



# **CIVIL AVIATION SAFETY AUTHORITY OF PNG**

**PNG**

**Civil Aviation Rule**

**Part 21**

**Certification of Products and Parts**

Applicable 13 November 2018

## DESCRIPTION

Part 21 prescribes the requirements for –

- the type acceptance certification of a product to be imported into Papua New Guinea,
- the airworthiness certification of an aircraft,
- the approval or authorisation of a design change, material, part, process, appliance, technical data, and a critical part:
- the issue of a document for the export of a product, critical part, or appliance, and
- the identification of a product or a critical part.

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**BULLETIN**

This Part first came into force on 1 January 2004 and now incorporates the following amendments:

<b>Amendment</b>	<b>Effective Date</b>
Amendment 1	1 January 2011
Amendment 2	13 November 2018

*Summary of amendments:*

**Amendment 2:**  
(Docket 18/CAR/21/05)

Rules 21.23(1)(ii), 21.45(10) (ii), 21.41(10), 21.83 (a)(3), 21.95(a)(6)(i), 21.95(b)(1) and Appendix B(e) are amended for compliance with Carbon Dioxide (CO<sup>2</sup>) emissions standards. Rule 21.25 is amended for clarity.

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## Subpart A — General

### 21.1 Purpose

This Part prescribes rules governing –

- (1) the type acceptance certification of a product to be imported into Papua New Guinea;
- (2) the airworthiness certification of an aircraft;
- (3) the approval or authorisation of a design change, material, part, process, appliance, technical data, and critical part;
- (4) the issue of a document for the export of a product, critical part, or appliance;
- (5) the identification of a product or critical part.

### 21.3 Definitions

In this Part:

**Critical part** means an aircraft part for which a replacement time, inspection interval, or related procedure is specified in the Airworthiness Limitations section of a manufacturer's Maintenance Manual or Instructions for Continued Airworthiness:

### 21.5 Overseas applications

Applications for certificates, approvals, or authorisations from persons located outside of Papua New Guinea will only be considered for approval if the Director is satisfied that there is a need for the certificate, approval, or authorisation.

### 21.7 Required design changes

- (a) Where the Director issues an airworthiness directive for a product under Part 39, the holder of the type certificate for the product type must—
  - (1) if the Director determines that design changes are necessary to correct the unsafe condition of the product, upon the Director's request, submit authorised design changes to the Director for acceptance; and
  - (2) upon acceptance of the design changes, make the descriptive data covering the changes available to all operators of the product.
- (b) If there are no current unsafe conditions of the product but it is found through service experience that changes in the type certificate will contribute to the safety of the product, the holder of the type certificate for a product type must—
  - (1) upon the Director's request, submit appropriate design changes to the Director for approval; and
  - (2) upon approval of the design changes, make the descriptive data covering the changes available to all operators of the product.

## **Subpart B — Type Acceptance Certificates**

### **21.11 Purpose**

This Subpart prescribes rules governing the type acceptance certification of a product to be imported into Papua New Guinea.

### **21.13 Certificate categories**

- (a) The following type acceptance certificates are granted under this Subpart:
- (1) standard category type acceptance certificate for a product type to be imported into Papua New Guinea:
  - (2) restricted category type acceptance certificate for a product type to be imported into Papua New Guinea.
- (b) A type acceptance certificate may be granted in both the standard and restricted categories if the certification requirements for each category are met.
- (c) When issuing a restricted category type acceptance certificate for an aircraft, the Director must specify in the certificate the operational purposes for which the aircraft is certificated.

### **21.15 Application for certificate**

An applicant for the grant of a type acceptance certificate for a product type shall complete form CA 21/01, and submit it to the Director with—

- (1) the name and address for service in Papua New Guinea of the applicant; and
- (2) such further particulars relating to the product and the applicant as may be required by the Director; and
- (3) a payment of the appropriate application fee prescribed by regulation made under the Act.

### **21.17 Issue of certificate**

An applicant is entitled to a type acceptance certificate for a product type if—

- (1) the applicant meets the applicable certification requirements in 21.23 and 21.25; and
- (2) the grant of the certificate is not contrary to the interests of aviation safety.

### **21.19 Special conditions**

The Director may prescribe special conditions for a product to establish a level of safety equivalent to the airworthiness design standards specified in Appendix B if; the Director determines that the airworthiness standards do not contain adequate or appropriate safety levels because—

- (1) the product has novel or unusual design features relative to the design practices on which the applicable airworthiness design standards are based; or
- (2) the intended use of the product is unconventional.

### **21.21 Duration of certificate**

- (a) A type acceptance certificate remains in force unless-
- (1) the certificate is suspended or revoked;
  - (2) the foreign type certificate used as the basis for PNG type acceptance of the product lapses;
  - (3) the product manufacturer or type certificate holder ceases to supply the Director with required data.

### **21.23 Airworthiness requirements**

An applicant for the grant of a type acceptance certificate for a product type must provide the Director with evidence that—

- (1) the product type meets the applicable-
  - (i) airworthiness design standards; and
  - (ii) aircraft noise, engine emissions and aeroplane CO<sub>2</sub> emissions standards- specified in Appendix B, effective at the date assigned in the foreign type certificate or an equivalent document, unless another date is specified by the Director; and
- (2) the product type meets any special conditions imposed under the foreign type certification or as specified in writing by the Director under 21.19; and
- (3) any airworthiness requirements not complied with is compensated for by a factors providing an equivalent level of safety; and
- (4) there is no feature or characteristic of the product type that makes it unsafe for the intended use.

### **21.25 Data requirements**

(a) An applicant for the grant of a type acceptance certificate for a product type must provide the Director with—

- (1) evidence that—
  - (i) the type design has been approved by a Contracting State by the issue of a type certificate or an equivalent document; and
  - (ii) the type certificate or equivalent document is considered valid by the issuing State's airworthiness authority; and
- (2) details of the airworthiness requirements complied with, for the issue of the type certificate specified in paragraph (a)(1), including—
  - (i) the airworthiness design standards; and
  - (ii) the effective date of the standards; and
  - (iii) any special conditions imposed under the foreign type certification; and
  - (iv) any requirements not complied with and any compensating factors providing an equivalent level of safety acceptable to the Director; and
  - (v) any airworthiness limitations; and
- (3) details of the evidence required in 21.41(10) regarding aircraft noise, engine emissions and aeroplane CO<sub>2</sub> emission certification; and
- (4) a list identifying the data submitted for the issue of the type certificate or equivalent document specified in paragraph (a)(1), showing compliance with the applicable airworthiness design standards; and
- (5) for an aircraft, a copy of the flight manual approved under the type certificate or equivalent document specified in paragraph (a)(1), or, if the applicable design standards do not require a flight manual to be provided, a flight manual meeting the standards prescribed in Appendix B paragraph (c); and
- (6) if required by the Director—
  - (i) a copy of the maintenance manual for the product; and
  - (ii) a copy of the illustrated parts catalogue for the product type; and
  - (iii) a copy of all current service information issued by the manufacturers of the product



type; and

- (7) evidence that the manufacturer, or holder of the type certificate or equivalent document specified in paragraph (a)(1), has agreed to provide the Director with a copy of every amendments and re-issues of the documents prescribed in paragraphs (a)(5) and (a)(6).
- (b) If the product type referred to in paragraph (a) is an aircraft type, the information required under paragraph (a)(6) must include the aircraft, engine and propeller if applicable.
- (c) The Director may specify in writing the range of serial numbers or models of products to which the type acceptance certificate relates.
- (d) The Director may require provision of further data at any time after issue of a type acceptance certificate if such data is required for to satisfy the conditions for continuance of the type acceptance certificate to remain valid.

## **Subpart C — Changes to Type Acceptance Certificates**

### **21.27 Purpose**

This Subpart prescribes rules governing the approval of a change to a type acceptance certificates.

### **21.29 Changes to certificates**

A change to a type acceptance certificate in accordance with this Subpart may include a change to any of the following—

- (1) the type acceptance certificate category; or
- (2) the type design; or
- (3) the flight manual; or
- (4) the operating limitations; or
- (5) the type certificate data sheet; or
- (6) any special conditions prescribed on the type acceptance certificate.

### **21.31 Changes requiring a new certificate**

An applicant for the approval of a change to a type acceptance certificate must make a new application for a type acceptance certificate in accordance with Subpart B and provide the Director with evidence that the applicable foreign authority has approved the change to its type certificate in accordance with the applicable airworthiness requirements.

## **Subpart D — Airworthiness Certificates**

### **21.33 Purpose**

This Subpart prescribes rules governing the airworthiness certification of an aircraft.

### **21.35 Certificate categories**

- (a) The following certificates for an aircraft are granted by the Director under Section 49 of the Act in accordance with the applicable requirements of Subpart:
  - (1) standard category airworthiness certificate:
  - (2) restricted category airworthiness certificate:
  - (3) special flight permit.
- (b) The Director may specify in an airworthiness certificate the purpose of the certificate and any associated conditions and limitations, for the operation of the aircraft.

- (c) An airworthiness certificate may be granted in both the standard and restricted categories if—
- (1) the aircraft meets the certification requirements for each category when in the configuration for that category; and
  - (2) the aircraft can be converted from one configuration to the other by removing or adding equipment by simple mechanical means.
- (d) Except as provided for in (e), an aircraft that is internally equipped for dispensing substances on agricultural aircraft operations to an extent which makes it inappropriate for use in air operations, shall only be granted a restricted category airworthiness certificate for the purpose of agricultural aircraft operations.
- (e) The Director may grant a restricted category airworthiness certificate to an aircraft that is internally equipped for dispensing substances on agricultural aircraft operations for a purpose other than agricultural operations provided the conditions of the type acceptance certificate are satisfied.

### **21.37 Application for certificate**

An applicant for the grant of an airworthiness certificate must complete one of the following forms and submit it to the Director with a payment of the appropriate application fee prescribed by regulations made under the Act:

- (1) form CA 21/02 for a standard or restricted category airworthiness certificate;
- (2) form CA 21/04 or an equivalent that is acceptable to the Director for a special flight permit:

### **21.39 Issue of certificate**

- (a) Subject to paragraphs (b) and (c), an applicant is entitled to an airworthiness certificate for an aircraft if the Director is satisfied that the applicable certification requirements under this Subpart are met.
- (b) An applicant is entitled to an airworthiness certificate for an aircraft in both the standard and restricted categories if the Director is satisfied that-
- (1) the applicable certification requirements for each category under this Subpart are met when the aircraft is configured for that category; and
  - (2) the aircraft can be converted from one configuration to the other by removing or adding equipment by simple mechanical means.
- (c) An applicant is entitled to only a restricted category airworthiness certificate for an aircraft if the aircraft is internally equipped for dispensing substances on an agricultural aircraft operation and the extent of the internal equipment makes the aircraft inappropriate for use in air operations.
- (d) An applicant is entitled to a special permit for an aircraft if the Director is satisfied that-
- (1) the applicable certification requirements under this Subpart are met; and
  - (2) despite any failure of the aircraft to meet applicable airworthiness and maintenance requirements, the level of safety is adequate for one of the following purposes as appropriate:
    - (i) flying the aircraft to a base where maintenance is to be performed, or to a place of storage;
    - (ii) evacuating an aircraft from an area of impending danger;
    - (iii) demonstrating the eligibility of an aircraft for the issue of airworthiness certificate.

### **21.41 Standard and restricted category requirements**

An applicant for the grant of a standard or restricted category airworthiness certificate for an aircraft must provide the Director with evidence that—

- (1) The aircraft, its engines and propellers if applicable conform to applicable current type acceptance certificates issued in accordance with Subpart B; and
- (2) every modification and repair to the aircraft conforms to a design change approved in accordance with acceptable technical data under Subpart H for the aircraft type; and
- (3) every airworthiness directive that is applicable to the aircraft has been complied with in accordance with Part 39; and
- (4) the aircraft is issued with-
  - (i) the appropriate flight manual, and
  - (ii) the appropriate logbooks, repair and alteration forms, and documents; and
- (5) the aircraft is a Papua New Guinea registered aircraft and in accordance with Part 47, displays an identification plate and one of the following forms of marking-
  - (i) nationality and registration marks:
  - (ii) Police marks:
  - (iii) an approved identifiable paint scheme and markings; and
- (6) the aircraft, its engines, propellers, and propeller hubs and blades are identified by the means specified in Subpart J; and
- (7) the aircraft conforms with every applicable additional airworthiness requirements prescribed in Part 26; and
- (8) the aircraft has, within 60 days before the application for the airworthiness certificate, undergone-
  - (i) a 100 hrs, or equivalent, inspection in accordance with the manufacturer's maintenance schedule; or
  - (ii) a schedule inspection in accordance with an applicable maintenance programme of an operator certified in accordance with Part 119 or an air transport operator certificated by an ICAO Contracting State; or
  - (iii) an equivalent inspection acceptable to the Director; and
- (9) the aircraft has, within the 5 years before application for the airworthiness certificate, been weighed; and
- (10) the aircraft and each modification and repair to the aircraft complies with the applicable aircraft noise, engine emissions and aeroplane CO<sub>2</sub> emission standards specified in Appendix B; and
- (11) the aircraft is in a condition for safe operation.

#### **21.43 Reserved**

#### **21.44 Reserved**

#### **21.45 Special flight permit requirements**

- (a) An applicant for the grant of a special flight permit for an aircraft must provide the Director with:
  - (1) details of -
    - (i) the purpose of the flight; and

- (ii) the proposed itinerary; and
  - (iii) the crew required to operate the aircraft and its equipment; and
  - (iv) any non-compliance with any applicable airworthiness requirements; and
  - (v) any restriction the applicant determines necessary for the safe operation of the aircraft; and
  - (vi) any other information considered necessary by the Director may require for the purpose of prescribing operating limitations;
- (2) any other information the Director may require for the purpose of prescribing operating limitations; and
  - (3) evidence that the aircraft is a Papua New Guinea registered aircraft and in accordance with Part 47, displays an identification plate, nationality and registration marks; and
  - (4) completed form CA 21/04 with payment of the appropriate fee.
- (b) Notwithstanding paragraph (a), the Director may grant to the holder of an air operator certificate issued under Part 119 a continuing authorisation for the holder to issue special flight permits for the purpose of flying aircraft to a base where maintenance can be performed.
- (c) For the grant of a continuing authorisation in accordance with paragraph (b) the holder of an air operator certificate must include in the Exposition required by Part 119.115 procedures acceptable to the Director for the application of the authorisation.

#### **21.47 Reserved**

#### **21.49 Duration of certificate**

- (a) The following airworthiness certificates for an aircraft remains in force if the maintenance of the aircraft is performed in accordance with the applicable requirements of Parts 91 and 43 unless the certificate has expired or is suspended or revoked:
- (1) standard category airworthiness certificate:
  - (2) restricted category airworthiness certificate:
- (b) A standard category airworthiness certificate for an aircraft and a restricted category airworthiness certificate for an aircraft expire if-
- (1) the aircraft ceases to a Papua New Guinea registered aircraft; or
  - (2) the type acceptance certificate issued for the aircraft type, its engines, and propellers if applicable, ceases to remain in force; or
  - (3) a new airworthiness certificate in the same category is issued for the aircraft.
- (c) A special flight permit remains in force for the period specified in the permit if the aircraft remains a Papua New Guinea registered aircraft, unless the permit is suspended or revoked.
- (d) The holder of an airworthiness certificate that has expired under paragraphs (b) or (c) must surrender the certificate to the Director.

#### **21.51 Transfer of certificate**

The holder of a Papua New Guinea certificate of registration for an aircraft must transfer the following applicable airworthiness certificates with the aircraft if, in accordance with rule 47.57, the holder ceases to have lawful entitlement to the aircraft:

- (1) standard category airworthiness certificate:

- (2) restricted category airworthiness certificate:

## **Subpart E — Export Airworthiness Certificates**

### **21.53 Purpose**

This Subpart prescribes rules governing the issue of—

- (1) an export airworthiness certificates for the export of a product; and
- (2) an authorised release certificate for the export of a part or an appliance by organisations certificated for the purpose under Part 145.

### **21.55 Reserved**

### **21.57 Reserved**

### **21.59 Export airworthiness certificate exceptions**

If the applicant for an export airworthiness certificate provides a written statement by the State of the importer, in accordance with 21.65(b), the Director may issue the export airworthiness certificate with listed exceptions of—

- (1) the requirements of this Subpart that have not been met; and
- (2) any differences in configuration between the exported product and the relevant type accepted product.

### **21.61 Eligibility**

Any exporter or exporter's authorized representative may apply for the issue of an export airworthiness certificate for a product.

### **21.63 Application for export airworthiness certificate**

(a) An applicant for the issue of an export airworthiness certificate must complete form CA 21/05 and submit it to the Director with a payment of the appropriate application fee prescribed by regulations made under the Act and provide to the Director with:

- (1) evidence that—
  - (i) the product conforms to a type design acceptable to the State of the importer; and
  - (ii) any special certification conditions of the State of the importer has been met; and
  - (iii) the State of the importer accepts any exceptions to be listed on the certificate; and
  - (iv) the product has been identified in accordance with Subpart J; and
  - (v) the applicable airworthiness directives have been complied with; and
- (2) any log books, modification and repair forms, and historical records that the Director may require for other than a new product; and
- (3) a description of any methods used, including the duration of effectiveness of the method, for the preservation and packaging of a product to protect it against corrosion and damage while in transit or storage; and
- (4) the date when ownership passed, or is expected to pass, to a purchaser in the State of the importer; and

- (5) the date on which any document that is not available at the date of application is expected to become available; and
  - (6) supporting documentation for any variance to this Subpart; and
  - (7) any further particulars relating to the product and applicant required by the Director.
- (b) An applicant for the issue of an export airworthiness certificate for an aircraft must, in addition to paragraph (a), provide the Director with—
- (1) Evidence that—
    - (i) the aircraft possesses or qualifies for an airworthiness certificate under Subpart D; and
    - (ii) the aircraft is issued with the appropriate flight manuals; and
    - (iii) a weight and balance report has been completed, with a loading schedule if applicable; and
    - (iv) the aircraft has, within 60 days before the application for the export airworthiness certificate, undergone an inspection meeting the minimum requirements of Part 43, or an equivalent inspection acceptable to the Director; and
    - (v) any installations incorporated for the purpose of export delivery comply with the applicable airworthiness requirements or have been approved by the issue of a Special Flight Permit under Subpart D; and
  - (2) Confirmation that any installation described in paragraph (b)(1)(v) is to be removed and the aircraft restored to the approved type configuration upon completion of the delivery flight.
- (c) The applicant must make the product that is the subject of the export airworthiness certificate and associated data available for any inspection if required by the Director.

## **21.65 Issue of export airworthiness certificate**

- (a) The Director may issue an export airworthiness certificate for a product and an applicant is entitled to an export airworthiness certificate if the Director is satisfied that—
- (1) the applicant meets the applicable requirements of this Subpart; and
  - (2) the issue of the certificate is not contrary to the interests of aviation safety; and
  - (3) any airworthiness requirement that is not complied with is compensated for by a factor that provides an acceptable level of safety.
- (b) Notwithstanding paragraph (a)(1), the Director may issue an export airworthiness certificate for a product that does not meet every airworthiness requirements of rule 21.63 if the applicant provides written evidence that the non-compliance with any particular requirement is acceptable to the State of the importer.
- (c) An export airworthiness certificate issued by the Director under this Subpart-
- (1) may be subject to conditions as the Director considers appropriate in each particular case; and
  - (2) does not authorize the installation or use of a product.
- (d) Where a maintenance requirement, additional to those specified by the type certificate holder, is required to maintain the continuing airworthiness of a product, the Director may notify the additional maintenance requirement on an export airworthiness certificate as a condition under (c)(1).

**21.67 Validity of certificate**

- (a) An export airworthiness certificate issued under this Subpart remains valid, providing there is no subsequent design change to the product, until the completion of delivery to the State of the importer.
- (b) The holder of an export airworthiness certificate invalidated because of a design change must surrender the certificate to the Director.

**21.69 Transfer of certificate**

An export airworthiness certificate is transferred with the product.

**21.71 Use of an authorised release certificate for export**

- (a) The authorised release certificate must only be used for the export of a part or appliance where—
- (1) the part or appliance—
    - (i) is new or overhauled, or was last installed in an aircraft which possesses a valid standard or restricted airworthiness certificate and the part or appliance is fit for release to service; and
    - (ii) conforms to approved design data; and
    - (iii) is in a condition for safe operation; and
    - (iv) meets any special conditions for import required by the State of the importer; and
  - (2) the authorised release certificate has been issued in accordance with the procedures of an organisation certificated under Part 145.
- (b) A part or appliance does not need to meet every requirement under paragraph (a) the State of the importer indicates in writing that the part or appliance is acceptable to the State.

**21.73 Responsibilities of an exporter**

- (a) When title to an aircraft passes or has passed to a foreign purchaser, the exporter who was issued an export airworthiness certificate must—
- (1) where applicable, request the cancellation of the Papua New Guinea registration and airworthiness certificates, giving the date of transfer of title and the name and address of the foreign owner; and
  - (2) return the registration and airworthiness certificates to the Director; and
  - (3) submit a statement certifying that the Papua New Guinea nationality and registration marks have been removed from the aircraft.
- (b) Unless otherwise agreed with the State of the importer, the exporter who was issued an export airworthiness certificate must—
- (1) forward to the appropriate authority of the State of the importer—
    - (i) all documents and information necessary for the proper operation of the product and any other material as is stipulated in the special requirements of the State of the importer; and
    - (ii) the applicable manufacturer's assembly instructions for un-assembled aircraft and an approved flight check schedule; and
  - (2) preserve and package products to protect them against corrosion and damage whilst in transit

or storage; and

- (3) upon completion of an export delivery of an aircraft, remove, or have removed, any temporary installation incorporated for the purpose of delivery and restore the aircraft to the approved type configuration.

## **Subpart F— Design Changes**

### **21.75 Purpose**

This Subpart prescribes rules governing the approval of design changes.

### **21.77 Approval of design changes**

- (a) A design change may be approved by—
  - (1) including it in an Airworthiness Directive; or
  - (2) the approval of a modification; or
  - (3) the approval of a change to the type acceptance certificate under Subpart C.
- (b) Design changes are acceptable to the Director if they are—
  - (1) described by technical data listed in Appendix C; or
  - (2) accepted by the issue of an airworthiness certificate.

### **21.78 Notification of embodiment of acceptable design changes**

An acceptable design change embodied in accordance with paragraph 21.77(b)(1) must be notified to the Director within 7 days of embodiment.

### **21.79 Continuation of design changes**

Each design change that has been approved by the Director at the time this Part comes into force shall be deemed to have been approved under this Part.

### **21.81 Continued airworthiness responsibilities**

The organisation under which the statement of compliance for a design change was issued shall undertake the continued airworthiness responsibilities required by Part 146 in respect of the change.

### **21.83 Acceptance of design changes by the issue of an airworthiness certificate**

- (a) A design change embodied on an aircraft may be accepted by the issue of an airworthiness certificate for that aircraft, if—
  - (1) the design change is to be recorded in the maintenance records for the aircraft at the time of issue of the airworthiness certificate; and
  - (2) there is sufficient evidence that the design change meets the applicable airworthiness requirements.
  - (3) there is sufficient evidence that the design change meets the applicable aircraft noise, engine emissions and aeroplane CO<sub>2</sub> emission standards specified in Appendix B.
- (b) A design change accepted under this rule shall only be embodied on the individual aircraft for which the airworthiness certificate has been issued.

### **21.85 Form CA 337 – approval of modifications**



The Director shall approve a modification by approving the modification's technical data under 21.95.

## **Subpart G — Repairs**

### **21.87 Purpose**

This Subpart prescribes rules governing the approval of repair designs.

### **21.89 Approval of designs for repairs**

A repair, the design of which has not been approved under the type acceptance certificate, shall be treated as a design change to be approved in accordance with Subparts C or F.

## **Subpart H — Technical Data and Airworthiness Specifications**

### **21.91 Purpose**

This Subpart prescribes rules governing the approval of acceptance of technical data:

- (1) the approval or acceptance of specifications for a material, part, process, or appliance; and
- (2) the approval of a deviation from specifications for a material, part, process, or appliance.

### **21.93 Technical data**

- (a) Technical data shall only be used if it is approved, or is acceptable to the Director.
- (b) Approved data is data approved by the Director in accordance with 21.95.
- (c) Acceptable technical data is data listed in Appendix C to this Part.

### **21.95 Form CA 337 – approval of technical data**

(a) Except as provided in paragraphs (b), (c), and (d), an applicant for the approval of technical data must complete form CA 337, and submit it to the Director with a payment of the applicable application fee prescribed by regulations made under the Act and provide the Director with—

- (1) the name and address for service in Papua New Guinea of the applicant; and
- (2) any documentation necessary to define the data; and
- (3) a description of any design change including—
  - (i) sufficient data to identify the change; and
  - (ii) the identification of all parts of a product, component, or appliance affected by the change; and
- (4) for a product, component, or appliance to be changed in accordance with the data—
  - (i) details of any investigations, test or analysis that may be necessary to show compliance with the applicable airworthiness requirements; and
  - (ii) adequate maintenance and operating data to ensure the product, component, or appliance can be properly maintained and operated; and
- (5) any further particulars relating to the applicant, the technical data, and any design change, required by the Director; and
- (6) either—
  - (i) a statement of compliance provided by a design organisation certificated in accordance

with Part 146 stating that the technical data meets the airworthiness requirements of 21.23 and the applicable additional airworthiness requirements prescribed in Part 26, and the applicable aircraft noise, engine emissions and aeroplane CO<sub>2</sub> emission standards requirements prescribed in 21.23 and that the associated design change is fit for embodiment:

- (ii) an equivalent statement to that required by paragraph (a)(6)(i) issued in accordance with the requirements of an appropriate foreign authority.
- (b) Notwithstanding paragraph (a)(6)(i), a statement of compliance may state that the technical data—
- (1) meets the airworthiness requirements, aircraft noise, engine emissions and aeroplane CO<sub>2</sub> emission standards requirements incorporated by reference in the type certificate; or
  - (2) if special conditions are applied, meets a level of safety equivalent to that provided in paragraph (a)(6)(i).
- (c) An aircraft design organisation certificated in accordance with Part 146 may use a document other than the form CA 337 to record the information required by paragraph (a).
- (d) The Director may approve technical data and an applicant is entitled to the approval of technical data if the Director is satisfied that—
- (1) the applicant meets the applicable requirements under paragraph (a); and
  - (2) the approval of the data is not contrary to the interest of aviation safety; and
  - (3) any airworthiness requirement that is not complied with is compensated for by a factor that provides an acceptable level of safety; and
  - (4) there is no feature or characteristic of a product, component, or appliance that makes it unsafe for its intended use when the product, component or appliance is—
    - (i) changed in accordance with the data; and
    - (ii) operated in accordance with the correctly amended flight manual or other prescribed limitations.
- (e) Notwithstanding paragraph (d)(1), the Director may approve technical data without the applicant meeting every requirements of paragraph (a) if-
- (1) the application is limited to an individual product, component, or appliance; and
  - (2) the data provided by the applicant is sufficient to identify any associated design change.

## **21.97 Approval of specifications**

The specification for a material, part, process, or appliance shall be approved by—

- (1) the application of that specification in an approved design or design change but only for that design or design change; or
- (2) another method acceptable to the Director.

## **21.98 Acceptance of specifications**

A specification for a material, part, process, or appliance may be acceptable to the Director if—

- (1) it is applied by, or accepted for use in, an airworthiness design standard listed in Appendix B and is used only for that airworthiness design standard; or
- (2) it has been approved or accepted by a foreign aviation authority; or
- (3) it is a specification for a standard part and it is—
  - (i) an established industry specification; or
  - (ii) a Papua New Guinea national specification; or
  - (iii) a foreign national specification.

### **21.99 Application for deviation from specification**

(a) An applicant for a deviation to the performance standard of an accepted specification must complete form CA 21/06, and submit it to the Director with a payment of the appropriate application fee prescribed by regulations made under the Act and provide the Director with—

- (1) the name and address for service in Papua New Guinea of the applicant; and
- (2) the identification of the product, component, or appliance to which the deviation is to apply; and
- (3) any documentation necessary to support the deviation and its suitability for application to the product, component, or appliance; and
- (4) evidence that the standard from which a deviation is requested is compensated for by factors or design features providing—
  - (i) an equivalent minimum performance standard; and
  - (ii) a level of safety acceptable to the Director; and
- (5) any further particulars relating to the applicant required by the Director.

(b) An applicant is entitled to an approval of a deviation from specification if—

- (1) the applicant meets the applicable requirements of this Rule in a manner acceptable to the Director; and
- (2) the approval of the deviation is not contrary to the interests of aviation safety; and any airworthiness requirements not complied with are compensated for by factors that provide a level of safety acceptable to the Director.

## **Subpart I — Materials, Parts, Processes, and Appliances**

### **21.101 Purpose**

This Subpart prescribes rules governing the approval or acceptance of a material, part, process, and appliance.

### **21.103 Replacement and modification materials, parts, and appliances**

A replacement or modification material, part, or appliance to be installed into a type certificated product must—

- (1) be authorised by the holder of the type certificate for the product as complying with the type design; or

- (2) be manufactured by a person performing maintenance on the product and the replacement or modification material, part or appliance must be-
  - (i) certified by the person to conform to an approved type design including any embodied design changes; and
  - (ii) identified in accordance with Subpart J; or
- (3) be issued with an authorised release certificate issued by the holder of a maintenance organisation certificate issued in accordance with Part 145 who established the conformity and traceability of, and performed maintenance on, the part or appliance; or
- (4) be issued with a release note by the holder of a supply organisation certificate issued in accordance with Part 144 who established the conformity of the material, part, or appliance; or
- (5) be a standard part; or
- (6) be an imported part accepted for the purpose by the Director.

### **21.105 Approval or acceptance of processes**

If a process is required to meet the airworthiness requirements of any CAR, then it must be—

- (1) included in the exposition of the holder of a maintenance organisation certificate issued under Part 145; or
- (2) included in the exposition of the holder of a manufacturing organisation certificate issued under Part 148; or
- (3) be otherwise acceptable to the Director.

## **Subpart J — Identification of Products and Parts**

### **21.107 Purpose**

This Subpart prescribes rules governing the identification of—

- (1) aircraft, aircraft engines, and propellers; and
- (2) critical parts; and
- (3) certain replacement and modification parts.

### **21.109 Identification of aircraft, aircraft engines and propellers**

An aircraft, aircraft engine and propeller type accepted in Papua New Guinea must be identified with the information and in the manner prescribed in the design standard for the product.

### **21.111 Removal, alteration and replacement of identification information**

- (a) Except as provided in paragraph (b), a person must not remove, alter, or replace any of the following identification information without the approval of the Director.
  - (1) the identification information that is required under rule 21.109 to be marked on an aircraft and engine data plate;
  - (2) the identification information that is required under rule 21.109 to identify a propeller, propeller blade or propeller hub.
  - (3) the part number and serial number that is required under rule 21.115 for the identification of a critical part.

(b) A person performing maintenance in accordance with Part 43 may remove, alter, or replace the identification information referred to in paragraphs (a)(1) and (a)(2) and the part number and serial number referred to in paragraph (a)(3) if the removal, alteration, or replacement is carried out in accordance with a method, technique and practice that is acceptable to the Director.

### **21.113 Removal and reinstallation of data plate**

(a) Except as provided by paragraph (b), a person must not remove or reinstall the data plate containing the identification information prescribed in 21.109 without the approval of the Director.

(b) A person performing maintenance in accordance with Part 43 may remove or reinstall the data plate containing the identification information prescribed in 21.109 if—

- (1) the removal of the data plate is necessary during the maintenance; and
- (2) the data plate is removed and reinstalled in accordance with a method, technique, or practice acceptable to the Director; and
- (3) the removed data plate is reinstalled on the product or part from which it was removed.

### **21.115 Identification of critical parts**

A person who manufactures a critical part must permanently and legibly mark the part with—

- (1) a part number or an equivalent; and
- (2) a serial number or an equivalent.

### **21.117 Identification of replacement and modification materials, parts, and appliances**

(a) A person who manufactures a replacement or modification material, part, or appliance under 21.103(2) must permanently and legibly mark the material, part, or appliance in such a manner as to ensure it can be—

- (1) Identified separately to those otherwise acceptable materials, parts, and appliances; and
- (2) clearly related to its manufacturing data.

(b) If a material, part, or appliance is too small or it is otherwise impractical to mark the material, part, or appliance with the information required by paragraph (a), the information shall be recorded on a tag attached to the material, part, appliance, or its container.

(c) Where the marking required by paragraph (b) is so extensive that to record it on a tag is impractical, the tag attached to the material, part, appliance, or the container may refer to a specific readily available manual or catalogue for the name and model designation of each product issued with a type acceptance certificate, on which the material, part, or appliance is eligible for installation.

## **Subpart K – Reserved**

## **Subpart L – Transition Provisions**

### **21.151 Transition**

Transition provisions detailed in Part 20 apply to this Part.

## **Appendix A - Reserved**

## **Appendix B - Airworthiness Design Standards**

- (a) Subject to paragraph (c), the standard category airworthiness design standards are—
- (1) any of the following Federal Aviation Regulations issued by the Federal Aviation Administration of the United States of America:
    - (i) Part 23 — Airworthiness Standards: Normal, Utility, Acrobatic, and Commuter Category Aeroplanes, excluding 23.785(a) and 23.807(b)(5):
    - (ii) Part 25 — Airworthiness Standards: Transport Category Aeroplanes:
    - (iii) Part 27—Airworthiness Standards: Normal Category Rotorcraft:

- (iv) Part 29—Airworthiness Standards: Transport Category Rotorcraft:
- (v) Part 31 — Airworthiness Standards: Manned Free Balloons:
- (vi) Part 33 — Airworthiness Standards: Aircraft Engines:
- (vii) Part 35 — Airworthiness Standards: Propellers; or
- (2) A set of airworthiness design standards that the Director determines—
  - (i) comply with Annex 8 to the Convention, or appropriate design standards considered acceptable by the Director; and
  - (ii) provide an equivalent level of safety to those airworthiness design standards prescribed in paragraph (1) which were applicable at the time of type certification.
- (b) Subject to paragraph (c), the restricted category airworthiness design standards are—
  - (1) any of the design standards specified in paragraph (a), and any relevant standards specified in paragraphs (d) and (e), excluding those requirements that the Director determines inappropriate for the purpose for which the aircraft is to be used; or
  - (2) a set of airworthiness design standards that the Director determines appropriate for the purpose for which the aircraft is to be used.
- (c) The airworthiness design standard for a standard or restricted category aircraft must include a flight manual that contains—
  - (1) the operating limitations and information required to be provided by the applicable airworthiness design standard, in the form of a manual, markings or placards; and
  - (2) for aeroplanes and rotorcraft, the maximum ambient atmospheric temperatures for which engine cooling was demonstrated, in the performance information section of the flight manual; and
  - (3) the information required by 21.23(1)(ii) in the form of a certificate or a page in the flight manual.
- (d) The standard category aircraft noise standards are—
  - (1) the standards specified in the applicable chapter of ICAO Annex 16 Volume 1 except that—
    - (i) all subsonic turbo-jet and turbo-fan powered aeroplanes must comply with the standards specified in Annex 16, Volume 1, Chapter 3; and
    - (ii) if a higher standard has been specified in the aircraft type certificate, noise certificate or equivalent document, then that standard applies; or
  - (2) a set of equivalent airworthiness design standards acceptable to the Director.
- (e) The standard category aircraft noise engine emissions and aeroplane CO<sub>2</sub> emission standards are—
  - (1) the standards specified in the applicable chapter of ICAO Annex 16 Volume II and Volume III; or
  - (2) a set of equivalent airworthiness design standards acceptable to the Director.

## Appendix C- Acceptable Technical Data

- (a) Subject to paragraph (b), the following are acceptable technical data:
  - (1) the design standards listed in Appendix B:
  - (2) a type certificate datasheets:
  - (3) a foreign type certificate data sheets used for the issue of a type acceptance certificate:
  - (4) type design data for a type certificated products:
  - (5) design change data that support a design change approved by the means specified in rule 21.77:
  - (6) data approved by the Director under rule 21.95:
  - (7) data provided by the PNG Civil Aviation Authority and published in an advisory circular:

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- (8) an airworthiness directives that gives specific instructions for modification or repair:
  - (9) a supplemental type certificates issued by the following—
    - (i) the Federal Aviation Administration of the United States of America; and
    - (ii) Australian Civil Aviation Safety Authority; and
    - (iii) the Civil Aviation Authority of New Zealand; and
    - (iv) supplemental type certificates or equivalent issued by the State of Design acceptable to the Director.
  - (10) supplemental type approvals issued by Transport Canada:
  - (11) aeronautical specifications:
  - (12) data giving specific instructions for modification or repair contained in a maintenance manual, repair manual, overhaul manual, continuing airworthiness document, service bulletin, or an equivalent provided by the manufacturer of the product for which it is to be used and which is listed in the type certificate or by reference in the type acceptance certificate:
  - (13) current issues of AC43.13-1B and AC43.13-2B, issued by the Federal Aviation Administration of the United States of America, provided the use of the AC is approved by the aircraft or component manufacturer:
  - (14) data included in, and specific to the category of, an airworthiness certificate.
- (b) The technical data listed in paragraph (a) are acceptable provided that—
- (1) the data is appropriate to the product, component, or appliance, and is directly applicable to the work being carried out; and
  - (2) for a foreign supplemental type certificate or supplemental type approval—
    - (i) a complete new flight manual is not introduced; and
    - (ii) the aircraft type is not re-designated; and
    - (iii) the data is supplemental to the particular type certificate accepted by the Director and that type certificate is referenced on the supplemental type certificate or supplemental type approval; and
  - (3) the installer has the written permission of the holder of the STC to install the STC; and
  - (4) data provided by the manufacturer of a component does not conflict with data provided by the manufacturer of the product or assembly of which the component is to form a part.