BELIZE:

CIVIL AVIATION (CERTIFICATION PROCEDURES FOR AIRCRAFTS AND RELATED PRODUCTS AND PARTS) REGULATIONS, 2025

ARRANGEMENT OF REGULATIONS

BELIZE:

STATUTORY INSTRUMENT

No. 83 of 2025

RREGULATIONS made by the minister responsible for Civil Aviation in exercise of the powers conferred upon him by section 4, 5, 8, 9, and 32 of the Civil Aviation Act, Chapter 239 of the Substantive Laws of Belize, Revised Edition 2020, and all other powers thereunto him enabling.

(Gazetted 14th June, 2025)

WHEREAS, Belize is a member of the Central American Organisation for the Control of Air Avigation Services (Corporacion Centroamerica de Servicios de Navegacion Aerea) (hereinafter referred to as "COCESNA");

AND WHEREAS, COCESNA has made certain regulations for the control of civil aviation (hereinafter referred to as "the COCESNA Regulations");

AND WHEREAS, in common with other countries in the region, it would be expedient for Belize to adopt the COCESNA Regulations with such modifications as may be necessary;

AND WHEREAS, the Regulations contains in the Schedule, hereto are based on the COCESNA Regulations, as amended to suit the conditions of Belize;

NOW THEREFORE, in exercise of the powers conferred upon the Minister by sections 4, 5, 8, 9, and 32 of the Civil Aviation Act, the following Regulations are made.

Citation.

1. These Regulations may be cited as the

CIVIL AVIATION (CERTIFICATION PROCEDURES FOR AIRCRAFTS AND RELATED PRODUCTS AND PARTS) REGULATIONS, 2025.

COCESNA Regulations to have the force of law.

2. The COCESNA Regulations, as modified, contained in the Schedule, shall have the force of law in Belize.

Penalty.

3. Every person who contravenes of fails to comply with these Regulations commits an offence and is liable on summary conviction to the penalty provided in section 30 of the Act.

BELIZE DEPARTMENT OF CIVIL AVIATION

BCAR 21

SCHEDULE
[regulation 2]

BCAR- 21 CERTIFICATION PROCEDURES FOR AIRCRAFTS AND RELATED PRODUCTS AND PARTS

Table of Content

BELIZE DEPARTMENT OF CIVIL AVIATION

BELIZE DEPARTMENT OF CIVIL AVIATION

BELIZE DEPARTMENT OF CIVIL AVIATION

SECTION 1 – REQUIREMENTS

PRESENTATION AND GENERAL

1. PRESENTATION

1.1. Section one of BCAR 21 is presented in one column on loose pages, each page is identified by the date of issue or amendment when it was incorporated.

1.2. Section one is written using Arial 10. Explanatory notes are not considered requirements; if they exist, they will be written in Arial font 8.

2. GENERAL INTRODUCTION

2.1. Section one contains the requirements to apply the regulation for civil aviation airworthiness of aircraft established by the International Civil Aviation Organization (ICAO) for the signatory States of the Chicago Convention.

2.2. This document is based on Annex 8 Thirteenth Edition July 2022 amendment 109 issued and published by the International Civil Aviation Organization (ICAO).

BELIZE DEPARTMENT OF CIVIL AVIATION

SUBPART A - GENERAL

BCAR 21.1 Purpose

(a) This Part details requirements governing the issue of a, Certificate of Airworthiness, Special Flight Permit and Export Certificate of Airworthiness. It also covers the requirements for the issue of documents for certification, modification and repair of aircraft, aircraft engines, propellers, components, and appliances to permit their use in aircraft registered in Belize and including documentation for the export of such aircraft and components.

(b) The rules governing the holders of any specific certificate mentioned in paragraph (a).

(c) The requirements for the approval of certain materials, parts, processing and disposal.

(d) The requirements for the classification, approval and documentation of major repairs and modification in aircraft, aircraft components, engines and propellers.

BCAR 21.2 Definitions and Terminologies

Refer to BCAR 05 Definitions and Units of Measurements.

BCAR 21.3 Notification of Faults, Mal-functions and Defects

(a) Aircraft owners, operators, pilot and holders of aircraft maintenance licences shall report to the BDCA, in a form and manner prescribed by the Director, any faults, malfunctions or defects, and other occurrences on any Belizean aircraft under their control which cause or might cause adverse effect on the continued airworthiness of the aircraft as listed in paragraph (c) of this BCAR.

(b) The BDCA shall ensure to transmit the report to the State of Design in respect of aeroplanes over 5 700 kg and helicopters over 3 175 kg maximum take-off weight.

(c) The following faults, malfunctions or defects shall be reported:

(1) Fires during flight and whether or not a fire warning system was installed and functioned properly;

(2) False fire warning during flight;

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

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

(5) Engine shutdown during flight because of flameout;

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

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

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

(9) A propeller feathering system or ability of the system to control overspeed during flight;

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

(11) A landing gear extension or retraction, or opening or closing of landing gear doors during flight;

(12) Brake system components that result in loss of brake actuating force when the aircraft is in motion on the ground;

(13) Aircraft structure that requires significant repair;

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

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

(16) Emergency evacuation systems or components including all exit doors, passenger emergency evacuating lighting equipment that are found defective or that fail to perform the intended functions during an actual emergency or during training, testing, maintenance, demonstration or inadvertent deployments;

(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 mechanical difficulties or malfunctions;

(18) 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

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

(d) In addition to the reports required above, each operator should report any other failure, malfunction or

defect in an aircraft that occurs or is detected at any time, if in its opinion, the failure, malfunction or defect has endangered or may endanger the safe operation of the aircraft.

(e) The reports required by this Regulation shall:

(1) Be submitted on a prescribed form within three (3) working days following the knowledge, discovery or identification of the failure, malfunction or defect causing the possible unsafe condition; and

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

(i) Type and registration mark of aircraft.

(ii) Name of owner or operator.

(iii) Aircraft serial number.

(iv) Where the failure, malfunction or defect is associated with an article approved under a technical standard order (TSO) authorization, the article serial number and model designation, as appropriate.

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

(vi) Product model;

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

(viii) The nature of the failure, malfunction or defect.

(f) The BDCA upon receipt of the report specified in paragraph (d) for aircraft registered in Belize, shall submit the reports to the State of design.

(g) The BDCA upon receipt of the report specified in paragraph (d) for foreign registered aircraft operating in Belize, shall submit all such reports to the State of registry and the State of design.

BELIZE DEPARTMENT OF CIVIL AVIATION

SUBPART B – TYPE CERTIFICATE

BCAR 21.9 Purpose

(a) This Subpart establishes the procedures for acceptance of certain foreign type certificates.

BCAR 21.11 Acceptance of Foreign Type Certificates.

(See Section 2 - GM 21.11)

(a) The BDCA will accept the Type Design that has been approved by the Federal Aviation Administration (FAA) of the United States, Transport Canada Civil Aviation (TCCA), the United Kingdom Aviation Authority (UK CAA), Australia Civil Aviation Safety Authority (CASA) or the European Aviation Safety Agency (EASA);

(b) The acceptance of a type certificate as established in paragraph (a) shall comply with the applicable airworthiness codes without exceptions or deviations, as follows:

(1) United States CFR Title 14:
Part 23
Part 25
Part 27
Part 29
Part 33
Part 34
Part 35
Part 36
SFAR 41

(2) European Aviation Safety Agency (EASA):
CS-22
CS-23
CS-25
CS-27
CS-29
CS-APU
CS-E
CS-ETSO
CS-P
CS-LSA

(3) Canadian Aviation Regulation (CAR):

BELIZE DEPARTMENT OF CIVIL AVIATION

522
523
525
527
529
533
535

(4) United Kingdom Certification Standards
CS-22
CS-23
CS-25
CS-27
CS-29
CS-34
CS-36
CS-APU
CS-AWO
CS-E
CS-ETSO
CS-P
CS-LSA

(5) Australia CASR
Part 22
Part 23
Part 25
Part 26
Part 27
Part 29
Part 31
Part 32
Part 33
Part 35

(c) All aircraft including its engines and propeller must obtain an individual certificate of airworthiness, for which its type certificate should have been approved under standards of the State of Design in accordance with paragraph (a) including the exceptions to the type certificate that the issuing authority have imposed.

(d) For the importation and operation of the mentioned products in paragraph (c), the importers shall show proof that they have all adequate technical support in regards to airworthiness maintenance (ADs, Service bulletins, state of design technical documentation), in addition to a flight manual for the aircraft operation.

BELIZE DEPARTMENT OF CIVIL AVIATION

SECTION – 1 **BCAR 21**

BCAR 21.19 Changes requiring a New Type-Certificate

Any person who is proposes to change a product must apply for a new type certificate. in compliance with the regulations applicable to the Authority who issued the type certificate.

BCAR 21.31 Type Design and Type Certificate

The type design shall consist of:

(1) The drawings and specifications, and a listing of those drawings and specifications, necessary to define the configuration and the design features of the product shown to comply with this BCAR 21 and with the applicable type-certification basis and environmental protection.

(2) Information on dimensions, materials and processes necessary to define the strength of the product.

(3) An approved airworthiness limitation section of the instructions for continued airworthiness as defined by the applicable airworthiness code; and,

~~(4)~~ Any other data necessary to allow by comparison, the determination of the airworthiness, the characteristics of noise, fuel venting, and exhaust emission, where applicable. Products of the same type certificate must include type design, operation limitations, type certificate data sheet, applicable regulations of the State of Design and any other condition or limitation established for the product in this BCAR 21.

BCAR 21.49 Availability

The holder of a Class I product shall make the type certificate available for examination upon the request of the BDCA.

BCAR 21.61 Instructions for Continued Airworthiness

(a) Every Class I product, with a type certificate or supplemental type certificate, must have, at least, the complete instructions for continued airworthiness (manuals, limitation data and bulletins) comprising of descriptive data and accomplishment instructions prepared in accordance with the applicable requirements for type certificates or supplemental type certificates for such products.

(b) In addition, every operator of the products mentioned in paragraph (a) shall make available the records of all changes or revisions issued to the maintenance instructions with the purpose of keeping the instructions of continued airworthiness up to date.

(c) The continued airworthiness of an aircraft shall be determined in accordance with the current standards for that aircraft.

BELIZE DEPARTMENT OF CIVIL AVIATION

BCAR 21.63 Data relating to Continuing Airworthiness

(a) The BDCA shall ensure that, when an aircraft first enters its registry and issues a Certificate of Airworthiness, it will notify the State of Design that such aircraft has been entered in the Belizean registry.

(b) The BDCA, upon receipt of mandatory continuing airworthiness information from the State of Design, will adopt the mandatory information directly or assess the information received and will take proper action in accordance with BCAR 39.

(c) BDCA shall ensure the transmission to the State of Design of all mandatory continuing airworthiness information which is, as the State of Registry, originated in respect of that aircraft.

(d) BDCA shall ensure that sensitive aviation security information is not transmitted when distributing mandatory continuing airworthiness information.

(e) BDCA shall ensure that sensitive aviation security information is securely transmitted to the appropriate authority in the State of Design in accordance with Annex 17 and BCAR 17.

BELIZE DEPARTMENT OF CIVIL AVIATION

SUBPART C – RESERVED

BELIZE DEPARTMENT OF CIVIL AVIATION

SUBPART D – CHANGES TO TYPE CERTIFICATE

BCAR 21.90 Applicability

(a) This subpart establishes the standards and requirements when, due to changes or modifications to the design, affecting the type certificate.

(b) Any person interested in a change or modification to the type design shall comply with the provisions in Subpart E of this BCAR 21.

BCAR 21.91 Classification of Changes in Type Design
(See Section 2 - AMC 21.91)

Changes in type design are classified as minor and major. A “minor change” is one that has no appreciable effect on the mass, balance, structural strength, reliability, operational characteristics or other characteristics affecting the airworthiness of the product. All other changes are “major change”. All major changes must be approved in accordance with BCAR 21.97 as applicable.

BCAR 21.97 Approval of Major Changes in Type Design

(a) The approval of major changes in design or type certificate shall be coordinated by the aircraft owner or operator with the States that issued the approval for the type design through the mechanisms and requirements established by those States.

(b) The changes shall be submitted to the BDCA, for acceptance, using a prescribed form for acceptance and records.

BCAR 21.99 Required Design Changes

(a) BDCA has the authority to enforce any changes to type design if the State of Design, the holder of the type certificate or the BDCA itself determine that:

(1) Such changes are originated to correct an unsafe condition or to contribute to improving the safety conditions of the product; or

(2) Such changes are originated as a result of an Airworthiness Directive

(b) All changes mentioned in paragraph (a) (1) and (a) (2) which affect Belize-registered aircrafts or products installed on such aircrafts shall be mandatory in accordance with the provisions of BCAR 39.

BELIZE DEPARTMENT OF CIVIL AVIATION

SECTION – 1 **BCAR 21**

BCAR 21.105 Record Keeping

The applicant must maintain all relevant design information, drawings, plans and test reports, including inspection records for the product modified and tested in order to provide the necessary information to ensure the continuing airworthiness and compliance with the applicable requirements of the product.

BELIZE DEPARTMENT OF CIVIL AVIATION

SECTION – 1 BCAR 21

SUBPART E – SUPPLEMENTAL TYPE CERTIFICATE

BCAR 21.111 Applicability

(a) This Subpart establishes the procedures for acceptance of supplemental type certificates.

BCAR 21.113 Requirement of Supplemental Type Certificate

(a) Any person who intends to modify a product in accordance with BCAR 21.97 shall submit to the BDCA the design of the modification with its respective approval by the Authority of the state that issued the accepted type certificate in accordance with BCAR 21.11 prior to its installation.

(b) The BDCA accepts supplemental type certificates in accordance with BCAR 21.11

(c) The application for a Supplemental Type Certificate shall be made by the aircraft owner or operator in a manner established by the State that issued the Type Design approval through the mechanisms and requirements established by such State.

(d) Those parts modifications whose installation constitutes a major change to the type certificate shall be processed through a supplemental type certificate as established in paragraph (c).

(e) The major modifications to the products, supported by a supplemental type certificate, shall be presented to the BDCA for approval prior to the installation on the product.

(f) The BDCA will accept major changes that are supported with acceptable data when both the data and the modifications design have been developed by an approved design organization and approved by the Authority that issued the Supplemental Type Certificate.

BCAR 21.118 Instructions for Continuing Airworthiness

(a) The person incorporating a supplemental type certificate shall maintain and update all manuals or instructions for continuing airworthiness in accordance to type certification requirements applicable for the product, necessary to cover all modifications supported by the supplemental type certificate.

BELIZE DEPARTMENT OF CIVIL AVIATION

SUBPART F – RESERVED

BELIZE DEPARTMENT OF CIVIL AVIATION

SUBPART G – RESERVED

BELIZE DEPARTMENT OF CIVIL AVIATION

SECTION – 1 **BCAR 21**

SUBPART H – CERTIFICATE OF AIRWORTHINESS AND SPECIAL FLIGHT PERMIT

BCAR 21.171 Scope

This subpart establishes the requirements to issue a certificate of airworthiness or a special flight permit.

BCAR 21.173 Eligibility to obtain a Certificate of Airworthiness

(a) Any owner or operator of a Belize-registered aircraft may apply for a Certificate of Airworthiness for that aircraft if it complies with the provisions established in BCAR 21.11 and in this subpart.

(b) Any aircraft including its engines and propellers is required to obtain an individual certificate of airworthiness, for which its type certificate was approved under the standards of the state of design in accordance with paragraph (a) above, including the exceptions to the type certificate that the issuing Authority has imposed to it.

BCAR 21.174 Languages

(a) All manuals, placards, lists, instrument markings and other necessary information required by the BCARs should be presented in English.

BCAR 21.175 Certificates of airworthiness classification

(a) The certificates of airworthiness shall be classified as follows:

(1) Standard certificate of airworthiness: shall be issued to aircraft which conforms to its type certificate in the categories: normal, utility, acrobatic, commuter, transport, and manned free balloons.

(2) Special certificate of airworthiness shall be issued to aircraft in the restricted, limited, experimental and light-sport categories:

(i) Which conforms to a restricted type certificate that has been issued by the State of Design in accordance with BCAR 21.11.

3) The certificate itself does not grant the right to operate the aircraft.

BCAR 21.177 Amendment or Modification

A Certificate of airworthiness may be amended or modified only by the BDCA.

BCAR 21.179 Transferability

Where ownership of an aircraft has changed:

(1) If it remains on the Belize registry, the standard certificate of airworthiness or the restricted certificate of airworthiness, shall be transferred together along with the aircraft

BCAR 21.181 Suspension, Cancellation and Continued Validity of the Certificate of Airworthiness

(a) The BDCA can suspend, revoke, or establish an expiration date for the Certificate of airworthiness.

(b) Unless it is suspended, revoked or expired, the Certificate of airworthiness is valid as specified below:

(1) All maintenance, preventive maintenance, repairs and alterations are carried out in accordance with the applicable BCARs requirements,

(2) the aircraft is registered in Belize and identified in accordance with BCAR 45,

(3) As applicable, the inspections required according to the approved maintenance program or any inspection determined by the BDCA are carried out,

(4) The owner or operator shall have the aircraft available for inspection when required by the BDCA,

(5) The aircraft remains in conformity with the Type Certificate in accordance with BCAR 21.11,

(6) Modifications or repairs are completed in accordance with procedures and methods approved by BDCA,

(7) Components, parts, equipment or materials are replaced in accordance with the design requirements and installed in accordance with the prescribed procedures,

(8) All markings and placards included in the approval of the Type Certificate, in according with BCAR 21.11, are present,

(9) The aircraft flight manual includes any changes made mandatory that are issued by the Type Certificate Holder in accordance with BCAR 21.11,

(10) If an aircraft is granted a maintenance release with any airworthiness significant systems, components or equipment unserviceable, it must be in compliance with a minimum equipment list approved by the BDCA,

(11) The aircraft has a current and valid third-party liability insurance policy.

(c) When a Certificate of Airworthiness is suspended, revoked, or expired, the owner or operator shall return such certificate within three days (03 days) after the date of suspension, revocation or expiration.

(d) The Certificate of airworthiness is considered invalid when:

(1) The type certificate under which that aircraft was designed is suspended or revoked by the State that issued such type certificate,

(2) The aircraft approved maintenance program, inspections or tasks, or any other inspection required by the BDCA have not been carried out,

(3) Airworthiness directives, and modifications specified as mandatory by the Authority responsible for the issuance of the type certificate, in accordance with BCAR 21.11; have not been carried out,

(4) If any aircraft component not approved for aviation or by the manufacturer of the aircraft is installed in the aircraft,

(5) If any aircraft component that have exceeded their approved life limit (hours, flight cycles, landings, calendar-time, etc.) is installed in an aircraft, or if the time limit of those aircraft components cannot be established,

(6) If the aircraft has sustained damages so extensive that in the technical criteria of a holder of a current Aircraft Maintenance Technician license or BDCA inspector, it is no longer in a safety condition for flight,

(7) If the aircraft is operating outside of Belize and has sustained damages so extensive that in the technical criteria of the local aviation authority, it is no longer in a safety condition for flight,

(8) The applicable fees as prescribed by the BDCA are not paid,

(9) The aircraft has an expired third-party liability insurance policy.

(e) A standard certificate of airworthiness or restricted certificate of airworthiness issued under this Subpart is valid for 60 months from the date of issue unless:

(1) A shorter period is specified by the BDCA,

(2) The BDCA suspends, revokes, or otherwise terminates the certificate,

(3) The aircraft owner or operator surrenders the certificate to the BDCA.

BCAR 21.183 Aircraft Identification

(a) An applicant for a certificate of airworthiness or special flight permit under this Subpart shall demonstrate that the aircraft is properly registered in Belize and has markings and identification plates affixed to the aircraft in accordance with BCAR 45.

BELIZE DEPARTMENT OF CIVIL AVIATION

BCAR 21.185 Application for a Certificate of Airworthiness

(a) An applicant is entitled to a certificate of airworthiness for an aircraft if:

(1) The applicant meets the applicable requirements of this Subpart in a manner acceptable to the BDCA; and

(2) The granting of the certificate is not contrary to the interests of aviation safety; and

(3) A recommendation for issue of a certificate is made by an authorised person to the Director;

(4) any applicable fee has been paid, and

(5) The applicant presents a valid Third-party liability insurance policy for the registered aircraft.

BCAR 21.187 Reserved

BCAR 21.189 Issuance of a Standard Certificate of Airworthiness

(a) A standard certificate of airworthiness shall be issued by the BDCA when:

(1) Satisfied that the applicant has demonstrated that the aircraft complies with the relevant Type Certificate in accordance with BCAR 21.11; and

(2) any modifications or repairs to the aircraft have been carried out in accordance with a supplemental type certificate or an approved modification/repair design; and

(3) the aircraft is in a condition for safe operation.

(b) Each applicant for the issue of a standard certificate of airworthiness for an aircraft shall provide acceptable evidence to the Director that:

(1) A Type Certificate has been issued for the aircraft and such Type Certificate is accepted under Subpart B of this regulation; and

(2) The aircraft conforms to an applicable Type Certificate, accepted under Subpart B;

(3) Each modification and repair to the aircraft conforms to design changes as required by BCAR 21 Subpart C or BCAR 43;

(4) The aircraft complies with all applicable Airworthiness Directives required to be complied with under BCAR 39;

(5) The aircraft is issued with the appropriate flight manual that is current for the type and model;

(6) The aircraft maintenance records are complete and up to date and are recorded in the aircraft log books or any equivalent media acceptable to the BDCA;

(7) A valid Export Certificate of Airworthiness or equivalent document has been issued by a Contracting State (if issued by the Exporting State);

(8) The aircraft is appropriately registered in Belize and displays nationality and registration marks in accordance with BCAR 45;

(9) The aircraft, its engines, propellers, and propeller hubs and blades are identified by the means specified in the Type Design standards or acceptable to the BDCA;

(10) The aircraft has undergone a maintenance inspection acceptable to the BDCA that is based on:

(i) a routine inspection in accordance with the manufacturer's maintenance manual; or

(ii) a scheduled inspection in accordance with the approved maintenance manual, or

(iii) an equivalent inspection acceptable to the BDCA;

(11) the aircraft has been weighed in accordance with the intervals specified in the applicable regulations in its current configuration prior to application;

(12) the aircraft is in an airworthy condition;

(13) a certificate of release to service has been issued;

(14) A third-party liability insurance policy has been issued for that particular aircraft; and

(15) An acceptable flight test has been performed upon request of the BDCA.

BCAR 21.191 Issuance of Special Certificate of Airworthiness

(a) An applicant for a special certificate of airworthiness for an aircraft with a restricted type certificate, that was not previously type certificated in any other category, shall comply with the applicable provisions of BCAR 21.189.

(b) An applicant for a special certificate of airworthiness for an aircraft with a restricted type certificate, that was either a surplus aircraft of the Armed Forces or previously type certificated in another category, is entitled to a special certificate of airworthiness if the aircraft has been modified in accordance with applicable regulations and inspected by the BDCA and found to be in a good state of preservation and in an acceptable condition for safe operation.

BELIZE DEPARTMENT OF CIVIL AVIATION

(c) A special certificate of airworthiness for experimental aircrafts will be issued with the sole purpose of investigation and development, and the applicant shall comply with the applicable regulations, as well as training for the crew and such certificate shall have a validity period prescribed by the BDCA.

BCAR 21.193 Issuance of a Special Certificate of Airworthiness for a Light-Sport Category Aircraft

(a) The BDCA issues a special certificate of airworthiness in the light-sport category to operate a light-sport aircraft, other than a gyroplane.

(b) To be eligible for a special certificate of airworthiness in the light-sport category, an applicant must provide the BDCA with:

(1) The aircraft's operating instructions;

(2) The aircraft's maintenance and inspection procedures;

(3) The manufacturer's statement of compliance as described in paragraph (c) of this section; and

(4) The aircraft's flight training supplement; additionally:

(i) The aircraft must not have been previously issued a standard, primary, restricted, limited, or provisional certificate of airworthiness, or an equivalent certificate of airworthiness issued by a foreign civil aviation authority.

(ii) The aircraft must be inspected by the BDCA and found to be in an acceptable condition for safe operation.

(c) Manufacturer's statement of compliance for light-sport category aircraft. The manufacturer's statement of compliance must:

(1) Identify the aircraft by its make and model, serial number, class, date of manufacture, and consensus standard used;

(2) State that the aircraft complies with the provisions of the identified consensus standards.

(3) State that the aircraft conforms to the manufacturer's design data, using the manufacturer's quality assurance system that complies with the identified consensus standard;

(4) State that the manufacturer will make available to any interested person the following documents that comply with the identified consensus standard:

(i) The aircraft's operating instructions.

(ii) The aircraft's maintenance and inspection procedures.

(iii) The aircraft's flight training supplement.

(5) State that the manufacturer will monitor and correct safety-of-flight issues through the issuance of safety directives and a continued airworthiness system that complies with the identified consensus standard;

(6) State that at the request of the BDCA, the manufacturer will provide unrestricted access to its facilities; and

(7) State that the manufacturer, in accordance with a production acceptance test procedure that complies with an applicable consensus standard has:

(i) Ground and flight tested the aircraft;

(ii) Found the aircraft performance acceptable; and

(iii) Determined that the aircraft is in a condition for safe operation.

BCAR 21.194 Special Flight Permit

(a) A special flight permit shall be issued for an aircraft that may not currently comply with applicable airworthiness requirements but is capable of safe flight, for the following purposes:

(1) Flying the aircraft to a base where repairs, alterations, or maintenance are to be performed, or to a point of storage.

(2) Delivering or exporting the aircraft.

(3) Evacuating aircraft from areas of impending danger.

(4) Flight test required after maintenance or repair with the purpose of determining the airworthiness condition of the aircraft or upon request of the BDCA.

(b) The aircrafts to which paragraph (a) refers to, are not allowed to transport passengers or cargo while such aircrafts are being operated under the provisions of a special flight permit.

BCAR 21.195 Issuance of a Special Flight Permit

(a) The BDCA shall issue a special flight permit in a prescribed form when the applicable requirements in paragraph (b) are satisfactory met.

(b) The application for a special flight permit shall be made in a manner prescribed by the BDCA indicating

at least the following:

(1) The name and address of the registered owner or operator of the aircraft

(2) The make, model, serial number and registration marks of the aircraft

(3) Purpose of the flight

(4) The proposed itinerary

(5) Crew and equipment required to conduct such fight (pilot, co-pilot, engineer, as applicable)

(6) Details of non-compliance with applicable airworthiness requirements.

(7) Whatever restriction the applicant considers necessary for the safe operation of that aircraft.

(8) Any other information considered necessary by the BDCA to prescribe operational limitations.

(c) The period of validity of a special flight permit is specified in the prescribed form issued by the BDCA.

(d) If the flight involves operations over states other than the State of registry, the operator of the aircraft must obtain authorization from the appropriate Authorities of those States before executing the flight.

BCAR 21.196 Damage to Aircraft

(a) When an aircraft has sustained damage, the BDCA shall determine whether the damage is of a nature such that the aircraft is no longer airworthy as defined by the appropriate airworthiness requirements.

(b) If the damage is sustained or ascertained when the aircraft is in the territory of another Contracting State, the authorities of the other Contracting State are completely entitled to prevent the aircraft from resuming its flight on the condition that the other Authority shall advise the BDCA immediately, communicating to it all details necessary to formulate the judgement referred to in 21.196 (a).

(c) The owner or operator of the aircraft shall notify to the BDCA if the aviation authority of another Contracting State has prevented the aircraft from resuming its flight.

(d) When the BDCA considers that the damage sustained is of a nature such that the aircraft is no longer airworthy, it shall prohibit the aircraft from resuming flight until it is restored to an airworthy condition. The BDCA may, however, in exceptional circumstances, prescribe particular limiting conditions to permit the aircraft to fly a noncommercial air transport operation to an aerodrome at which it will be restored to an airworthy condition. In prescribing particular limiting conditions, the BDCA shall proceed as prescribed in BCAR 21.194 and 21.195.

(e) When the BDCA considers that the damage sustained is of a nature such that the aircraft is still airworthy, the aircraft shall be allowed to resume its flight.

BELIZE DEPARTMENT OF CIVIL AVIATION

SECTION – 1 **BCAR 21**

SUBPART I – NOISE CERTIFICATION

BCAR 21.200 Required Document

(a) All aeroplanes complying with noise certification standards shall carry on board a document attesting noise certification.

(b) The BDCA shall accept entirely any document regarding noise certification that was issued by the manufacturer of the aircraft or a previous State of registry.

BELIZE DEPARTMENT OF CIVIL AVIATION

SUBPART J – RESERVED

BELIZE DEPARTMENT OF CIVIL AVIATION

SUBPART K – APPROVAL OF PARTS AND COMPONENTS FOR INSTALLATION/REPAIR

BCAR 21.301 Purpose

This Subpart details requirements for the acceptance of materials, parts and appliances to be used or installed on repairs or modifications of aeronautical products.

BCAR 21.303 Replacement and Modification of Materials, Parts, and Appliances

(a) A replacement or modification of a material, part or appliance to be installed into a type certificated product shall:

(1) be supported by an authorised maintenance release issued by an approved maintenance organisation or a manufacturer; and

(2) conform to the certification standards of the applicable type certificate.

BELIZE DEPARTMENT OF CIVIL AVIATION

SECTION – 1 **BCAR 21**

SUBPART L – ISSUANCE OF EXPORT CERTIFICATE OF AIRWORTHINESS

BCAR 21.321 Export Certificate of Airworthiness

(a) An owner of an aircraft registered in Belize or an agent of the owner may apply to the BDCA for the issuance of an export certificate of airworthiness for that aircraft.

(b) An application for an export certificate of airworthiness shall be made on a form prescribed by the BDCA at least 14 working days before the intended date of export of that aircraft out of Belize.

(c) The BDCA shall issue an export certificate of airworthiness in a prescribed form if the applicant complies with the provisions of BCAR 21.189.

(d) An export certificate of airworthiness is not valid for the purpose of flight as such document provides confirmation of recent satisfactory review of the airworthiness status of the aircraft.

(e) Any extension or variation granted to an aircraft in accordance with an approved maintenance programme or schedule shall be automatically revoked before the issue of the export certificate.

BELIZE DEPARTMENT OF CIVIL AVIATION

SUBPART M - REPAIRS

BCAR 21.431 Applicability

(a) This subpart establishes the requirements for the approval of repairs carried out on products, parts and components

(b) A repair is a corrective action intended to restore an aeronautical product to an airworthy condition as defined by the appropriate airworthiness requirements.

(c) An unapproved repair design could render a Certificate of Airworthiness invalid

BCAR 21.433 Reserved

BCAR 21.435 Classification of Repairs
(See section 2 – GM 21.435)

(a) A repair may be “major” or “minor”. The classification shall be made in accordance with the criteria of BCAR 43 Appendix A.

(b) A repair shall be classified as “major” or “minor” under paragraph (a) either:

(1) By the BDCA or,

(2) By an appropriate approved maintenance organization.

BCAR 21.437 Incorporation of a Repair

(a) The owner or operator shall notify the BDCA in a prescribed form that a repair is going to be performed on one of its aircrafts, before the repair is incorporated.

(b) The owner or operator shall obtain approval for any major repair from the holder of the type certificate or supplemental type certificate of the product in which such repair will be incorporated.

BCAR 21.440 Approved Data

(a) All major repairs shall be performed based on technical data approved by the Authority issuing the type certificate of the product being repaired.

BCAR 21.443 Limitations

BELIZE DEPARTMENT OF CIVIL AVIATION

(a) A repair approval shall include all necessary instructions and limitations. The owner or operator of the aircraft is responsible for obtaining these instructions and limitations from the applicable organizations.

BCAR 21.445 Unrepaired Damage

(a) When a damaged product, part or component, is left unrepaired, and is not covered by previously approved data, the evaluation of the damage for its airworthiness consequences may be made by the BDCA or by an appropriately approved maintenance organization. Any necessary limitations shall be processed in accordance with the provisions of BCAR 21.443.

BCAR 21.447 Record Keeping

(a) For each repair, all relevant design information, drawings, test reports, instructions and limitations, justification for classification and evidence of the design approval shall:

(1) be held by the owner or operator of the aircraft and made available upon request of the BDCA, and

(2) be retained by the approved maintenance organization who performed the repair to provide the information necessary to ensure the continued airworthiness of the repaired products, parts or components.

BCAR 21.449 Instructions for Continued Airworthiness

(a) The holder of a repair design approval shall furnish at least one complete set of those changes to the instructions for continued airworthiness which result from the design of the repair, comprising descriptive data and accomplishment instructions prepared in accordance with the applicable requirements to each operator of aircraft incorporating the repair.

(b) The repaired product, part or component may be granted a maintenance release before the changes to those instructions have been completed, but this shall be for a limited period of (3) three days. Those changes to the instructions shall be made available on request to any person required by the BCARs to comply with any of the terms of those changes to the instructions.

(c) If updates to those changes to the instructions for continued airworthiness are issued by the holder of the repair design approval after the repair has been approved, these updates shall be furnished to each operator and shall be made available on request to any other person required by the BCARs to comply with any of the terms of those changes to the instructions.

BCAR 21.451 Obligations

(a) Each approved maintenance organization performing a major repair on a Belize-registered aircraft shall undertake the obligations:

(1) Established in BCAR 21.3, 21.443, 21.447 and 21.449

(2) Implicit in the collaboration with the type certificate or supplemental type certificate holder, or both.

BELIZE DEPARTMENT OF CIVIL AVIATION

SUBPART N – RESERVED

BELIZE DEPARTMENT OF CIVIL AVIATION

SECTION – 1 **BCAR 21**

SUBPART O – TSO AND JTSO

BCAR 21.601 Technical Standard Orders and Joint Technical Standard Orders (TSO/JTSO)

(a) A Technical Standard Order, Joint Technical Standard Order (TSO/JTSO) or equivalent is accepted as minimum standards for specific products such as materials, parts, or components used in Belize – registered aircraft and whose authorization has been issued under accepted standards in accordance with BCAR 21.11.

BELIZE DEPARTMENT OF CIVIL AVIATION

SECTION 2 – GUIDANCE MATERIAL AND ACCEPTABLE MEANS OF COMPLIANCE

PRESENTATION & INTRODUCTION

1. PRESENTATION

1.1. This section contains Guidance Materials (GM) and Acceptable Means of Compliance (AMC) which have been approved for inclusion in BCAR 21.

1.2. Where a particular paragraph does not have a GM or AMC, it means that such paragraph does not require it.

2. INTRODUCTION

2.1. The text in this section is written using Arial 10, explanatory notes which are not part of the GMs and AMCs are written using Arial 8.

BELIZE DEPARTMENT OF CIVIL AVIATION

SUBPART A- RESERVED

SUBPART B – TYPE CERTIFICATE

GM 21.11 Description of Acceptable Airworthiness Codes

United States Code of Federal Regulations (CFR), Title 14:

a) Part 23 Airworthiness Standards: Normal, Utility and Aerobatics Category Airplanes.
b) Part 25 Airworthiness Standards: Transport Category Airplanes.
c) Part 27 Airworthiness Standards: Normal Category Rotorcraft
d) Part 29 Airworthiness Standards: Transport Category Rotorcraft.
e) Part 33 Airworthiness Standards: Aircraft Engines.
f) Part 34 Fuel venting and exhaust emission requirements for turbine engine powered airplanes.
g) Part 35 Airworthiness Standards: Propellers.
h) Part 36 Noise standards: aircraft type and airworthiness certification
i) Special Federal Aviation Regulation 41 (including amendments) – Airworthiness Standards for Reciprocating and Turbo propeller Powered Small Multi-engine Airplanes.

European Aviation Safety Agency (EASA):

a) CS-22 Sailplane and Powered Sailplane
b) CS-23 Normal, Utility, Aerobatic and Commuter Aero planes
c) CS-25 Large Aeroplanes
d) CS-27 Small Rotorcraft
e) CS-29 Large Rotorcraft
f) CS-APU Auxiliary Power Units
g) CS-E Engines
h) CS- ETSO European Technical Standard Orders
i) CS-P Propeller
j) CS-LSA Light Sport Aeroplanes

Canadian Aviation Regulations (CAR):

a) 522- Gliders and Powered Gliders
b) 523- Normal, Utility, Aerobatic and Commuter Category Aeroplanes
c) 525- Transport Category Aeroplanes
d) 527- Normal Category Rotorcraft
e) 529- Transport Category Rotorcraft
f) 533- Aircraft Engines
g) 535- Propellers

United Kingdom Certification Standards (CS)

a) CS-22 Sailplane and Powered Sailplane
b) CS-23 Normal-Category Aeroplanes
c) CS-25 Large Aeroplanes

d) CS-27 Small Rotorcraft
e) CS-29 Large Rotorcraft
f) CS-34 Aircraft Engine Emissions and Fuel Venting
g) CS-36 Aircraft Noise
h) CS-APU Auxiliary Power Units
i) CS-AWO All Weather Operations
j) CS-E Engines
k) CS- ETSO European Technical Standard Orders
l) CS-P Propeller
m) CS-LSA Light Sport Aeroplanes

Australia Civil Aviation Safety Regulations (CASR)

a) Part 22 – Airworthiness standards for sailplanes and power sailplanes
b) Part 23 – Airworthiness standards for aeroplanes in the normal, utility, acrobatic or commuter category
c) Part 25 – Airworthiness standards for aeroplanes in the transport category
d) Part 26 – Airworthiness standards for aircraft in the primary category or intermediate category
e) Part 27 – Airworthiness standards for rotorcraft in the normal category
f) Part 29 – Airworthiness standards for rotorcrafts in the transport category
g) Part 31 – Airworthiness standards for manned free balloons
h) Part 32 – Airworthiness standards for engines for very light aeroplanes
i) Part 33 – Airworthiness standards for aircraft engines
j) Part 35 – Airworthiness standards for aircraft propellers

BELIZE DEPARTMENT OF CIVIL AVIATION

SUBPART C – RESERVED

BELIZE DEPARTMENT OF CIVIL AVIATION

SUBPART D – CHANGES TO TYPE CERTIFICATE

AMC 21.91 Establishment of the Type-Certification Basis of Changed Aeronautical Products

1. PURPOSE

1.1 This AMC provides guidance for establishing the type-certification basis for changed aeronautical products and identifying the conditions under which it will be necessary to apply for a new type certificate. BCAR 21.91 identifies the conditions under which an applicant for a design change is required to make application for a new type-certificate.

1.2 It provides guidance as to the assessment of “significant” vs. “not significant” changes to the type-certificated product. This document also provides guidance for the determination of “substantial” vs. “significant” changes.

2. APPLICABILITY

2.1 This AMC is applicable to all major changes to type design of aircraft, engines and propellers. For the purposes of this AMC an application for a change to a type-certificate (type design) is considered as an application for a major change. Minor changes as defined in BCAR 21.91 are considered to have no appreciable effect on airworthiness and are therefore by definition not significant. This AMC applies equally to applications made for type-certificates amendments, supplemental type-certificates, or amended supplemental type-certificates.

2.2 This AMC is also applicable to all significant changes to aircraft (other than rotorcraft) of 2722 kg (6,000 lbs.) or less maximum weight, or to a non-turbine rotorcraft of 1361 kg (3,000 lbs.) or less maximum weight. Unless the BDCA finds the change significant in an area, an applicant may show that the changed product complies with the requirements incorporated in the type-certificate.

3. EXPLANATION OF TERMINOLOGY

3.1 The following is a summary of the terminology used throughout this advisory or guidance material. Further explanations of some of these terms can be found in paragraphs 5, 6, 7, and 8.

3.2 **Type-certification basis:** the applicable airworthiness codes under which the type certificate was issued, as appropriate, special conditions, equivalent level of safety findings; and exemptions applicable to the product to be certificated.

3.3 **Earlier requirements:** the requirements in effect prior to the date of application for the change, but not prior to the existing type-certification basis.

3.4 **Existing type-certification basis:** the requirements incorporated by reference in the type-certificate of the product to be changed.

3.5 **Latest requirements:** the requirements in effect on the date of application for the change.

3.6 **Previous relevant design changes:** previous design changes, the cumulative effect of which could result in a product significantly or substantially different from the original product or model, when considered from the last time the latest requirements were applied.

3.7 **Product level change:** a change or combination of changes that makes the product distinct from other models of the product (e.g., range, payload, speed). Product level change is defined at the aircraft, engine or propeller level of change.

3.8 **Significant change:** a product level changes to the type-certificate to the extent that it changes one or more of the following: general configuration; principles of construction; or the assumptions used for the certification criteria, but not to the extent to be considered a substantial change. Not all product level changes are significant.

3.9 **Substantial change:** a product level design change which is so extensive that a substantially complete investigation of compliance with the applicable requirements is required, and consequently a new type-certificate, in accordance with BCAR 21.19.

4. CLASSIFICATION OF CHANGES

4.1 Included are a series of tables of typical changes for small aeroplanes (Table 1), large aeroplanes (Table 2), rotorcraft (Table 3), and engines/propellers (Table 4) that meet the definition of a significant change or substantial change for each product line. Also includes typical changes that do not achieve the significant level.

4.2 The examples in the tables were developed from data collected from regulatory files and included industry review and input. They clearly are changes that we have seen in the past and will likely continue to see in the future. The Agency has made the determination, based on applying the automatic criteria, that these changes are significant or not significant.

4.3 The columns “Change to General Configuration”, “Change to Principles of Construction” and “Assumptions of Certification” The “Notes” column provides typical rationales that are considered in evaluating the designation of the criteria.

4.4 The tables may be used in one of two ways:

i) to classify a proposed change that is listed in the table, or

ii) in conjunction with the three automatic criteria, to understand the logic used in the table to help classify a proposed change not in the table.

4.5 The classification may change due to cumulative effects and/or combinations of individual changes.

BELIZE DEPARTMENT OF CIVIL AVIATION

A) Examples of Significant Changes for Small Aeroplanes

B) Description of change	Is there a change to the general configuration? (4.1.2)	Is there a change to the principles of construction? (4.1.2)	Have the assumptions used for certification been invalidated (4.1.2)	Notes
Change in wing location (tandem, forward, canard, high/low)	Yes	No	Yes	Proposed change in design is so extensive that a substantially complete investigation of compliance with the applicable requirements is required.
Fixed wing to tilt wing	Yes	Yes	Yes	Proposed change in design is so extensive that a substantially complete investigation of compliance with the applicable requirements is required.
Increase in the number of engines from one to two	Yes	Yes	Yes	Proposed change indesign is so extensive that a substantially Complete investigation of compliance with the applicable requirements is required.
Replacement of piston or turbo-prop engines with turbojet or turbofan engines	Yes	Yes	Yes	Proposed change in design is so extensive that a substantially Complete investigation of compliance with the applicable requirements is required
Change in engine configuration (tractor to pusher)	Yes	Yes	Yes	Proposed change in design is so extensive that a substantially complete investigation of compliance with the applicable requirements is required.
Change from an all metal airplane to all composite primary structure (fuselage, wing, and empennage).	No	Yes	No	Proposed change in design is so extensive that a substantially complete investigation of compliance with the applicable requirements is required.
Increase from subsonic to supersonic flight regime	Yes	No	Yes	Proposed change in design is so extensive that a substantially complete investigation of compliance with the applicable requirements is required.
Conventional tail to T-tail or Y-tail, or vice versa	Yes	No	Yes	Change in general configuration. Requires extensive structural, flying qualities and Performance re-investigation. Requires new AFM to address performance and flight characteristics.
Changes in wing configuration (addition of tail strakes or change in	Yes	No	Yes	Change in general configuration. Likely requires extensive changes to wing structure. Requires new AFM to address

BELIZE DEPARTMENT OF CIVIL AVIATION

dihedral, or changes in wing span, flap or aileron span, angle of incidence of the tail, addition of winglets, or wing sweep of more than 10%				performance and flight characteristics. Note: Small changes to wingtip are not significant changes. See table for not significant changes.
Tricycle / tailwheel Undercarriage change or addition of floats	Yes	No	No	Change in general configuration. Likely, at airplane level, general configuration and certification assumptions remain valid
Increase in seating capacity resulting in a different certification category (e.g., from normal to commuter category where configuration or principles of construction changes or assumptions do not remain valid.	Yes	Yes	Yes	Change in general configuration. Change in principles of construction. Requires extensive construction reassessment. Change in certification assumptions. Requires new AFM and pilot type rating
Passenger to freighter configuration conversion which involves the introduction of a cargo door or an increase in floor loading of more than 20%, or provision for carriage of assengers and freight together	Yes	No	Yes	Change in general configuration affecting load paths, aeroelasticcharacteristics, aircraft related systems, etc.Change in design assumptions.
A fuselage stretch would be considered significant if it would invalidate the existing substantiation, or would change the primary structure, aerodynamics, or operating envelope sufficiently to invalidate the assumptions of certification	Yes	No	Yes	Likely extensive changes to fuselage structure, aerodynamics, aircraft systems performance, and operating envelope. Requires new AFM to address performance and flight characteristics.
Replace reciprocating engines with the same number of turbo-propeller engines where the operating envelope is expanded	No	No	Yes	Invalidates certification assumptions. Requires new AFM to address performance and flight characteristics.
Addition of a turbocharger that changes the power envelope, operating range, or limitations	No	No	Yes	Invalidates certification assumptions due to changes in operating envelope and

BELIZE DEPARTMENT OF CIVIL AVIATION

appreciably.				limitations. Requires new AFM to address performance and flight characteristics
The replacement of an engine of higher rated power or increase thrust would be considered significant if it would invalidate the existing substantiation, or would change the primary structure, aerodynamics, or operating envelope sufficiently to invalidate the assumptions of certification	No	Yes	Yes	Invalidates certification assumptions. Requires new AFM to address performance and flight characteristics. Likely changes to primary structure. Requires extensive construction reinvestigation
A change in the type of material, such as composites in place of metal (or one composite fibre (fiber) material system with another (e.g., carbon for fibreglass)(fiberglass), for primary structure would normally be assessed as a significant change	No	Yes	Yes	Change in principles of construction and design from Conventional practices . Likely change in design/certification assumptions.
Change involving Appreciable increase in design speeds Vd, Vmo, Vc, or Va	No	No	Yes	Certification assumptions invalidated. Requires new AFM to address performance and flight characteristics.
STOL kit	No	No	Yes	Certification assumptions invalidated. Requires new AFM to address performance and flight characteristics.
A change in the rated power or thrust is likely to be regarded as significant if the design speeds are thereby changed so that compliance needs to be rejustified with a majority of requirements	No	No	Yes	Certification assumptions invalidated. Requires new AFM to address performance and flight characteristics.
Fuel state: such as compressed gaseous fuels, or fuel cells. This could completely alter the fuel storage and handling systems and possibly affect the aeroplane structure.	No	No	Yes	Changes in design/certification assumptions. Extensive alteration of fuel storage and handling systems.
A design change that alters the aircraft flight	No	No	Yes	Certification assumptions

characteristics or performance from the type design would normally be significant if it appreciably changes the kinematics or dynamics of the aeroplane.				invalidated. Requires new AFM to address performance and flight characteristics.
Weight increase which places the aircraft into the commuter category (i.e., above 12500 lbs.)	No	No	Yes	Certification assumptions invalidated. Requires new AFM.
A change in the flight control concept for an aircraft, for example to fly by wire (FBW) and side-stick control, or a change from hydraulic to electronically actuated flight controls, would in isolation normally be regarded as a significant change.	No	No	Yes	Changes in design and certification assumptions. Requires extensive systems architecture and integration reinvestigation. Requires new AFM.
Addition of cabin pressurisation	No	Yes	Yes	Extensive airframe changes affecting load paths, fatigue evaluation, aero elastic characteristics, etc. Requires extensive construction reinvestigation. Invalidates design assumptions.
Changes in types and number of emergency exits or an increase in passenger capacity in excess of maximum passenger capacity demonstrated for the aircraft type.	No	No	Yes	Emergency egress requirements exceed those previously substantiated. Invalidates assumptions of certification.
A change in the required number of flight crew, which necessitates a complete cockpit rearrangement, and/or an increase in pilot workload would be a significant change	No	No	Yes	Extensive changes to avionics and aircraft systems. Invalidates Certification assumptions. Requires new AFM.
An appreciable expansion of an aircraft's operating envelope or operating capability would normally be a significant change. e.g., an increase in maximum altitude	No	No	Yes	Invalidates certification assumptions. Requires new AFM to address performance and flight characteristics.

BELIZE DEPARTMENT OF CIVIL AVIATION

limitation, approval for flight in known icing conditions, an increase in airspeed limitations(.)				
A major flight deck upgrade	No	No	Yes	Extensive changes to avionics and electrical systems design. Invalidates certification assumptions. Extensive reassessments of systems integration, flight crew workload, human factors evaluation are required. Requires new AFM.
Introduction of autoland	No	No	Yes	Invalidate original design assumptions
Conventional tail to T-tail or Y-tail, or vice versa	Yes	No	Yes	Change in general configuration. Requires extensive structural, flying qualities and performance re-investigation. Requires new AFM to address performance and flight characteristics.
Addition of wingtip modifications (not winglets)	No	No	No	Although a major change to the airplane. Likely the original general configuration, principles of construction and certification assumptions remain valid.
Installation of skis or wheel skis	No	No	No	Although a major change to the airplane, likely the original general configuration, principles of construction and Certification assumptions remain valid.
FLIR or surveillance camera installation	No	No	No	Additional flight or structural evaluation may be necessary but the change does not alter basic airplane certification(.)
Litter, berth and cargo tie down device installation.	No	No	No	Not an airplane level change.
Increased tire size, including tundra tires.	No	No	No	Not an airplane level Change(.)
Replacement of one propeller type with another (irrespective of increase in number of blades).	No	No	No	Although a major change to the airplane, likely the original general configuration, principles of construction and Certification assumptions remain valid(.)
Addition of a urbocharger that does not appreciably change the power envelope, operating range, or limitations (e.g., a turbo—normalized engine), (e.g., where the additional	No	No	No	Not an airplane level change.

power is used to enhance high altitude or hot day performance.				
Replace a petrol engine with a diesel engine or approximately the same horsepower.	No	No	No	Although a major change to the airplane, likely the original general configuration, principles of construction and Certification assumptions remain valid.
Substitution of one method of bonding for another (e.g.,change in type of adhesive)	No	No	No	Not an airplane level change.
Substitution of one type of metal for another.	No	No	No	Not an airplane level change.
Any change in construction or fastening not involving primary Structure.	No	No	No	Not an airplane level change.
A new fabric type for fabric skinned aircraft.	No	No	No	Not an airplane level change
Increase in flap speed or undercarriage limit speed.	No	No	No	Although a major change to the airplane, likely the original general configuration, principles of construction and Certification assumptions remain valid.
Structural strength increases	No	No	No	Although a major change to the airplane, likely the original general configuration, principles of construction and Certification assumptions remain valid
Fuels of substantially the same type: Such as AvGas to AutoGas, AvGas (80/87) to AvGas (100LL), Ethanol to Isopropyl Alcohol, Jet B to Jet A (although Jet A to Jet B may be considered significant due to the fact that Jet B is considered potentially more explosive).	No	No	No	Although a major change to the airplane, likely the original general configuration, principles of construction and Certification assumptions remain valid.
Fuels that specify different levels of "conventional" fuel additives that do not change the primary fuel type. Different additive levels (controlled) of	No	No	No	Although a major change to the airplane, likely the original general configuration, principles of construction and Certification assumptions remain valid.

MTBE, ETBE,Ethanol, Amines, etc. in AvGas would not be considered a significant change.				
A change to the maximum take-off weight of less than 5% unless assumptions made in justification of the design are thereby invalidated.	No	No	No	Although a major change to the airplane, likely the original general configuration, principles of construction and Certification assumptions remain valid.
An additional aileron tab (e.g. on the other wing)	No	No	No	Although a major change to the airplane, likely the original general configuration, principles of construction and Certification assumptions remain valid.
Larger diameter flight control cables with no change in routing, or other system design	No	No	No	Not an airplane level change.
Autopilot installation (for IFR use, where the original certification does not indicate that the aeroplane is not suitable as an IFR platform)	No	No	No	Although a major change to the airplane, likely the original general configuration, principles of construction and Certification assumptions remain valid.
Increased battery capacity or relocate battery	No	No	No	Not an airplane level change
Replace generator with alternator	No	No	No	Not an airplane level change.
Additional lighting (e.g., navigation lights, strobes)	No	No	No	Not an airplane level change.
Higher capacity brake assemblies	No	No	No	Not an airplane level change.
Increase in fuel tank capacity	No	No	No	Not an airplane level change.
Addition of an oxygen system	No	No	No	Not an airplane level change.
Relocation of a galley	No	No	No	Not an airplane level change.
Passenger to freight (only) conversion with no change to basic fuselage structure.	No	No	NO	Although a major change to the airplane, likely the original general configuration, principles of construction and Certification assumptions remain valid. Requires certification Substantiation applicable to freighter requirements.
Installation of new seat belt or shoulder harness.	No	No	No	Not an airplane level change.
A small increase in cg range.	No	No	No	At airplane level, no change in general configuration, principles of construction &

BELIZE DEPARTMENT OF CIVIL AVIATION

				Certification assumptions
APU Installation that is not flight essential	No	No	No	A major change to the airplane level, likely the original general configuration, principles of construction and Certification assumptions remain valid. Requires certification Substantiation applicable to APU Installation requirements.
An alternative autopilot	No	No	No	Not an airplane level change.
Addition of Class B Terrain Awareness and Warning Systems (TAWS)	No	No	No	Not an airplane level change

Change in the number or location of engines, e.g., four to two wing-mounted engines or two wing mounted to two body-mounted engines.	Yes	No	Yes	Proposed change in design is so extensive that a substantially Complete investigation of compliance with the applicable requirements is required
Change from a high wing to low wing configuration.	Yes	No	Yes	Proposed change in design is so extensive that a substantially Complete investigation of compliance with the applicable requirements is required.
Change from an all metal airplane to all composite primary structure (fuselage, wing, empennage).	Yes	Yes	Yes	Proposed change in design is so extensive that a substantially Complete investigation of compliance with the Applicable requirements is required.

Table 1: Examples of Significant Changes for Small Aeroplanes

BELIZE DEPARTMENT OF CIVIL AVIATION

SECTION – 2 **BCAR 21**

B) Examples of Significant Changes for Large Aeroplanes

Description of change	Is there a change to the general configuration? (4.1.2)	Is there a change to the principles of construction? (4.1.2)	Have the assumptions used for certification been invalidated (4.1.2)	Notes
Derivative model, e.g., increased passenger payload, freighter version or complete update of a certified aeroplane.	Yes	Yes	Yes	Multiple changes packaged into a new model. Increased payload new freighter would change the general configuration and assumptions. Updated aeroplane could change principles of construction.
Reduction in the number of flight crew in conjunction with flight deck update.	Yes	No	No	Extensive changes to avionics and aircraft systems. Impact to crew workload and human factors, pilot type rating
Modify an aeroplane for flight in known icing conditions by adding systems for ice detection and elimination	Yes	No	Yes	New aircraft operating envelop. Requires major new systems installation and aircraft evaluation operating envelop change.
Conversion – passenger or combine to all freighter including cargo door, redesign floor structure and 9g net or rigid barrier	Yes	No	yes	Extensive airframe changes affecting load paths, aeroelastic characteristics, aircraft related systems for fire protection, etc. Design assumptions changed from passenger to freighter.
Change to pressurized cabin including the introduction of a pressurization system.	No	No	yes	Essentially a recertification of airframe and systems associated with operating envelope change.
Addition of leading edge slats.	Yes	No	No	Requires extensive changes to wing structure, adds aircraft level systems, and requires a new aeroplane flight manual to address performance and flight characteristics
Fuselage length change lengthen or shorten fuselage	Yes	No	No	Requires extensive changes to fuselage structure, affects aircraft level systems, and requires a new aeroplane flight manual to address performance and flight characteristics.
Extensive structural airframe odification, such as installation of a large telescope	Yes	No	No	Requires extensive changes to fuselage structure, affects aircraft level systems,

with large opening in fuselage.				and requires a new aeroplane flight manual to address performance and flight characteristics.
Changing the number of axles or number of landing gear done in context with a product level change which involves changing the aeroplane gross weight.	Yes	No	No	Requires extensive changes to aircraft structure, affects aircraft l systems and requires AFM changes.
Primary structure changes from metallic material to composite material.	No	Yes	No	Change in principles of construction and design from conventional practices.
Typically, an increase in design weight of more than 10%	No	No	Yes	When it requires extensive re-substantiation of aircraft structure, aircraft performance and flying qualities and associated systems.
Wing changes in span, sweep, and tip designs or wing chord. (Note: Potentially substantial if it is a change from a high wing to a low wing, or a new wing.)	Yes	No	yes	When it requires extensive changes to wing structure, adds aircraft level systems, and requires a new aeroplane flight manual to address performance and flight characteristics.
Change in type or number of emergency exits in conjunction with an increase in the number of passengers demonstrated.	No	No	yes	The new emergency egress requirements exceed those previously substantiated.
Comprehensive flight deck upgrade	No	No	Yes	Affects avionics and electrical systems integration and architecture concepts and philosophies. This drives a reassessment of flight crew workload and other human factors issues, and requires a re-evaluation of the original design assumptions used for the cockpit.
Description of change	Is there a change to the general configuration? (4.1.2)	Is there a change to the principles of construction? (4.1.2)	Have the assumptions used for certification been invalidated (4.1.2)	Notes
Change in primary flight controls to fly by wire (FBW)	Yes	No	Yes	When the degree of change is so extensive that it affects basic aircraft systems integration

system. (Some airplanes have some degree of FBW. Achieving full FBW may be a not significant change on some airplanes.)				and architecture concepts and philosophies. This drives a complete reassessment of flight crew workload, handling qualities, and performance evaluation, which are different from the original design assumptions
Replace reciprocating with turbo-propeller engines	Yes	No	No	Requires extensive changes to airframe structure, adds aircraft level systems, and requires a new aeroplane flight manual to address performance and flight characteristics.
Typically a thrust increase of more than 10%	No	No	Yes	When it requires extensive resubstantiation of powerplant installation, and has a marked effect on aircraft performance and flying qualities.
Initial installation of an autoland system	No	No	Yes	Baseline airplane not designed for autoland operation, potential crew workload and systems compatibility issues
Installation of a new fuel tank, e.g., horizontal stabilizer tank or auxiliary fuel tank in the fuselage outside the wing in conjunction with increased maximum takeoff weight and takeoff thrust.	No	No	Yes	Requires changes to airframe, systems and AFM results in performance changes.
Main deck cargo door installation	Yes	No	No	Redistribution of internal loads, change in aeroelastic characteristics, and system changes.
Conversion from a passenger floor to a cargo floor and installation of a cargo handling system.	No	No	Yes	Completely new floor loading and design. Redistribution of internal loads, change in cabin safety requirements, and system changes.
Initial installation of an APU essential for aircraft flight operation.	No	No	Yes	Changes emergency electrical power requirements, change in flight manual and operating characteristics.

Table 2: Examples of Significant Changes for Large Aeroplanes

BELIZE DEPARTMENT OF CIVIL AVIATION

C) Examples of No Significant Changes for Large Aeroplanes

Description of change	Is there a change to the general configuration? (4.1.2)	Is there a change to the principles of construction? (4.1.2)	Have the assumptions used for certification been invalidated (4.1.2)	Notes
Alternate engine installation or hush kit at same position	No	No	No	Although an aeroplane level change, it is not significant so long as there is not more than a 10% increase in thrust or a change in the principles of propulsion.
Fuselage length change-lengthen or shorten fuselage	No	No	No	A small change in fuselage length due to re-fairing the aft body or radome for cruise performance reasons, where such changes do not require extensive structural, systems or AFM changes
Re-fairing of wing tip caps (e.g., for lights, fuel dump pipes) and addition of splitter plates to the trailing edge thickness of the cruise airfoil.	No	No	No	Does not require extensive structural, AFM, or systems changes.
Additional power used to enhance high altitude or hot day performance	No	No	No	Usually no change in basic operating envelope. Existing cert data can be extrapolated. Could be significant product change if the additional power is provided by installation of a rocket motor or additional, on demand engine due to changes in certification assumptions.
General avionics changes.	No	No	No	These modifications are generally adaptive* in nature, and do not change the original certification assumptions, alter basic cockpit design architecture concepts and philosophies, and do not have a major impact on crew workload or man/machine. *Adaptive means the change adapts to the existing airplane buses, power, structure.
Initial installation of an autopilot system	No	No	No	Modification is generally adaptive in nature, with no change to original certification assumptions.

BELIZE DEPARTMENT OF CIVIL AVIATION

Integrated modular avionics	No	No	No	The basic functionality of the systems are unchanged. No change from analogue to digital.
Installation or rearrangement of an interior in an aircraft.	No	No	No	Special conditions could be used for new and novel features(.)
Change from assembled primary structure to monolithic or integrally machined structure	No	No	No	Method of construction is well understood.
Modification to ice protection systems	No	No	No	Re-certification required, but type certification basis is adequate.
Brakes: design or material change, e.g., steel to carbon	No	No	No	Re-certification required, but type certification basis is adequate.
Redesign floor structure	No	No	No	By itself, this is not a significant product level change. It could be a significant change if part of a cargo converted passenger airplane.
Novel or unusual method of construction of a component.	No	No	No	Special conditions could be required if there are no existing requirements that adequately address these features. The component change does not rise to the product level change
Initial installation of a non-essential APU	No	No	No	A stand-alone initial APU installation on an airplane originally designed to use ground/airport supplied electricity, and air-conditioning. In this case, the APU would be an option to be independent of airport power.

Table 3: Examples of No Significant Changes for Large Aeroplanes

BELIZE DEPARTMENT OF CIVIL AVIATION

D) Examples of Significant Changes for Rotorcraft

Description of change	Is there a change to the general configuration? (4.1.2)	Is there a change to the principles of construction? (4.1.2)	Have the assumptions used for certification been invalidated (4.1.2)	Notes
Change from the number and or configuration of rotors (e.g., main & tail rotor system to two main rotors.	Yes	No	Yes	Proposed change in design is so extensive that a substantially Complete investigation of compliance with the applicable requirements is required
Change from an all metal rotorcraft to all composite rotorcraft.	Yes	Yes	Yes	Proposed change in design is so extensive that a substantially Complete investigation of compliance with the applicable requirements is required.
Comprehensive Flight Deck Upgrade	Yes	No	Yes	The degree of change is so extensive that it affects basic avionics and electrical systems integration and architecture concepts and philosophies. This drives a complete reassessment of flight crew workload and other human factor issues, and requires a reevaluation of the original design assumptions used for the cockpit.
Certification for flight into known icing conditions	No	No	yes	
(Fixed) flying controls from mechanical to fly by wire(.)	Yes	Yes	Yes	
Addition of an engine, e.g., from single to twin or reduction of the number of engines; e.g., from twin to single(.)	Yes	No	Yes	May be Substantial - depend upon project details
A fuselage modification that changes the primary structure, aerodynamics, or operating envelope sufficiently to invalidate the certification assumptions.	Yes	No	Yes	

BELIZE DEPARTMENT OF CIVIL AVIATION

Application of an approved primary structure to a different approved model (e.g., installation on a former model of the main rotor approved on a new model that results in increase performance(.)	No	Yes	Yes	
Extensive Primary structure changes from metallic material to composite material.	No	Yes	Yes	Change in principles of construction and assumptions used for certification for the product level change. Changes of a few individual elements from metal to composite are not typically considered a significant change .
Emergency Medical Service Configuration with primary structural changes sufficiently to invalidate the certification assumptions	Yes	No	Yes	Any EMS configuration will not be classified as significant. Modifications made for EMS is typically internal and the general external configuration is normally not affected. These changes should not automatically be classified as significant.
Skid landing gear to wheel landing gear or wheel landing to skid	Yes	No	Yes	If the rotorcraft is such that the skid or wheel configuration is inherent in the basic certification design, the change may be not significant.
Change of the number of rotor blades	Yes	No	No	The addition/deletion of rotor blades may not be significant provided the remainder of the basic propulsion system remains essentially unchanged.
Change tail antitorque device (e.g., tail rotor, ducted fan or other technology)	Yes	Yes	No	

Table 4: Examples of Significant Changes for Rotorcraft

BELIZE DEPARTMENT OF CIVIL AVIATION

E) Examples of No Significant Changes for Rotorcraft

Description of change	Is there a change to the general configuration? (4.1.2)	Is there a change to the principles of construction? (4.1.2)	Have the assumptions used for certification been invalidated (4.1.2)	Notes
Emergency floats	No	No	No	Must Comply to the specific applicable requirements for emergency floats. This installation, in itself, does not change the rotorcraft configuration, overall performance, or operational capability. Expanding an operating envelope (such as operating altitude and temperature) and mission profile (such as passenger carrying operations to external load operations, or flight over water, or operations in snow conditions) are not by themselves, so different that the original certification assumptions are no longer valid at the type-certificated product level.
FLIR or surveillance camera installation	No	No	No	Additional flight or structural evaluation may be necessary but the change does not alter the basic rotorcraft certification
Helicopter Terrain Awareness Warning System (HTAWS) for operational credit	No	No	No	Certified per rotorcraft HTAWS AC guidance material
Health Usage Monitoring System (HUMS) for Maintenance Credit	No	No	No	Certified per rotorcraft HUMS AC guidance material
Expanded limitations with minimal or no design changes, following further tests/justifications or different mix of limitations (CG limits, oil temperatures, altitude, minimum/maxmum weight, minimum/max external temperatures, speed, ratings structure)	No	No	No	Expanding an operating envelope (such as operating altitude and temperature) and mission profile (such as passenger carrying operations to external load operations, or flight over water, or operations in snow conditions) are not by themselves so different that the original certification assumptions are no longer valid at the type-certificated product level.

BELIZE DEPARTMENT OF CIVIL AVIATION

Installation of a new engine type, equivalent to the former one; leaving a/c installation and limitations substantially unchanged	No	No	No	Refer to FAA AC 27-1 or FAA AC 29-2 for Guidance(.)
Windscreen installation	No	No	No	Does not change the rotorcraft overall product configuration(.)
Snow skis, "Bear Paws"	No	No	No	Must comply with specific Requirements associated with the change. Expanding an operating envelope (such as operating altitude and temperature) and mission profile (such as passenger carrying operations to external load operations, or flight over water, or operations in snow conditions) are not by themselves so different that the original certification assumptions are no longer valid at the type-certificated product level.
External Cargo Hoist				Must Comply to the specific applicable requirements for external loads. This installation, in itself, does not change the Rotorcraft configuration, overall performance, or operational capability. Expanding an operating envelope (such as operating altitude and temperature) and mission profile (such as passenger carrying operations to external load operations, or flight over water, or operations in snow conditions) are not by themselves so different that the original certification assumptions are no longer valid at the type-certificated product level.
IFR upgrades involving installation of components (where the original certification does not indicate that the rotorcraft is not suitable as an IFR platform, e.g., special handling concerns).	No	No	No	Not a rotorcraft level change.
An upgrade to CAT A certification approval.	No	No	No	Typically these are engine and drive systems rating changes appropriate for CAT A and

				rotorcraft performance requirements. Rotorcraft modifications, if any necessary, do not typically invalidate the certification assumptions, or change the general configuration of principles of construction.
Reducing the number of pilots for IFR from 2 to 1	No	No	No	May be significant if there are extensive equipment and design changes such that the certification assumptions are invalidated or the general configuration of the rotorcraft is changed.

Table 5: Examples of No Significant Changes for Aeroplanes

BELIZE DEPARTMENT OF CIVIL AVIATION

SECTION – 2 **BCAR 21**

F) Examples of Significant Changes for Turbine Engines

Description of change	Is there a change to the general configuration? (4.1.2)	Is there a change to the principles of construction? (4.1.2)	Have the assumptions used for certification been invalidated (4.1.2)	Notes
Traditional turbofan to geared-fan engine	Yes	No	Yes	This change would affect the engine in terms of FOD ingestion, containment, etc.… Note that this change is most likely substantial under BCAR 21.19
Low bypass ratio engine to high bypass ratio engine with an increased inlet area.	Yes	No	Yes	Change in general configuration Likely change in model designation Not interchangeable Assumptions for certification may no longer be valid in terms of ingestion, icing, etc. Note that this change is l most likely substantial under BCAR 21.19
Turbojet to Turbofan	Yes	No	Yes	Change in general configuration Likely change in model designation Not interchangeable Assumptions for certification may no longer be valid ingestion, icing, blade out criteria, etc. Note that this change is l most likely substantial under BCAR 21.19
Turbo-shaft to turbo-propeller	Yes	No	Yes	Change in configuration such as an additional gearbox Change in model designation. Change in mission profile. Assumptions for certification may no longer be valid in terms of flight envelope, ratings, etc Note that this change is l most likely substantial under BCAR 21.19
Conventional ducted fan to unducted fan	Yes	Yes	Yes	Change in configuration Change in Type. Not Interchangeable Assumptions for certification may no longer be valid Note that this change is l most likely substantial under BCAR 21.19
Conventional engine for subsonic operation to afterburning engine for supersonic operation	Yes	Yes	Yes	Change in configuration Change in Type Not interchangeable Assumptions for certification may no longer be valid Change in operating envelope Note that

				this change is l most likely substantial under BCAR 21.19
Increase/decrease in the number of compressor/turbine stages with resultant change in approved limitations*. (* excludes life limits)	No	No	Yes	Change is associated with other changes that would affect Performance envelope and may affect the dynamic behavior in terms of backbone bending, torque spike effects on casing, surge and stall characteristics, etc.
New design fan blade and fan hub, or a bladed fan disk to a blisk or a fan diameter change that could not be retrofitted(.)	Yes	No	Yes	Likely change in model designation Change is associated with other changes that would affect engine thrust/power limitations and have affected the dynamic behavior of the engine in terms of backbone bending, torque spike effects on casing, foreign object ingestion behavior, burst model protection for the aircraft. If there is a diameter change, installation will be also affected.
Hydro-Mechanical to FADEC/EEC without hydromechanical backup	Yes	Yes	Yes	Change in engine control configuration Likely change in model designation Not interchangeable. Likely fundamental change to engine operation. Assumptions used for certification are no longer valid or were not
A change in the containment case from hard-wall to composite or vice versa, that could not be retrofitted without additional major hanges to the engine or restrictions in the initial limitations in the installation manual	No	Yes	No	Change in methods of construction that have affected inherent strength, backbone bending, blade to case clearance retention, containment wave effect on installation, effect on burst model, torque spike effects
Replacement of the gas generator (core) with a different one that is associated with changes in approved limitations* (* excludes life limits)	No	No	Yes	Change is associated with other changes that would affect Performance envelope and may affect the dynamic behavior of the engine Assumptions used for certification may no longer be valid.

Table 6: Examples of Significant Changes for Turbine Engines

BELIZE DEPARTMENT OF CIVIL AVIATION

G) Examples of Significant Changes for Piston Engines

Description of change	Is there a change to the general configuration? (4.1.2)	Is there a change to the principles of construction? (4.1.2)	Have the assumptions used for certification been invalidated (4.1.2)	Notes
Convert from Mechanical to Electronic Control System	Yes	Yes	No	Change in engine control configuration. :Installation interface of engine changed Changes to principles of construction: Digital controllers and sensors require new construction techniques and environmental testing.
Add Turbocharger that increases performance and changes in overall product	Yes	No	Yes	Change in general configuration: Installation interface of engine changed (exhaust system) Certification Assumptions invalidated. Change in engine configuration Change in operating envelope and performance
Convert from air-cooled cylinders to liquid cooled cylinders.	Yes	No	Yes	Change in general configuration: Installation interface of engine changed (cooling lines from radiator, change to cooling baffles) Certification assumptions invalidated. Change in operating envelope and engine temperature requirements.
Convert from spark-ignition to compression-ignition	Yes	No	Yes	Change in general configuration: Installation interface of engine changed (no mixture lever) Certification Assumptions invalidated: Change in operating envelope and performance.

Table 7: Examples of Significant Changes for Piston Engines

BELIZE DEPARTMENT OF CIVIL AVIATION

H) Example of Significant Changes for Propellers

Description of change	Is there a change to the general configuration? (4.1.2)	Is there a change to the principles of construction? (4.1.2)	Have the assumptions used for certification been invalidated (4.1.2)	Notes
Introduction of a different principle of blade retention	Yes	Yes	No	Change in propeller configuration Likely change in model designation Propeller's operating characteristics and inherent strength require re-evaluation

Table 8: Example of Significant Changes for Propellers

BELIZE DEPARTMENT OF CIVIL AVIATION

I) Examples of No Significant Changes for Turbine Engines

Description of change	Is there a change to the general configuration? (4.1.2)	Is there a change to the principles of construction? (4.1.2)	Have the assumptions used for certification been invalidated (4.1.2)	Notes
Change in the material from one type of metal to another type of metal of compressor drum	No	No	No	No change in performance No likely change in model designation assumptions are still valid
Increase/decrease in the number of compressor/turbine stages without resultant change in performance envelope	No	No	No	No change in performance Model designation may or may not change Assumptions are still valid
New components internal to the FADEC/EEC the introduction of which does not change the function of the system	No	No	No	No change in configuration Retrofittable Assumptions used for certification are still valid Possible changes in principles of construction are insignificant
Software changes	No	No	No	
Rub-strip design changes	No	No	NO	Component Level Change
A new combustor that does not change the approved limitations*, or dynamic behavior (* excludes life limits)	No	No	NO	Component Level Change
Bearing changes	No	No	No	Component Level Change
New blade designs with similar material that can be retrofitted	No	No	No	Component Level Change
New blade designs with similar material that can be retrofitted	No	No	No	Component Level Change
Fan blade re-design that can be retrofitted	No	No	No	Component Level Change
Oil tank re-design	No	No	No	Component Level Change
Change from one hydro-mechanical control to another hydro-mechanical control	No	No	No	Component Level Change
Change to limits on life limited components	No	No	NO	Component Level Change
Changes to limits on exhaust gas temperature	No	No	No	
Changes in certification	No	No		

Maintenance requirements (CMR) with no configuration changes				
Bump ratings within the product's physical capabilities that may be enhanced with gas path changes that are limited to such changes as blade re-stagger, cooling hole patterns, blade coating changes, etc.	No	No	No	
A change in principal physical properties and mechanics of load transfer of a material of primary structure or highly loaded components. For example, change from traditional metal to either an exotic alloy or a composite material on a highly loaded component	No	No	No	Component Level Change

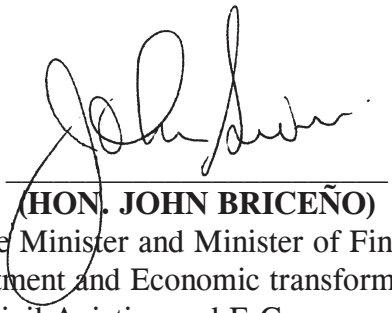
Table 9: Examples of No Significant Changes for Turbine Engines

BELIZE DEPARTMENT OF CIVIL AVIATION

J) Examples of No Significant Changes for Piston Engines

Description of change	Is there a change to the general configuration? (4.1.2)	Is there a change to the principles of construction? (4.1.2)	Have the assumptions used for certification been invalidated (4.1.2)	Notes
A change in principal physical properties and mechanics of load transfer of a material of primary structure or highly loaded components. For example, change from traditional metal to either an exotic alloy or a composite material on a highly loaded component				
A change in principal physical properties and mechanics of load transfer of a material of primary structure or highly loaded components. For example, change from traditional metal to either an exotic alloy or a composite material on a highly loaded component	No	No	No	Component Level Change
New or redesigned cylinder head, or valves or pistons	No	No	No	Component Level Change
New or redesigned cylinder head, or valves or pistons	No	No	No	Component Level Change
Changes in crankshaft	No	No	No	Component Level Change
Changes in crankcase	No	No	No	Component Level Change
Changes in carburetor	No	No	No	Component Level Change
Changes in mechanical fuel injection system	No	No	No	No controversy-No Comments
Changes in mechanical fuel injection pump	No	No	No	Component Level Change
Engine model change to accommodate new airplane installation. No change in principles of operation of major	No	No	No	

MADE by the Minister responsible for civil aviation this 28th day of May, 2025.



(HON. JOHN BRICEÑO)
Prime Minister and Minister of Finance,
Investment and Economic transformation,
Civil Aviation and E-Governance
(Minister responsible for civil aviation)

Printed in Belize by the Government Printer
#1 Power Lane, Belmopan