such coating is not prohibited or is not contrary to good practices.
  - (11) Repairing upholstery and decorative furnishings of the cabin or cockpit when the repairing does not require disassembly of any primary structure or operating system or interfere with an operating system or affect primary structure of the aircraft.
  - (12) Making small simple repairs to fairings, non-structural cover plates, cowlings, and small patches and reinforcements not changing the contour so as to interfere with proper airflow.
  - (13) Replacing side windows where that work does not interfere with the structure of any operating system such as controls, electrical equipment, etc.
  - (14) Replacing safety belts.
  - (15) Replacing seats or seat parts with replacement parts approved for the aircraft, not involving disassembly of any primary structure or operating system.
  - (16) Troubleshooting and repairing broken circuits in landing light wiring circuits.

- (17) Replacing bulbs, reflectors, and lenses of position and landing lights.
- (18) Replacing wheels and skis where no weight and balance computation is involved.
- (19) Replacing any cowling not requiring removal of the propeller or disconnection of flight controls.
- (20) Replacing or cleaning spark plugs and setting of spark plug gap clearance.
- (21) Replacing any hose connection except hydraulic connections.
- (22) Replacing prefabricated fuel lines.
- (23) Cleaning fuel and oil strainers.
- (24) Replacing and servicing batteries.
- (25) Replacement or adjustment of non-structural fasteners incidental to operations.
- (26) The installation of anti-misfueling devices to reduce the diameter of fuel tank filler openings provided the specific device has been made a part of the aircraft type certificate data by the aircraft manufacturer, the manufacturer has provided appropriately approved instructions acceptable to the Authority for the installation of the specific device, and installation does not involve the disassembly of the existing filler opening.

### IS: 5.3.1.5 ISSUANCE OR VALIDATION OF A STANDARD CERTIFICATE OF AIRWORTHINESS

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

*	<i>[Sint Maarten]</i>		*
<i>[Sint Maarten Civil Aviation Authority]</i>			
<b>CERTIFICATE OF AIRWORTHINESS</b>			
1. Nationality and registration mark	2. Manufacturer and manufacturer's designation of aircraft	3. Aircraft serial number:	
_____	_____	_____	
_____	_____	_____	
4. Categories and/or operation*** _____			
5. This Certificate of Airworthiness is issued pursuant to the Convention on International Civil Aviation dated 7 December 1944 and † _____ in respect of the above-mentioned aircraft which is considered to be airworthy when maintained and operated in accordance with the foregoing and the pertinent operating limitations.			
Date of issue: _____ [Signature] _____			
6. ***			

\* For use of the State of Registry.

\*\* Manufacturer's designation of aircraft should contain the aircraft type and model.

\*\*\* This space is normally used to indicate the certification basis, i.e., certification code, with which the particular aircraft complies and/or its permitted operational category, e.g., commercial air transportation, aerial work, or private.

\*\*\*\* This space shall be used either for periodic endorsement (giving date of expiry) or for a statement that the aircraft is being maintained under a system of continuous inspection.

**IS: 5.3.1.6 ISSUANCE OF A SPECIAL CERTIFICATE OF AIRWORTHINESS**

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

<b>Sint Maarten</b>		
<b>Sint Maarten Civil Aviation Authority</b>		
<b>SPECIAL AIRWORTHINESS CERTIFICATE</b>		
<b>A</b>	Category/Designation	
	Purpose	
<b>B</b>	Manufacturer	Name
		Address
<b>C</b>	Flight	From
		To
<b>D</b>	Registration No.	Serial No.
	Builder	Model
<b>E</b>	Date of Issuance	Expiry
	Operating limitations date [dd/mm/yyyy] are part of this certificate	
	Signature of CAA Representative	Designation or office number
Any alteration, reproduction, or misuse of this certificate may be punishable as specified in the National Ordinance Aviation and National regulation Civil Aviation Oversight . This certificate must be displayed in the aircraft in accordance with SMCAR 8		
CAA Form No. [ ]	<i>See Reverse Side</i>	

*Front of form*

<b>A</b>	This special airworthiness certificate is issued under the authority of the National Ordinance Aviation and SMCAR Part 5.
<b>B</b>	This special airworthiness certificate authorised the manufacturer named on the reverse side to conduct production flight tests, and only production flight tests, of aircraft registered in his name. No person may conduct production flight tests (1) carrying persons or property for remuneration or hire and/or (2) carrying persons not essential for the purpose of the flight.
<b>C</b>	This special airworthiness certificate authorised the flight specified for the flight listed on the reverse side for the sole purpose shown in Block A.
<b>D</b>	This special airworthiness certifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to meet the requirements of the applicable SMCAR. The aircraft does not meet the requirements of the applicable and comprehensive detailed airworthiness code as provided by Annex 8 of the Convention on International Civil Aviation. No person may operate the aircraft described on the reverse side (1) except in accordance with the applicable SMCAR and in accordance with conditions and limitations which may be prescribed by the Authority as part of this certificate, or (2) over any foreign country without the permission of that country
<b>E</b>	Unless sooner surrendered, suspended or revoked, this special airworthiness certificate is effective for the duration and under the conditions prescribed in the SMCARs..

*Back of form*

### IS: 5.6.1.7 PERFORMANCE RULES: INSPECTIONS

- (a) Each person performing an annual or 100-hour inspection shall, before that inspection, thoroughly clean the aircraft and aircraft engine and remove or open all necessary inspection plates, access doors, fairings, and cowlings.
- (b) Each person performing an annual or 100-hour inspection shall inspect, where applicable, the following components—
  - (1) Fuselage and hull group—
    - (i) Fabric and skin - for deterioration, distortion, other evidence of failure, and defective or insecure attachment of fittings.
    - (ii) Systems and components - for improper installation, apparent defects, and unsatisfactory operation.
    - (iii) The cabin and cockpit group.
    - (iv) Generally - for uncleanness and loose equipment that might foul the controls.
    - (v) Seats and safety belts - for poor condition and apparent defects.
    - (vi) Windows and windshields - for deterioration and breakage.
    - (vii) Instruments - for poor condition, mounting, marking, and (where practicable) for improper operation.
    - (viii) Flight and engine controls - for improper installation and improper operation.

- (ix) Batteries - for improper installation and improper charge.
  - (x) All systems - for improper installation, poor general condition, apparent and obvious defects, and insecurity of attachment.
- (2) Engine and nacelle group—
- (i) Engine section - for visual evidence of excessive oil, fuel, or hydraulic leaks, and sources of such leaks.
  - (ii) Studs and nuts - for improper torquing and obvious defects.
  - (iii) Internal engine - for cylinder compression and for metal particles or foreign matter on screens and sump drain plugs. If there is weak cylinder compression, for improper internal condition and improper internal tolerances.
  - (iv) Engine mount - for cracks, looseness of mounting, and looseness of engine to mount.
  - (v) Flexible vibration dampeners - for poor condition and deterioration.
  - (vi) Engine controls - for defects, improper travel, and improper safetying.
  - (vii) Lines, hoses, and clamps - for leaks, improper condition, and looseness.
  - (viii) Exhaust stacks - for cracks, defects, and improper attachment.
  - (ix) Accessories - for apparent defects in security of mounting.
  - (x) All systems - for improper installation, poor general condition, defects, and insecure attachment.
  - (xi) Cowling - for cracks and defects.
- (3) Landing gear group—
- (i) All units - for poor condition and insecurity of attachment.
  - (ii) Shock absorbing devices - for improper oleo fluid level.
  - (iii) Linkage, trusses, and members - for undue or excessive wear, fatigue, and distortion.
  - (iv) Retracting and locking mechanism - for improper operation.
  - (v) Hydraulic lines - for leakage.
  - (vi) Electrical system - for chafing and improper operation of switches.
  - (vii) Wheels - for cracks, defects, and condition of bearings.
  - (viii) Tires - for wear and cuts.
  - (ix) Brakes - for improper adjustment.
  - (x) Floats and skis - for insecure attachment and obvious or apparent defects.
- (4) Wing and centre section assembly for—
- (i) Poor general condition,
  - (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.
  - (iii) Each installed miscellaneous item that is not otherwise covered by this listing and/or has instructions for continued airworthiness - for improper installation and improper operation.

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

#### **IS: 5.7.1.1(B) RECORDING OF MAJOR REPAIRS AND 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.

*Note: Some CAA's have an electronic system for recording major repairs and modifications. This is written presuming the Sint Maarten will use a hard copy form in duplicate. If an electronic system is used, the items here are recommended for inclusion in the system.*

- (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 authorised 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 organisation.	
Order No. _____	Date _____
Signed _____ <i>(Signature of authorised representative)</i>	
_____ <i>(Facility Name)</i>	_____ <i>(AMO Certificate Number)</i>
_____ <i>(Address)</i>	
_____	

(c) The following sample form may be used to record major modifications and repairs.

<b>MAJOR REPAIR AND MODIFICATION (Airframe, Powerplant, Propeller, or Appliance)</b>					Sint Maarten		
					For CAA Use Only		
					Office Identification		
INSTRUCTIONS: Print or type all entries. See Model Regulation Part 5, 5.7.1.1(b) and IS: 5.7.1.1 for instructions and disposition of this form.							
<b>1. Aircraft</b>	Make			Model			
	Serial Number			Nationality and Registration Mark			
<b>2. Owner</b>	Name (As shown on certificate of registration)			Address (As shown on registration certificate)			
<b>3. For Authority Use Only</b>							
<b>4. Unit Identification</b>					<b>5. Type</b>		
Unit	Make	Model	Serial Number	Repair	Modification		
<b>Airframe</b>	(As described in item 1 above)						
<b>Powerplant</b>							
<b>Propeller</b>							
<b>Appliance</b>	Type						
	Manufacture						
<b>6. Conformity Statement</b>							
A. Organisation Name and Address		B. Kind of Licence/Organisation		C. Certificate/Licence Number			
		<input type="checkbox"/> Licensed (AMT) <input type="checkbox"/> A <input type="checkbox"/> P or <input type="checkbox"/> A/P <input type="checkbox"/> Approved Maintenance Organisation <input type="checkbox"/> Manufacturer AMO		(For an AMO include the appropriate ratings issued for the major repair or modification)			
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 accordance with the requirements of Part 5 of the Model Regulations and that the information furnished herein is true and correct to the best of my knowledge.							
Date			Signature of Authorised Individual				
<b>7. Approval for Return To Service</b>							
Pursuant to the authority given persons specified below, the unit(s) identified in item 4 was inspected in the manner prescribed by the Director of the Civil Aviation Authority and is <input type="checkbox"/> APPROVED <input type="checkbox"/> REJECTED							
BY	<input type="checkbox"/> CAA Inspector	<input type="checkbox"/> Inspection Authorisation		Other (Specify)			
	<input type="checkbox"/> Maintenance Organisation	<input type="checkbox"/> Other					
Date of Approval or Rejection		Certificate or Designation Number		Signature or Authorised Individual			

**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.)

**Instructions For Completion Of Major Repair And Modification Form**

**Item 1 – Aircraft.** Information to complete the “make,” “model,” and “serial number” blocks will be found on the aircraft manufacturer’s identification plate. The “Nationality and Registration Mark” is the same as shown on Certificate of Aircraft Registration.

**Item 2 – Owner.** Enter the aircraft owner’s complete name and address as show on the Certificate of Aircraft Registration.

*Note: When a major repair or modification is made to a spare part or appliance, items 1 and 2 will be left blank, and the original and duplicate copy of the form will remain with the part until such time as it is installed on an aircraft. The person installing the part will then enter the required information in blocks 1 and 2, give the original of the form to the aircraft owner/operator, and forward the duplicate copy to the Authority within 48 hours after the work is inspected.*

**Item 3 – For Authority Use Only.** Approval may be indicated in Item 3 when the Authority determines that data to be used in performing a major modification or a major repair complies with accepted industry practices and all applicable Sint Maarten regulations. Approval is indicated in one of the following methods:

1. Approval by examination of data only – one aircraft only: “The data identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspection by a person authorised in § 5.6.1.4.
2. Approval by physical inspection, demonstration, testing, etc. of the data and aircraft – one aircraft only” “The modification or repair identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspections by a person in § 5.6.1.4.”
3. Approval by examination of data only – duplication on identical aircraft. “The modification identified herein complies with the applicable airworthiness requirements and is approved for duplication on identical aircraft make, model, and modified configuration by the original modifier.”
4. A signature in item 3, “For Authority Use Only,” indicates approval of the data described in that section for use in accomplishing the work described under item 8, “Description of the Work Accomplished.” This signature does not indicate CAA approval of the work described under item 8 for return to service.

**Item 4 – Unit Identification.** The information blocks under item 4 are used to identify the airframe, powerplant, propeller, or appliance repaired or modified. It is only necessary to complete the blocks for the unit repaired or modified.

**Item 5 – Type.** Enter a checkmark in the appropriate column to indicate if the unit was repaired or modified.

**Item 6 – Conformity Statement**

“A” – Agency’s Name and Address. Enter name of the AMT, AMO or manufacturer accomplishing the repair or modification. AMTs should enter their name and permanent mailing address. Manufacturers and AMOs should enter the name and address under which they do business.

“B” – Kind of Licence/Organisation. Check the appropriate box to indicate the type of person or organisation who performed the work.

“C” – Certificate/Licence Number. AMT’s should enter their AMT licence number in this block. AMO’s should enter their AMO certificate number and the rating or ratings under which the work was performed. Manufacturers should enter their type production or Supplemental Type Certificate (STC) number. Manufacturers of Technical Standard Orders (TSO) appliances modifying these appliances should enter the TSO number of the appliance modified.

“D” – Compliance Statement. This space is used to certify that the repair or modification was made in accordance with [Part 5 of these regulations]. When work was performed or supervised by licensed AMT’s not employed by a manufacturer or AMO, they should enter the date the repair or modification

was completed and sign their full name. AMO's are permitted to authorise persons in their employ to date and sign this conformity statement.

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

**Item 7 – Approval for Return to Service.** SMCAR Part 5 establishes the conditions under which major repairs and modifications to airframes, powerplants, propellers, and/or appliances may be approved for return to service. This portion of the form is used to indicate approval or rejection of the repair or modification of the unit involved and to identify the person or agency making the airworthiness inspection. Check the "approved" or "rejected" box to indicate the finding. Additionally, check the appropriate box to indicate who made the finding. Use the box labeled "other" to indicate a finding by a person other than those listed. Enter the date the finding was made. The authorised person who made the finding should sign the form and enter the appropriate certificate or designation number.

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

A signature in item 7, "Approval for Return to Service," does not signify CAA approval unless the box to the left of "CAA Inspector" has been checked. The other persons listed in item 7 are authorised to "approve for return to service" if the repair or modification is accomplished using CAA-approved data, performed in accordance with SMCAR Part 5, and found to conform.

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

1. For example, if a repair was made to a buckled spar, the description and entered in this part might begin by stating, "Removed wing from aircraft and removed skin from outer 6 feet. Repaired buckled spar 49 inches from the tip in accordance with ..." and continue with a description of the repair. The description should refer to applicable regulations and approved data used to substantiate the airworthiness of the repair or modification. If the repair or modification is subject to being covered by skin or other structures, statement should be made certifying that a recover inspection was made and that covered areas were found satisfactory.
2. Data used as a basis for the approving major repairs or modifications for return to service shall be approved prior to its use for that purpose and includes: Airworthiness Directives, Advisory Circulars under certain circumstances, TSO parts manufacturing approval, Approved Manufacturer's instructions, kits and service handbooks, type certificates data sheets, and aircraft specifications. Supporting data such as stress analyses, test reports, sketches or photographs should be submitted on the form. These supporting data will be returned to the applicant by the Authority.
3. If additional space is needed to describe the repair or modification, attach sheets bearing the aircraft nationality and registration mark and the date work was completed.
4. Showing weight and balance computations under this item is not required; however, it may be done. In all cases where weight and balance of the aircraft are affected, the changes should be entered in the aircraft weight and balance records with the date, signature, and reference to the work performed on the [CAA MR&A Form] that required the changes.

*Note: CAA MR&M Form is not authorised for use on other than Sint Maarten-registered aircraft. If a foreign civil aviation authority requests the form, as a record of work performed, it may be provided.*