S.I. 2007 No.175

Civil Aviation Act, 2004 (Act 2004-18)

CIVIL AVIATION (AIRWORTHINESS) REGULATIONS, 2007

Arrangement of Regulations

Regulation

PART I

Preliminary

- 1. Citation.
- 2. Interpretation.
- 3. General applicability of these Regulations.

PART II

Aeronautical Product Certification

- 4. General applicability of Part II.
- 5. Application for type certificate.
- 6. Application for production certificate.
- 7. Application for new type certificate.
- 8. Supplemental type certificate.

Regulation

PART III

Airworthiness Certification

- 9. Applicability of Part III.
- 10. Restriction on operations without certificate of airworthiness.
- 11. Requirements for the issue of certificate of airworthiness.
- 12. Issue of special flight permit.
- 13. Amendment of certificate of airworthiness.
- 14. Transfer or surrender of certificate of airworthiness.
- 15. Continued validity of certificate of airworthiness.
- 16. Contents of a certificate of airworthiness.
- 17. Requirement of air operator to maintain records for identification of type design.
- 18. Requirements for continued airworthiness of aircraft and aeronautical products.
- 19. Requirements for aircraft maintenance programme.
- 20. Airworthiness directives procedures.
- 21. Damage to aircraft.
- 22. Reporting of failures, malfunctions and defects.
- 23. Procedures for major modification and major repairs.

Regulation

PART IV

Aircraft Maintenance and Inspection

- 24. Applicability of Part IV.
- 25. Persons authorised to perform maintenance or preventive maintenance.
- 26. Persons authorised to perform inspections.
- 27. Persons authorised to issue certificate of release to service.
- 28. Maintenance performance rules.
- 29. Inspection performance rules.
- 30. Annual and one hundred-hour inspections and use of check-list.
- 31. Issue of certificate of release to service.
- 32. Performance rules, certificate of release to service.

PART V

Maintenance Records and Entries

- 33. Applicability of Part V.
- 34. Content, form, and disposition of maintenance, preventive maintenance, rebuilding, and modification of records.

Regulation

- 35. Records of overhaul and rebuilding.
- 36. Content, form, and disposition of records for inspections.
- 37. Implementing Standards.
- 38. Director may make Standards or amend Standards.
- 39. Transitional provisions.
- 40. Revocation.

S.I. 2007 No.

Civil Aviation Act, 2004 (Act 2004-18)

CIVIL AVIATION (AIRWORTHINESS) REGULATIONS, 2007

The Minister in exercise of the powers conferred on him by section 88 of the *Civil Aviation Act*, makes the following Regulations:

PART I

Preliminary

1. These Regulations may be cited as the *Civil Aviation* Citation. *Airworthiness*) *Regulations*, 2007.

2. In these Regulations,

Interpretation.

"aeronautical product" means any aircraft, aircraft engine, propeller or sub-assembly, appliance, material, part or component to be installed on an aircraft;

"aircraft" means any machine that is capable of deriving support in the atmosphere from reactions of the air, other than a machine designed to derive support in the atmosphere from reactions against the earth's surface of air expelled from the machine and includes a rocket;

"aircraft category" means the classification of aircraft according to specified basic characteristics such as aeroplane, rotorcraft, glider or lighter-than-air aircraft;

"aircraft component" means an assembly, item, or part of an aircraft up to and including a complete power plant and any operational and emergency equipment but does not include an aircraft;

"aircraft type" means all aircraft of the same basic design;

- "airworthy" means an aircraft or aeronautical product is in a fit and safe state for flight and is in conformity with its type design;
- "approved data" means technical aeronautical information approved by the Director;
- "Approved Maintenance Organisation" means a maintenance organisation approved by the Director in accordance with the *Civil Aviation (Approved Maintenance Organisation) Regulations,* 2007 to conduct maintenance on Barbadian aircraft and their associated aeronautical products;

"Barbadian aircraft" means a civil aircraft registered in Barbados;

S.I. 2007 No.

- "certificate of airworthiness" means a document issued by the State of Registry to an aircraft that meets the minimum standards for airworthiness pursuant to the Convention on International Civil Aviation and the appropriate part of the State's national regulations;
- "familiarization training" means training of a general nature whereby a participant gains a general appreciation and familiarity with the subject;
- "inspection" means the examination of an aircraft or aeronautical product to establish conformity with an approved standard;
- "large aircraft" means an aeroplane having a maximum certified takeoff mass of over 5 700 kilogrammes, or a helicopter having a maximum certified take-off mass of over 3 180 kilogrammes;
- "maintenance" means the performance of tasks required to ensure the continuing airworthiness of an aircraft or aeronautical product including any one or combination of overhaul, inspection, replacement, defect rectification and the embodiment of a modification or repair;
- "major modification" means an alteration specified in the Airworthiness Standards;
- "major repair" means a repair specified in the Airworthiness Standards;

6

"modification" means the alteration of an aircraft or aeronautical product in conformity with an approved standard;

"operator" means

- (a) a person, organisation or enterprise, engaged in or offering to engage in, aircraft operations and any person who causes or authorises the operation of aircraft in the capacity of owner, lessee or otherwise, whether with or without the control of the aircraft; and
- (b) any person who is or is deemed to be engaged in the operation of aircraft within the *Civil Aviation Act*, 2004;

Act 2004-18.

- "overhaul" means the restoration of an aircraft or aeronautical product using methods, techniques and practices acceptable to the Director including disassembly, cleaning and inspection as permitted, repair as necessary and re-assembly and testing in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Director, which have been developed and documented by the State of Design, holder of the type certificate, supplemental type certificate and manufacturing approved standard in respect of material, part, process or appliance;
- "preventive maintenance" means the simple or minor preservation operations and replacement of small standard parts not involving complex assembly operations;
- "rebuild" means the restoration of an aircraft or aeronautical product by the manufacturer or an organisation approved by the manufacturer, and authorised by the State of Registry using methods, techniques and practices acceptable to the Director, when it has been disassembled, cleaned, inspected as permitted, repaired as necessary, reassembled and tested to the same tolerances and limits as a new item, using either new parts or used parts that conform to new part tolerances and limits;
- "repair" means the restoration of an aircraft or aeronautical product to a serviceable condition in conformity with an approved standard;

- "required inspection items" means the maintenance items and modifications of an aeronautical product that must be inspected by a person other than the person performing the work and includes those that could result in a failure, malfunction or defect endangering the safe operation of the aircraft, if not properly performed or if improper parts or materials are used;
- "small aircraft" means an aeroplane of maximum certified take-off mass of 5 700 kilogrammes or less or a helicopter of maximum certified take-off mass of 3 180 kilogrammes or less;
- "State of Design" means the Contracting State which approved
 - (a) the original type certificate and any subsequent supplemental type certificates for an aircraft; or
 - (b) the design of an aeronautical product;
- "State of Manufacture" means the Contracting State under whose authority an aircraft was assembled, approved for compliance with the type certificate and all existing supplemental type certificates, test flown and approved for operation;
- "State of Registry" means the Contracting State on whose Register the aircraft is entered;
- "Technical Standard Order" means a minimum performance standard for specified articles, that is materials, parts processes or appliances, used on civil aircraft;
- "Technical Standard Order Authorisation" means a design and production approval issued to the manufacturer of an article which has been found to meet a specific Technical Standard Order;
- "type certificate" means a document issued by the State of Design defining the design of an aircraft type and certifying that this design meets the appropriate airworthiness requirements of that State.

General applicability of these Regulations.

- **3.** (1) These Regulations shall apply to
- (a) all Barbadian aircraft and all aeronautical products to be installed or used on such aircraft; and

- (b) the following airworthiness requirements:
 - (i) certification of Barbadian aircraft and aeronautical products;
 - (ii) issuance of a certificate of airworthiness and other certification for Barbadian aircraft and aeronautical products;
 - (iii) continued airworthiness of aircraft and aeronautical products;
 - (iv) modification and rebuilding of Barbadian aircraft and aeronautical products;
 - (v) maintenance and preventive maintenance of Barbados aircraft and aeronautical products;
 - (vi) inspection requirements of Barbadian aircraft; and
 - (vii) aircraft maintenance and inspection requirements of a national air operator.

(2) The provisions of Part I of the Civil Aviation (General S.I. 2007 Application and Personnel Licensing) Regulations, 2007 with No. respect to the surrender, suspension or revocation of aviation documents apply to certificates, authorisations and ratings issued under these Regulations.

PART II

Aeronautical Product Certification

4. This Part prescribes the requirements for the issue of a type General certificate, production certificate and supplemental type certificate. applicability of Part II.

5. (1) Where a person wishes an aeronautical product design Application to be approved for safety and airworthiness standards in Barbados, for type certificate. he shall apply to the Director for a type certificate in respect of the aeronautical product.

- (2) An application referred to in paragraph (1), shall
- (a) be accompanied by the prescribed fee; and
- (b) meet the requirements of the Act or Regulations made thereunder.

6. (1) A person shall not manufacture an aeronautical product without the approval of the Director.

(2) A person wishing to manufacture an aeronautical product in Barbados shall

- (a) apply to the Director in the prescribed form;
- (b) pay the prescribed fee; and

Application for

production certificate.

(c) meet the requirements of these Regulations.

(3) Where the Director is satisfied that an applicant meets the requirements of these Regulations to manufacture an aeronautical product in Barbados in a controlled manner, including the use of a quality system so that construction and assembly are satisfactory, the Director shall issue a production certificate.

(4) A person who applies in paragraph (2), for a production certificate shall comply with the type certificate as required by the State of Design.

Application for new type certificate **7.** A person who wishes to alter an aeronautical product by introducing a major change in type design and who will therefore have to apply for a new type certificate, shall

- (a) apply to the Director for approval to implement such alteration;
- (b) pay the prescribed fee; and
- (c) meet the requirements of the these Regulations.

8. A person who wishes to alter an aeronautical product by supplemenintroducing a major change in type design, and such alteration is not enough tal type to require an application for a new type certificate under regulation 7, shall

- (a) apply to the Director for approval to implement such alteration;
- (b) pay the prescribed fee;
- (c) provide the Director with the supplemental type certificate obtained from the Civil Aviation Authority of the State of Design that approved the original type certificate for that aeronautical product; and
- (d) provide the Director with the procedure to be used for the implementation of such alteration.

PART III

Airworthiness Certification

9. This Part prescribes the requirements for the issue of Applicability a certificate of airworthiness and a special flight permit for Barbados of Part III. aircraft.

10. (1) The operator of a Barbadian aircraft shall not operate the Restriction aircraft in civil aircraft operations unless the Director has issued a without of without certificate of airworthiness in respect of the aircraft certifying that the certificate of aircraft is airworthy.

airworthiness

(2) The operator of a Barbadian aircraft, who wishes the aircraft to be certified as airworthy shall

- (a) apply to the Director in the prescribed form;
- (b) pay the prescribed fee; and

(c) satisfy the airworthiness requirements of these Regulations.

Requirements for the issue of certificate of airworthiness.

11. (1) The Director may issue a certificate of airworthiness in respect of a Barbadian aircraft where

- (a) the applicant presents evidence to the Director that the aircraft conforms to a type design approved under a type certificate and an applicable supplemental type certificate of a State of Design identified in paragraph (e);
- (b) all applicable airworthiness directives and maintenance requirements have been completed and the aircraft and its records have been inspected within the last 30 days, in accordance with these Regulations, and found to be airworthy by persons authorised by the Director to make such determinations;
- (c) he is satisfied, after an inspection of the Barbadian aircraft, that the aircraft conforms to the type design and is in a condition for safe operation;
- (d) the aircraft has been flight tested as required; and
- (e) the aircraft meets the acceptable and equivalent type design standards of the established international airworthiness codes set out in the Airworthiness Standards.

(2) Where a Barbadian aircraft is known to or is suspected of having dangerous features, the aircraft shall not be issued a certificate of airworthiness.

(3) Prior to the issue of a certificate of airworthiness the owner of an aircraft shall register the aircraft in Barbados in accordance with the requirements of the *Civil Aviation (Registration and Markings) Regulations, 2007.*

S.I. 2007 No. **12.** (1) The Director may issue a special flight permit to the Issue of operator of a Barbadian aircraft where the aircraft is capable of safe flight but is unable to meet applicable airworthiness requirements for the purpose of

- (a) flying to a base where repairs, modifications, maintenance or inspections are to be performed, or to a point of storage;
- (b) flight testing where required after performing maintenance;
- (c) delivering or exporting the aircraft from Barbados; or
- (d) evacuating aircraft from areas of impending danger.

(2) The Director shall in the interest of safety issue specific operating limitations for each special flight permit issued under paragraph (1).

(3) The Director shall require the operator of a Barbadian aircraft which has been issued a special flight permit referred to in paragraph (1), to conduct maintenance in accordance with the aircraft maintenance manual.

(4) An operator referred to in paragraph (3) shall ensure that the maintenance required to be conducted is performed by a person or organisation authorised to so conduct such maintenance under the Act or Regulations made thereunder.

(5) A person or organisation conducting maintenance in accordance with paragraphs (3) and (4) shall upon completing such maintenance, record a statement in the aircraft permanent record that the aircraft has been inspected and found to be safe for the intended flight, and the person conducting the inspection shall affix his signature and authority number against the statement.

(6) An operator shall obtain all required overflight authorisations from States to be overflown on flights outside Barbados by an aircraft operating under a special flight permit.

(7) Where a special flight permit is issued in accordance with these Regulations, the operator shall ensure that it is displayed in the aircraft at all times during operations and a copy shall be kept on the ground.

(8) An aircraft in respect of which a special flight permit has been issued under these Regulations shall not carry passengers or property for compensation or hire.

13. The Director may on his own initiative or upon application from the Amendment of certificate operator of a Barbadian aircraft amend or modify a certificate of of airworthiairworthiness of the aircraft.

Transfer or surrender of certificate of airworthiness.

ness.

14. (1) The Director may transfer a certificate of airworthiness to the lessee of a Barbadian aircraft, where the aircraft is leased within Barbados.

(2) An operator shall surrender the certificate of airworthiness for a Barbadian aircraft to the Director upon sale of such aircraft to an operator outside of Barbados.

(3) The Director may issue an export certificate of airworthiness for a Barbadian aircraft which is to be exported from Barbados.

(4) Nothing in paragraph (3), shall be interpreted as not requiring a Barbadian aircraft being exported from Barbados from having a valid certificate of airworthiness.

15. (1) A certificate of airworthiness shall remain valid for one year unless otherwise surrendered, suspended or revoked.

(2) Notwithstanding paragraph (1), a certificate of airworthiness may be issued to an operator for a period of less than one year where it is issued in accordance with regulation 11.

(3) The application for the renewal of a certificate of airworthiness shall be in the form prescribed by the Director and shall be accompanied by the fee set out in the Civil Aviation (General Application and Personnel Licensing) Regulations, 2007.

validity of certificate of airworthiness.

Continued

S.I. 2007 No.

(4) The continued validity of a certificate of airworthiness shall be dependent upon

- (a) the Barbadian aircraft being maintained in an airworthy condition in accordance with the requirements of these Regulations;
- (b) the Director being granted access to the Barbadian aircraft to determine continued compliance with these Regulations; and
- the Barbadian aircraft being operated within the performance and (c)operating limitations of its approved aircraft flight manual.

16. A certificate of airworthiness shall be a single document Contents of a signed by the Director and shall contain the following:

certificate of airworthiness

- (a) the date of expiry;
- (b) the nationality and registration marks;
- (c) the manufacturer and designation of the Barbadian aircraft;
- (d) the serial number of the Barbadian aircraft;
- (e) the category of operation;
- (f) date of issue:
- (g) authorising signature; and
- (h) the following statement with reference to the appropriate airworthiness code inserted in the area marked with an asterisk:

"This Certificate of Airworthiness is issued pursuant to the Convention on International Civil Aviation dated 7th December, 1944 and (*) in respect of the above aircraft which is considered to be airworthy when maintained and operated in accordance with the foregoing and the pertinent operating limitations".;

(*i*) such other matters as the Director may deem necessary.

Requirement of air operator to maintain records for identification of type design.

Requirements for

continued

of aircraft and

aeronautical products.

17. Where a certificate of airworthiness has been issued in respect of a Barbadian aircraft under these Regulations, the operator of the Barbadian aircraft shall be responsible for maintaining the records of the aircraft including records to establish the identification of the aircraft with its approved type design.

18. (1) A person shall not perform maintenance or preventive maintenance on a Barbadian aircraft other than as prescribed in these Regulations. airworthiness

> (2) The operator of a Barbadian aircraft shall be responsible for maintaining the aircraft in an airworthy condition by ensuring that

- all maintenance, overhaul, modifications and repairs which (a)affect airworthiness are performed by an approved person or Approved Maintenance Organisation in a manner prescribed by the Director;
- (b) any removal or replacement of any aeronautical product of the aircraft is conducted in a manner and with materials required by the manufacturer:
- (c) all inspections classified in the approved maintenance programme or any airworthiness directives of the State of Design of such aeronautical products are completed as prescribed;
- (d) all approved maintenance personnel make appropriate entries in the aircraft maintenance records certifying that the aircraft is airworthy;
- (e) a certificate of release to service is issued in accordance with regulation 31, to certify that the maintenance work performed has been completed satisfactorily and in accordance with the prescribed methods; and
- (f) in the event that there are discrepancies which have not been corrected, the certificate of release to service includes a list of the uncorrected maintenance items and these items are made a part of the aircraft permanent record.

(3) Any failure to maintain an aeronautical product in an airworthy condition as prescribed by this Regulation shall render the Barbados aircraft unfit for flight until such time it is restored to an airworthy condition by re-compliance with this Regulation.

19. (1) Maintenance activities shall include processes and Requirepractices established by the manufacturer of the aeronautical product ments for and approved by the Civil Aviation Authority of the State of Design of maintenance such a product.

programme.

(2) An operator shall prepare and submit to the Director for approval a maintenance programme, which shall include the applicable specifications, methods, procedures, tasks and intervals approved by the State of Design for the aircraft type.

(3) The maintenance programme referred to in paragraph (2), shall include a maintenance manual, airworthiness limitations, mandatory replacement times, fatigue life limits, inspection intervals, corrosion prevention and control, supplemental structural inspection programmes or structural integrity programmes, ageing aircraft programmes, reliability programmes and maintenance review board report as applicable.

(4) The maintenance programme referred to in paragraph (2), shall where the Director deems appropriate, be reviewed and updated in accordance with the reliability programme of the operator which shall take into consideration continuing airworthiness information promulgated by the manufacturer, the utilization of the aircraft, the operator's particular maintenance and operating environment and the experience of the operator.

(5) An operator shall not operate a Barbadian aircraft, for which a maintenance manual of the manufacturer or instructions for continued airworthiness that contains an airworthiness limitation section has been issued, unless the operator has complied with the following:

(a) the mandatory replacement times, inspection intervals and related procedures specified in the airworthiness limitation section of the maintenance manual, or instructions for airworthiness:

- (b) the alternative inspection intervals and related procedures
 - (i) as set out in the specific operating provisions approved under the *Civil Aviation (Air Operator Certification and Administration) Regulations, 2007*; or
 - (ii) in accordance with the inspection programme approved under the *Civil Aviation (Aircraft Operations) Regulations, 2007*; or
- (c) the maintenance programme approved under these Regulations.

(6) No person shall make any amendments to an approved maintenance programme unless the amendment has first been approved by the Director.

- **20.** (1) Upon registering an aircraft in Barbados, the Director shall
- (a) notify the State of Design of the registration of the aircraft in Barbados; and
- (b) request
 - (i) all airworthiness directives in respect of the aircraft or its associated aeronautical product; and
 - (ii) any information which the State of Design deems necessary

for the continuing airworthiness and safe operation of the Barbadian aircraft.

(2) Whenever a State of Design considers an aircraft or its associated aeronautical product to be unsafe based on an airworthiness directive by that State, the State of Design shall issue a directive to Barbados in respect of any registered aircraft of the type identified in the airworthiness directive.

S.I. 2007 No.

S.I. 2007 No.

Airworthiness directives procedures. (3) An operator of a Barbadian aircraft shall, whenever an airworthiness directive has been issued in respect of the same aircraft or aeronautical product type, comply with the airworthiness directives.

(4) Where the Director determines that an aeronautical product has exhibited an unsafe condition and such condition is likely to exist or to develop in other aeronautical products of the same type design, he shall issue a special airworthiness directive prescribing inspections and the conditions and limitations where any, under which such aeronautical products may continue to be operated, where an airworthiness directive has not been issued by the State of Design.

(5) The findings of any inspection referred to in paragraph (4), shall be forwarded immediately by the operator to the Director and to the State of Design.

- (6) Where
- (a) the State of Design;
- (b) the Director; or
- (c) the State of Registry for other aircraft operated within Barbados,

issues an airworthiness directive in respect of an aeronautical product, a person shall not operate the aeronautical product to which the airworthiness directive applies, except in accordance with the requirements of the airworthiness directive.

21. (1) An operator shall not operate an aircraft that has sustained Damage to damage unless all details of the damage are submitted to allow the aircraft. State of Registry to determine the airworthiness of the aircraft as defined by the appropriate airworthiness requirements.

(2) Where a Barbadian aircraft has sustained damage, the operator shall have the aircraft inspected by an appropriately qualified maintenance person, in accordance with the appropriate airworthiness requirements, to assess the damage to determine the airworthy state of the aircraft.

(3) Where it is determined upon inspection of a Barbadian aircraft in accordance with paragraph (2), that the damage sustained is of a nature such that the Barbadian aircraft is no longer airworthy, the Barbadian aircraft shall not be allowed to resume flight until it is certified as airworthy.

(4) Notwithstanding paragraph (3), in exceptional circumstances the Director may, upon application by the operator, issue a special flight permit prescribing the conditions under which the aircraft may operate to an airport at which it can be restored to an airworthy condition.

(5) An aircraft in respect of which a special flight permit has been issued under these Regulations shall not carry passengers.

(6) Where the damage sustained is of a nature that a Barbadian aircraft is no longer airworthy when the aircraft is in the territory of another Contracting State, the Civil Aviation Authority of that Contracting State is entitled to prevent the aircraft from resuming its flight.

(7) Where a foreign registered aircraft operating in Barbados has sustained damage, the operator of such foreign aircraft shall report the occurrence and the details of the damage to the Director and to the State of Registry, to allow the State of Registry to make an assessment of the airworthiness status of the aircraft.

(8) The Director may prevent the foreign registered aircraft referred to in paragraph (7) from resuming flight until he has received notification from the State of Registry that the aircraft is

(a) airworthy; or

(b) safe for flight, and is issued with a special flight permit or equivalent approval.

(9) Subject to satisfying the requirements of the Contracting State referred to in paragraph (6), and upon the restoration of the Barbadian aircraft to an airworthy condition or the issue of a special flight permit by the Director, the Civil Aviation Authority of that Contracting State may permit the Barbadian aircraft to resume flight.

22. (1) Operators, Approved Maintenance Organisations, air Reporting of traffic controllers, pilots and holders of aircraft maintenance licences failures, malfunctions shall report to the Director any faults, failures, malfunctions or defects, and defects. and other occurrences on any Barbadian aircraft under their control which cause or might cause adverse effects on the continued airworthiness of the aircraft, such as

- (a) fires during flight and whether the related fire-warning system operated properly;
- (b) fires during flight not protected by a related fire-warning system;
- (c) false fire-warning during flight;
- (d) an engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment or components;
- (e) an aircraft component that causes accumulation or circulation of smoke, vapour, toxic or noxious fumes in the crew compartment or passenger cabin during flight;
- (f) engine shutdown during flight because of a flame-out;
- (g) engine shutdown during flight when external damage to the engine or aircraft structure occurs;
- (*h*) engine shutdown during flight due to foreign object ingestion or icing;
- (*i*) engine shutdown during flight;

- (*j*) a propeller feathering system or ability of the system to control overspeed during flight;
- (k) a fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight;
- (*l*) an unintended landing gear extension or retraction, or opening or closing of landing gear doors during flight;
- (*m*) brake system components that results in loss of brake actuating force when the aircraft is in motion on the ground;
- (*n*) aircraft structure that requires major repair;
- (*o*) cracks, permanent deformation or corrosion of aircraft structure, if more than the maximum acceptable to the manufacturer or the Director;
- (p) aircraft components or systems malfunctions that result in taking emergency actions during flight;
- (q) each interruption to a flight, unscheduled change of aircraft route, or unscheduled stop or diversion from a route caused by known or suspected technical difficulties or malfunctions;
- (*r*) any abnormal vibration or buffeting caused by a structural or system malfunction, defect or failure;
- (s) a failure or malfunction of more than one airspeed or altitude instrument during a given operation of the aircraft;
- (*t*) 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
- (*u*) the number of propeller featherings in flight, listed by type of propeller, engine and aircraft on which it was installed.
- (2) A report required by this Regulation shall
- (a) be submitted to the Director within 72 hours after determining that the failure, malfunction or defect required to be reported has occurred; and

- (b) 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 Technical Standard Order authorisation, 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.

(3) The operator shall ensure that a report referred to in paragraph (1), is also submitted in a timely manner to

- (a) the State of Registry, for an aircraft registered in a foreign State;
- (b) the State of Design; and
- (c) the holder of the type certificate.

(4) A report under this Regulation shall be made in a form and manner acceptable to the Director.

23. (1) All modifications and repairs to an aeronautical product Procedures shall comply with airworthiness requirements acceptable to the formajor Director.

modification and major repairs.

(2) A national operator shall establish procedures to ensure that the substantiating data which supports compliance with the airworthiness requirements are retained for the purpose of inspection by the Director.

(3) Notwithstanding paragraph (2), in the case of a major repair or major modification to an aeronautical product, the major repair or modification to such product, shall be completed in accordance with technical data approved or accepted by the Director.

(4) A major repair or major modification to an aeronautical product shall be performed by

- (a) an Approved Maintenance Organisation in accordance with the limitations of its Operations Specifications issued by the Director;
- (b) an air operator in accordance with the Operations Specifications issued by the Director; or
- (c) the holder of a valid inspection authorisation in accordance with the limitation of such inspection authorisation.

(5) An operator shall, promptly upon its completion, prepare a report of each major modification or major repair of an aeronautical product operated by him.

(6) An operator shall submit a copy of each report of a major modification to the Director, and shall keep a copy of each report of a major repair available for inspection.

(7) Where a major repair or major modification results in a change in the aircraft operating limitations or flight data contained in the aircraft flight manual, those operating limitations or flight data in the aircraft flight manual shall be appropriately revised and set forth as prescribed.

PART IV

Aircraft Maintenance and Inspection

Applicability of Part IV. **24.** This Part prescribes the requirements for maintenance and inspection of a Barbadian aircraft and its associated aeronautical products.

25. (1) A person shall not perform any task defined as Persons maintenance, preventive maintenance or modification of a Barbados authorised to aircraft or its aeronautical products, unless that person is

perform maintenance or preventive

- (a) a pilot authorised by the Director, who is limited to perform maintenance. preventive maintenance on specified non-commercial Barbados owned small aircraft or operated by such pilot;
- (b) an aircraft maintenance engineer, limited to perform maintenance, preventive maintenance or modification of an aircraft or aeronautical product for which he holds a licence; and
- (c) performing maintenance, preventive maintenance or modification under the supervision of an aircraft maintenance engineer authorised to perform such maintenance who
 - (i) personally observes the work being done to the extent necessary to ensure that it is being done properly; and
 - (ii) is readily available in person for consultation;
- (d) an Approved Maintenance Organisation subject to the limitations of its Operations Specifications;
- (e) an air operator subject to the limitations of his Operations Specifications; or
- a manufacturer holding an Approved Maintenance (f)Organisation certificate issued or accepted by the Director may
 - rebuild or modify any aeronautical product manufactured (i) by that manufacturer under a type certificate or production certificate;
 - (ii) rebuild or modify any aeronautical product manufactured by that manufacturer under a Technical Standard Order Authorisation, a Parts Manufacturing Approved Standard in respect of material, parts, process or appliance issued by the State of Design; and

(iii) where applicable, perform any inspection required by the Act or Regulations made thereunder on aircraft it manufactures, while currently operating under a production certificate or under a currently approved production inspection system for such aircraft.

(2) A person shall not perform maintenance, preventive maintenance or modification referred to in paragraph (1), as appropriate, unless he has received

- (a) basic aeronautical knowledge and skill training in the area of maintenance to be undertaken;
- (b) familiarization training on the aeronautical product on which maintenance is to be undertaken;
- (c) training on company maintenance procedures and documentation;
- (d) training on aircraft maintenance practices and procedures;
- (e) training on procedures for introduction into service of new equipment with which the maintenance personnel are not familiar;
- (f) continuation training on topics relevant to the operations; and
- (g) human factors training in the relevant aviation areas.

Persons authorised to perform inspections.

26. A person, shall not perform the inspections required by the Act or Regulations made thereunder for a Barbadian aircraft and its aeronautical products prior to or after it has undergone maintenance, preventive maintenance, rebuilding or modification unless that person is

- (a) an aircraft maintenance engineer, who may conduct the required inspection subject to the limitations of his licence;
- (b) an Approved Maintenance Organisation, who may conduct the required inspection subject to its operations specification;
- (c) a national air operator, who may conduct the required inspection subject to his Operations Specifications; or

26

(d) a qualified person approved by the Director to perform such inspection.

27. A person issuing a certificate of release to service specified in Persons regulation 26 shall be

- (a) a pilot authorised by the Director to perform limited preventive certificate of release to maintenance in accordance with regulation 25(1)(a) on service. specified non-commercial Barbados small aircraft, owned or operated by the pilot;
- (b) an aircraft maintenance engineer performing, supervising, or inspecting the maintenance of an aeronautical product subject to the limitations of his licence and rating;
- (c) an Aircraft Maintenance Organisation subject to the limitations of its Operations Specifications; or
- (d) a national air operator subject to the limitations of his **Operations Specifications.**

28. (1) A person authorised by these Regulations to perform Maintenance maintenance or preventive maintenance referred to in regulation 25 on an performance rules. aeronautical product shall use the methods, techniques and practices prescribed in the current maintenance manual or instructions for continued airworthiness of the manufacturer.

(2) Notwithstanding the methods, techniques and practices specified in the current maintenance manual or instructions for continued airworthiness referred to in paragraph (1), a person conducting maintenance or preventive maintenance shall

- (a) where an air operator has an approved maintenance control manual which contains the methods, techniques and practices; and
- (b) where the Director prescribes additional methods, techniques and practices in accordance with approved equivalent engineering and safety standards,

comply with such methods, techniques and practices.

authorised to issue

(3) A person authorised by these Regulations to perform maintenance or preventive maintenance shall use the tools, equipment, and test apparatus necessary to assure completion of the work in accordance with accepted industry practices.

(4) Where the manufacturer recommends special equipment or test apparatus, the person approved to perform maintenance on such aeronautical product shall use such equipment or apparatus or equivalent equipment or apparatus that is acceptable to the Director on such aeronautical product.

(5) A person authorised by these Regulations to perform maintenance or preventive maintenance on an aeronautical product which may or may not have been modified shall perform such work in such a manner and use materials of such a quality that the condition of such aeronautical product upon which such work was performed shall be at least equal to its original or where modified to its modified standard, with regard to aerodynamic function, structural strength, resistance to vibration and deterioration and other qualities affecting airworthiness.

(6) The methods, techniques and practices contained in the maintenance control manual of an air operator and maintenance programme as approved by the Director will constitute an acceptable means of compliance with this Part.

(7) A person authorised to perform inspection or other maintenance specified in the limitations section of the current maintenance manual of the manufacturer or current instructions for continued airworthiness shall perform such inspection or other maintenance in accordance with that limitations section or in accordance with specifications acceptable to the Director.

(8) No person shall install any part, component, appliance or material on an aircraft unless that part, component, appliance or material is specified by the manufacturer as being useable on the aircraft, and is traceable to a source approved by the Director.

ance rules.

29. (1) Where a person authorised to perform inspections under these Inspection Regulations is required by the Act or Regulations made thereunder to performperform an inspection on an aeronautical product, he shall perform the inspection so as to determine whether the aeronautical product or portion thereof under inspection, meets all applicable airworthiness requirements.

(2) Where an inspection programme is required by the maintenance manual of a manufacturer for a specific aeronautical product being inspected in paragraph (1), the person conducting such inspection shall do so in accordance with the instructions and procedures set forth in the inspection programme.

(3) A person authorised to perform inspections under these Regulations, shall in performing such inspection on a rotorcraft, conduct such inspections in accordance with the maintenance manual or instructions for continued airworthiness of the manufacturer.

(4) No person shall issue a certificate of release to service for an aircraft where a system which can affect the flight path, attitude or propulsive force of that aircraft has ben disturbed, unless that system has been inspected and certified by two appropriately type-rated aircraft maintenance engineers.

30. (1) A person authorised to perform an annual or one hundred Annual and hour inspection under these Regulations shall use a check-list while one hundred-hour performing such inspection.

inspections and use of

(2) The check-list referred to in paragraph (1), shall include the scope check-list. and detail of the required items acceptable to the Director.

(3) A person authorised to perform inspections under these Regulations, shall before issuing a certificate of release to service in respect of

(a) a reciprocating-engine-powered aircraft; or

(b) a turbine-engine-powered aircraft,

operate the aircraft engine or engines to determine satisfactory performance in accordance with the current recommendations of the aircraft manufacturer after an annual or one hundred-hour inspection.

Issue of certificate of release to service. **31.** (1) Where a person authorised to perform inspections under these Regulations is satisfied that an aeronautical product which has undergone maintenance or preventive maintenance or rebuilding is airworthy or serviceable as required under these Regulations, he shall issue a certificate of release to service in respect of such aeronautical product.

(2) The person authorised to perform inspections under the Act or Regulations made thereunder, who finds that the aircraft is not airworthy, shall not issue a certificate of release to service and shall provide the operator of the aeronautical product with a signed and dated list of such discrepancies.

(3) The aeronautical product referred to in paragraph (2), shall not be issued a certificate of release to service until all discrepancies identified in the listing have been addressed satisfactorily.

Performance rules, certificate of release to service.

32. A person authorised to perform inspections under these Regulations shall not issue a certificate of release to service for any aeronautical product referred to in regulation 31 unless

- (a) the appropriate maintenance record entry has been made;
- (b) the repair or modification form has been completed in the manner prescribed by the Director;
- (c) the maintenance requirements, aircraft operating limitations or flight data contained in the approved aircraft flight manual required to be revised as a result of a repair or modification are appropriately revised;
- (d) that person used up-to-date approved data company procedures as applicable, recommended and calibrated tools and tested equipment in an appropriate environment to perform the inspections; and
- (e) the appropriate release to service check has been satisfactorily performed.

PART V

Maintenance Records and Entries

33. This Part prescribes the requirements for maintenance records Applicability and entries following maintenance, preventive maintenance, overhaul of Part V. and modifications for aircraft and aeronautical products.

34. (1) A person who is authorised under these Regulations to Content, perform maintenance, preventive maintenance, rebuild an aircraft or form, and disposition of aeronautical product shall when the work is performed satisfactorily, maintenance, make the following entry in the maintenance record of such aircraft or preventive aeronautical product:

maintenance, rebuilding. and

- (a) a description and reference to data acceptable to the Director modification of records. of the work performed;
- (b) the completion date of the work performed; and
- (c) the name, signature, licence or authorisation number and kind of licence or authorisation as applicable, held by that person.

(2) A person performing a major repair or major modification shall record the details of that major repair or modifications in the form and manner prescribed by the Director.

(3) A person working under the supervision of an aircraft maintenance engineer shall not perform any inspection required by the Civil Aviation (Aircraft Operations) Regulations, 2007, or any SI 2007 No. inspection performed after a major repair or modification.

35. (1) A person shall not describe an aeronautical product as Records of being overhauled in any maintenance record, unless such aeronautical verhauland rebuilding. product has been

(a) disassembled, cleaned, inspected as permitted, repaired as necessary and reassembled using methods, techniques and practices acceptable to the Director; and

(b) tested in accordance with approved standards and technical data, or in accordance with current standards and technical data acceptable to the Director, 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) A person shall not describe an aeronautical product as being rebuilt in any maintenance record, 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.

Content, form, and disposition of records for inspections. **36.** (1) A person authorised to issue a certificate of release to service under the Act or Regulations made thereunder for an aeronautical product after performing an inspection in accordance with the Act or Regulations made thereunder, shall enter in the maintenance record of such aeronautical product

- (*a*) the type of inspection and a brief description of the extent of the inspection;
- (b) the date of the inspection and aircraft total time in service;
- (c) his name, signature, licence number and kind of licence where the certificate of release to service is issued under the privileges of his licence;
- (d) his name, signature or stamp, authorisation number and Approved Maintenance Organisation approval number where the certificate of release to service is issued under the privileges of the Approved Maintenance Organisation certificate; and
- (e) the inspection programme accomplished, and a statement that the inspection was performed in accordance with the inspections and procedures for that particular programme where an inspection is conducted under an inspection programme provided for in the Act or Regulations made thereunder.

(2) Where the aeronautical product is found to be airworthy the person authorised to issue a certificate of release to service under paragraph (1) shall append his signature to the statement as set out in the Airworthiness Standards.

(3) Where the aircraft is not approved for return to service because of needed maintenance, non-compliance with applicable specifications, airworthiness directives or other approved data, the person performing the inspection shall append his signature on a statement as set out in the Airworthiness Standards.

(4) A person authorised to perform an inspection required by the Civil Aviation (Aircraft Operations) Regulations, 2007, who finds that S.I. 2007 the aircraft is not airworthy or does not meet the applicable type No. certificate data sheet, airworthiness directives or approved data requirements, upon which its airworthiness depends, shall give the aircraft operator a signed and dated list of those discrepancies and unairworthy items.

37. A national air operator in meeting the requirements of Implementregulations 16, 18, 19, 23, 25, 30, 34, 35 and 36 shall ensure that he $\frac{ing}{Standards}$. complies with the minimum standards set out in the Airworthiness Standards.

38. (1) The Director may make Standards or amend Standards and Director may incorporate them by reference into these Regulations.

(2) The Director shall not make a Standard or an amendment to a Standards. Standard unless the Director has undertaken consultations with interested parties concerning the Standard or the amendment.

(3) No Standard or amendment may come into effect less than 30 days after it is made.

(4) A Standard or an amendment to a Standard may be made and brought into effect by the Director without regard to regulations 38(2) and 38(3) where the Standard or amendment is urgently required to ensure aviation safety or the safety of the public.

make Standards or amend

Transitional provisions.

No. 25.

39. (1) The airworthiness requirements of all Barbadian aircraft and aeronautical products under these Regulations shall come into effect 6 months from the date of publication of these Regulations.

(2) A person who on the commencement of these Regulations holds a valid certificate of airworthiness for an aeronautical product and continues to operate such aircraft or aeronautical product under the conditions of its existing certificate of airworthiness, shall apply to the Director for re-certification under these Regulations and successfully complete that re-certification within the 6 month period provided in paragraph (1).

,

40. The Civil Aviation (Air Navigation) Regulations, 1984 Revocation. S.I. 1984 are revoked.

> Made by the Minister this day of 2007.

> > Minister responsible for Civil Aviation