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**CIVIL AVIATION
REQUIREMENTS**

CAR 21

**CERTIFICATION PROCEDURES FOR
AIRCRAFT AND RELATED
PRODUCTS AND PARTS**

ISSUE II (Revision 0)
... October, 2007

Director General of Civil Aviation

OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION
TECHNICAL CENTRE, OPP. SAFDARJUNG AIRPORT, NEW DELHI

FOREWORD

Rule 50 of the Aircraft Rules, 1937 stipulates that there shall be a certificate of airworthiness for operation of aircraft in India. The prerequisite to this rule is to have a type certificate issued/ validated by DGCA in accordance with Rules 49, 49A and 49B. With the objective of compliance with these rules, CAR 21 was drawn up based on the regulations of JAR 21, Amendment 4.

Since than JAR 21 regulations have been superseded by EASA Part 21. In order to harmonies the national requirements with the international requirements, it has been decided to change the requirements, after careful consideration, with regulations based on EASA Part 21

CAR21 prescribes procedural requirements for issue of type certificates and changes to these certificates, issue of certificate of airworthiness, issue of noise certificate and issue of export airworthiness approvals. It covers matters related to design, manufacture and all other issues related to airworthiness including continued airworthiness, repairs, etc. CAR 21 also contains requirements for approval of design and production organisations as per the provisions of Rule 133B.

This CAR is issued under the provisions of Rule 133A of the Aircraft Rules, 1937.

RECORD OF REVISION

This CAR 21 is revised and re-issued on theNov' 2007 and becomes effective forthwith. This record of revision is intended to be a summarized record of the major changes introduced when this CAR 21 is amended.

Issue I : (Revision 0)

1st July'2004

1. This CAR 21 has been issued containing regulations for certification of aircraft and related products and parts based on the regulations of JAR 21 Amendment 4.

Issue I : (Revision 1)

22nd February'2006

2. Subpart I (Noise Certificates) containing requirements on issue of Noise Certificates based on JAR 21 regulations has been included

Issue I : (Revision 2)

9th June'2006

3. The acceptable type certification basis and environmental protection requirements have been included and airworthiness codes were established.

Issue II : (Revision 0)

.....2007

4. To harmonize the national requirements with the international requirements, the existing regulations wherever appropriate, have been revised based on regulations of Part 21 of EU Regulations.

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ACRONYMS

APU	Auxiliary Power Unit
ATA	Air Transport Association
AMC	Acceptable Means of Compliance
AMM	Aircraft Maintenance Manual
AED	Aircraft Engineering Division
AD	Airworthiness Directive
BFE	Buyer Furnished Equipment
CAR	Civil Aviation Requirements
CS	Certification Specifications
DGCA	Directorate General of Civil aviation
DOA	Design Organization Approval
DDP	Declaration of Design Performance
DDA	Direct Delivery Authorization
FAR	Federal Aviation Requirements
GM	Guidance Materials
HIRF	High Intensity Radiated Fields
ILA	Issue of Letter of Agreement
IPC	Illustrated Parts Catalogue
ITSO	Indian Technical Standard Order
ITSOA	Indian Technical Standard Order Authorizations
IPA	Indian Parts Approval
MTOP	Maximum Take Off Power
MTOM	Maximum Take Off Mass
NTO	No Technical Objection
POA	Production Organization Approval
POE	Production Organization Exposition
PSE	Principal Structural Element
STC	Supplemental Type Certificate
SB	Service Bulletin
TC	Type Certificate
TCDS	Type Certificate Data Sheet
VLA	Very Light Aero plane
VLR	Very Light Rotorcraft

SECTION A
REQUIREMENTS FOR APPLICANTS AND ACQUIRED RIGHTS AND
OBLIGATIONS

SUBPART A — GENERAL PROVISIONS

21.1 Scope and Definitions

a) Scope

This Section establishes general provisions governing the rights and obligations of the applicant for, and holder of, any certificate issued or to be issued in accordance with this Section.

b) Definitions

For the purposes of this CAR-21

- (1) “Product” means an aircraft, aircraft engine, or propeller.
- (2) “Parts and appliances” means any instrument, mechanism, equipment, part, apparatus, appurtenance, or accessory, including communications equipment, that is used in or intended to be used in operating or controlling an aircraft in flight and is installed in or attached to the aircraft. It includes parts of an airframe, engine or propeller.

Note: (1) In CAR-21, the term “appliance” is not used alone; the term “part” when used alone carries its normal dictionary meaning.
(2) In Subpart O, parts and appliances subject to an ITSO Authorisation are referred to as “articles”.

- (3) “Import” and “Export” mean the transfer of products, parts and appliances between India and a foreign country.
- (4) “Comply” and “compliance” are used in connection with meeting a rule, regulation or requirement.
- (5) “Conform” and “conformity” are used in connection with showing or finding a product, part or appliance is in accordance with an approved design.
- (6) “Demonstrate”, unless otherwise stated, means demonstrate to DGCA.
- (7) Mandatory Clauses -

Use “shall”, and are referred to as a “regulation”, where they are an imperative (i.e. non-compliance could involve penalties).

Use “must”, and are referred to as a “requirement”, where they are a condition precedent (i.e. non-compliance leads to failure to obtain a certificate or approval).

- (8) “Person” is a legal entity, which is subject to the jurisdiction of India; it can include an Organization or Company.

21.2 Undertaking by another person than the applicant for, or holder of, a certificate

The actions and obligations required to be undertaken by the holder of, or applicant for, a certificate for a product, part or appliance under this Section may be undertaken on its behalf by any other natural or legal person, provided the holder of, or applicant for, that certificate can show that it has made an agreement with the other person such as to ensure that the holder's obligations are and will be properly discharged.

21.3A Failures, malfunctions and defects

(a) System for Collection, Investigation and Analysis of Data:

The holder of a type-certificate, restricted type-certificate, supplemental type-certificate, Indian Technical Standard Order (ITSO) authorization, major repair design approval or any other relevant approval deemed to have been issued under this Regulation shall have a system for collecting, investigating and analysing reports of and information related to failures, malfunctions, defects or other occurrences which cause or might cause adverse effects on the continuing airworthiness of the product, part or appliance covered by the type-certificate, restricted type-certificate, supplemental type-certificate, ITSO authorization, major repair design approval or any other relevant approval deemed to have been issued under this Regulation. Information about this system shall be made available to all known operators of the product, part or appliance and, on request, to any person authorized under other associated implementing Regulations.

(b) Reporting to DGCA:

1. The holder of a type-certificate, restricted type-certificate, supplemental type-certificate, ITSO authorization, major repair design approval or any other relevant approval deemed to have been issued under this Regulation shall report to DGCA any reportable failure, malfunction, defect or other occurrence of which it is aware related to a product, part, or appliance covered by the type-certificate, restricted type-certificate, supplemental type-certificate, ITSO authorization, major repair design approval or any other relevant approval deemed to have been issue under this Regulation, and which has resulted in or may result in an unsafe condition.
2. These reports shall be made in a form and manner established by DGCA, as soon as practicable and in any case dispatched not later than 72 hours after the identification of the possible unsafe condition, unless exceptional circumstances prevent this.

(c) Investigation of Reported Occurrences:

1. When an occurrence reported under paragraph (b), or under 21.129(f)(2) or 21.165(f)(2) results from a deficiency in the design, or a manufacturing deficiency, the holder of the type-certificate, restricted type-certificate, supplemental type-certificate, major repair design approval, ITSO authorization, or any other relevant approval deemed to have been issued under this Regulation, or the manufacturer as appropriate, shall investigate the reason for the deficiency and report to DGCA the results of its investigation and any action it is taking or proposes to take to correct that deficiency.
2. If DGCA finds that an action is required to correct the deficiency, the holder of the type-certificate, restricted type-certificate, supplemental type-certificate, major repair design approval, ITSO authorization, or any other relevant approval deemed to have been issued under this Regulation, or the manufacturer as appropriate, shall submit the relevant data to DGCA.

21.3B Airworthiness directives

- (a) An airworthiness directive means a document issued or adopted by DGCA which mandates actions to be performed on an aircraft to restore an acceptable level of safety, when evidence shows that the safety level of this aircraft may otherwise be compromised.
- (b) DGCA shall issue an airworthiness directive when:
 1. an unsafe condition has been determined by DGCA to exist in an aircraft, as a result of a deficiency in the aircraft, or an engine, propeller, part or appliance installed on this aircraft; and
 2. that condition is likely to exist or develop in other aircraft.
- (c) When an airworthiness directive has to be issued by DGCA to correct the unsafe condition referred to in paragraph (b), or to require the performance of an inspection, the holder of the type-certificate, restricted type-certificate, supplemental type-certificate, major repair design approval, ITSO authorization or any other relevant approval deemed to have been issued under this Regulation, shall:
 1. Propose the appropriate corrective action or required inspections, or both, and submit details of these proposals to DGCA for approval.
 2. Following the approval by DGCA of the proposals referred to under subparagraph (1), make available to all known operators or owners of the product, part or appliance and, on request, to any person required to comply with the airworthiness directive, appropriate descriptive data and accomplishment instructions.

(d) An airworthiness directive shall contain at least the following information:

1. An identification of the unsafe condition;
2. An identification of the affected aircraft;
3. The action(s) required;
4. The compliance time for the required action(s);
5. The date of entry into force.

21.4 Coordination between design and production

Each holder of a type-certificate, restricted type-certificate, supplemental type-certificate, ITSO authorization, approval of a change to type design or approval of a repair design, shall collaborate with the production organization as necessary to ensure:

- (a) The satisfactory coordination of design and production required by 21.122 or 21.133 or 21.165(c)(2) as appropriate, and
- (b) The proper support of the continued airworthiness of the product, part or appliance.

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SUBPART B — TYPE-CERTIFICATES AND RESTRICTED TYPE-CERTIFICATES

21.11 Scope

This Subpart establishes the procedure for issuing type-certificates for products and restricted type-certificates for aircraft, and establishes the rights and obligations of the applicants for, and holders of, those certificates.

21.13 Eligibility

Any natural or legal person that has demonstrated, or is in the process of demonstrating, its capability in accordance with 21.14 shall be eligible as an applicant for a type-certificate or a restricted type-certificate under the conditions laid down in this Subpart.

21.14 Demonstration of capability

- (a) Any organization applying for a type-certificate or restricted type-certificate shall demonstrate its capability by holding a design organization approval, issued by DGCA in accordance with Subpart JA.
- (b) By way of derogation from paragraph (a), as an alternative procedure to demonstrate its capability, an applicant may seek DGCA agreement for the use of procedures setting out the specific design practices, resources and sequence of activities necessary to comply with this Part, when the product is one of the following:
 - 1. a non powered sailplane
 - 2. a micro light aircraft with all up weight not exceeding 450 Kg.

21.15 Application

- (a) An application for a type-certificate or restricted type-certificate shall be made in a form and manner established by DGCA.
- (b) An application for an aircraft type-certificate or restricted type-certificate shall be accompanied by a three-view drawing of that aircraft and preliminary basic data, including the proposed operating characteristics and limitations.
- (c) An application for an engine or propeller type-certificate shall be accompanied by a general arrangement drawing, a description of the design features, the operating characteristics, and the proposed operating limitations, of the engine, or propeller.
- (d) An application for a type certificate or restricted type certificate shall be submitted to DGCA along with requisite fees as applicable.

21.16A Airworthiness codes

- (a) The applicable requirements for the issue of a Type Certificate for an aircraft engine, or propeller are -

- (1) The applicable airworthiness requirements as prescribed in CS 22, CS VLA, CS VLR, CS/ FAR 23, CS/ FAR 25, CS/FAR 27, CS/ FAR 29, CS-E / FAR 33 and CS-P/ FAR 35 that are effective on the date of application for that certificate unless -
 - (i) Other wise specified by DGCA; or
 - (ii) Compliance with later effective amendments is elected or required under this paragraph
- (3) Any Special Conditions prescribed in accordance with CAR 21.16 (B).

21.16B Special conditions

- (a) DGCA shall prescribe special detailed technical specifications, named special conditions, for a product, if the related airworthiness code does not contain adequate or appropriate safety standards for the product, because:
 1. The product has novel or unusual design features relative to the design practices on which the applicable airworthiness code is based; or
 2. The intended use of the product is unconventional; or
 3. Experience from other similar products in service or products having similar design features, has shown that unsafe conditions may develop.
- (b) The special conditions contain such safety standards as DGCA finds necessary to establish a level of safety equivalent to that established in the applicable airworthiness code.

21.17 Type-certification basis

- (a) The type-certification basis to be notified for the issuance of a type-certificate or a restricted type-certificate shall consist of:
 1. The applicable airworthiness code established/prescribed by DGCA under CAR 21.16A that is effective on the date of application for that certificate unless:
 - (i) Otherwise specified by DGCA; or
 - (ii) Compliance with later effective amendments is elected by the applicant or required under paragraphs (c) and (d).
 2. Any special condition prescribed in accordance with 21.16B (a).
- (b) An application for type-certification of large aeroplanes and large rotorcraft shall be effective for five years and an application for any other type-certificate shall be effective for three years, unless an applicant shows at the time of application that its product requires a longer period of time for design, development, and testing, and DGCA approves a longer period.
- (c) In the case where a type-certificate has not been issued, or it is clear that a type-certificate will not be issued, within the time limit established under paragraph (b); the applicant may:

1. File a new application for a type-certificate and comply with all the provisions of paragraph (a) applicable to an original application; or
 2. File for an extension of the original application and comply with the applicable airworthiness codes that were effective on a date, to be selected by the applicant, not earlier than the date which precedes the date of issue of the type-certificate by the time limit established under paragraph (b) for the original application.
- (d) If an applicant elects to comply with an amendment to the airworthiness codes that is effective after the filing of the application for a type-certificate, the applicant shall also comply with any other amendment that DGCA finds is directly related.

21.18 Designation of applicable environmental protection requirements and certification specifications/ airworthiness regulations

- (a) The applicable noise requirements for the issue of a type-certificate for an aircraft are prescribed according to the provisions of Chapter 1 of Annex 16, Volume I, Part II to the Chicago Convention and:
1. for subsonic jet aeroplanes, in Volume I, Part II, Chapters 2, 3 and 4, as applicable;
 2. for propeller-driven aeroplanes, in Volume I, Part II, Chapters 3, 4, 5, 6 and 10, as applicable;
 3. for helicopters, in Volume I, Part II, Chapters 8 and 11, as applicable; and
 4. for supersonic aeroplanes, in Volume I, Part II, Chapter 12, as applicable.
- (b) The applicable emission requirements for the issue of a type-certificate for an aircraft and engine are prescribed in Annex 16 to the Chicago Convention:
1. for prevention of intentional fuel venting, in Volume II, Part II, Chapter 2;
 2. for emissions of turbo-jet and turbofan engines intended for propulsion only at subsonic speeds, in Volume II, Part III, Chapter 2; and
 3. for emissions of turbo-jet and turbofan engines intended for propulsion only at supersonic speeds, in Volume II, Part III, Chapter 3.

21.19 Changes requiring a new type-certificate

Any natural or legal person proposing to change a product shall apply for a new type-certificate if DGCA finds that the change in design, power, thrust, or mass is so extensive that a substantially complete investigation of compliance with the applicable type-certification basis is required.

21.20 Compliance with the type-certification basis and environmental protection requirements

- (a) The applicant for a type-certificate or a restricted type-certificate shall show compliance with the applicable type certification basis and environmental protection requirements and shall provide to DGCA the means by which such compliance has been shown.

- (b) The applicant shall declare that it has shown compliance with all applicable type-certification basis and environmental protection requirements.
- (c) Where the applicant holds an appropriate design organization approval, the declaration of paragraph (b) shall be made according to the provisions of Subpart JA.

21.21 Issue of a type-certificate

The applicant shall be entitled to have a product type-certificate issued by DGCA after:

- (a) demonstrating its capability in accordance with 21.14;
- (b) submitting the declaration referred to in 21.20(b); and
- (c) it is shown that:
 - 1. The product to be certificated meets the applicable type-certification basis and environmental protection requirements designated in accordance with 21.17 and 21.18;
 - 2. Any airworthiness provisions not complied with are compensated for by factors that provide an equivalent level of safety;
 - 3. No feature or characteristic makes it unsafe for the uses for which certification is requested; and
 - 4. The type-certificate applicant has expressly stated that it is prepared to comply with 21.44.
- (d) In the case of an aircraft type-certificate, the engine or propeller, or both, if installed in the aircraft, have a type-certificate issued or determined in accordance with this Regulation.

21.23 Issue of a restricted type-certificate

- (a) For an aircraft that does not meet the provisions of 21.21(c), the applicant shall be entitled to have a restricted type-certificate issued by DGCA after:
 - 1. complying with the appropriate type-certification basis established by DGCA ensuring adequate safety with regard to the intended use of the aircraft, and with the applicable environmental protection requirements;
 - 2. expressly stating that it is prepared to comply with 21.44.
- (b) The engine or propeller installed in the aircraft, or both, shall:
 - 1. have a type-certificate issued or determined in accordance with this Regulation;
or
 - 2. have been shown to be in compliance with the certification specifications/airworthiness regulations necessary to ensure safe flight of the aircraft.

21.31 Type design

(a) 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 the applicable type-certification basis and environmental protection requirements;
2. Information on materials and processes and on methods of manufacture and assembly of the product necessary to ensure the conformity of the product;
3. An approved airworthiness limitations 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 emissions (where applicable) of later products of the same type.

(b) Each type design shall be adequately identified.

21.33 Investigation and tests

(a) The applicant shall perform all inspections and tests necessary to show compliance with the applicable type-certification basis and environmental protection requirements.

(b) Before each test required by paragraph (a) is undertaken, the applicant shall have determined:

1. For the test specimen:

- (i) That materials and processes adequately conform to the specifications for the proposed type design;
- (ii) That parts of the products adequately conform to the drawings in the proposed type design;
- (iii) That the manufacturing processes, construction and assembly adequately conform to those specified in the proposed type design; and

2. That the test equipment and all measuring equipment used for tests are adequate for the test and are appropriately calibrated.

(c) The applicant shall allow DGCA to make any inspection necessary to check compliance with paragraph (b).

(d) The applicant shall allow DGCA to review any report and make any inspection and to perform or witness any flight and ground test necessary to check the validity of the declaration of compliance submitted by the applicant under 21.20(b) and to determine that no feature or characteristic makes the product unsafe for the uses for which certification is requested.

(e) For tests performed or witnessed by DGCA under paragraph (d):

1. The applicant shall submit to DGCA a statement of compliance with paragraph (b); and
2. No change relating to the test that would affect the statement of compliance may be made to a product, part or appliance between the time compliance with paragraph (b) is shown and the time it is presented to DGCA for test.

21.35 Flight Tests

(a) Flight testing for the purpose of obtaining a type-certificate shall be conducted in accordance with conditions for such flight testing specified by DGCA.

(b) The applicant shall make all flight tests that DGCA finds necessary:

1. To determine compliance with the applicable type-certification basis and environmental protection requirements, and
2. For aircraft to be certificated under this Section, except sailplanes and powered sailplanes to determine whether there is reasonable assurance that the aircraft, its parts and appliances are reliable and function properly.

(c) (Reserved)

(d) (Reserved)

(e) (Reserved)

(f) The flight tests prescribed in subparagraph (b)(2) shall include:

1. For aircraft incorporating turbine engines of a type not previously used in a type-certificated aircraft, at least 300 hours of operation with a full complement of engines that conform to a type-certificate; and
2. For all other aircraft, at least 150 hours of operation.

21.41 Type-certificate

The type-certificate and restricted type-certificate are both considered to include the type design, the operating limitations, the type-certificate data sheet for airworthiness and emissions, the applicable type-certification basis and environmental protection requirements with which DGCA records compliance, and any other conditions or limitations prescribed for the product in the applicable certification specifications/airworthiness regulations and environmental protection requirements. The aircraft type-certificate and restricted type-certificate, in addition, both include the type-certificate data sheet for noise. The engine type-certificate data sheet includes the record of emission compliance.

21.44 Obligations of the holder

Each holder of a type-certificate or restricted type-certificate shall:

- (a) undertake the obligations laid down in 21.3, 21.3B, 21.4, 21.55, 21.57 and 21.61; and, for this purpose, shall continue to meet the qualification requirements for eligibility under 21.14; and
- (b) specify the marking in accordance with Subpart Q.

21.47 Transferability

Transfer of a type-certificate or restricted type-certificate may only be made to a natural or legal person that is able to undertake the obligations under 21.44, and, for this purpose, has demonstrated its ability to qualify under the criteria of 21.14.

21.51 Duration and continued validity

- (a) A type-certificate and restricted type-certificate shall be issued for an unlimited duration. They shall remain valid subject to:
 - 1. The holder remaining in compliance with this Part; and
 - 2. The certificate not being surrendered or revoked under the applicable administrative procedures established by DGCA.
- (b) Upon surrender or revocation, the type-certificate and restricted type-certificate shall be returned to DGCA.

21.55 Record keeping

All relevant design information, drawings and test reports, including inspection records for the product tested, shall be held by the type-certificate or restricted type-certificate holder at the disposal of DGCA and shall be retained in order to provide the information necessary to ensure the continued airworthiness and compliance with applicable environmental protection requirements of the product.

21.57 Manuals

The holder of a type-certificate or restricted type-certificate shall produce, maintain and update master copies of all manuals required by the applicable type-certification basis and environmental protection requirements for the product, and provide copies, on request, to DGCA.

21.61 Instructions for continued airworthiness

- (a) The holder of the type-certificate or restricted type-certificate shall furnish at least one set of complete instructions for continued airworthiness, comprising descriptive data and accomplishment instructions prepared in accordance with the applicable type-certification basis, to each known owner of one or more aircraft, engine or propeller upon its delivery or upon issue of the first certificate of airworthiness for the affected aircraft, whichever occurs later and thereafter make those instructions available on request to any other person required to comply with any of the terms of those instructions. The availability of some manual or portion of the instructions for

continued airworthiness, dealing with overhaul or other forms of heavy maintenance, may be delayed until after the product has entered into service, but shall be available before any of the products reaches the relevant age or flight-hours/cycles.

- (b) In addition, changes to the instructions for continued airworthiness shall be made available to all known operators of the product and shall be made available on request to any person required to comply with any of those instructions. A programme showing how changes to the instructions for continued airworthiness are distributed shall be submitted to DGCA.

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SUBPART C — NOT APPLICABLE

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SUBPART D — CHANGES TO TYPE-CERTIFICATES AND RESTRICTED TYPE-CERTIFICATES

21.90 Scope

This Subpart establishes the procedure for the approval of changes to type designs and type-certificates, and establishes the rights and obligations of the applicants for, and holders of, those approvals. In this Subpart, references to type-certificates include type-certificate and restricted type-certificate.

21.91 Classification of changes in type design

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, noise, fuel venting, exhaust emission, or other characteristics affecting the airworthiness of the product. Without prejudice to 21.19, all other changes are ‘major changes’ under this Subpart. Major and minor changes shall be approved in accordance with 21.95 or 21.97 as appropriate, and shall be adequately identified.

21.92 Eligibility

- (a) Only the type-certificate holder may apply for approval of a major change to a type design under this Subpart; all other applicants for a major change to a type design shall apply under Subpart E.
- (b) Any natural or legal person may apply for approval of a minor change to a type design under this Subpart.

21.93 Application

An application for approval of a change to a type design shall be made in a form and manner established by DGCA and shall include:

- (a) A description of the change identifying
 1. All parts of the type design and the approved manuals affected by the change; and
 2. The certification specifications/airworthiness regulations and environmental protection requirements with which the change has been designed to comply in accordance with 21.101.
- (b) Identification of any re-investigations necessary to show compliance of the changed product with the applicable certification specifications/ airworthiness regulations and environmental protection requirements.
- (c) An application for approval of a change to a type design shall be submitted to DGCA along with requisite fees as applicable.

21.95 Minor changes

Minor changes in a type design shall be classified and approved either:

- (a) By DGCA; or
- (b) By an appropriately approved design organization under a procedure agreed with DGCA.

21.97 Major changes

- (a) An applicant for approval of a major change shall:
 - 1. submit to DGCA substantiating data together with any necessary descriptive data for inclusion in the type design;
 - 2. show that the changed product complies with applicable certification specifications/airworthiness regulations and environmental protection requirements, as specified in 21.101;
 - 3. declare that it has shown compliance with the applicable type-certification basis and environmental protection requirements and shall provide to DGCA the basis on which such a declaration is made; and
 - 4. where the applicant holds an appropriate design organization approval, make the declaration of subparagraph (a)(3) according to the provisions of Subpart JA;
 - 5. comply with 21.33 and, where applicable, 21.35.
- (b) Approval of a major change in a type design is limited to that or those specific configuration(s) in the type design upon which the change is made.

21.101 Designation of applicable certification specifications/ airworthiness regulations and environmental protection requirements

- (a) An applicant for a change to a type-certificate shall demonstrate that the changed product complies with the airworthiness code that is applicable to the changed product and that is in effect at the date of the application for the change, and with the applicable environmental protection requirements laid down in 21.18.
- (b) By derogation from paragraph (a), an applicant may show that the changed product complies with an earlier amendment of the airworthiness code defined in paragraph (a), and of any other certification specification DGCA finds is directly related. However, the earlier amended airworthiness code may not precede the corresponding airworthiness code incorporated by reference in the type-certificate. The applicant may show compliance with an earlier amendment of an airworthiness code for any of the following:
 - 1. A change that DGCA finds not to be significant. In determining whether a specific change is significant, the DGCA considers the change in context with all previous relevant design changes and all related revisions to the applicable certification specifications/ airworthiness regulations incorporated in the type-

certificate for the product. Changes that meet one of the following criteria are automatically considered significant:

- (i) The general configuration or the principles of construction are not retained.
 - (ii) The assumptions used for certification of the product to be changed do not remain valid.
2. Each area, system, part or appliance that DGCA finds is not affected by the change.
 3. Each area, system, part or appliance that is affected by the change, for which DGCA finds that compliance with an airworthiness code described in paragraph (a) would not contribute materially to the level of safety of the changed product or would be impractical.
- (c) An applicant for a change to an aircraft (other than a rotorcraft) of 2 722 kg (6 000 lbs.) or less maximum weight or to a non-turbine rotorcraft of 1 361 kg (3 000 lbs.) or less maximum weight may show that the changed product complies with the type-certification basis incorporated by reference in the type-certificate. However, if DGCA finds that the change is significant in an area, DGCA may designate compliance with an amendment to the type-certification basis incorporated by reference in the type-certificate, in effect at the date of the application, and any certification specification that DGCA finds is directly related, unless DGCA also finds that compliance with that amendment or certification specification would not contribute materially to the level of safety of the changed product or would be impractical.
- (d) If the DGCA finds that the airworthiness code in effect at the date of the application for the change does not provide adequate standards with respect to the proposed change, the applicant shall also comply with any special conditions, and amendments to those special conditions, prescribed under the provisions of 21.16B, to provide a level of safety equivalent to that established in the airworthiness code in effect at the date of the application for the change.
- (e) An application for a change to a type-certificate for large aeroplanes and large rotorcraft is effective for five years, and an application for a change to any other type-certificate is effective for three years. In a case where the change has not been approved, or it is clear that it will not be approved under the time limit established under this sub Paragraph, the applicant may:
1. file a new application for a change to the type-certificate and comply with all the provisions of paragraph (a) applicable to an original application for a change; or
 2. file for an extension of the original application and comply with the provisions of paragraph (a) for an effective date of application, to be selected by the applicant, not earlier than the date which precedes the date of approval of the change by the time period established under this subparagraph for the original application for the change.

21.103 Issue of approval

- (a) The applicant shall be entitled to have a major change to a type design approved by DGCA after:
1. submitting the declaration referred to in 21.97(a)(3); and
 2. It is shown that:
 - (i) The changed product meets the applicable certification specifications/ airworthiness regulations and environmental protection requirements, as specified in 21.101;
 - (ii) Any airworthiness provisions not complied with are compensated for by factors that provide an equivalent level of safety; and
 - (iii) No feature or characteristic makes the product unsafe for the uses for which certification is requested.
- (b) A minor change to a type design shall only be approved in accordance with 21.95 if it is shown that the changed product meets the applicable certification specifications/ airworthiness regulations, as specified in 21.101.

21.105 Record keeping

For each change, all relevant design information, drawings and test reports, including inspection records for the changed product tested, shall be held by the applicant at the disposal of DGCA and shall be retained in order to provide the information necessary to ensure the continued airworthiness and compliance with applicable environmental protection requirements of the changed product.

21.107 Instructions for continued airworthiness

- (a) The holder of a minor change approval to type design shall furnish at least one set of the associated variations, if any, to the instructions for continued airworthiness of the product on which the minor change is to be installed, prepared in accordance with the applicable type-certification basis, to each known owner of one or more aircraft, engine, or propeller incorporating the minor change, upon its delivery, or upon issuance of the first certificate of airworthiness for the affected aircraft, whichever occurs later, and thereafter make those variations in instructions available, on request, to any other person required to comply with any of the terms of those instructions.
- (b) In addition, changes to those variations of the instructions for continued airworthiness shall be made available to all known operators of a product incorporating the minor change and shall be made available, on request, to any person required to comply with any of those instructions.

21.109 Obligations

The holder of a minor change approval to type design shall:

- (a) undertake the obligations laid down in 21.4, 21.105 and 21.107; and
- (b) specify the marking, in accordance with 21.804(a).

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SUBPART E — SUPPLEMENTAL TYPE-CERTIFICATES

21.111 Scope

This Subpart establishes the procedure for the approval of major changes to the type design under supplemental type certificate procedures, and establishes the rights and obligations of the applicants for, and holders of, those certificates.

21.112A Eligibility

Any natural or legal person ('organization') that has demonstrated, or is in the process of demonstrating, its capability under 21.112B shall be eligible as an applicant for a supplemental type-certificate under the conditions laid down in this Subpart.

21.112B Demonstration of capability

- (a) Any organization applying for a supplemental type-certificate shall demonstrate its capability by holding a design organization approval, issued by DGCA in accordance with Subpart JA.
- (b) By way of derogation from paragraph (a), as an alternative procedure to demonstrate its capability, an applicant may seek DGCA agreement for the use of procedures setting out the specific design practices, resources and sequence of activities necessary to comply with this Subpart.

21.113 Application for a supplemental type-certificate

- (a) An application for a supplemental type-certificate shall be made in a form and manner established by DGCA.
- (b) An application for a supplemental type-certificate shall include the descriptions and identification required by 21.93. In addition, such an application shall include a justification that the information on which those identifications are based is adequate either from the applicant's own resources, or through an arrangement with the type-certificate holder.
- (c) An application for a supplemental type-certificate shall be submitted to DGCA along with requisite fees as applicable.

21.114 Showing of compliance

Any applicant for a supplemental type-certificate shall comply with 21.97.

21.115 Issue of a supplemental type-certificate

The applicant shall be entitled to have a supplemental type-certificate issued by DGCA after:

- (a) complying with 21.103(a);

- (b) demonstrating its capability in accordance with 21.112B;
- (c) where, under 21.113(b), the applicant has entered into an arrangement with the type-certificate holder,
 - 1. The type-certificate holder has advised that its has no technical objection to the information submitted under 21.93; and
 - 2. The type-certificate holder has agreed to collaborate with the supplemental type-certificate holder to ensure discharge of all obligations for continued airworthiness of the changed product through compliance with 21.44 and 21.118A.

21.116 Transferability

A supplemental type-certificate shall only be transferred to a natural or legal person that is able to undertake the obligations of 21.118A and for this purpose has demonstrated its ability to qualify under the criteria of 21.112B.

21.117 Changes to that part of a product covered by a supplemental type-certificate

- (a) Minor changes to that part of a product covered by a supplemental type-certificate shall be classified and approved in accordance with Subpart D.
- (b) Each major change to that part of a product covered by a supplemental type-certificate shall be approved as a separate supplemental type-certificate in accordance with this Subpart.
- (c) By way of derogation from paragraph (b), a major change to that part of a product covered by a supplemental type-certificate submitted by the supplemental type-certificate holder itself may be approved as a change to the existing supplemental type-certificate.

21.118A Obligations

Each holder of a supplemental type-certificate shall:

- a) undertake the obligations:
 - 1. Laid down in 21.3, 21.3B, 21.4, 21.105, 21.119 and 21.120;
 - 2. Implicit in the collaboration with the type-certificate holder under 21.115(c)(2); and for this purpose continue to meet the criteria of 21.112B
- (b) specify the marking, in accordance with 21.804(a).

21.118B Duration and continued validity

- (a) A supplemental type-certificate shall be issued for an unlimited duration.. It shall remain valid subject to:

1. the holder remaining in compliance with this Part; and
2. the certificate not being surrendered or revoked under the applicable administrative procedures established by DGCA.

(b) Upon surrender or revocation, the supplemental type-certificate shall be returned to DGCA.

21.119 Manuals

The holder of a supplemental type-certificate shall produce, maintain, and update master copies of variations in the manuals required by the applicable type-certification basis and environmental protection requirements for the product, necessary to cover the changes introduced under the supplemental type-certificate, and furnish copies of these manuals to DGCA on request.

21.120 Instructions for continued airworthiness

- (a) The holder of the supplemental type-certificate for an aircraft, engine, or propeller, shall furnish at least one set of the associated variations to the instructions for continued airworthiness, prepared in accordance with the applicable type-certification basis, to each known owner of one or more aircraft, engine, or propeller incorporating the features of the supplemental type-certificate, upon its delivery, or upon issuance of the first certificate of airworthiness for the affected aircraft, whichever occurs later, and thereafter make those variations in instructions available, on request, to any other person required to comply with any of the terms of those instructions. Availability of some manual or portion of the variations to the instructions for continued airworthiness, dealing with overhaul or other forms of heavy maintenance, may be delayed until after the product has entered into service, but shall be available before any of the products reaches the relevant age or flight-hours/cycles.
- (b) In addition, changes to those variations of the instructions for continued airworthiness shall be made available to all known operators of a product incorporating the supplemental type-certificate and shall be made available, on request, to any person required to comply with any of those instructions. A programme showing how changes to the variations to the instructions for continued airworthiness are distributed shall be submitted to DGCA.

SUBPART F — PRODUCTION WITHOUT PRODUCTION ORGANISATION APPROVAL

21.121 Scope

- (a) This Subpart establishes the procedure for demonstrating the conformity with the applicable design data of a product, part and appliance that is intended to be manufactured without a production organization approval under Subpart G.
- (b) This Subpart establishes the rules governing the obligations of the manufacturer of a product, part, or appliance being manufactured under this Subpart.

21.122 Eligibility

Any natural or legal person may apply to show conformity of individual products, parts or appliances under this Subpart, if;

- (a) it holds or has applied for an approval covering the design of that product, part or appliance, or
- (b) it has ensured satisfactory coordination between production and design, through an appropriate arrangement with the applicant for, or holder of, an approval of such a design.

21.124 Application

- (a) Each application for an agreement to the showing of conformity of individual products, parts and appliances under this Subpart shall be made along with requisite fees as applicable in a form and manner established by the DGCA.
- (b) Such application shall contain:
 - 1. evidence which demonstrate, where applicable, that:
 - (i) the issuance of a production organization approval under Subpart G would be inappropriate; or
 - (ii) the certification or approval of a product, part or appliance under this Subpart is needed pending the issuance of a production organization approval under Subpart G.
 - 2. An outline of the information required by 21.125(b).

21.125A Issue of a letter of agreement

The applicant shall be entitled to have a letter of agreement issued by DGCA agreeing to the showing of conformity of individual products, parts and appliances under this Subpart, after:

- (a) having established a production inspection system that ensures that each product, part or appliance conforms to the applicable design data and is in condition for safe operation.
- (b) providing a manual that contains:
 - 1. a description of the production inspection system required under paragraph (a),
 - 2. a description of the means for making the determinations of the production inspection system,
 - 3. a description of the tests of 21.127 and 21.128, and the names of persons authorized for the purpose of 21.130(a),
 - 4. description of independent monitoring function,
- (c) demonstrating that it is able to provide assistance in accordance with 21.3 and 21.129(d).
- (d). the approval of a authorized signatory by DGCA. to validate the Statement of Conformity(DGCA Form 52)/ Authorized release certificate (DGCA Form 1).

21.125B Findings

- (a) When objective evidence is found showing non-compliance of the holder of a letter of agreement with the applicable requirements of this Part, the finding shall be classified as follows:
 - 1. A level one finding is any non-compliance with this Part which could lead to uncontrolled non-compliances with applicable design data and which could affect the safety of the aircraft.
 - 2. A level two finding is any non-compliance with this Part which is not classified as level one.
- (b) A level three finding is any item where it has been identified, by objective evidence, to contain potential problems that could lead to non-compliance under paragraph (a).
- (c) After receipt of notification of findings.
 - 1. In case of a level one finding, the holder of the letter of agreement shall demonstrate corrective action to the satisfaction of DGCA within a period of 7 working days, extendable up to maximum 21 working days, depending upon the complexity of the case after written confirmation of the finding;
 - 2. In case of level two findings, the corrective action period granted by DGCA shall be within three months. In certain circumstances and subject to the nature of the finding, DGCA may extend the period from three months to six months, subject to a satisfactory corrective action plan agreed by the DGCA.
 - 3. A level three finding shall not require immediate action by the holder of the letter of agreement.
- (d) In case of level one or level two findings, the letter of agreement may be subject to a partial or full limitation, suspension and revocation. The holder of the letter of

agreement shall provide confirmation of receipt of the notice of limitation, suspension or revocation of the letter of agreement in a timely manner.

21.125C Duration and continued validity

- (a) The letter of agreement shall be issued for a limited duration not exceeding one year. It shall remain valid unless:
 - 1. The holder of the letter of agreement fails to demonstrate compliance with the applicable requirements of this Subpart; or
 - 2. There is evidence that the manufacturer cannot maintain satisfactory control of the manufacture of products, parts, or appliances under the agreement; or
 - 3. The manufacturer no longer meets the requirements of 21.122; or
 - 4. The letter of agreement has been surrendered, revoked or has expired.
- (b) Upon surrender, revocation or expiry, the letter of agreement shall be returned to DGCA.

21.126A Production inspection system

- (a) The production inspection system required under 21.125 shall provide a means for determining that:
 - 1. Incoming materials, and bought or subcontracted parts, used in the finished product are as specified in the applicable design data.
 - 2. Incoming materials, and bought or subcontracted parts, are properly identified.
 - 3. Processes, manufacturing techniques and methods of assembly affecting the quality and safety of the finished product are accomplished in accordance with specifications accepted by the DGCA.
 - 4. Design changes, including material substitutions, have been approved under Subpart D or E and controlled before being incorporated in the finished product.
- (b) The production inspection system required by 21.125(a), shall also be such as to ensure that:
 - 1. Parts in process are inspected for conformity with the applicable design data at points in production where accurate determinations can be made.
 - 2. Materials subject to damage and deterioration are suitably stored and adequately protected.
 - 3. Current design drawings are readily available to manufacturing and inspection personnel, and used when necessary.
 - 4. Rejected materials and parts are segregated and identified in a manner that precludes installation in the finished product.
 - 5. Materials and parts that are withheld because of departures from design data or specifications, and that are to be considered for installation in the finished product, are subjected to an approved engineering and manufacturing review procedure. Those materials and parts determined by this procedure to be serviceable shall be properly identified and re-inspected if rework or repair is necessary. Materials and parts rejected by this procedure shall be marked and disposed of to ensure that they are not incorporated in the final product.

6. Records produced under the production inspection system are maintained, identified with the completed product or part where practicable, and retained by the manufacturer in order to provide the information necessary to ensure the continued airworthiness of the product.

21.126B Quality assurance system and Independent monitoring function.

The production inspection system shall contain an independent quality monitoring function to monitor compliance with, and adequacy of, the documented procedures of the production inspection system. This monitoring shall include a feedback system to the person or group of persons who have been nominated by the production organization to ensure that the organization is in compliance with the requirements of this part to ensure, as necessary, corrective action.

21.126C Investigation

A production organization shall make arrangements that allow DGCA to make any investigations, including investigations of partners and subcontractors, necessary to determine compliance and continued compliance with the applicable requirements of this Subpart.

21.127 Tests: aircraft

- (a) Each manufacturer of an aircraft manufactured under this Subpart shall establish an approved production ground and flight test procedure and check-off forms, and in accordance with those forms, test each aircraft produced, as a means of establishing relevant aspects of compliance with 21.125(a).
- (b) Each production test procedure shall include at least the following:
 1. A check on handling qualities;
 2. A check on flight performance (using normal aircraft instrumentation);
 3. A check on the proper functioning of all aircraft equipment and systems;
 4. A determination that all instruments are properly marked, and that all placards and required flight manuals are installed after flight test;
 5. A check of the operational characteristics of the aircraft on the ground;
 6. A check on any other items peculiar to the aircraft being tested.

21.128 Tests: engines and propellers

Each manufacturer of engines, or propellers manufactured under this Subpart shall subject each engine, or variable pitch propeller, to an acceptable functional test as specified in the type-certificate holder's documentation, to determine if it operates properly throughout the range of operation for which it is type-certificated, as a means of establishing relevant aspects of compliance with 21.125(a).

21.129 Obligations of the manufacturer

Each manufacturer of a product, part or appliance being manufactured under this Subpart shall:

- (a) Make each product, part or appliance available for inspection by DGCA.
- (b) Maintain at the place of manufacture the technical data and drawings necessary to determine whether the product conforms to the applicable design data.
- (c) Maintain the production inspection system that ensures that each product conforms to the applicable design data and is in condition for safe operation.
- (d) Provide assistance to the holder of the type-certificate, restricted type-certificate or design approval in dealing with any continuing airworthiness actions that are related to the products, parts or appliances that have been produced.
- (e) Establish and maintain an internal occurrence reporting system in the interest of safety, to enable the collection and assessment of occurrence reports in order to identify adverse trends or to address deficiencies, and to extract reportable occurrences. This system shall include evaluation of relevant information relating to occurrences and the promulgation of related information.
- (f)
 1. Report to the holder of the type-certificate, restricted type-certificate or design approval, all cases where products, parts or appliances have been released by the manufacturer and subsequently identified to have deviations from the applicable design data, and investigate with the holder of the type-certificate, restricted type-certificate or design approval to identify those deviations which could lead to an unsafe condition.
 2. Report to DGCA the deviations which could lead to an unsafe condition identified according to subparagraph (1). Such reports shall be made in a form and manner established by DGCA under 21.3(b)(2) or accepted by DGCA.
 3. Where the manufacturer acts as supplier to another production organization, report also to that other organization all cases where it has released products, parts or appliances to that organization and subsequently identified them to have possible deviations from the applicable design data.

21.130 Statement of conformity

- (a) Each manufacturer of a product, part or appliance manufactured under this Subpart shall raise a Statement of Conformity, an DGCA Form 52, for complete aircraft, or DGCA Form 1, for other products, parts or appliances. This statement shall be signed by an authorized person who holds a responsible position in the manufacturing organization.
- (b) A statement of conformity shall include:
 1. For each product, part or appliance a statement that the product, part or appliance conforms to the approved design data and is in condition for safe operation;
 2. For each aircraft, a statement that the aircraft has been ground and flight checked in accordance with 21.127(a); and
 3. For each engine, or variable pitch propeller, a statement that the engine or propeller has been subjected by the manufacturer to a final functional test, in accordance with 21.128, and additionally in case of engines, a determination

according to data provided by the engine type-certificate holder that each completed engine is in compliance with the applicable emissions requirements current at the date of manufacture of the engine.

(c) Each manufacturer of such a product, part or appliance shall:

1. Upon the initial transfer by it of the ownership of such a product, part or appliance; or
2. Upon application for the original issue of an aircraft certificate of airworthiness; or
3. Upon application for the original issue of an airworthiness release document for an engine, a propeller, a part or appliance, present a current statement of conformity, for validation by DGCA approved authorized signatory.

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SUBPART G — PRODUCTION ORGANISATION APPROVAL

21.131 Scope

This Subpart establishes:

- (a) The procedure for the issuance of a production organization approval for a production organization showing conformity of products, parts and appliances with the applicable design data.
- (b) The rules governing the rights and obligations of the applicant for, and holders of, such approvals.

21.133 Eligibility

Any natural or legal person ('organization') shall be eligible as an applicant for an approval under this Subpart. The applicant shall:

- (a) justify that, for a defined scope of work, an approval under this Subpart is appropriate for the purpose of showing conformity with a specific design; and
- (b) hold or have applied for an approval of that specific design; or
- (c) have ensured, through an appropriate arrangement with the applicant for, or holder of, an approval of that specific design, satisfactory coordination between production and design.

21.134 Application

Each application for a production organization approval shall be made to DGCA in a form and manner established by that DGCA, and shall include an outline of the information required by 21.143 and the terms of approval requested to be issued under 21.151. An application for production organization approval shall be submitted to DGCA along with requisite fees as applicable.

21.135 Issue of production organization approval

An organization shall be entitled to have a production organization approval issued by DGCA when it has demonstrated compliance with the applicable requirements under this Subpart.

21.139 Quality System

- (a) The production organization shall demonstrate that it has established and is able to maintain a quality system. The quality system shall be documented. This quality system shall be such as to enable the organization to ensure that each product, part or appliance produced by the organization or by its partners, or supplied from or subcontracted to outside parties, conforms to the applicable design data and is in condition for safe operation, and thus exercise the privileges set forth in 21.163.

(b) The quality system shall contain:

1. As applicable within the scope of approval, control procedures for:

- (i) Document issue, approval, or change.
- (ii) Vendor and subcontractor assessment audit and control.
- (iii) Verification that incoming products, parts, materials, and equipment, including items supplied new or used by buyers of products, are as specified in the applicable design data.
- (iv) Identification and traceability.
- (v) Manufacturing processes.
- (vi) Inspection and testing, including production flight tests.
- (vii) Calibration of tools, jigs, and test equipment.
- (viii) Non conforming item control.
- (ix) Airworthiness coordination with the applicant for, or holder of, the design approval.
- (x) Records completion and retention.
- (xi) Personnel competence and qualification.
- (xii) Issue of airworthiness release documents.
- (xiii) Handling, storage and packing.
- (xiv) Internal quality audits and resulting corrective actions.
- (xv) Work within the terms of approval performed at any location other than the approved facilities.
- (xvi) Work carried out after completion of production but prior to delivery, to maintain the aircraft in a condition for safe operation.
- (xvii) 'Permit to fly' operation and evaluation of associated flight conditions under this operation, as per the procedures agreed with DGCA.

The control procedures need to include specific provisions for any critical parts.

2. An independent quality assurance function to monitor compliance with, and adequacy of, the documented procedures of the quality system. This monitoring shall include a feedback system to the person or group of persons referred to in 21.145(c) (2) and ultimately to the manager referred to in 21.145 (c) (1) to ensure, as necessary, corrective action.

21.143 Exposition

(a) The organization shall submit to DGCA a production organization exposition providing the following information:

- 1. A statement signed by the accountable manager confirming that the production organization exposition and any associated manuals which define the approved organization's compliance with this Subpart will be complied with at all times.
- 2. The title(s) and names of managers accepted by DGCA in accordance with 21.145(c) (2).
- 3. The duties and responsibilities of the manager(s) as required by 21.145(c) (2) including matters on which they may deal directly with DGCA on behalf of the organization.

4. An organizational chart showing associated chains of responsibility of the managers as required by 21.145(c) (1) and (2).
 5. A list of certifying staff as referred to in 21.145(d).
 6. A general description of man-power resources.
 7. A general description of the facilities located at each address specified in the production organization's certificate of approval.
 8. A general description of the production organization's scope of work relevant to the terms of approval.
 9. The procedure for the notification of organizational changes to DGCA.
 10. The amendment procedure for the production organization exposition.
 11. A description of the quality system and the procedures as required by 21.139(b) (1).
 12. A list of those outside parties referred to in 21.139(a).
- (b) The production organization exposition shall be amended as necessary to remain an up-to-date description of the organization, and copies of any amendments shall be supplied to DGCA.

21.145 Approval requirements

The production organization shall demonstrate, on the basis of the information submitted in accordance with 21.143 that:

- (a) with regard to general approval requirements, facilities, working conditions, equipment and tools, processes and associated materials, number and competence of staff, and general organization are adequate to discharge obligations under 21.165.
- (b) with regard to all necessary airworthiness, noise, fuel venting and exhaust emissions data:
 1. The production organization is in receipt of such data from DGCA, and from the holder of, or applicant for, the type-certificate, restricted type-certificate or design approval, to determine conformity with the applicable design data.
 2. The production organization has established a procedure to ensure that airworthiness, noise, fuel venting and exhaust emissions data are correctly incorporated in its production data.
 3. Such data are kept up to date and made available to all personnel who need access to such data to perform their duties.
- (c) with regard to management and staff:
 1. A manager has been nominated by the production organization, and is accountable to the DGCA. His or her responsibility within the organization shall consist of ensuring that all production is performed to the required standards and that the production organization is continuously in compliance with the data and procedures identified in the exposition referred to in 21.143.
 2. A person or group of persons have been nominated by the production organization to ensure that the organization is in compliance with the requirements of this Part, and are identified, together with the extent of their DGCA. Such person(s) shall act under the direct DGCA of the accountable manager referred to in subparagraph (1). The persons nominated shall be able to

- show the appropriate knowledge, background and experience to discharge their responsibilities.
3. Staff at all levels have been given appropriate DGCA to be able to discharge their allocated responsibilities and that there is full and effective coordination within the production organization in respect of airworthiness, noise, fuel venting and exhaust emission data matters.
- (d) with regard to certifying staff, authorized by the production organization to sign the documents issued under 21.163 under the scope or terms of approval:
1. The knowledge, background (including other functions in the organization), and experience of the certifying staff are appropriate to discharge their allocated responsibilities.
 2. The production organization maintains a record of all certifying staff which shall include details of the scope of their authorization.
 3. Certifying staff are provided with evidence of the scope of their authorization.

21.147 Changes to the approved production organization

- (a) After the issue of a production organization approval, each change to the approved production organization that is significant to the showing of conformity or to the airworthiness and characteristics of noise, fuel venting and exhaust emissions of the product, part or appliance, particularly changes to the quality system, shall be approved by DGCA. An application for approval shall be submitted in writing to DGCA and the organization shall demonstrate to DGCA before implementation of the change that it will continue to comply with this Subpart.
- (b) DGCA shall establish the conditions under which a production organization approved under this Subpart may operate during such changes unless DGCA determines that the approval should be suspended.

21.148 Changes of location

A change of the location of the manufacturing facilities of the approved production organization shall be deemed of significance and therefore shall comply with 21.147.

21.149 Transferability

Except as a result of a change in ownership, which is deemed significant for the purposes of 21.147, a production organization approval is not transferable.

21.151 Terms of approval

The terms of approval shall identify the scope of work, the products or the categories of parts and appliances, or both, for which the holder is entitled to exercise the privileges under 21.163.

Those terms shall be issued as part of a production organization approval.

21.153 Changes to the terms of approval

Each change to the terms of approval shall be approved by DGCA. An application for a change to the terms of approval shall be made in a form and manner established by DGCA. The applicant shall comply with the applicable requirements of this Subpart.

21.157 Investigations

A production organization shall make arrangements that allow DGCA to make any investigations, including investigations of partners and subcontractors, necessary to determine compliance and continued compliance with the applicable requirements of this Subpart.

21.158 Findings

- (a) When objective evidence is found showing non compliance of the holder of a production organization approval with the applicable requirements of this Part, the finding shall be classified as follows:
1. A level one finding is any non-compliance with this Part which could lead to uncontrolled non-compliances with applicable design data and which could affect the safety of the aircraft.
 2. A level two finding is any non-compliance with this Part which is not classified as level one.
- (b) A level three finding is any item where it has been identified, by objective evidence, to contain potential problems that could lead to non-compliance under paragraph (a).
- (c) After receipt of notification. of findings.
1. In case of a level one finding, the holder of the production organization approval shall demonstrate corrective action to the satisfaction of DGCA within a period of 7 working days, extendable up to maximum 21 working days depending upon the complexity of the case after written confirmation of the finding,
 2. In case of level two findings, the corrective action period granted by DGCA shall be within three months. In certain circumstances and subject to the nature of the finding, DGCA may extend the period from three months to six months, subject to a satisfactory corrective action plan agreed by the DGCA.
 3. A level three finding shall not require immediate action by the holder of the production organization approval.
- (d) In case of level one or level two findings, the production organization approval may be subject to a partial or full limitation, suspension or revocation. The holder of the production organization approval shall provide confirmation of receipt of the notice of limitation, suspension or revocation of the production organization approval in a timely manner.

21.159 Duration and continued validity

- (a) A production organization approval shall be issued for a limited duration not exceeding one year. It shall remain valid unless:
 - 1. The production organization fails to demonstrate compliance with the applicable requirements of this Subpart; or
 - 2. DGCA is prevented by the holder or any of its partners or subcontractors to perform the investigations in accordance with 21.157; or
 - 3. There is evidence that the production organization cannot maintain satisfactory control of the manufacture of products, parts or appliances under the approval; or
 - 4. The production organization no longer meets the requirements of 21.133; or
 - 5. the certificate has been surrendered or revoked..
- (b) Upon surrender or revocation, the certificate shall be returned to DGCA.

21.163 Privileges

Pursuant to the terms of approval issued under 21.135, the holder of a production organization approval may:

- (a) Perform production activities under this Part.
- (b) In the case of complete aircraft and upon presentation of a Statement of Conformity (DGCA Form 52) under 21,174, obtain an aircraft certificate of airworthiness and a noise certificate without further showing.
- (c) In the case of other products, parts or appliances issue authorized release certificates (DGCA Form 1) without further showing.
- (d) Maintain a new aircraft that it has produced and issue a certificate of release to service (DGCA Form 53) in respect of that maintenance.
- (e) Under the procedures agreed with DGCA, carry out the 'permit to fly' operation and evaluation of flight condition for that operation.

21.165 Obligations of the holder

The holder of a production organization approval shall:

- (a) Ensure that the production organization exposition furnished in accordance with 21.143 and the documents, to which it refers, are used as basic working documents within the organization.
- (b) Maintain the production organization in conformity with the data and procedures approved for the production organization approval.

- (c)
 1. Determine that each completed aircraft conforms to the type design and is in condition for safe operation prior to submitting Statements of Conformity to the DGCA, or
 2. Determine that other products, parts or appliances are complete and conform to the approved design data and are in condition for safe operation before issuing DGCA Form 1 to certify airworthiness, and additionally in case of engines, determine according to data provided by the engine type-certificate holder that each completed engine is in compliance with the applicable emissions requirements as defined in 21.18(b), current at the date of manufacture of the engine, to certify emissions compliance, or
 3. Determine that other products, parts or appliances conform to the applicable data before issuing DGCA Form 1 as a conformity certificate;
- (d) Record all details of work carried out.
- (e) Establish and maintain an internal occurrence reporting system in the interest of safety, to enable the collection and assessment of occurrence reports in order to identify adverse trends or to address deficiencies, and to extract reportable occurrences. This system shall include evaluation of relevant information relating to occurrences and the promulgation of related information.
- (f)
 1. Report to the holder of the type-certificate or design approval, all cases where products, parts or appliances have been released by the production organization and subsequently identified to have possible deviations from the applicable design data, and investigate with the holder of the type-certificate or design approval in order to identify those deviations which could lead to an unsafe condition.
 2. Report to DGCA and DGCA the deviations which could lead to an unsafe condition identified according to subparagraph (1). Such reports shall be made in a form and manner established by DGCA under 21.3(b)(2) or accepted by DGCA.
 3. Where the holder of the production organization approval is acting as a supplier to another production organization, report also to that other organization all cases where it has released products, parts or appliances to that organization and subsequently identified them to have possible deviations from the applicable design data.
- (g) Provide assistance to the holder of the type-certificate or design approval in dealing with any continuing airworthiness actions that are related to the products parts or appliances that have been produced.
- (h) Establish an archiving system incorporating requirements imposed on its partners, suppliers and subcontractors, ensuring conservation of the data used to justify conformity of the products, parts or appliances. Such data shall be held at the disposal of DGCA and be retained in order to provide the information necessary to ensure the continuing airworthiness of the products, parts or appliances.
- (i) Where, under its terms of approval, the holder issues a certificate of release to service, determine that each completed aircraft has been subjected to necessary maintenance and is in condition for safe operation, prior to issuing the certificate.

- (j) Where applicable, under the privilege of 21.163 (e), determine the conditions under which a 'permit to fly' operation can be performed.

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**SUBPART H - AIRWORTHINESS CERTIFICATES, RESTRICTED
CERTIFICATE OF AIRWORTHINESS AND EXPORT
CERTIFICATE OF AIRWORTHINESS**

21.171 Scope

This Subpart prescribes procedural requirements for the issue of Certificates of Airworthiness, Restricted Certificates of Airworthiness for new aircraft manufactured / assembled in India only. Also prescribes procedural requirements for the issue of Export Certificate of Airworthiness.

21.172 Eligibility

Any natural or legal person under whose name an aircraft is registered or will be registered or its representative shall be eligible as an applicant for an airworthiness certificate for that aircraft under this Subpart.

21.173 Classification

Airworthiness certificates shall be classified as follows:

- (a) Certificates of airworthiness shall be issued to aircraft which conform to a type-certificate that has been issued in accordance with this Part.
- (b) Restricted certificates of airworthiness shall be issued to aircraft:
 - 1. which conform to a restricted type-certificate that has been issued in accordance with this Part; or
 - 2. which have been shown to DGCA to comply with specific certification specifications/ airworthiness regulations ensuring adequate safety.

21.174 Application

- (a) Pursuant to 21.172, an application for an airworthiness certificate shall be made in a form and manner established by DGCA.
- (b) Each application for a certificate of airworthiness or restricted certificate of airworthiness shall include the class of airworthiness certificate applied for with regard to aircraft:
 - (1) A statement of conformity:
 - issued under 21.163(b), or
 - issued under 21.130
 - or, for an imported aircraft, a statement signed by the exporting Authority that the aircraft conforms to a design approved by the Authority
 - (2) A weight and balance report with a loading schedule.
 - (3) The flight manual, when required by the applicable airworthiness code for the particular aircraft.

- (c) Unless otherwise agreed, the statements referred to in subparagraphs (b)(1), shall be issued no more than 60 days before presentation of the aircraft to DGCA.
- (d) An application for airworthiness certificate shall be submitted to DGCA along with the requisite fees as applicable.

21.175 Language

Placards related to public information shall be presented in bi-lingual, i.e Hindi and English. Placards not related to public information, manuals, listings, and instrument markings and other necessary information required by applicable certification specifications/ airworthiness regulations shall be presented in English only.

21.177 Amendment or modification

An airworthiness certificate may be amended or modified only by DGCA.

21.179 Transferability

Where ownership of an aircraft has changed the certificate of airworthiness, or the restricted certificate of airworthiness conforming to a restricted type-certificate only, shall be transferred together with the aircraft;

21.180 Inspections

The holder of the airworthiness certificate shall provide access to the aircraft for which that airworthiness certificate has been issued upon request by DGCA.

21.181 Duration and continued validity

- (a) An airworthiness certificate shall be issued for the period as per the applicable Para of CAR, Sec 2. It shall remain valid subject to:
1. compliance with the applicable type-design and continuing airworthiness requirements;(refer CAR Section 2, series F, Part IV) and
 2. the aircraft remaining on the Indian register; and
 3. the type-certificate or restricted type-certificate under which it is issued not being previously invalidated under 21.51.
 4. the certificate not being surrendered.
- (b) Upon surrender or revocation, the certificate shall be returned to DGCA.

21.182 Aircraft identification

Each applicant for an airworthiness certificate under this Subpart shall demonstrate that its aircraft is identified in accordance with Subpart Q.

21.183 Issue of certificates of airworthiness for new aircraft

DGCA shall issue a certificate of airworthiness for new aircraft:

- (i) Upon presentation of the documentation required by 21.174(b).
- (ii) When the aircraft conforms to an approved design and is in condition for safe operation. This may include inspections by DGCA.

21.184 Issue of restricted certificates of airworthiness for new aircraft

DGCA shall issue a restricted certificate of airworthiness for new aircraft:

- (a) upon presentation of the documentation required by 21.174(b) demonstrating that the aircraft conforms to a design approved by DGCA under a restricted type-certificate or in accordance with specific certification specifications/ airworthiness regulations, and is in condition for safe operation.
- (b) Limitations for use will be associated with restricted certificates of airworthiness including airspace restrictions as necessary to take account of deviations from essential requirements for airworthiness laid down in the regulation.

21.185 Application for an Export Certificate of Airworthiness

- (a) An application for an Export Certificate of Airworthiness must be made in a form and manner acceptable to DGCA and be submitted to DGCA along with the requisite fees as applicable.
- (b) For each new aircraft, each application must include, or reference, as applicable-
 - (1) A Statement of Conformity
 - (2) A weight and Balance report, with a loading schedule when applicable in accordance with the applicable CAR.
 - (3) A maintenance manual.
 - (4) Evidence of compliance with the applicable Airworthiness Directives. A suitable notation must be made when such Directives are not complied with.
 - (5) When temporary installations are incorporated in an aircraft for the purpose of export delivery, the applicable form must include a general description of the installations together with a statement that the installation will be removed and the aircraft restored to the approved configuration upon completion of the delivery flight.
 - (6) A description of the methods used, if any, for the preservation and packaging of such aircraft to protect them against corrosion and damage while in transit or storage. The description must also indicate the duration of the effectiveness of such methods.
 - (7) A Flight Manual.
 - (8) A statement as to the date on which any documents not made available at the date of application are expected to be available.
 - (9) A statement as to the date when title passed or is expected to pass to a foreign purchaser.

21.186 Issue of Export Certificate of Airworthiness

- (a) The DGCA issues an Export Certificate of Airworthiness if the applicant shows, except as provided in sub-paragraph (b) of this paragraph, that

- (1) The aircraft conforms to the Type Design acceptable to the importing Country.
 - (2) The aircraft has been produced under Subpart F and G of this CAR 21.
 - (3) The aircraft meets the additional requirements for import of the importing country if they have been notified.
 - (4) All documents listed in CAR 21.185(b) have been submitted.
 - (5) The aircraft is identified in accordance with Subpart Q of this CAR 21.
- (b) An aircraft need not meet a requirement specified in sub-paragraph (a) (1) to (4) of this paragraph as applicable, if acceptable to the importing country and the importing country indicates that acceptability.

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SUBPART I — NOISE CERTIFICATES

21.201 Scope

This Subpart establishes the procedure for issuing noise certificates.

21.202 Requirements

For the purpose of noise certification the aircraft designed, developed and operated in India shall meet compliance with 21.18.

21.203 Eligibility

Any natural or legal person under whose name an aircraft is registered or will be registered or its representative shall be eligible as an applicant for a noise certificate for that aircraft under this Subpart.

21.204 Application

- (a) Pursuant to 21.203, an application for a noise certificate shall be made along with requisite fees as applicable in a form and manner established by DGCA.
- (b) Each application shall include:
 - (i) A statement of conformity:
 - issued under 21.163(b), or
 - issued under 21.130 ,
 - or, for an imported aircraft, a statement, signed by the exporting Authority that the aircraft conforms to a design approved by the Authority and
 - (ii) The noise information determined in accordance with the applicable noise requirements.
- (c) Unless otherwise agreed, the statements referred to in subparagraphs (b), shall be issued no more than 60 days before presentation of the aircraft to DGCA.

21.205 Issue of noise certificates

DGCA shall issues a noise certificate upon presentation of the documents required by 21.204(b).

21.207 Amendment or modification

A noise certificate may be amended or modified only by DGCA.

21.209 Transferability

Where ownership of an aircraft has changed, the noise certificate shall be transferred together with the aircraft.

21.210 Inspections

The holder of the noise certificate shall provide access to the aircraft for which that noise certificate has been issued upon request by DGCA.

21.211 Duration and continued validity

- (a) A noise certificate shall be issued for an unlimited duration. It shall remain valid subject to:
 - 1. compliance with the applicable type-design, environmental protection and continuing airworthiness requirements; and
 - 2. the aircraft remaining on the Indian register; and
 - 3. the type-certificate or restricted type-certificate under which it is issued not being previously invalidated under 21.51.
 - 4. the certificate not being surrendered.
- (b) Upon surrender or revocation, the certificate shall be returned to DGCA

21.212 Investigations

- (a) DGCA may perform inspection of the aircraft to justify the issuance, maintenance, amendments, suspension or revocation of the certificate.
- (b) DGCA shall examine the application and supporting documentation for the following:
 - (i) evaluation of eligibility.
 - (ii) evaluation of documents received with the application.
 - (iii) inspection of aircraft

21.213 Suspension and revocation of a noise certificate

- (a) Upon evidence that some of the condition specified in 21.211 (a) are not met, the DGCA shall suspend or revoke the noise certificate.
- (b) Upon issuance of notice of suspension or revocation of a noise certificate, DGCA shall state the reasons for suspension and revocation.

21.214 Record keeping

- (a) DGCA shall keep a record that allows adequate traceability of the process to issue, maintain, amend, suspend or revoke each individual noise certificate.
- (b) The record shall at least contain:
 - (i) the documents provided by the applicant;
 - (ii) the documents established during the investigation, in which the activities and the final results defined in 21.212(b) including inspection of aircraft are stated.
 - (iii) a copy of the certificate including amendments.

- (c) The records shall be archived for a minimum retention period of six years after leaving the register.

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SUBPART JA — DESIGN ORGANISATION APPROVAL - PRODUCTS OR CHANGES TO PRODUCTS

21. A231 Scope

This Subpart establishes the procedure for the approval of design organizations designing products, changes to products thereto and rules governing the rights and obligations of applicants for, and holders of, such approvals.

21. A233 Eligibility

Any natural or legal person ('organization') shall be eligible as an applicant for an approval under this Subpart

- (a) in accordance with 21.14, 21.112B, 21.432B or 21.602B; or
- (b) for approval of minor changes or minor repair design, when requested for the purpose of obtaining privileges under 21.A263.

21. A234 Application

Each application for a design organization approval under this Sub Part shall be made along with requisite fees as applicable in a form and manner established by DGCA and shall include an outline of the information required by 21.A243, and the terms of approval requested to be issued under 21.A251.

21. A235 Issue of design organization approval

An organization shall be entitled to have a design organization approval issued by DGCA when it has demonstrated compliance with the applicable requirements under this Subpart.

21. A239 Design assurance system

- (a) The design organization shall demonstrate that it has established and is able to maintain a design assurance system for the control and supervision of the design, and of design changes, of products covered by the application. This design assurance system shall be such as to enable the organization:
 - 1 To ensure that the design of the products or the design change thereof, comply with the applicable type-certification basis and environmental protection requirements; and
 - 2. To ensure that its responsibilities are properly discharged in accordance with:
 - (i) The appropriate provisions of this Part; and
 - (ii) The terms of approval issued under 21.A251.
 - 3. To independently monitor the compliance with, and adequacy of, the documented procedures of the system. This monitoring shall include a feed-back system to a

person or a group of persons having the responsibility to ensure corrective actions.

- (b) The design assurance system shall include an independent checking function of the showings of compliance on the basis of which the organization submits compliance statements and associated documentation to DGCA.
- (c) The design organization shall specify the manner in which the design assurance system accounts for the acceptability of the parts or appliances designed or the tasks performed by partners or subcontractor according to methods which are the subject of written procedures.

21. A243 Data

- (a) The design organization shall furnish a handbook to DGCA describing, directly or by cross-reference, the organization, the relevant procedures and the products or changes to products to be designed.
- (b) Where any parts or appliances or any changes to the products are designed by partner organizations or subcontractors, the handbook shall include a statement of how the design organization is able to give, for all parts and appliances, the assurance of compliance required by 21.A239 (b), and shall contain, directly or by cross-reference, descriptions and information on the design activities and organization of those partners or subcontractors, as necessary to establish this statement.
- (c) The handbook shall be amended as necessary to remain an up-to-date description of the organization, and copies of amendments shall be supplied to DGCA.
- (d) The design organization shall furnish a statement of the qualifications and experience of the management staff and other persons responsible for making decisions affecting airworthiness and environmental protection in the organization.

21. A245 Approval requirements

The design organization shall demonstrate, on the basis of the information submitted in accordance with 21.A243 that, in addition to complying with 21.A239:

- (a) The staff in all technical departments are of sufficient numbers and experience and have been given appropriate authority to be able to discharge their allocated responsibilities and that these, together with the accommodation, facilities and equipment are adequate to enable the staff to achieve the airworthiness, noise, fuel venting and exhaust emissions objectives for the product.
- (b) There is full and efficient coordination between departments and within departments in respect of airworthiness and environmental protection matters.

21. A247 Changes in design assurance system

After the issue of a design organization approval, each change to the design assurance system that is significant to the showing of compliance or to the airworthiness and environmental protection of the product shall be approved by DGCA. An application for approval shall be submitted in writing to DGCA and the design organization shall demonstrate to DGCA, on the basis of submission of proposed changes to the handbook, and before implementation of the change, that it will continue to comply with this Subpart after implementation.

21. A249 Transferability

Except as a result of a change in ownership, which is deemed significant for the purposes of 21.A247, a design organization approval is not transferable.

21. A251 Terms of approval

The terms of approval shall identify the types of design work, the categories of products for which the design organization holds a design organization approval and the functions and duties that the organization is approved to perform in regard to the airworthiness and characteristics of noise, fuel venting and exhaust emissions of products. For design organization approval covering type-certification or ITSO authorization for Auxiliary Power Unit (APU), the terms of approval shall contain in addition the list of products or APU. Those terms shall be issued as part of a design organization approval.

21. A253 Changes to the terms of approval

Each change to the terms of approval shall be approved by DGCA. An application for a change to the terms of approval shall be made in a form and manner established by DGCA. The design organization shall comply with the applicable requirements of this Subpart.

21. A257 Investigations

- (a) The design organization shall make arrangements that allow DGCA to make any investigations, including investigations of partners and subcontractors, necessary to determine compliance and continued compliance with the applicable requirements of this Subpart.
- (b) The design organization shall allow DGCA to review any report and make any inspection and perform or witness any flight and ground test necessary to check the validity of the compliance statements submitted by the applicant under 21.A239 (b).

21. A258 Findings

- (a) When objective evidence is found showing non-compliance of the holder of a design organization approval with the applicable requirements of this Part, the finding shall be classified as follows:

1. A level one finding is any non-compliance with this Part which could lead to uncontrolled non-compliances with applicable requirements and which could affect the safety of the aircraft.
 2. A level two finding is any non-compliance with this Part which is not classified as level one.
- (b) A level three finding is any item where it has been identified, by objective evidence, to contain potential problems that could lead to non-compliance under paragraph (a).
- (c) After receipt of notification of findings under the applicable administrative procedures established by DGCA,
1. In case of a level one finding, the holder of the design organization approval shall demonstrate corrective action to the satisfaction of DGCA within a period of maximum 7 working days, extendable up to no more than 21 working days, depending upon complexity of the case, after written confirmation of the finding;
 2. In case of level two findings, the corrective action period granted by DGCA shall be within three months. In certain circumstances and subject to the nature of the finding, DGCA may extend the period from three months to six months, subject to a satisfactory corrective action plan agreed by the DGCA.
 3. A level three finding shall not require immediate action by the holder of the design organization approval.
- (d) In case of level one or level two findings, the design organization approval may be subject to a partial or full suspension or revocation under the applicable administrative procedures established by DGCA. The holder of the design organization approval shall provide confirmation of receipt of the notice of suspension or revocation of the design organization approval in a timely manner.

21. A259 Duration and continued validity

- (a) A design organization approval shall be issued for a limited period of not exceeding 12 months. It shall remain valid unless:
1. the design organization fails to demonstrate compliance with the applicable requirements of this Subpart; or
 2. DGCA is prevented by the holder or any of its partners or subcontractors to perform the investigations in accordance with 21.A257; or
 3. there is evidence that the design assurance system cannot maintain satisfactory control and supervision of the design of products or changes thereof under the approval; or
 4. the certificate has been surrendered or revoked under the applicable administrative procedures established by DGCA.
- (b) Upon surrender or revocation, the certificate shall be returned to DGCA.

21. A263 Privileges

- (a) The holder of a design organization approval shall be entitled to perform design activities under this Part and within its scope of approval.
- (b) Subject to 21.A257 (b), the DGCA shall accept with out further verification the following compliance documents submitted by the applicant for the purpose of obtaining:
 - 1. the approval of flight conditions required for a permit to fly ;or.
 - 2. a type-certificate or approval of a major change to a type design; or
 - 3. a supplemental type-certificate; or
 - 4. an ITSO authorization under 21.602(b)(1);or
 - 5. a major repair design approval;
- (c) The holder of a design organization approval shall be entitled, within its terms of approval and under the relevant procedures of the design assurance system:
 - 1. to classify changes to type design and repairs as ‘major’ or ‘minor’ as per the procedures agreed with DGCA
 - 2. to approve minor changes to type design and minor repairs
 - 3. to issue information or instructions containing the following statement: ‘The technical content of this document is approved under DGCA of DOA nr. [DGCA]. 21JA. [xyz].’
 - 4. to approve documentary changes to the aircraft flight manual and supplements, and issue such changes containing the following statement: ‘Revision nr. xx to AFM and supplement ref. yyy, is approved under DGCA of DOA nr.[DGCA].21JA.[xyz].’ , as per the procedures agreed with DGCA).
 - 5. to propose the design of major repairs to products for which it holds the type-certificate or the supplemental type-certificate, as per the procedures agreed with DGCA..
 - 6. to evaluate and propose the conditions under which a ‘permit to fly’ operation can be carried out in accordance with the agreement with DGCA.
 - 7. (Reserved)

21. A265 Obligations of the holder

The holder of a design organization approval shall:

- (a) Maintain the handbook in conformity with the design assurance system;
- (b) Ensure that this handbook is used as a basic working document within the organization;
- (c) Determine that the design of products, or changes or repairs thereof, as applicable, complies with applicable requirements and have no unsafe feature;
- (d) For all changes or repairs, provide to DGCA statements and associated documentation confirming compliance with paragraph (c);

(e) Provide to DGCA information or instructions related to required actions under 21.3B.

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SUBPART JB – DESIGN ORGANISATION APPROVAL – PARTS & APPLIANCES

21. B231 Applicability

This Subpart prescribes procedural requirements for the approval of design organizations designing parts and appliances or changes thereto and requirements governing the holders of such approvals.

21. B233 Eligibility

DGCA will only accept an application for a Design Organization Approval covering the Design of parts or appliances, or changes thereof, if DGCA agrees that such an approval is appropriate for the purpose of assisting applicants for or holders of Type Certificates in showing compliance with the applicable airworthiness requirements.

21. B234 Application

Each application for a Design Organization Approval must be made along with requisite fees as applicable in a form and manner acceptable to DGCA and must include an outline of the information required by 21.B243 and the Terms of Approval requested to be issued under 21 B251.

21. B235 Requirements for issue

DGCA issues a Design Organization Approval when it is satisfied that compliance has been shown with the applicable requirements of this Subpart JB.

21. B239 Design Assurance System

(a)The applicant must show that the Organization has established and can maintain a Design Assurance System for the control and supervision of the design, and of design changes, of parts and appliances covered by the application. This Design Assurance System must be such as to enable the Organization -

- (1) To assist the applicant for a Type Certificate in the manner specified in 21.A239(c), in ensuring that the design of the parts and appliances, or the design change thereof, comply with the applicable requirements; and
- (2) To ensure that its responsibilities are properly discharged in accordance with –
 - (i) The appropriate regulations of this CAR-21; and
 - (ii) The Terms of Approval issued under 21.B251.
- (3) To independently monitor the compliance with, and adequacy of, the documented procedures of the system. This monitoring must include a feedback system to a person or a group of persons having the responsibility to ensure corrective actions.

- (b) The Design Assurance System must include an independent checking function of the showings of compliance.
- (c) The applicant must specify the manner in which the Design Assurance System accounts for the acceptability of the parts or appliances designed or the tasks performed by partners or sub-contractors according to methods, which are the subject of written procedures.

21. B243 Data Requirements

- (a) The applicant must furnish a handbook to DGCA, which must describe either directly, or by cross-reference the Organization, the relevant procedures and the parts and appliances or changes thereto, to be designed.
- (b) Where any parts or appliances or any changes to the products are designed by partner organizations or subcontractors of the applicant, the handbook must include a statement of how the applicant will be able to give, for all parts and appliances the assurance of compliance required by 21.B239(b), and must contain, directly or by cross- reference, descriptions and information on the design activities and organization of those partners and subcontractors, as necessary to establish this statement.
- (c) The handbook shall be amended as necessary to remain an up-to-date description of the Organization, and copies of amendments shall be supplied to DGCA.
- (d) The applicant must furnish a statement of the qualifications and experience of the management staff and other persons responsible for making decisions affecting airworthiness in the Organization.

21. B245 Requirements for Approval

The information submitted in accordance with 21.B243 must show that, in addition to complying with 21.B239.

- (a) The staff in all technical departments is of sufficient numbers and experience and has been given appropriate authority to be able to discharge their allocated responsibilities and that these, together with the accommodation, facilities and equipment are adequate to enable the staff to achieve the airworthiness objectives for the part or appliance.
- (b) There is full and efficient co-ordination between departments and within departments in respect to airworthiness matters.

21. B247 Changes in Design Assurance System

After the grant of a Design Organization Approval, each change to the Design Assurance System that is significant to the showing of compliance must be approved by DGCA. An application for approval shall be submitted in writing to DGCA and the Design Organization shall show, to the satisfaction of DGCA, on the basis of

submission of proposed changes to the handbook, and before implementation of the change, that it will continue to comply with 21.B245, after implementation.

21. B249 Transferability

Except for a change in ownership of the Organization, which must be regarded as a change of significance, and must therefore comply with 21.B247, a Design Organization Approval is not transferable.

21. B251 Terms of Approval

Terms of Approval are issued as part of a design organization Approval. This lists the types of design work and the categories of the parts or appliances for which the design organization holds a Design Organization Approval, and the functions and duties that the Organization is approved to perform in regard to the airworthiness of parts or appliances.

21. B253 Change to the Terms of Approval

Each change to the Terms of Approval must be approved by DGCA. Application for a change to the Terms of Approval must be made in writing to DGCA. The applicant must comply with the applicable requirements of this Subpart JB.

21. B257 Investigations

Each holder of, or applicant for, a Design Organization Approval shall make arrangements that allow DGCA to make any investigations necessary to determine compliance with the applicable regulations in this Subpart JB.

21. B258 Findings

- (a) When objective evidence is found showing non-compliance of the holder of a design organization approval with the applicable requirements of this Part, the finding shall be classified as follows:
 - 1. A level one finding is any non-compliance with this Part which could lead to uncontrolled non-compliances with applicable requirements and which could affect the safety of the aircraft.
 - 2. A level two finding is any non-compliance with this Part which is not classified as level one.
- (b) A level three finding is any item where it has been identified, by objective evidence, to contain potential problems that could lead to non-compliance under paragraph (a).
- (c) After receipt of notification of findings under the applicable administrative procedures established by DGCA,
 - 1. In case of a level one finding, the holder of the design organization approval shall demonstrate corrective action to the satisfaction of DGCA within a period of

maximum 7 working days, extendable up to no more than 21 working days, depending upon the complexity of the case after written confirmation of the finding;

2. In case of level two findings, the corrective action period granted by DGCA shall be within three months. In certain circumstances and subject to the nature of the finding, DGCA may extend the period from three months to six months, subject to a satisfactory corrective action plan agreed by the DGCA.
3. A level three finding shall not require immediate action by the holder of the design organization approval.

- (d) In case of level one or level two findings, the design organization approval may be subject to a partial or full suspension or revocation under the applicable administrative procedures established by DGCA. The holder of the design organization approval shall provide confirmation of receipt of the notice of suspension or revocation of the design organization approval in a timely manner.

21. B259 Duration

- (a) A Design Organization Approval remains valid for a maximum period of 12 months unless-

- (1) Surrendered by the holder of the Design Organization Approval; or
- (2) Suspended or revoked by DGCA; or
- (3) The end of a specified duration; or
- (4) A termination date otherwise established by DGCA.

- (b) DGCA may restrict, suspend or revoke a Design Organization Approval if it -

- (1) Finds that the Organization does not comply with the applicable requirements of this Subpart JB; or
- (2) Is prevented by the holder or any of its sub-contractors to perform the investigations in accordance with 21.B257; or
- (3) Finds evidence that the Design Assurance System cannot maintain satisfactory control and supervision of the design of parts and appliances, or changes thereof, under the approval.

21. B265 Responsibility of Holder of Design Organization Approval

The holder of a Design Organization Approval shall –

- (a) Maintain the handbook in conformity with the Design Assurance System.
- (b) Ensure that this handbook is used as a basic working document within the Organization.

SUBPART K — PARTS AND APPLIANCES

21.301 Scope

This Subpart establishes the procedure relating to the approval of parts and appliances.

21.303 Compliance with applicable requirements

The showing of compliance of parts and appliances to be installed in a type-certificated product shall be made:

- (a) In conjunction with the type-certification procedures of Subpart B, D or E for the product in which it is to be installed; or
- (b) Where applicable, under the ITSO authorization procedures of Subpart O; or
- (c) In the case of standard parts, in accordance with officially recognized Standards.

21.305 Approval of parts and appliances

In all cases where the approval of a part or appliance is explicitly required by DGCA, the part or appliance shall comply with the applicable ITSO or with the specifications recognized as equivalent by DGCA in the particular case.

21.307 Release of parts and appliances for installation

No part or appliance (except a standard part), shall be eligible for installation in a type-certificated product unless it is:

- (a) Accompanied by an authorized release certificate (DGCA Form 1), certifying airworthiness; and
- (b) Marked in accordance with Subpart Q.

SUBPART L — NOT APPLICABLE

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SUBPART M — REPAIRS

21.431 Scope

- (a) This Subpart establishes the procedure for the approval of repair design, and establishes the rights and obligations of the applicants for, and holders of, those approvals.
- (b) A 'repair' means elimination of damage and/or restoration to an airworthy condition following initial release into service by the manufacturer of any product, part or appliance.
- (c) Elimination of damage by replacement of parts or appliances without the necessity for design activity shall be considered as a maintenance task and shall therefore require no approval under this Part.
- (d) A repair to an ITSO article shall be treated as a change to the ITSO design and shall be processed in accordance with 21.611.

21.432A Eligibility

- (a) Any natural or legal person that has demonstrated, or is in the process of demonstrating, its capability under 21.432B, shall be eligible as an applicant for a major repair design approval under the conditions laid down in this Subpart.
- (b) Any natural or legal person shall be eligible to apply for approval of a minor repair design.

21.432B Demonstration of capability

- (a) An applicant for a major repair design approval shall demonstrate its capability by holding a design organization approval, issued by DGCA in accordance with Subpart JA.
- (b) By way of derogation from paragraph (a), as an alternative procedure to demonstrate its capability, an applicant may seek DGCA agreement for the use of procedures setting out the specific design practices, resources and sequence of activities necessary to comply with this Subpart.

21.433 Repair design

- (a) The applicant for approval of a repair design shall:
 - 1. Show compliance with the type-certification basis and environmental protection requirements incorporated by reference in the type-certificate or supplemental type-certificate, as applicable, or those in effect on the date of application (for repair design approval), plus any amendments to those certification specifications/airworthiness regulations or special conditions DGCA finds necessary to establish a level of safety equal to that established by the type-certification basis incorporated by reference in the type-certificate or supplemental type-certificate.

2. Submit all necessary substantiation data, when requested by DGCA.
3. Declare compliance with the certification specifications/ airworthiness regulations and environmental protection requirements of subparagraph (a)(1).

(b) Where the applicant is not the type-certificate or supplemental type-certificate holder, as applicable, the applicant may comply with the requirements of paragraph (a) through the use of its own resources or through an arrangement with the type-certificate or supplemental type-certificate holder as applicable.

21.435 Classification of repairs

- (a) A repair may be 'major' or 'minor'. The classification shall be made in accordance with the criteria of 21.91 for a change in the type design.
- (b) A repair shall be classified 'major' or 'minor' under paragraph (a) either:
 1. By DGCA, or
 2. By an appropriately approved design organization under a procedure agreed with DGCA.

21.437 Issue of a repair design approval

When it has been declared and has been shown that the repair design meets the applicable certification specifications/ airworthiness regulations and environmental protection requirements of 21.433(a) (1), it shall be approved:

- (a) by DGCA, or
- (b) (Reserved)
- (c) for minor repairs only, by an appropriately approved design organization under a procedure agreed with DGCA.

21.439 Production of repair parts

Parts and appliances to be used for the repair shall be manufactured in accordance with production data based upon all the necessary design data as provided by the repair design approval holder:

- (a) Under Subpart F, or
- (b) By an organization appropriately approved in accordance with Subpart G, or
- (c) By an appropriately approved maintenance organization.

21.441 Repair embodiment

- (a) The embodiment of a repair shall be made by an appropriately approved maintenance organization, or by a production organization appropriately approved in accordance with Subpart G, under 21.163 privilege.

- (b) The design organization shall transmit to the organization performing the repair all the necessary installation instructions.

21.443 Limitations

A repair design may be approved subject to limitations, in which case the repair design approval shall include all necessary instructions and limitations. These instructions and limitations shall be transmitted by the repair design approval holder to the operator in accordance with a procedure agreed with DGCA.

21.445 Un-repaired damage

- (a) When a damaged product, part or appliance, is left un-repaired, and is not covered by previously approved data, the evaluation of the damage for its airworthiness consequences may only be made;
 1. by DGCA, or
 2. by an appropriately approved design organization under a procedure agreed with DGCA.

Any necessary limitations shall be processed in accordance with the procedures of 21.443.

- (b) Where the organization evaluating the damage under paragraph (a) is neither DGCA nor the type-certificate or supplemental type-certificate holder, this organization shall justify that the information on which the evaluation is based is adequate either from its organization's own resources or through an arrangement with the type-certificate or supplemental type-certificate holder, or manufacturer, as applicable.

21.447 Record keeping

For each repair, all relevant design information, drawings, test reports, instructions and limitations possibly issued in accordance with 21.443, justification for classification and evidence of the design approval, shall:

- (a) be held by the repair design approval holder at the disposal of DGCA, and
- (b) be retained by the repair design approval holder in order to provide the information necessary to ensure the continued airworthiness of the repaired products, parts or appliances.

21.449 Instructions for continued airworthiness

- (a) The holder of the 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. The repaired product, part or appliance may be released into service before the changes to those instructions have been completed, but this

shall be for a limited service period, and in agreement with DGCA. Those changes to the instructions shall be made available on request to any other person required to comply with any of the terms of those changes to the instructions. The availability of some manual or portion of the changes to the instructions for continued airworthiness, dealing with overhaul or other forms of heavy maintenance, may be delayed until after the product has entered into service, but shall be available before any of the products reaches the relevant age or flight — hours/cycles.

- (b) 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 first approved, these updates shall be furnished to each operator and shall be made available on request to any other person required to comply with any of the terms of those changes to the instructions. A programme showing how updates to the changes to the instructions for continued airworthiness are distributed shall be submitted to DGCA.

21.451 Obligations

- (a) Each holder of a major repair design approval shall:
 - 1. undertake the obligations:
 - (i) laid down in 21.3A, 21.3B, 21.4, 21.439, 21.441, 21.443, 21.447 and 21.449;
 - (ii) implicit in the collaboration with the type-certificate or supplemental type-certificate holder, or both, under 21.433 (b), as appropriate.
 - 2. specify the marking, in accordance with 21.804(a).
- (b) Except for type-certificate holders for which 21.44 apply, the holder of a minor repair design approval shall:
 - 1. undertake the obligations laid down in 21.4, 21.447 and 21.449; and
 - 2. specify the marking, including IPA letters, in accordance with 21.804(a).

SUBPART N — NOT APPLICABLE

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SUBPART O — INDIAN TECHNICAL STANDARD ORDER AUTHORISATIONS

21.600 Definition

For the purpose of this Subpart, “articles” means parts and appliances used on civil aircraft.

21.601 Scope

- (a) This Subpart establishes the procedure for issuing Indian Technical Standard Order authorizations and the rules governing the rights and obligations of applicants for, or holders of, such authorizations.
- (b) For the purpose of this Subpart:
 - 1. ‘article’ means any part and appliance to be used on civil aircraft.
 - 2. ‘Indian Technical Standard Order’ (referred to in this Part as ‘ITSO’) is a detailed airworthiness specification issued by DGCA to ensure compliance with the essential requirements of the basic Regulation, and is a minimum performance standard for specified articles.
 - 3. An article produced under an ITSO authorization is an approved article for the purpose of Subpart K.

21.602A Eligibility

Any natural or legal person that produces or is preparing to produce an ITSO article, and that has demonstrated, or is in the process of demonstrating, its capability under 21.602B shall be eligible as an applicant for an ITSO authorization.

21.602B Demonstration of capability

Any applicant for an ITSO authorization shall demonstrate its capability as follows:

- (a) for production, by holding a production organization approval, issued in accordance with Subpart G, or through compliance with Subpart F procedures; and
- (b) for design:
 - 1. for an Auxiliary Power Unit, by holding a design organization approval, issued by DGCA in accordance with Subpart JA;
 - 2. for all other articles, by using procedures setting out the specific design practices, resources and sequence of activities necessary to comply with this subpart.

21.603 Application

- (a) An application for an ITSO authorization shall be made along with requisite fees as applicable in a form and manner established by DGCA and shall include an outline of the information required by 21.605.

- (b) When a series of minor changes in accordance with 21.611 is anticipated, the applicant shall set forth in its application the basic model number of the article and the associated part numbers with open brackets after it to denote that suffix change letters or numbers (or combinations of them) will be added from time to time.

21.604 ITSO Authorization for an Auxiliary Power Unit (APU)

With regard to ITSO authorization for an Auxiliary Power Unit:

- (a) 21.15, 21.16B, 21.17, 21.20, 21.21, 21.31, 21.33, 21.44 shall apply by way of derogation from 21.603, 21.606(c), 21.610 and 21.615, except that an ITSO Authorization shall be issued in accordance with 21.606 instead of the type-certificate;
- (b) Subpart D or Subpart E of CAR 21 is applicable for the approval of design changes by way of derogation from 21.611. When Subpart E is used, a separate ITSO authorization shall be issued instead of a supplemental type-certificate.

21.605 Data requirements

The applicant shall submit the following documents, to DGCA:

- (a) A statement of compliance certifying that the applicant has met the requirements of this Subpart.
- (b) A Declaration of Design and Performance (DDP).
- (c) One copy of the technical data required in the applicable ITSO.
- (d) The exposition (or a reference to the exposition) referred to in 21.143 for the purpose of obtaining an appropriate production organization approval under Subpart G or the manual (or a reference to the manual) referred to in 21.125(b) for the purpose of manufacturing under Subpart F without production organization approval.
- (e) For an APU, the handbook (or a reference to the handbook) referred to in 21.243 for the purpose of obtaining an appropriate design organization approval under Subpart JA.
- (f) for all other articles, the procedures referred to in 21.602B(b)(2).

21.606 Issue of ITSO authorization

The applicant shall be entitled to have an ITSO authorization issued by DGCA after:

- (a) demonstrating its capability in accordance with 21.602B; and
- (b) demonstrating that the article complies with the technical conditions of the applicable ITSO, and submitting the corresponding statement of compliance.

(c) showing that it is able to comply with 21.3A.

21.607 ITSO authorization privileges

The holder of an ITSO authorization is entitled to produce and to mark the article with the appropriate ITSO marking.

21.608 Declaration of Design and Performance (DDP)

(a) The DDP shall contain at least the following information:

1. Information corresponding to 21.31(a) and (b), identifying the article and its design and testing standard.
2. The rated performance of the article, where appropriate, either directly or by reference to other supplementary documents.
3. A statement of compliance certifying that the article has met the appropriate ITSO.
4. Reference to relevant test reports.
5. Reference to the appropriate Maintenance, Overhaul and Repair Manuals.
6. The levels of compliance, where various levels of compliance are allowed by the ITSO.
7. List of deviations accepted in accordance with 21.610.

(b) The DDP shall be endorsed with the date and signature of the holder of the ITSO authorization, or its authorized representative.

21.609 Obligations of holders of ITSO authorizations

The holder of an ITSO authorization under this Subpart shall:

- (a) Manufacture each article in accordance with Subpart G or Subpart F that ensures that each completed article conforms to its design data and is safe for installation;
- (b) Prepare and maintain, for each model of each article for which an ITSO authorization has been issued, a current file of complete technical data and records in accordance with 21.613;
- (c) Prepare, maintain and update master copies of all manuals required by the applicable airworthiness specifications for the article;
- (d) Make available to users of the article and to DGCA on request those maintenance, overhaul and repair manuals necessary for the usage and maintenance of the article, and changes to those manuals;
- (e) Mark each article in accordance with 21.807; and
- (f) Comply with 21.3A, 21.3B and 21.4.
- (g) Continue to meet the qualification requirements of 21.602B.

21.610 Approval for deviation

- (a) Each manufacturer who requests approval to deviate from any performance standard of an ITSO shall demonstrate that the standards from which a deviation is requested are compensated for by factors or design features providing an equivalent level of safety.
- (b) The request for approval to deviate, together with all pertinent data, shall be submitted to DGCA.

21.611 Design changes

- (a) The holder of the ITSO authorization may make minor design changes (any change other than a major change) as per the procedures agreed with DGCA. In this case, the changed article keeps the original model number (part number changes or amendments shall be used to identify minor changes) and the holder shall forward to DGCA any revised data that are necessary for compliance with 21.603(b).
- (b) Any design change by the holder of the ITSO authorization that is extensive enough to require a substantially complete investigation to determine compliance with an ITSO is a major change. Before making such a change, the holder shall assign a new type or model designation to the article and apply for a new authorization under 21.603.
- (c) No design change by any natural or legal person other than the holder of the ITSO authorization who submitted the statement of compliance for the article is eligible for approval under this Subpart O unless the person seeking the approval applies under 21.603 for a separate ITSO authorization.

21.613 Record keeping

Further to the record keeping requirements appropriate to or associated with the quality system, all relevant design information, drawings and test reports, including inspection records for the article tested, shall be held at the disposal of DGCA and shall be retained in order to provide the information necessary to ensure the continued airworthiness of the article and of the type-certificated product in which it is fitted.

21.615 Inspection by DGCA

Upon a request of DGCA, each applicant for, or holder of an ITSO authorization for an article shall allow DGCA to:

- (a) Witness any tests.
- (b) Inspect the technical data files on that article.

21.619 Duration and continued validity

(a) An ITSO authorization shall be issued for a limited period of 12 months only. It shall remain valid unless:

1. the conditions required when ITSO authorization was granted are no longer being observed; or
2. the obligations of the holder specified in 21.609 are no longer being discharged; or
3. the article has proved to give rise to unacceptable hazards in service; or
4. the authorization has been surrendered or revoked under the applicable administrative procedures established by DGCA.

(b) Upon surrender or revocation, the certificate shall be returned to DGCA.

21.621 Transferability

Except for a change in ownership of the holder, which shall be regarded as a change of significance, and shall therefore comply with 21.147 and 21.247 as applicable, an ITSO authorization issued under this Part is not transferable.

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SUBPART P – PERMIT TO FLY

21.701 Scope

Permits to fly shall be issued in accordance with this Subpart to aircraft that do not meet, or have not been shown to meet, applicable airworthiness requirements but are capable of safe flight under defined conditions and for the following purposes:

1. development;
2. showing compliance with regulations or certification specifications;
3. design organizations or production organizations crew training;
4. production flight testing of new production aircraft;
5. flying aircraft under production between production facilities;
6. flying the aircraft for customer acceptance;
7. delivering or exporting the aircraft;
8. flying the aircraft for Authority acceptance;
9. market survey, including customer's crew training;
10. exhibition and air show;
11. flying the aircraft to a location where maintenance or airworthiness review are to be performed, or to a place of storage;
12. record breaking, air racing or similar competition;
13. flying aircraft meeting the applicable airworthiness requirements before conformity to the environmental requirements has been found;
- 14 (Reserved)
15. for non-commercial flying activity on individual non-complex aircraft or types for which a certificate of airworthiness or restricted certificate of airworthiness is not appropriate.

21.703 Eligibility

Any natural or legal person shall be eligible as an applicant for a permit to fly except for a permit to fly requested for the purpose of 21.701(15) where the applicant shall be the owner. A person eligible for an application for permit to fly operation is also eligible for application for the approval of the flight conditions from DGCA.

21.707 Application for permit to fly

- (a) Pursuant to 21.703, an application for a permit to fly shall be made to DGCA in a form and manner established by DGCA
- (b) Each application for a permit to fly shall include:
 1. the purpose(s) of the flight(s), in accordance with 21.701;
 2. the ways in which the aircraft does not comply with the applicable airworthiness requirements;
 3. the flight conditions approved in accordance with 21.710.
- (c) Where the flight conditions are not approved at the time of application for a permit to fly, an application for approval of the flight conditions shall be made in accordance with 21.709.

21.708 Flight conditions

Flight conditions include:

- (a) the configuration(s) for which the permit to fly is requested;
- (b) any condition or restriction necessary for safe operation of the aircraft, including:
 - 1. the conditions or restrictions put on itineraries or airspace, or both, required for the flight(s);
 - 2. the conditions and restrictions put on the flight crew to fly the aircraft;
 - 3. the restrictions regarding carriage of persons other than flight crew;
 - 4. the operating limitations, specific procedures or technical conditions to be met;
 - 5. the specific flight test programme (if applicable);
 - 6. the specific continuing airworthiness arrangements including maintenance instructions and regime under which they will be performed;
- (c) the substantiation that the aircraft is capable of safe flight under the conditions or restrictions of subparagraph (b);
- (d) the method used for the control of the aircraft configuration, in order to remain within the established conditions.

21.709 Application for approval of flight conditions

- (a) Pursuant to 21.707(c), an application for approval of the flight conditions shall be made:
 - 1. when approval of the flight conditions is related to the safety of the design, to DGCA in a form and manner established by DGCA; or
 - 2. when approval of the flight conditions is not related to the safety of the design, to DGCA in a form and manner established by DGCA
- (b) Each application for approval of the flight conditions shall include:
 - 1. the proposed flight conditions;
 - 2. the documentation supporting these conditions; and
 - 3. a declaration that the aircraft is capable of safe flight under the conditions or restrictions of paragraph 21.708(b).

21.710 Approval of flight conditions

- (a) When approval of the flight conditions is related to the safety of the design, the flight conditions shall be approved by DGCA;
- (b) When approval of the flight conditions is not related to the safety of the design, the flight conditions shall be approved by DGCA, or the appropriately approved organization under the procedures agreed with DGCA

- (c) Before approving the flight conditions, DGCA and the approved organization must be satisfied that the aircraft is capable of safe flight under the specified conditions and restrictions. DGCA may make or require the applicant to make any necessary inspections or tests for that purpose.

21.711 Issue of a permit to fly

- (a) DGCA shall issue a permit to fly:

1. upon presentation of the data required by 21.707; and
2. when the conditions of 21.708 have been approved in accordance with 21.710; and
3. when DGCA, through its own investigations, which may include inspections, or through procedures agreed with the applicant, is satisfied that the aircraft conforms to the design defined under 21.708 before flight.

- (b) (Reserved)

- (c) An appropriately approved production organization may carry out a permit to fly operation under the privilege granted under 21.163(e), when the conditions of 21.708 have been approved in accordance with 21.710 and under the procedures agreed with DGCA.

- (d) The permit to fly shall specify the purpose(s) and any conditions and restrictions approved under 21.710.

21.713 Changes

- (a) Any change that invalidates the flight conditions or associated substantiation established for the permit to fly shall be approved in accordance with 21.710. When relevant an application shall be made in accordance with 21.709.

- (b) A change affecting the content of the permit to fly requires the issuance of a new permit to fly in accordance with 21.711.

21.715 Language

Placards related to public information shall be presented in bi-lingual, i.e Hindi and English. Placards not related to public information, manuals, listings, and instrument markings and other necessary information required by applicable certification specifications/ airworthiness regulations shall be presented in English only.

21.719 Transferability

- (a) A permit to fly is not transferable.

21.721 Inspections

The holder of, or the applicant for, a permit to fly shall provide access to the aircraft concerned at the request of DGCA

21.723 Duration and continued validity

- (a) A permit to fly shall be issued for a maximum of 12 months and shall remain valid subject to:
1. compliance with the conditions and restrictions of 21.711(d) associated to the permit to fly;
 2. the permit to fly not being surrendered or revoked.
- (b) Upon surrender or revocation, the permit to fly shall be returned to DGCA

21.725 Renewal of permit to fly

Renewal of the permit to fly shall be processed as a change in accordance with 21.713.

21.727 Obligations of the holder of a permit to fly

The holder of a permit to fly shall ensure that all the conditions and restrictions associated with the permit to fly are satisfied and maintained.

21.729 Recordkeeping

- (a) All documents produced to establish and justify the flight conditions shall be held by the holder of the approved organization at the disposal of DGCA and shall be retained in order to provide the information necessary to ensure the continued airworthiness of the aircraft.
- (b) All documents associated to permit to fly operation including inspection records, documents supporting the approval of flight conditions and the permit to fly itself, shall be held by the related approved organization at the disposal of DGCA and shall be retained in order to provide the information necessary to ensure the continued airworthiness of the aircraft.'

SUBPART Q — IDENTIFICATION OF PRODUCTS, PARTS AND APPLIANCES

21.801 Identification of products

- (a) The identification of products shall include the following information:
1. Manufacturer's name.
 2. Product designation.
 3. Manufacturer's Serial number.
 4. Any other information DGCA finds appropriate.
- (b) Any natural or legal person that manufactures an aircraft or engine under Subpart G or Subpart F shall identify that aircraft or engine by means of a fireproof plate that has the information specified in paragraph (a) marked on it by etching, stamping, engraving, or other approved method of fireproof marking. The identification plate shall be secured in such a manner that it is accessible and legible, and will not likely be defaced or removed during normal service, or lost or destroyed in an accident.
- (c) Any natural or legal person that manufactures a propeller, propeller blade, or propeller hub under Subpart G or Subpart F shall identify it by means of a plate, stamping, engraving, etching or other approved method of fireproof identification that is placed on it on a non-critical surface, contains the information specified in paragraph (a), and will not likely be defaced or removed during normal service or lost or destroyed in an accident.
- (d) For manned free balloons, the identification plate prescribed in paragraph (b) shall be secured to the balloon envelope and shall be located, if practicable, where it is legible to the operator when the balloon is inflated. In addition, the basket and any heater assembly shall be permanently and legibly marked with the manufacturer's name, part number, or equivalent, and serial number, or equivalent.

21.803 Handling of identification data

- (a) No person shall remove, change, or place identification information referred to in 21.801 (a) on any aircraft, engine, propeller, propeller blade, or propeller hub, or in 21.807 (a) on an APU, without the approval of the DGCA.
- (b) No person shall remove or install any identification plate referred to in 21.801, or in 21.807 for an APU, without the approval of DGCA.
- (c) By way of derogation from paragraphs (a) and (b), any natural or legal person performing maintenance work under the applicable associated implementing rules may, in accordance with methods, techniques and practices established by DGCA:
1. Remove, change, or place the identification information referred to in 21.801(a) on any aircraft, engine, propeller, propeller blade, or propeller hub, or in 21.807(a) on an APU; or

2. Remove an identification plate referred to in 21.801, or 21.807 for an APU, when necessary during maintenance operations.
- (d) No person shall install an identification plate removed in accordance with subparagraph (c)(2) on any aircraft, engine, propeller, propeller blade, or propeller hub other than the one from which it was removed.

21.804 Identification of parts and appliances

- (a) Each manufacturer of a part or appliance shall permanently and legibly mark the part or appliance with:
1. a name, trademark, or symbol identifying the manufacturer; and
 2. the part number, as defined in the applicable design data; and
 3. the letters for parts or appliances produced in accordance with approved design data not belonging to the type-certificate holder of the related product, except for ITSO articles.
- (b) By way of derogation from paragraph (a), if DGCA agrees that a part or appliance is too small or that it is otherwise impractical to mark a part or appliance with any of the information required by paragraph (a), the authorized release document accompanying the part or appliance or its container shall include the information that could not be marked on the part.

21.805 Identification of critical parts

In addition to the requirement of 21.804, each manufacturer of a part to be fitted on a type-certificated product which has been identified as a critical part shall permanently and legibly mark that part with a part number and a serial number.

21.807 Identification of ITSO articles

- (a) Each holder of an ITSO authorization under Subpart O shall permanently and legibly mark each article with the following information:
1. The name and address of the manufacturer;
 2. The name, type, part number or model designation of the article;
 3. The serial number or the date of manufacture of the article or both; and
 4. The applicable ITSO number.
- (b) By way of derogation from paragraph (a), if DGCA agrees that a part is too small or that it is otherwise impractical to mark a part with any of the information required by paragraph (a), the authorized release document accompanying the part or its container shall include the information that could not be marked on the part.
- (c) Each person who manufactures an APU under Subpart G or Subpart F shall identify that APU by means of a fire-proof plate that has the information specified in paragraph (a) marked on it by etching, stamping, engraving, or other approved method of fireproof marking. The identification plate shall be secured in such a

manner that it is accessible and legible, and will not likely be defaced or removed during normal service, or lost or destroyed in an accident.

CHARAN DASS
Deputy Director General of Civil Aviation

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