Democratic Socialist Republic of Sri Lanka

Civil Aviation Authority of Sri Lanka
Implementing Standards IS-21

(Issued under Sec. 120, Civil Aviation Act No. 14 of 2010)

Technical Requirements and Administrative Procedures for the Airworthiness and Environmental Certification of Aircraft and the acceptability of related products, Parts and appliances (Airworthiness Code of Sri Lanka)

IS Reference No.: **IS-21** **Date: 25/06/2020**

Pursuant to Sec.120 of the Civil Aviation Act No.14 of 2010 which is hereinafter referred to as the CAA Act, Director General of Civil Aviation shall have the power to issue, whenever he considers it necessary or appropriate to do so, such Implementing Standards for the purpose of giving effect to any provision in the CAA Act, Requirements or Rules made thereunder including the Articles of the Convention on International Civil Aviation specified in the Schedule to the CAA Act.

Accordingly, I, being the Director General of Civil Aviation do hereby issue the Implementing Standards on Requirements to be satisfied for Airworthiness Certification Requirements as mentioned in the Attachment hereto (Ref: Attachment to. IS-21), elaborating the requirements to be satisfied for the effective implementation of the International Standards and Recommended Practices on 'Common Technical Requirements and Administrative Procedures For the Airworthiness and Environmental Certification of Products, Parts and Appliances' contained in Annex 08 and Annex 16 Volume I, II & III, which is termed as "Airworthiness Code of Sri Lanka".

Attention is also drawn to Sec. 49 and Sec. 103 of the Act, which states inter alia that failure to comply with Implementing Standard is an offence.

Capt.Themiya Abeywickrama
Director General of Civil Aviation and
Chief Executive Officer

Civil Aviation Authority of Sri Lanka
152/1, Minuwangoda Road,
Katunayake
Sri Lanka

Enclosure: Attachment to IS-21

Preamble

Notice to the Recipient

1.1. The requirements in this Implementing Standard are based on the Standards and Recommended Practices (SARPs) adopted by the International Civil Aviation Organization (ICAO) and incorporated in the Amendment No. 12th of 8th Edition to Annex 16 Volume I, Amendment No. 9th of 4th Edition to Annex 16 Volume II, 1st Edition to Annex 16 Volume III and Amendment No 106 to Annex 8.

1.2. In pursuance of the obligation cast under Article 38 of the Convention which requires the Contracting States to notify the ICAO of any differences between the national regulations of the States and practices and the International Standards contained in the respective Annex and any amendments thereto, the CAASL will be taking steps to notify ICAO of such differences relating to either a Standard or a Recommended Practice, if any. The CAASL will also keep the ICAO currently informed of any differences which may subsequently occur, or of the withdrawal of any differences previously notified. Furthermore, the CAASL will take steps for the publication of differences between the national regulations and practices and the related ICAO Standards and Recommended Practices through the Aeronautical Information Service, which is published in accordance with the provisions in the Annex-15 to the Convention.

1.3. Taking into account of the ICAO council resolution dated 13 April 1948 which invited the attention of Contracting States of the desirability of using in the State's national regulations, as far as is practicable, the precise language of those ICAO Standards that are of a regulatory character, to the greatest extent possible the CAASL has attempted to retain the ICAO texts in the Annex in drafting this Implementing Standard.

1.4. **Status of ICAO Annex components in the Implementing Standard**

Some of the components in an ICAO Annex are as follows and they have the status as indicated:

1.4.1. **Standard:** Any specification for physical characteristics, configuration, materiel, performance, personnel or procedure, the uniform application of which is recognized as necessary for the safety or regularity of international air navigation and to which Contracting States will conform in accordance with the Convention; in the event of impossibility of compliance, notification to the Council is compulsory under Article 38. The ICAO Standards are reflected in the Implementing Standards if they are locally implemented using the normal fonts and recipients are required to conform to such requirements invariably and the DGCA **will take appropriate enforcement action** when those requirements are not complied with.

1.4.2. **Recommended Practice:** Any specification for physical characteristics, configuration, materiel, performance, personnel or procedure, the uniform application of which is recognized as desirable in the interest of safety, regularity, efficiency or environmentally responsiveness of international air navigation, and to which Contracting States will endeavor to conform in accordance with the Convention. The ICAO Recommended Practices are reflected in the Implementing Standards in italic fonts and the Recipients are encouraged to implement them to the greatest extent possible. However, DGCA **will not take enforcement action** when a Recommended Practice is not satisfied by the recipient.

1.4.3. **Appendices**: Comprising material grouped separately for convenience but forming part of the Standards and Recommended Practices adopted by the Council. Enforcement action on such matters will be as in the case of Standards or Recommended Practices.

1.4.4. **Definitions:** A definition does not have independent status but is an essential part of each Standard and Recommended Practice in which the term is used, since a change in the meaning of the term would affect the specification.

1.4.5. **Tables and Figures:** add to or illustrate a Standard or Recommended Practice, and which are referred to therein, form part of the associated Standard or Recommended Practice and have the same status

The editing practices used in this document are as follows:

(1) '**Shall**' is used to indicate a mandatory requirement and may appear in IS.
(2) '**Should**' is used to indicate a recommendation
(3) '**May**' is used to indicate discretion by the CAASL, or the industry as appropriate.
(4) '**Will**' indicates a mandatory requirement and is used to advise of action incumbent on the CAASL.

CAASL means Civil Aviation Authority of Sri Lanka.

DGCA - "Director-General of Civil Aviation" - refers to the Director General of Civil Aviation & Chief Executive Officer, Sri Lanka as defined in the Civil Aviation Authority of Sri Lanka Act, No. 34 of 2002. This will include any person authorized by him to act on his/her behalf and any person acting in that capacity.

LIST OF AMENDMENTS

Amendment No.:	Section and Page No:	Issue date:	Date Inserted:	Inserted By:	Date Removed:	Removed By:
Initial Issue	N/A	N/A	N/A	N/A	N/A	N/A
Issue 02	Full	25/06/2020	25/06/2020		N/A	N/A

CAASL IMPLEMENTING STANDARDS – IS-21

Technical Requirements and Administrative Procedures for the Airworthiness and Environmental Certification of Aircraft and the acceptability of related products, Parts and appliances (Airworthiness Code of Sri Lanka)

01. PURPOSE

Annex-8 and Annex 16 to the Convention includes broad standards which define, for application by the national authorities, the minimum basis for recognition by States of certificates of airworthiness for the purpose of flight of aircraft of other States into and over their territories, thereby achieving, among other things, protection of other aircraft, third persons and property. It is recognized that ICAO standards contained in Annex 6, Annex-8, and Annex 16, Volume I, II & III would not replace national Implementing Standards and that national codes of airworthiness containing the full scope and extent of the detail considered necessary by individual States would be required as the basis for the certification of individual aircraft. Accordingly, the purpose of this Implementing Standards is to specify common technical requirements and administrative procedures known as the Airworthiness Code of Sri Lanka to be complied with for the airworthiness and environmental certification of products, parts and appliances for operation of aircraft in Sri Lanka.

02. APPLICABILITY

(a) The Airworthiness Code shall be applicable to every organization involved in the operation of aircraft engaged in commercial air transport, commercial operations, Flying Training, aerial work and private flying, for which purpose a Certificate of Airworthiness is issued by the Civil Aviation Authority of Sri Lanka (CAASL).

(b). If a Type Certificate, Supplemental Type Certificate, Design Approval etc have been issued, validated or accepted in manner inconsistent with the requirements/procedures specified here, such certificates or approvals shall be considered invalid from the effective date hereof and the holders of such certificate / approvals are required to comply with the requirements and procedures herein stipulated.

03. ORGANIZATION OF THE IMPLEMENTING STANDARDS

This Implementing Standards are organized in the following manner

TECHNICAL REQUIREMENTS

This Section contains the following.

(a) Implementing Standard (IS): The requirements in the Airworthiness code that needs to be complied with.

(b) Acceptable means of Compliance (AMC): Method of meeting the intent of the Implementing Standard. AMC illustrates a means, but not the only means, by which a specification contained

in an airworthiness code or a requirement of an implementing rule can be met. Satisfactory demonstration of compliance using a published AMC shall provide for presumption of compliance with the related specification or requirement; it is a way to facilitate certification tasks for the applicant and the CAASL.

(c) Guidance Material (GM): Information for industry guidance

The content of this document is arranged as follows, the Continuing Airworthiness Requirements first, followed by related Acceptable Means of Compliance (AMC) and Guidance Material (GM) paragraph(s). All elements (i.e. Continuing Airworthiness Requirements, AMC and GM) are colour-coded and can be identified according to the illustration below.

Implementing Standards (IS)
Acceptable Means of Compliance (AMC)
Guidance Material (GM)

04. DOCUMENTS REPEALED

This IS-21, 2nd Edition, shall be applicable and effective on 01st August 2020 and will supersede the requirements in IS-21, 1st Edition of 20th Dec 2017. And repealed IS-81: Aircraft Noise and IS-82: Aircraft Engine Emission.

05. AMENDMENTS

Depending on the need, this Airworthiness Code will be amended from time to time and pages that were subjected to amendments will be listed in the Record of Amendments and the whole document would be re-issued.

TABLE OF CONTENTS

TECHNICAL REQUIREMENTS

SUBPART A — GENERAL PROVISIONS

IS-21.001 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 by DGCA in accordance with this **IS**.

The applicable punitive actions that can and will be enforced by the CAASL against recognized actions of non-compliance.

IS-21.002 FALSIFICATION OF APPLICATIONS, REPORTS, OR RECORDS

No person shall make or cause to be made—

(a) Any fraudulent or intentionally false statement on any application for a certificate, approval or authorization under this IS;

(b) Any fraudulent or intentionally false entry in any record or report that is required to be kept, made, or used to show compliance with any requirement for the issuance or exercise of the privileges of any certificate or approval issued under this IS;

(c) Any reproduction for a fraudulent purpose of any certificate or approval issued under this IS;

(d) Any alteration of any certificate or approval issued under this IS;

(e) The commission by any person of an act prohibited under paragraph (a) of this IS is a basis for suspending or revoking any certificate or approval issued under this IS- and held by the holder.

IS-21.003 REPORTING

(a) Any person or organization responsible under IS-M.201, shall report to the CAASL, the Competent Authority of the State of Design, the organization responsible for the type design or supplemental type design and, if applicable, the State of operator, any identified condition of an aircraft or component that hazards seriously the flight safety that may include the following:

(b) Fires caused by a system failure, malfunction, or defect.

(c) An engine exhaust system failure, malfunction, or defect which causes damage to the engine, adjacent aircraft structure, equipment, or components.

(d) The accumulation or circulation of toxic or noxious gases in the crew compartment or passenger cabin.

(e) (A malfunction, failure, or defect of a propeller control system.

(f) A propeller or rotorcraft hub or blade structural failure.

(g) Flammable fluid leakage in areas where an ignition source normally exists.

(h) A brake system failure caused by structural or material failure during operation.

(i) A significant aircraft primary structural defect or failure caused by any autogenous condition (fatigue, under strength, corrosion, etc.).

(j) Any abnormal vibration or buffeting caused a structural or system malfunction, defect, or failure.

(k) An engine failure.

(l) Any structural or flight control system malfunction, defect, or failure which causes an interference with normal control of the aircraft for which derogates the flying qualities.

(m) A complete loss of more than one electrical power generating system or hydraulic power system in a given operation of the aircraft.

(n) A failure or malfunction of more than one attitude, airspeed, or altitude instrument during a given operation of the aircraft.

(o) Reports shall be made in a manner established by the CAASL and contain all pertinent information about the condition known to the person or organization.

(p) Where the person or organization maintaining the aircraft is contracted by an owner or an operator to carry out maintenance, the person or the organization maintaining the aircraft shall also report to the owner, the operator or the continuing airworthiness management organization any such condition affecting the owner's or the operator's aircraft or component.

(q) Reports shall be made as soon as practicable, but in any case within 72 hours of the person or organization identifying the condition to which the report relates.

IS-21.004 AIRCRAFT CERTIFICATION AND ACCEPTABILITY OF RELATED PRODUCTS, PARTS AND APPLIANCES

(1) Aircraft which are registered or intended to be registered in the Sri Lanka shall be issued with certificates in accordance with this IS;

(2) Products, Parts and appliances installed or to be installed on aircraft under paragraph (1) shall be accepted in accordance with this IS.

(3) With regard to a product that has a type-certificate issued by the Competent Authority of the State of Design, the following provisions shall apply:

(a) Such a product shall be deemed to have a type-certificate accepted in accordance with this Regulation when:

(i) Its type-certification basis as defined in the type-certificate data sheet of the State of Design meets the applicable technical requirements of Subpart B to this IS.

(ii) The environmental protection requirements are those laid down in Annex 16 to the Chicago Convention, as applicable to the product;
(iii) The applicable airworthiness directives are those issued by the State of Design.

(b) The design of an individual aircraft, which is on the register of Sri Lanka, shall be deemed to have been approved in accordance with this Regulation when:

(i) its basic type design is Part of a type-certificate referred to in paragraph (a);

(ii) all changes to this basic type design, which are not under the responsibility of the type-certificate holder, have been approved by the Competent Authority of the State of Design; and

(iii) The airworthiness directives issued by the Competent Authority of the State of Design are complied with, including any variations to the airworthiness directives of the Competent Authority of State of Design made mandatory by the Authority.

(4) With regard to supplemental type-certificates and major type design changes embodied before the entry into force of this Regulation to products under paragraph 1 and 2; such supplemental type certificates and major changes shall be deemed accepted in accordance with this Regulation.

(5) With regard to major repair design carried out before the entry into force of this Regulation to a product under paragraph 1 and 2; such major repair design shall be deemed accepted in accordance with this Regulation.

(6) With regard to minor changes to type design and minor repair design carried out before the entry into force of this Regulation to a product under paragraph and 2; such minor changes to type design and minor repair design shall be deemed approved and accepted, respectively, in accordance with this Regulation.

(7) With regard to parts and appliances for which an approval or authorization process has been or is being carried out by the Competent Authority of the State of Design before the entry into force of this Regulation; such approval or authorization shall be deemed accepted under this Regulation.

(8) A certificate of airworthiness issued by the DGCA attesting conformity with a type-certificate acceptable under paragraph 3 shall be deemed to comply with this Regulation.

(9) Where reference is made in this IS to apply and/or to comply with the provisions of the said IS and IS-M is not in force, the relevant implementing rules previous to this Regulation shall apply instead.

IS-21.005 AIRWORTHINESS OF AIRCRAFT

Governing the airworthiness and environmental certification of aircraft, and the acceptability of related products, Parts and appliances, as well as aircraft components and materials.
In pursuance to Civil Aviation Act in the Sri Lanka (hereinafter referred as the 'Civil Aviation Act') on the governance of civil aviation in the Sri Lanka, on the applicability of the provisions of the Chicago Convention on civil aircraft registered in the in the Sri Lanka and mandated capacity for the Civil Aviation Authority to issue, regulations, Implementing Standards and directives

necessary for the discharge of its functions, respectively, thereof; and having regard on Aircraft Operations and on Aircraft Airworthiness, thereof, on establishing Implementing Standards pertaining to provisions of flying over the Sri Lanka region; thereof, on setting forth provisions pertaining to the issue of airworthiness certificates; thereof, on oversight of aircraft maintenance, repair and modification.

Having regard to the technical requirements and procedures of the CAASL, the Standards and Recommended Practices of the latest amendment of ICAO Annex 8 and the Annex 16 Vol. I, II & III to ensure the airworthiness and environmental acceptability of aeronautical products, Parts & appliances and aeroplane CO2 emission requirements.

Whereas:

(1) It is necessary to establish technical requirements and administrative procedures to amplify and implement the provisions of enabling Law to ensure the airworthiness and environmental acceptability of aeronautical products, Parts and appliances is in accordance with Annex 8 to the Convention of International Civil Aviation on December 7, 1944; such requirements and procedures should specify the conditions to issue, maintain, amend, suspend or revoke the appropriate airworthiness certificates.

(2) The need to ensure the application of airworthiness standard and environmental requirements for acceptability of aeronautical products, parts and appliances requires that administrative procedures be followed by the CAASL; and to assess compliance with these requirements, the CAASL should adopt airworthiness codes or certification specifications and establish guidance material to facilitate the necessary regulatory implementation.

(3) In adopting measures for the implementation of procedural requirements in the field of airworthiness, the CAASL must take care that they reflect the state of the art and the best practices, take into account worldwide aircraft experience, scientific and technical progress and allow for immediate reaction to established causes of accidents and serious incidents.

(4) It is necessary to establish technical requirements and administrative procedures to ensure acceptability of imported aircraft, aircraft components and materials, in conformity to the guidelines and procedures of ICAO Document, Doc 9760 AN/967, as amended.

(5) For this purpose, it is necessary to permit smooth transition to this Implementing Standards ensuring that a high level of civil aviation safety in the Sri Lanka is maintained, and it is necessary to provide sufficient time for the aeronautical industry and the CAASL to adapt to this new implementing rule and to recognize the continuing validity of certificates issued before the entry into force of this Regulation.

Airworthy. The status of an aircraft, engine, propeller or part when it conforms to its approved design and is in a condition for safe operation.

Airworthiness of an aircraft shall cease to be in force if the aircraft, or such of its equipment as is necessary for the airworthiness of the aircraft **is overhauled, repaired or modified,** or if any part of the aircraft or of such equipment is removed or is replaced, otherwise than in a manner and with material of a type approved by the applicable Authority either generally or in relation to a class of aircraft or to the particular aircraft.

Continuing airworthiness. The set of processes by which an aircraft, engine, propeller or part complies with the applicable airworthiness requirements and remains in a condition for safe operation throughout its operating life.

IS-21.006 AIRWORTHINESS DIRECTIVES

(a) An Airworthiness Directive means a document issued by the State of Design/DGCA 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) The Competent Authority of the State of Design or DGCA shall issue an airworthiness directive under certain circumstance such as given below but not least and the compliance is deemed mandatory under this IS
   (1) an unsafe condition has been determined by the Competent Authority of the State of Design or 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;
   (2) it affects an aircraft being applied for an issue of an airworthiness certificate or which had been issued with an airworthiness certificate under this Regulation and
   (3) that condition is likely to exist or develop in other aircraft.

(c) When an Airworthiness Directive has to be issued by the 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, supplemental Type Certificate, Major Repair Design Approval, TSO authorization or any other relevant approval deemed to have been issued under this Implementing Standard, shall:

   (1) Propose the appropriate corrective action or required inspections, or both, and submit details of these proposals to the DGCA for approval.
   (2) Following the approval by the DGCA of the proposals referred 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) Any person or organization responsible under IS-M.201 shall comply with the requirements of an airworthiness directive deemed mandatory under this IS, and shall keep and maintain record of such compliance containing at least the following information:
   (1) The reference number of the airworthiness directive;
   (2) The description of the unsafe condition identified in the airworthiness directive;
   (3) The affected aircraft;
   (4) The compliance action(s) accomplished in the affected aircraft; and
   (5) The time and date the required action(s) was accomplished in the affected aircraft.

(e) When the DGCA receives an airworthiness directive from the Competent Authority of State of Design, that Airworthiness directive shall be disseminated to the relevant operator airlines, Maintenance organizations, Continuing Airworthiness Management Organizations and Training Organizations.

(f) All maintenance organizations certificated by DGCA are required to hold copies of ADs issued by the State of Design/DGCA or adopted by DGCA and maintenance & service information issued by manufacturers concerning the aircraft, engines, propellers and accessories that the AMOs are responsible for maintaining.

IS-21.007 AIRPLANE OR ROTORCRAFT MANUAL

(a) Each airplane or rotorcraft being applied for issue of an airworthiness certificate shall have an Airplane or Rotorcraft Flight Manual or Pilot's Operating Handbook currently approved by the Competent Authority of the State of Design of the airplane or rotorcraft.

(b) The Airplane or Rotorcraft Flight Manual required by paragraph (a) of this IS must contain the following information:
(1) The operating limitations and information required to be furnished in an Airplane or Rotorcraft Flight Manual or in manual material, markings, and placards, by the applicable regulations under which the airplane or rotorcraft was type certificated.
(2) The maximum ambient atmospheric temperature for which engine cooling was demonstrated must be stated in the performance information section of the Flight Manual, if the applicable regulations under which the aircraft was type certificated do not require ambient temperature on the engine cooling operating limitation in the Flight Manual.

(c) The Pilot's Operating Handbook required by paragraph (a) of this IS must contain adequate information to satisfy the applicable performance operating rules.

(d) The Airplane or Rotorcraft Flight Manual or Pilot's Operating Handbook required by paragraph (a) of this IS, including all relevant supplements thereto which have been approved by the Competent Authority of the State of Design for use on that aircraft, will be accepted by the CAASL without investigation, if it complies with the requirements of paragraph (b) or (c), as applicable.

(e) A copy of the Airplane or Rotorcraft Flight Manual or Pilot's Operating Handbook, as appropriate, shall be submitted in advance to the CAASL, for acceptance prior to issue of an airworthiness certificate.

SUBPART B — TYPE CERTIFICATES

IS-21.008 TYPE CERTIFICATES

The Type Certificate is 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 the State of Design records compliance, and any other conditions or limitations prescribed for the product in the applicable certification specifications and environmental protection requirements. The aircraft Type Certificate, in addition, includes the Type Certificate Data Sheet for noise. The engine Type Certificate Data Sheet includes the record of emission compliance. The aircraft type-certificate data sheet shall include the record of CO2 emissions compliance and the engine type-certificate data sheet shall include the record of exhaust emissions compliance.

IS-21.009 SCOPE

This Subpart establishes the requirements in accepting aircraft type certificates, prerequisites for aircraft registration and issue of an airworthiness certificate.

(a) DGCA neither issue nor validate Type Certificates.

(b) Any aircraft which is the first of its new type or model to be registered in Sri Lanka (i.e. this

new type or model has not already been registered in Sri Lanka Civil Aircraft Register) requires that the existing Type Certificate granted by its State of Design be accepted before the registration of the aircraft by the DGCA Sri Lanka after the application presented by the Type Certificate holder.

(c) This Subpart establishes the requirements for issuing Type Acceptance Certificates (TAC) for products with foreign Type Certificates.

GM 21.009 SCOPE

(1) The Type Acceptance Certificate has no holder as such. The Type Acceptance certificate is issued to recognize a foreign Type Certificate in Sri Lanka. Once issued for its first aircraft, any subsequent aircraft of that type may enter Sri Lanka without going through the type acceptance process.
(2) All aircraft must go through the entry process for the issue of an Airworthiness Certificate. Acceptance of the aircraft's Type Certificate will imply acceptance of the associated engine and/or propeller Type Certificate.

IS-21.010 ELIGIBILITY

(a) An aircraft type certificate issued by the Competent Authority of the State of Design constitutes a statement that the design of the aircraft type to which the certificate refers and of the variants specified on the data sheet has been approved to the airworthiness standard of the State of Design.

(b) The CAASL does not issue its own aircraft type certificate and type certificate data sheet. The issue of a certificate of airworthiness to an aircraft in accordance with Subpart H constitutes the acceptance of the aircraft type certificate. A type certificate is acceptable if it complies with the requirements under this Subpart.

(c) When an aircraft type certificate is accepted, all aircraft of a similar type would qualify for the issue of an airworthiness certificate, providing that the condition of the aircraft meets the requirements of this IS.

IS-21.011 ACCEPTABILITY OF FOREIGN TYPE CERTIFICATES

(a) The following foreign Type Certificates may be recognized by the DGCA for issuing a Type Acceptance Certificate (TAC):
  (1) a Type Certificate issued by European Union Aviation Safety Agency (EASA)
  (2) a Type Certificate accepted by Federal Aviation Administration (FAA)
  (3) a Type Certificate issued by a National Aviation Authority of an ICAO Contracting State in compliance with Annexes 8 and 16 to the Convention on International Civil Aviation.
(b) For the purpose of TAC, if the Type Certificate basis is by an airworthiness authority other than referred under subparagraph (a)(1). and (2)., then it shall be compared with acceptable EASA Design Standards or FAA standards before CAASL issues a TAC.
(c) For the CAASL to recognize an Airworthiness Code of another ICAO Member State for the purpose of giving recognition to a Type Certificate issued by that State, as a minimum, the Code must:
  (1) be prescribed by the respective Civil Aviation Authority of that State in conformity with Annex 8 and Annex 16 standards;
  (2) have demonstrated a sound safety record;

(3) prescribe a complete and consistent suite of Airworthiness Design Requirements;
(4) be supported by associated guidance on how to achieve compliance with the Airworthiness Design requirements; and
(5) be accessible, i.e. be published by the respective authority in a consolidated and easily accessed format in the English Language.

(d) Where an Airworthiness Code of a foreign State is recognized by the CAASL, the recognition automatically refers to the current version of the Code. Earlier versions of an Airworthiness Code may be acceptable to the CAASL provided the changes between the earlier version and the current version have been analyzed and the effect on safety characterized.

IS-21.012 AIRWORTHINESS CODES

(a) A type certificate is acceptable to the CAASL if it is issued by the Competent Authority of the State of Design and in compliance with the applicable standards of Part III, IIIB,IV, V,VB,VI and VII of ICAO Annex 8 and Annex 16 to the Chicago Convention has been demonstrated; or if it is issued based on the certification basis specifying the airworthiness codes, as applicable, acceptable to the CAASL as prescribed in sub paragraphs (a), (b) and (c) below and Applicable environmental protection requirements and certification specifications (IS-21.014) and any other new Certification Specification issued by those states of design.

(b) Joint Aviation Requirements

JAR 22 Sailplanes and Powered Sailplanes
JAR 23 Normal, Utility, Acrobatic and Commuter Aeroplanes
JAR 25 Large Aeroplanes
JAR 26 Additional Airworthiness Requirements for Operations
JAR 27 Small Rotorcraft
JAR 29 Large Rotorcraft
JAR 34 Aircraft Engine Emission and Fuel Venting
JAR 36 Aircraft Noise
JAR-VLR Very Light Rotorcraft
JAR-VLA Very Light Aeroplanes
JAR-E Engines
JAR-P Propellers
JAR-APU Auxiliary Power Units
JAR-TSO Technical Standard Orders
JAR-AWO All Weather Operations

EASA Certification Specification (CS)

EASA Certification Specification (CS)-AMC-20 General Acceptable Means of Compliance for Airworthiness of Products, Parts and Appliances

CS-22 Sailplanes and Powered Sailplanes
CS-23 Normal, Utility, Aerobatic and Commuter Aeroplanes
CS-25 Large Aeroplanes
CS-26 Additional airworthiness specifications for operations
CS-27 Small Rotorcraft
CS-29 Large Rotorcraft
CS-31GB Gas Balloons

CS-31HB Hot Air Balloons
CS-31TGB Tethered Gas Balloons
CS-34 Aircraft Engine Emissions and Fuel Venting
CS-36 Aircraft Noise
CS-APU Auxiliary Power Units
CS-AWO All Weather Operations
CS-Definitions on Definitions and Abbreviations
CS-E Engines
CS-ETSO European Technical Standard Orders
CS-LSA Light Sport Aeroplanes
CS-P Propellers
CS-SIMD Simulator Data
CS-STAN Standard Changes and Standard Repairs
CS-VLA Very Light Aeroplanes
CS-VLR Very Light Rotorcraft
CS-MMEL Master Minimum Equipment List
CS-GEN-MMEL Generic Master Minimum Equipment List
CS-CCD Cabin Crew Data
CS-FCD Flight Crew Data

(c) The US Federal Aviation Regulations

CAR 23- Airworthiness Standards: Normal, Utility, Aerobatic, and Commuter Category Airplanes
CAR 25 - Airworthiness Standards: Transport Category Airplanes
CAR 27 - Airworthiness Standards: Normal Category Rotorcraft
CAR 29 - Airworthiness Standards: Transport Category Rotorcraft
CAR 31 - Airworthiness Standards: Manned Free Balloons
CAR 33 - Airworthiness Standards: Aircraft Engines
CAR 34 - Fuel Venting and Exhaust Emission Requirements for Turbine Engine Powered Airplanes
CAR 35 - Airworthiness Standards: Propellers
CAR 36 - Noise Standards: Aircraft Type and Airworthiness Certification

IS-21.013 TYPE-CERTIFICATION BASIS

The type-certification basis of an acceptable type-certificate shall consist of:
The applicable airworthiness code described in IS-21.012 that is effective on the date of issue of the type-certificate or later effective amendments elected by the holder and approved by the Competent Authority of the State of Design; and Any special condition prescribed in IS-21.013A(a)

IS-21.013A SPECIAL CONDITIONS

(a) Special conditions are detailed technical specifications prescribed by the Competent Authority of the State of Design 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 the Competent Authority of the State of Design finds necessary to establish a level of safety equivalent to that established in the applicable airworthiness code.

(c) Any special conditions prescribed by the Competent Authority of the State of Design shall have been complied at the time of the issue of the type certificate.

IS-21.014 APPLICABLE ENVIRONMENTAL PROTECTION REQUIREMENTS AND CERTIFICATION SPECIFICATIONS

(a) The applicable noise requirements for the issuance of Type Acceptance Certificate of an acceptable aircraft type-certificate by the DGCA shall be those that are prescribed according to the provisions of Chapter 1 of Annex 16, Volume I, Part II to the Chicago Convention:

(1) for subsonic jet aeroplanes, in Volume I, Part II, Chapters 2, 3, 4 and 14, as applicable;

(2) for propeller-driven aeroplanes, in Volume I, Part II, Chapters 3, 4, 5, 6, 10 and 14, as applicable;

(3) for helicopters, in Volume I, Part II, Chapters 8 and 11, as applicable;

(4) for supersonic aeroplanes, in Volume I, Part II, Chapter 12, as applicable;

(5) for propeller-driven STOL aeroplanes, in Volume I, Part II, Chapter 7, as applicable; and

(6) for tilt-rotors, in Volume I, Part II, Chapter 13, as applicable.

(b) The applicable emission requirements for the issuance of Type Acceptance Certificate of an acceptable aircraft and engine type-certificates by the DGCA shall be those that are prescribed in Annex 16 Volume II 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.

(c) The applicable CO2 emission requirements for the issuance of Type Acceptance Certificate for acceptable aircraft type certificates by the DGCA shall be those that are prescribed in Annex 16 Volume III to the Chicago Convention.

(1) for subsonic jet aeroplanes over 5700 kg and propeller-driven aeroplane over 8618 kg, in Volume III, Part II, Chapter 2 as applicable;

(2) subsonic jet aeroplanes, including their derived versions, of greater than 5700 kg maximum take-off mass, for which the application for a type certificate was submitted on or after 1 January 2020, except for those aeroplanes of less than or equal to 60000 kg maximum take-off mass with a maximum passenger seating capacity of 19 seats or less;

(3) subsonic jet aeroplanes, including their derived versions, of greater than 5700 kg and less than or equal to 60000 kg maximum take-off mass with a maximum passenger seating capacity of 19 seats or less, for which the application for a type certificate was submitted on or after 1 January 2023;

(4) all propeller-driven aeroplanes, including their derived versions, of greater than 8618 kg maximum take-off mass, for which the application for a type certificate was submitted on or after 1 January 2020;

(5) derived versions of non-CO2-certified subsonic jet aeroplanes of greater than 5700 kg maximum certificated take-off mass, for which the application for certification of the change in type design was submitted on or after1 January 2023;

(6) derived versions of non-CO2 certified propeller-driven aeroplanes of greater than 8618 kg maximum certificated take-off mass, for which the application for certification of the change in type design was submitted on or after 1 January 2023;

(7) individual non-CO2-certified subsonic jet aeroplanes of greater than 5700 kg maximum certificated take-off mass, for which a certificate of airworthiness was first issued on or after 1 January 2028; and

(8) Individual non-CO2-certified propeller-driven aeroplanes of greater than 8618 kg maximum certificated take-off mass, for which a certificate of airworthiness was first issued on or after 1 January 2028.

(d) An acceptable aircraft type-certificate shall have been issued in accordance with the airworthiness codes or certification specifications that provided acceptable means to demonstrate compliance with the noise, engine emission and aeroplane CO2 emission requirements laid down in paragraphs (a), (b) and (c) in above respectively for the issuance of Type Acceptance Certificate.

IS-21.014 A SPECIFIC CERTIFICATION SPECIFICATIONS

(a) The approved design of an aircraft under Parts IIIB, IVB, VA and VB of Annex 8 shall use extinguishing agents that are not listed in the 1987 *Montreal Protocol on Substances that Deplete the Ozone Layer* as it appears in the Eighth Edition of the *Handbook for the Montreal Protocol on Substances that Deplete the Ozone Layer,* Annex A, Group II, in the aircraft fire suppression or extinguishing systems in the lavatories, engines and auxiliary power unit.

Note.— Information concerning extinguishing agents is contained in the UNEP Halons Technical Options Committee -Technical Note No. 1 — New Technology Halon Alternatives *and FAA Report No. DOT/FAA/AR-99-63,* Options to the Use of Halons for Aircraft Fire Suppression Systems.

(b) The approved design of an aircraft under Part IIIB of Annex 8 shall use extinguishing agents that are not listed in the 1987 *Montreal Protocol on Substances that Deplete the Ozone Layer* as it appears in the Tenth Edition of the *Handbook for the Montreal Protocol on Substances that Deplete the Ozone Layer,* Annex A, Group II, in the aircraft fire suppression or extinguishing systems for the cargo compartment.

Note.— information concerning acceptable agents is contained in the report of the UNEP Halons Technical Options Committee Technical Note No. 1 — New Technology Halon Alternatives *and FAA Report No. DOT/FAA/AR-11-31,* Options to the Use of Halons for Aircraft Fire Suppression Systems.

IS-21.015 APPLICATION

(a) An application for a Type Acceptance Certificate (TAC) shall be made in a form and manner established by the CAASL for any aircraft which is the first of its new type or model (i.e. the new type or model has not previously been registered in Sri Lanka Civil Aircraft Register) to be registered in Sri Lanka before the registration of it.

(b) Except as provided in IS-21.009 (c) a copy of the aircraft type certificate and the associated type certificate data sheet shall be submitted to the CAASL, for acceptance.

(c) An applicant for Type Acceptance Certificate (TAC) shall provide CAASL:
  (1) evidences that a Type Certificate acceptable to CAASL as per this IS, have been issued;
  (2) a copy of the aircraft and engine type certificate and the type certificate data sheets or specifications for the aircraft, engine or propeller;
  (3) details of any airworthiness requirement not complied with is compensated for by a factor that provides an equivalent level of safety;
  (4) any airworthiness limitations;
  (5) a copy of the Type Certificate Data Sheet for noise;
  (6) a copy of the Flight Manual or Pilot's Operating Handbook, as appropriate that contains all the available options applicable to the Type, approved by the National Aviation Authority that issued the foreign Type Certificate;
  (7) all current service information issued by the manufacturers of the aircraft, aircraft engine and propeller including any Airworthiness Directives.
  (8) Maintenance Planning Data Document;
  (9) a copy of the Parts Catalogue for the aircraft;
  (10) a list of all current Field service documents applicable to the aircraft;
  (11) an undertaking from the holder of the foreign Type Certificate to continue to supply CAASL at no charge, Service Bulletins and instructions for the continuing airworthiness of aircraft of that type and any amendments of the documents mentioned in subparagraphs 5, 6, 7 & 8;
  (12) a proposed schedule of aircraft and engine training, such as familiarization training or type training in regard to Maintenance and Flight Crew training, for respective CAASL officers;

(d) Where the design features of a particular aircraft, engine or propeller render any of the design aspects of the appropriate airworthiness requirements or the Standards in Annex 8, Parts III, IV, V, VI or VII inappropriate, the CAASL shall apply appropriate requirements that will give at least an equivalent level of safety.

(e) Where the design features of a particular aircraft, engine or propeller render any of the design aspects of the appropriate airworthiness requirements or the Standards in Parts III, IV, V, VI or VII inadequate, additional requirements that are considered by the CAASL to give at least an equivalent level of safety shall be applied.

If the application relates to a variant of an aircraft type for which there is already a TAC in force, then only data peculiar to the variant needs to be supplied. The TAC will be amended to include the new variant. The applicant shall provide maintenance and flight crew type training relevant to the changes in type acceptance certificate, to the CAASL.

(f) Evident for the replacement of the halogenated hydrocarbon (halon) agent in aircraft cargo compartment fire suppression systems with an agent that causes the least amount of impact to the environment while performing the specific fire protection applications for which the equipment was designed.

AMC 21.015 (a) Application

(1) An application should be made on CAASL Form CAASL/AW/A/005.
(2) The application form should state exactly which models are to be included on the TAC.
(3) These models shall be included on the foreign Type Certificate.
(4) The data requirements specified in IS-21.014 (c) shall be met for each model included on the application form.
(5) An aircraft type certificate acceptable under this Subpart shall have been issued by the Competent Authority of the State of Design containing the following information:
  (i) The type certificate number.
  (ii) The designation of the type.
  (iii) The type certificate holder.
  (iv) A statement that confirmed the certification basis of the type of aircraft concerned to an airworthiness standard required in IS-21.012.
  (v) reference to the associated type certificate data sheet.
(6) Any aircraft being applied for aircraft registration shall conform to the type certificate data sheet or equivalent document associated with the type certificate acceptable under this Subpart.

IS-21.016 SUSPENSION OR REVOCATION OR CANCELLATION OF A TYPE ACCEPTANCE CERTIFICATE (TAC)

DGCA may suspend or revoke or cancel a Type Acceptance Certificate (TAC) if it considers that it is necessary to do so in the interests of aviation safety. An inability on the part of the foreign TC holder to provide ongoing technical support for the aircraft type may constitute grounds for such suspension or revocation.

IS-21.016A SUSPENSION OF TYPE ACCEPTANCE CERTIFICATE

DGCA may suspend the Type Acceptance Certificate:
When the State of Design takes action in accordance with its established procedures to suspend in whole or in part of a Type Certificate for an aircraft, engine or propeller type, and notify the CAASL;

(a) of the suspension, the time period, if known, that the suspension is in force; the cause of the suspension; and any recommended action to be undertaken if the nature of the suspension affects the airworthiness of the affected aircraft, engine or propeller type; and

(b) any actions necessary to address their respective airworthiness responsibilities under the agreement or arrangement established in accordance with ICAO Annex 8, PART II, 2.4.4. after established with the State of Manufacture, if other than the State of Design,

CAASL who issued a Type Acceptance Certificate for an aircraft, engine or propeller type under this IS, on the basis of the Type Certificate issued by the State of Design, shall immediately notify the State of Design of a suspension originated in respect of its Type Certificate.

Note:- The State of Design shall notify the CAASL and the State of Manufacture, if other than the State of Design, on a regular basis the status of the suspension and reinstatement (if

any) of the suspended Type Certificate.

IS-21.016B REVOCATION OF A TYPE ACCEPTANCE CERTIFICATE

DGCA may revoke the Type Acceptance Certificate:

Upon notification of the CAASL by the State of Design under its established procedures, when it surrenders or abandons the Type Certificate, or ceases to exist, and as a result the continuing airworthiness responsibilities established under Annex 8. can no longer be fulfilled for the affected aircraft type in service

Note;-

(a) State of Design shall establish procedures for notification to all Contracting States of an intent to revoke a Type Certificate and the proposed termination of the production approval under Annex 8,
(b) State of Design shall consult with States of Registry for the collection, identification and establishment of supplemental airworthiness requirements considered necessary for the continued airworthiness of the candidate orphan aircraft type.
(c) Except for reasons concerning the immediate safety of an aircraft type, the State of Design shall not unduly revoke a Type Certificate without providing ample notice and guidance to States of Registry that will be assuming ultimate responsibility for the continued airworthiness of orphaned aircraft on their civil register.
(d) The State of Design shall notify Contracting States, including the State of Manufacture if other than the State of Design, of the revocation of a Type Certificate and the effective date on which it ceases to be the designated State of Design under Annex 8.

IS-21.016C TRANSFER OF TYPE CERTIFICATE

The State of Design shall notify all Contracting States of the transfer and the organization responsible for the type design for purposes of the continuing airworthiness reporting requirements under Annex 8.

DGCA shall re-issue a type acceptance certificate when the State of Design, upon completion of the transfer, issue or reissue of its Type Certificate in accordance with Annex 8. that ensures continued compliance of the approved design of the aircraft, engine or propeller type with the appropriate airworthiness requirements

(a) for a transfer in which the State of Design remains the same; and
(b) for a transfer in which the State of Design changes to another Contracting State.

Note; The State of Design shall notify all Contracting States of the transfer and the organization responsible for the type design for purposes of the continuing airworthiness reporting requirements under Annex 8.

IS-21.017 CHANGES REQUIRING A NEW TYPE-CERTIFICATE

Any change in design, power, thrust, or mass which is extensive as determined by the Competent

Authority of the State of Design that a substantially complete investigation of compliance with the applicable type-certification is required shall not be deemed approved under this IS. Such change requires an issue of a new type-certificate by the Competent Authority of the State of Design,

before it can be accepted in accordance with this Subpart.

SUBPART C — PROVISIONAL TYPE CERTIFICATES - RESERVED

SUBPART D — CHANGES TO TYPE DESIGN

IS-21.090 SCOPE

This Subpart establishes the requirements for the approval of changes to Type Designs.

IS-21.091 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. Except where 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, all other changes are 'Major changes' under this Subpart. Major and Minor changes shall be approved in accordance with IS-21.95 or IS-21.97 as appropriate, and shall be adequately identified.

GM 21.091 CLASSIFICATION OF CHANGES IN TYPE DESIGN

1. PURPOSE OF CLASSIFICATION

Classification of changes to a Type Design into MAJOR or MINOR is to determine the approval route to be followed in IS-21 Subpart D, i.e., either IS-21.095 or IS-21.097, or alternatively whether application and approval have to be made in accordance with IS-21 Subpart E.

2. INTRODUCTION

2.1. **IS-21.091** proposes criteria for the classification of changes to a Type Design as Minor and Major.

(i) This GM is intended to provide guidance on the term 'appreciable effect' affecting the airworthiness of the product from IS-21.091, where 'airworthiness' is interpreted in the context of a product in conformity with Type Design and in condition for safe operation. It provides complementary guidelines to assess a design change in order to fulfil the requirements of IS-21.091 where classification is the first step of a procedure.

Note: For classification of Repairs see GM 21.435.

(ii) Although this GM provides guidance on the classification of Major changes, as opposed to Minor changes as defined in IS-21.091, and the GM IS-21.091 are deemed entirely compatible.

3. ASSESSMENT OF DESIGN CHANGE FOR CLASSIFICATION

3.1. Changes to the Type Design

3.1.1. The Type Design consists 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.
(5) Alteration to any of the data included within the scope of 3.1.1 is considered a change to the Type Design.

3.2. Classification Process (see Flowchart 1)

(i) IS-21.091 requires all changes to be classified as either major or minor, using the criteria of IS-21.091 and the complementary guidance of paragraph 3.3.
(ii) On some occasions, the classification process is initiated at a time when some data necessary to make a classification decision are not yet available. Therefore, the applicant should wait for availability of data before making a decision.
(iii) Wherever there is doubt as to the classification of a change, the DGCA should be consulted for clarification.
(iv) Reasons for a classification decision should be recorded.

3.3. Complementary guidance for classification of changes.

A change to the Type Design is judged to have an 'appreciable effect on other characteristics affecting the airworthiness of the product' and therefore should be classified Major, in particular but not only, when one or more of the following conditions are met:

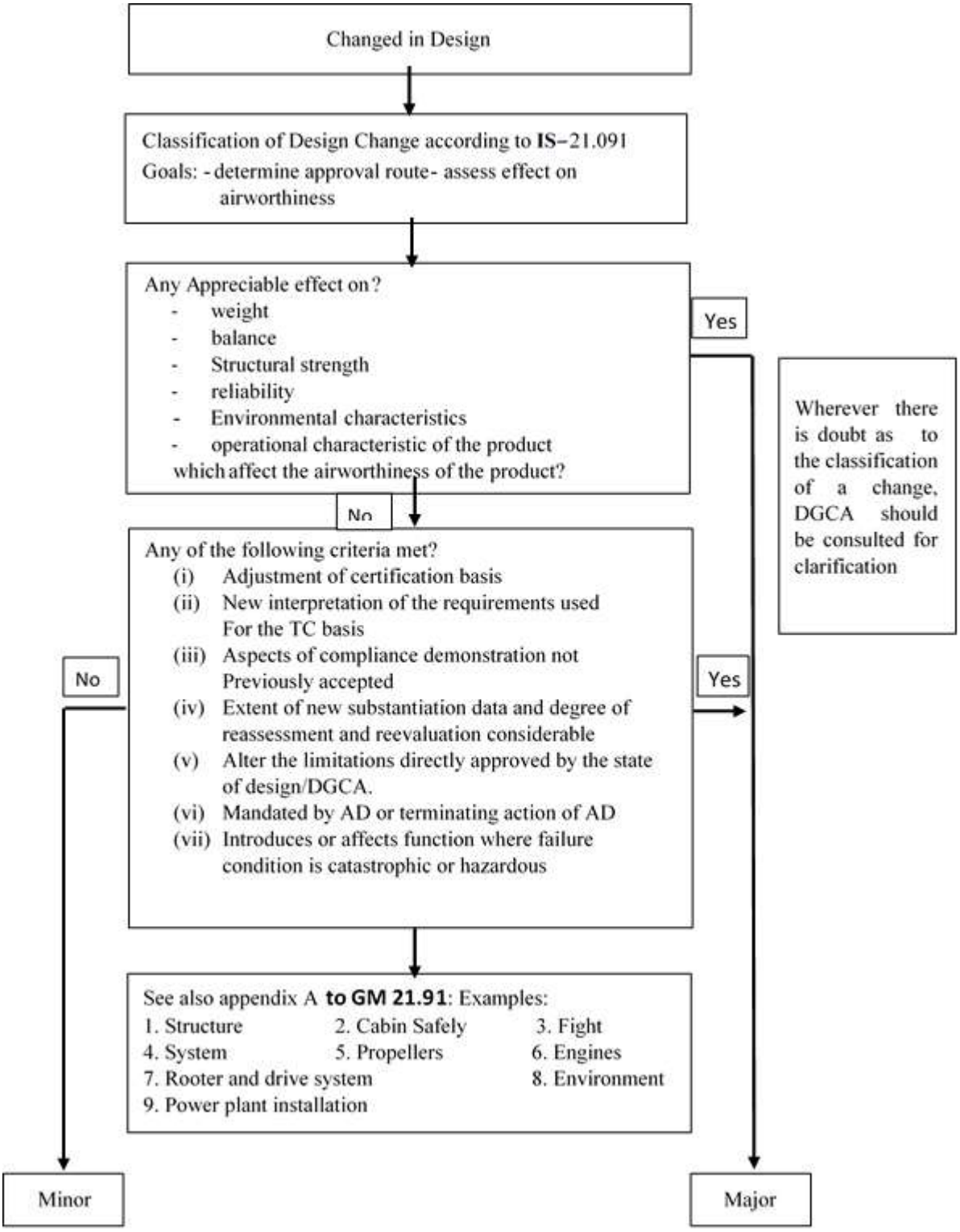
(i) Where the change requires an adjustment of the type-certification basis (such as special condition, equivalent safety finding, elect to comply, earlier certification specification (reversion), later certification specification).
(ii) Where the applicant proposes a new interpretation of the certification specifications used for type-certification basis for the type that has not been published as AMC material or otherwise agreed with the DGCA.
(iii) Where the demonstration of compliance uses methods that have not been previously accepted as appropriate for the nature of the change to the product or for similar changes to other products designed by the applicant.
(iv) Where the extent of new substantiation data necessary to comply with the applicable certification specifications and the degree to which the original substantiation data has to be re-assessed and re-evaluated is considerable.
(v) The change alters the Airworthiness Limitations or the Operating Limitations.
(vi) The change is made mandatory by an Airworthiness Directive or the change is the terminating action of an Airworthiness Directive (ref. IS-21.3B). See note 1.
(vii) Where the change introduces or affects functions where the failure effect is classified catastrophic or hazardous.

Note 1: The design change previously classified Minor and approved prior to the Airworthiness Directive issuance decision needs no re-classification. However, DGCA retains the right to review the change and re-classify/re-approve if found necessary.

Note 2: These above conditions are an explanation of the criteria noted in IS-21.091.

Note 3: For an understanding of how to apply the above conditions it is useful to take note of the examples given in Appendix A to GM 21.091.

Flowchart 1 to GM 21. 091 – Classification process



IS-21.092 ELIGIBILITY

Any natural or legal person may apply for approval of a change to a Type Design under this Subpart.

IS-21.093 APPLICATION

An application for approval of a change to a Type Design shall be made in a form and manner established by the 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 and environmental protection requirements with which the change has been designed to comply in accordance with IS 21.101.

IS-21.095 MINOR CHANGES

Minor changes in a Type Design shall be classified and approved either:

(a) By the DGCA; or

(b) By a Design Organization acceptable to DGCA, provided

  (1) The design organization furnishes a handbook to the DGCA describing, directly or by cross- reference, the organization, the relevant procedures and the products or changes to products to be designed.
  (2) The handbook is amended as necessary to remain an up-to-date description of the organization, and copies of amendments shall be supplied to the DGCA.

AMC 21.095 (b) 1 Minor changes

Model content of handbook for organizations designing Minor changes to Type Design or Minor repairs to products.

Part 1. Organization

1.1. Objective of handbook and binding statement
1.2. Responsible person for administration of handbook
1.3. Amendment procedure
1.4. List of effective pages
1.5. Distribution list
1.6. Presentation of design organization (including locations)
1.7. Scope of work (with identification of type and models of products)
1.8. Organization charts
1.9. Human resources
1.10. Management staff
1.11. Certifying personnel (i.e. the persons responsible to):
  i. classify changes to Type Design or repairs
  ii. verify compliance
  iii. approve Minor changes to Type Design and Minor repairs

iv. issue information or instructions

1.12. Independent system monitoring

Part 2.

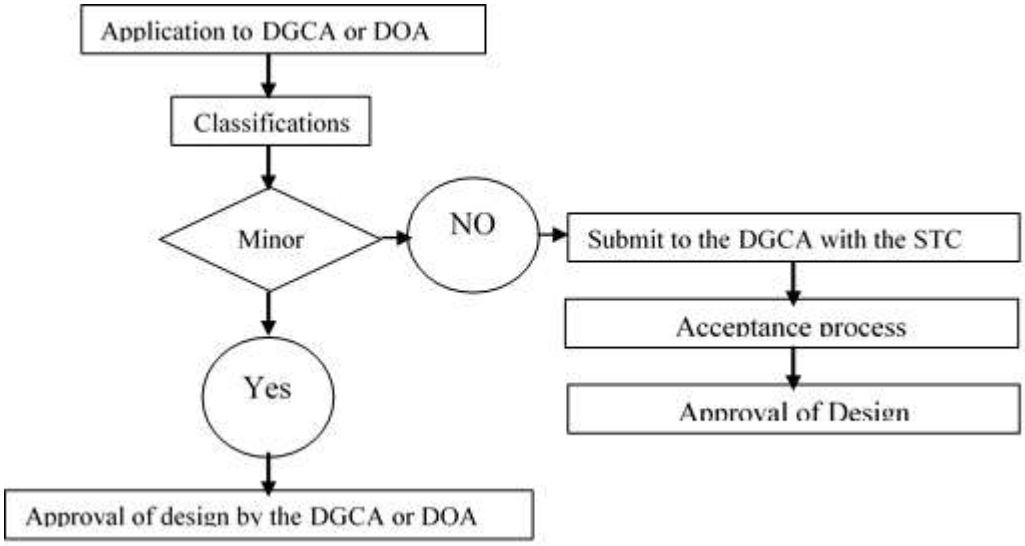
2.1 Management of changes to Type Design and design of repairs
- i. configuration control
- ii. classification
- iii. approval of Minor changes to Type Design and Minor repairs

2.2 Control of design subcontractors
2.3 Collecting/Investigating of failures, malfunctions and defects
2.4 Coordination with production
2.5 Documentation control
- i. in relations with the changes and repairs
- ii. in relation with failures/malfunctions and defects (i.e. Services - Bulletins)

2.6 Record Keeping

GM 21.095 Type Design Change (Modification) Approval Flowchart

Flowchart 1 to GM 21.95 – Design change approval



GM 21.095 (b) Minor changes

An owner/operator may get their Minor change classified and approved by the TC/STC holder even though the TC/STC holder has not submitted the handbook to the DGCA. The requirement to submit a handbook to DGCA is for design organizations other than TC/STC holders.

IS-21.097 MAJOR CHANGES

An applicant for approval of a Major change shall submit a supplemental Type Certificate (STC) which meets Subpart E requirements.

GM 21.097 TYPE DESIGN CHANGE (MODIFICATION) APPROVAL FLOWCHART

Refer to **GM 21.095**

IS-21.101 DESIGNATION OF APPLICABLE CERTIFICATION SPECIFICATIONS AND ENVIRONMENTAL PROTECTION REQUIREMENTS

An applicant for a Minor change to a Type Design shall demonstrate that the changed product complies with the Type Certification basis incorporated by reference in the Type Certificate, and with the applicable environmental protection requirements laid down in ICAO Annex 16.

AMC 21.101 Designation of applicable certification specifications and environmental protection requirements – Explanation of terminology

Type-Certification basis: the applicable airworthiness codes as established in IS-21.101, special conditions, equivalent level of safety findings; and exemptions applicable to the product to be certified.

IS-21.103 ISSUE OF APPROVAL

(a) The applicant shall be entitled to have a Major change to a Type Design approved by the DGCA after submitting the STC referred to in IS 21.097

(b) A Minor change to a Type Design shall only be approved in accordance with IS 21.095 if it is shown that the changed product meets the applicable certification specifications/airworthiness code, as specified in IS 21.101.

IS-21.105 RECORD KEEPING

(a) For each Minor 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 the 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.

(b) For each Major change, the relevant STC and any other data referred to in the STC, shall be held by the applicant at the disposal of the 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.

SUBPART E — SUPPLEMENTARY TYPE CERTIFICATES

IS-21.111A SCOPE

(a) DGCA does not issue supplemental Type Certificates
(b) This subpart describes the requirements for the acceptance of supplementary Type Certificates

IS-21.111B ACCEPTABILITY OF FOREIGN SUPPLEMENTAL TYPE CERTIFICATES

The following foreign Supplemental Type Certificates may be accepted by the DGCA:

(a) a Supplemental Type Certificate issued by the EASA
(b) a Supplemental Type Certificate issued by the FAA

(c) a Supplemental Type Certificate accepted by EASA
(d) a Supplemental Type Certificate accepted by the FAA
(e) a Supplemental Type Certificate issued by an ICAO Contracting State in compliance with Annexes 8 and 16 to the Convention on International Civil Aviation.

For the purpose of acceptance of STC, if the basis of STC is other than EASA or FAA (Design Standards), then it shall be compared with EASA Design Standards before DGCA accepts the STC.

IS-21.111C INCORPORATION OF SUPPLEMENTAL TYPE CERTIFICATES

STC shall be incorporated in accordance with subpart D or M.

SUBPART F — RESERVED

SUBPART G — RESERVED

SUBPART H — CERTIFICATES OF AIRWORTHINESS

IS-21.171 SCOPE

This Subpart establishes the requirements for issuing Airworthiness Certificates.

IS-21.172 ELIGIBILITY

A Certificate of Airworthiness shall be issued by the DGCA on the basis of satisfactory evidence that the aircraft complies with the design aspects of the appropriate airworthiness requirements

A registered owner of an aircraft, registered in accordance with IS-85, shall be eligible as an applicant for an Airworthiness Certificate for that aircraft under this Subpart.

DGCA shall issue a certificate of airworthiness for which it intends to claim recognition pursuant to article 33 of the convention on international civil aviation when it has satisfactory evidence that the aircraft complies with the applicable standards of annex 8 through compliance with applicable airworthiness requirements.

Certificate of airworthiness issued under annex 8 can no longer be rendered valid under article 33 of the Chicago convention when the type certificate issued by the state of design is revoked.

The DGCA shall issue a certificate of airworthiness for:
(1) upon presentation of the documentation required by point IS-21.174;
(2) where the DGCA is satisfied that the aircraft conforms to an approved design and is in a condition for safe operation; this may include inspections by the DGCA and
(3) where the DGCA is satisfied that the aircraft is in compliance with the applicable CO_2 emissions requirements on the date on which the certificate of airworthiness is first issued.

IS-21.173 CLASSIFICATION

Certificates of airworthiness shall be issued to aircraft which conform to a Type Acceptance Certificate that has been issued in accordance with this Part.

IS-21.174 APPLICATION

(a) Pursuant to IS-21.172, an application for an Airworthiness Certificate shall be made in a form and manner established by the DGCA.

(b) Each application for a certificate of airworthiness shall include:
(1) the class of Airworthiness Certificate applied for;
(2) with regard to new aircraft:
(i) Type Certificate or analogous document, with corresponding Data sheet;
(ii) List of ADs issued by the State of Manufacture and/or Design.
(iii) A statement of conformity — issued by the Production Organization
(iv) A Weight and Balance report with a Loading schedule.
(v) The Flight Manual, when required by the applicable Airworthiness Code for the particular aircraft.
(vi) Export Certificate of Airworthiness issued by the manufacturing state

(3) with regard to used aircraft:

(i) Certificate of Airworthiness issued by the exporting State;
(ii) List of applicable Supplemental Type Certificates;
(iii) Status of compliance with Airworthiness Directives (ADs) applicable to the aircraft, engines, propellers and accessories;
(iv) Maintenance histories of the aircraft, engines, propellers and accessories;
(v) Historical records of major repairs and/or modifications made to the aircraft, engines, propellers and accessories;
(vi) Record of total hours and cycles accumulated by aircraft, engines, propellers and accessories;
(vii) Master Minimum Equipment List, if applicable;
(viii) Approved Flight Manual and Required Maintenance Manuals.
(ix) a statement by the national aviation authority of the State where the aircraft is, or was, registered, reflecting the airworthiness status of the aircraft on its register at time of transfer.
(x) a Weight and Balance report with a Loading schedule.
(xi) a recommendation for the issuance of a certificate of airworthiness and an airworthiness review certificate following an airworthiness review in accordance with IS-M
(xii) the date on which the first certificate of airworthiness was issued and, if the standards of Annex 16 Volume III apply, the CO2 metric value data.
(xiii) Export Certificate of Airworthiness issued by the exporting State

(c) Unless otherwise agreed, the statements referred to in subparagraphs (b)(2)(i) and (b)(3)(ii) - (v) shall be submitted no more than 60 days before presentation of the aircraft to the DGCA.

AMC 21.174 (b) 2(i) Application

A statement of conformity confirms that that the product, part or appliance conforms to the approved design data and is in condition for safe operation. Typical statements of conformity are:

(i) EASA Form 52 (Statement of conformity to Type design - EASA) issued for complete aircraft by EASA approved production organizations
(ii) FAA Form 8130-9 (Statement of conformity to Type design -FAA) (previously

Form 317) issued for complete aircraft in USA

AMC 21.174 (b) 3(i) Application

A statement reflecting the airworthiness state can be:

(i) An Airworthiness Review Certificate (ARC) issued under Rules of (EC) 2042/2003 (Part M)
(ii) An Export Certificate of Airworthiness issued within 60 days preceding the date of receipt of the application by the DGCA
(iii) A current domestic Certificate of Airworthiness issued or renewed less than twelve months prior to the date of receipt of the application by the DGCA.
(iv) A current domestic Certificate of Airworthiness issued or renewed more than twelve months prior to the date of receipt of the application by the DGCA and a statement from the exporting authority

IS-21.175 LANGUAGE

The manuals, placards, listings, and instrument markings and other necessary information required by applicable certification specifications/airworthiness code shall be presented in English.

IS-21.176 STATEMENT OF CONFORMITY

(a) Each manufacturer of a product, part or appliance manufactured shall raise a statement of conformity states in IS-21.174(b)2. (iii), an EASA form 52 or FAA Form 8130-9, for complete aircraft, or EASA form 1 or FAA Form 8130-3, for other products, parts or appliances. this statement shall be signed by an authorized person who holds a responsible position in the manufacturing Organisation.
(b) a statement of conformity shall include all of the below:
  (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 established and approved production ground and flight test procedure and check-off forms,
  (3) for each engine, or variable pitch propeller, a statement that the engine or variable pitch propeller has been subjected by the manufacturer to a final functional test in accordance with 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
  (4) additionally, in the case of environmental requirements:
    (i) a statement that the completed engine is in compliance with the applicable engine exhaust emissions requirements on the date of manufacture of the engine, and
    (ii) a statement that the completed aeroplane is in compliance with the applicable CO_2 emissions requirements on the date its first certificate of airworthiness is issued.
(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,

IS-21.177 AMENDMENT OR MODIFICATION

An Airworthiness Certificate may be amended or modified only by DGCA.

IS-21.179 RESERVED

IS-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.

IS-21.181 DURATION AND CONTINUED VALIDITY

(a) A Certificate of Airworthiness shall be issued for a one-year duration. It shall remain valid subject to:

(i) compliance with the applicable type-design and continuing airworthiness requirements; and
(ii) the aircraft remaining on the Sri Lanka civil aircraft register; and
(iii) the type acceptance certificate under which it is issued not being previously invalidated under IS 21.16.
(iv) the certificate not being surrendered or revoked by DGCA.

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

(c) A Certificate of Airworthiness shall be renewed annually subject to the requirements in this IS provided that the DGCA shall require that the continuing airworthiness of the aircraft shall be determined by a periodical inspection at appropriate intervals having regard to lapse of time and type of service or, alternatively, by means of a system of inspection, approved by the DGCA, that will produce at least an equivalent result.

IS-21.181A TEMPORARY LOSS OF AIRWORTHINESS

Any failure to maintain an aircraft in an airworthy condition as defined by the appropriate airworthiness requirements shall render the aircraft ineligible for operation until the aircraft is restored to an airworthy condition.

IS-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.

IS-21.185 TRAINING

(a) Each applicant for an Airworthiness Certificate for the first aircraft of the type registered under the applicant's name, shall provide maintenance and flight crew type training to a CAASL Inspector.
(b) Each holder of a valid Certificate of Airworthiness for a type accepted aircraft shall provide maintenance and flight crew recurrent training on that type to a CAASL Inspector.

(c) Each holder of a valid Airworthiness Certificate for a type accepted aircraft shall provide:
(i) A minimum of one flight duty period per week to a CAASL Inspector; and
(ii) A minimum of one-day maintenance experience per week to a CAASL Inspector.

IS-21.190 DAMAGE TO AIRCRAFT

(a) When an aircraft has sustained damage, the DGCA shall judge whether the damage is of a nature such that the aircraft is no longer airworthy as defined by the appropriate airworthiness requirements.
(b) If the damage is sustained or ascertained when the aircraft is in the territory of another Contracting State, the authorities of the that Contracting State shall be entitled to prevent the aircraft from resuming its flight on the condition that they shall advise the DGCA immediately, communicating to it all details necessary to formulate the judgement referred to in (a).
(c) When the DGCA considers that the damage sustained is of a nature such that the aircraft is no longer airworthy, he shall prohibit the aircraft from resuming flight until the aircraft is restored to an airworthy condition. The DGCA may, however, in exceptional circumstances, prescribe particular limiting conditions to permit the aircraft to fly a noncommercial flight to an aerodrome at which it will be restored to an airworthy condition. In prescribing particular limiting conditions, the DGCA shall consider all limitations proposed by the other Contracting State that had originally, in accordance with (b), prevented the aircraft from resuming its flight. That Contracting State shall permit such flight or flights within the prescribed limitations.
(d) When the DGCA considers that the damage sustained is of a nature such that the aircraft is still airworthy, the aircraft shall be allowed to resume its flight.

SUBPART I — NOISE CERTIFICATES

IS-21.201 SCOPE

This Subpart establishes the requirements for issuing noise certificates.

IS-21.203 ELIGIBILITY

A registered owner of an aircraft, registered in accordance with IS-85, shall be eligible as an applicant for a noise certificate for that aircraft under this Subpart.

IS-21.204 APPLICATION

(a) Pursuant to IS-21.203, an application for a noise certificate shall be made in a form and manner established by the DGCA.
(b) Each application shall include:
(1) with regard to new aircraft:
(i) A statement of conformity: issued by the production organization, and
(ii) The noise information determined in accordance with the applicable noise requirements.
(2) with regard to used aircraft:
(i) The noise information determined in accordance with the applicable noise requirements, and
(ii) Historical records to establish the production, modification, and maintenance standard of the 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 the DGCA.

IS-21.207 AMENDMENT OR MODIFICATION

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

IS-21.209 RESERVED

IS-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 the DGCA for inspection.

IS-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 Sri Lanka civil aircraft register; and
  (3) the type acceptance certificate under which it is issued not being previously invalidated under IS 21.016.
  (4) the certificate not being surrendered or revoked by the DGCA.
(b) Upon surrender or revocation, the certificate shall be returned to the DGCA.

IS-21.212 APPLICABLE NOISE CERTIFICATION REQUIREMENTS

The applicable noise requirements of an acceptable aircraft type-certificate shall be those that are prescribed according to the provisions of Chapter 1 of Annex 16, Volume I, Part II to the Chicago Convention which are in IS-21.014(a).

SUBPART J - DESIGN ORGANISATION APPROVAL

IS-21.231 SCOPE

(a) At present, DGCA does not issue Design Organization Approvals
(b) This Subpart establishes the procedure for the Acceptance of Design Organizations.

IS-21.232 ACCEPTABILITY OF FOREIGN DESIGN ORGANIZATIONS.

The following foreign Design Organization Approvals may be accepted by the DGCA:
  (a) a Design Organization Approval issued by the European Union Aviation Safety Agency (EASA)
  (b) a Design Organization Approval accepted by EASA
  (c) a Design Organization Approval issued by the Federal Aviation Administration (FAA), United States of America
  (d) a Design Organization Approval accepted by FAA
  (e) a Design Organization Approval issued by an ICAO Contracting State in compliance with Annexes 8 and 16 to the Convention on International Civil Aviation.

SUBPART K — PARTS AND APPLIANCES

IS-21.301 SCOPE

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

IS-21.303 ACCEPTABILITY OF PARTS AND APPLIANCES

The acceptance of Parts and Appliances to be installed in a Type Certificated Product shall meet the following requirements:

(a) compliance with applicable requirements in conjunction with Type Certification procedures; or
(b) compliance with **Subpart O**; or
(c) In the case of standard parts, in accordance with officially recognized Standards.

AMC 21.303(c) Standard Parts

(1) In this context a Part is considered as a 'Standard Part' where it is designated as such by the design approval holder responsible for the product, part or appliance, in which the part is intended to be used. In order to be considered a 'standard part', all design, manufacturing, inspection data and marking requirements necessary to demonstrate conformity of that part should be in the public domain and published or established as part of officially recognized Standards, or
(2) For sailplanes and powered sailplanes, where it is a non-required instrument and/or equipment certified under the provision of CS 22.1301(b) or equivalent, if that instrument or equipment, when installed, functioning, functioning improperly or not functioning at all, does not in itself, or by its effect upon the sailplane and its operation, constitute a safety hazard.
(3) 'Required' in the term 'non-required' as used above means required by the applicable certification specifications (CS 22.1303, 22.1305 and 22.1307 or equivalent) or required by the relevant operating Implementing Standards and the applicable Rules of the Air or as required by Air Traffic Management (e.g. a transponder in certain controlled airspace).
(4) Examples of equipment which can be considered standard parts are electrical variometers, bank/slip indicators ball type, total energy probes, capacity bottles (for variometers), final glide calculators, navigation computers, data logger / barograph / turn point camera, bug-wipers and anti- collision systems.
(5) Equipment which must be approved in accordance with the certification specifications shall comply with the applicable TSO or equivalent and is not considered a standard part (e.g. oxygen equipment).

GM 21.303(C) OFFICIALLY RECOGNIZED STANDARDS

In this context "officially recognized Standards" means:

(1) Those standards established or published by an official body whether having legal personality or not, which are widely recognized by the air transport sector as constituting good practice; or
(2) The standard used by the manufacturer of the equipment as mentioned in paragraph 2 of AMC 21.303(c).

IS-21.305 RESERVED

IS-21.307 RELEASE OF PARTS AND APPLIANCES FOR INSTALLATION

A part or appliance shall be eligible for installation in a type accepted product when it is in a condition for safe operation, and it is:

(a) accompanied by an authorized release certificate (CAASL Form 1 or equivalent), certifying that the item was manufactured in conformity to approved design data and is marked in accordance with **Subpart Q**; or

(b) a standard part.

SUBPART L — RESERVED

SUBPART M — REPAIRS

IS-21.431A SCOPE

(a) This Subpart establishes the requirements for the approval of Repair Design.

(b) Reserved

(c) 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.

(d) 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.

(e) Reserved

GM 21.431A (a) Scope

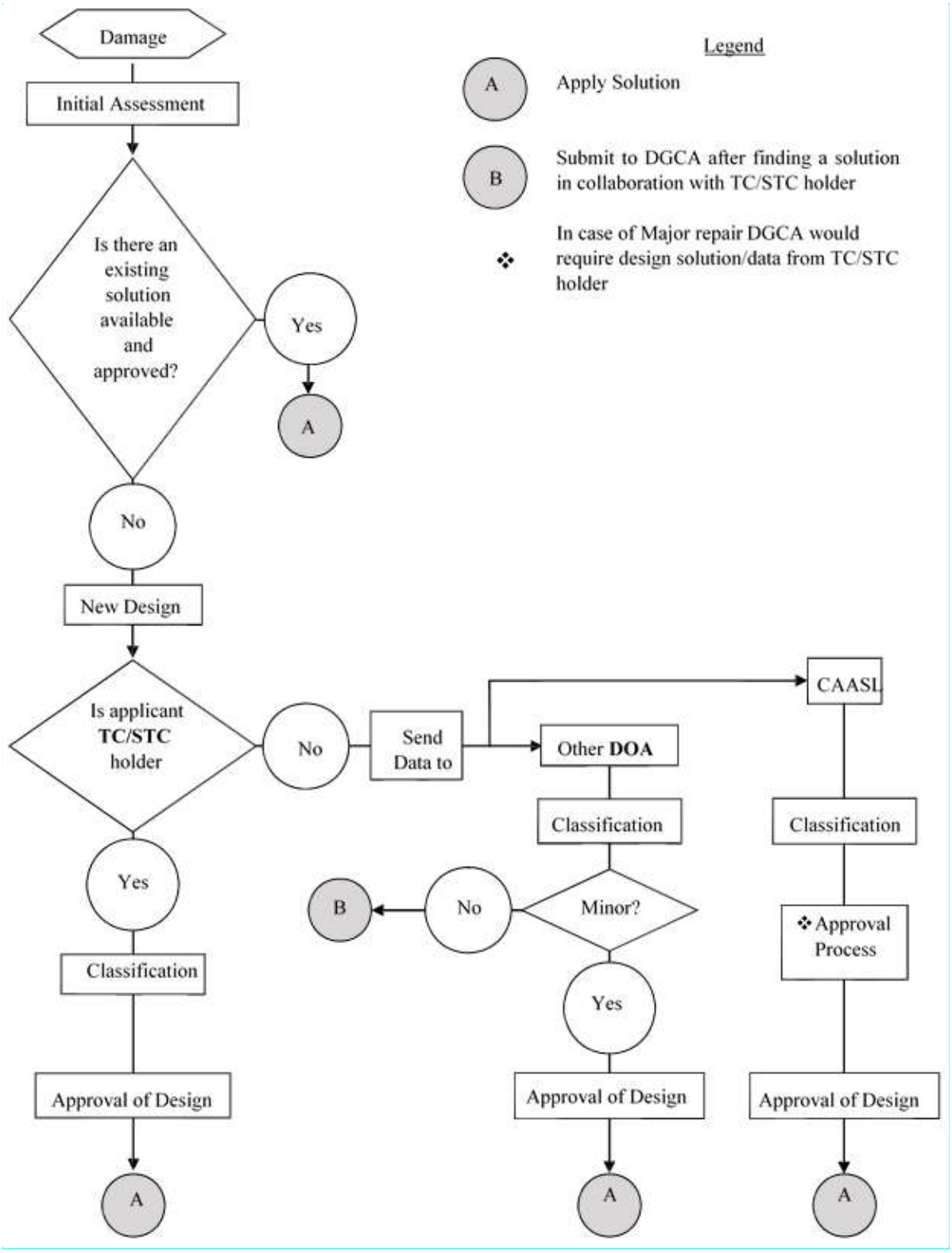
(1) Manuals and other instructions for continued airworthiness (such as the Manufacturers Structural Repair Manual, Maintenance Manuals and Engine Manuals provided by the holder of the type- certificate, supplemental Type Certificate, or APU TSO authorization as applicable) for operators, contain useful information for the development and approval of repairs.

(2) When these data are explicitly identified as approved, they may be used by operators without further approval to cope with anticipated in-service problems arising from normal usage provided that they are used strictly for the purpose for which they have been developed.

(3) Approved data is data which is approved either by the state of design/DGCA., or by an appropriately approved design organization.

(4) Flowchart 1 to GM 21.431 (a) addresses the procedures that should be followed for approval of a repair.

Flowchart 1 to GM 21.431 (a) – Repair approval procedure



IS-21.432A ELIGIBILITY

Any natural or legal person shall be eligible to apply for approval of a repair design.

IS-21.433B REPAIR DESIGN

(a) The applicant for approval of a repair design shall:
  (1) Demonstrate 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 code or special conditions the State of Design/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, supplemental Type Certificate or APU TSO authorization.
  (2) Submit all necessary substantiation data, when requested by the DGCA.
  (3) Declare compliance with the certification specifications/airworthiness code and environmental protection requirements of subparagraph (a)(1).

(b) Where the applicant is not the Type Certificate or supplemental Type Certificate or APU TSO authorization 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 or APU TSO authorization holder as applicable.

IS-21.433C REPORTING OF ACCIDENTS, INCIDENTS, FAILURES AND MALFUNCTIONS

Any certificated aviation maintenance organization, air operator certificate holder, aircraft owner and/or operator, holder of a Parts Manufacturing Approval (PMA) or a Technical Standard Order (TSO), or holder of a Type Certificate and/or supplemental Type Certificate, must report to the DGCA of accidents, incidents, failures and malfunctions or aircraft, engines, propellers and accessories if the airworthiness of the item in question is affected.

AMC 21.433 (a) Repair design and Record Keeping

(1) Relevant substantiation data associated with a new Major repair design and record keeping should include:
  (a) damage identification and reporting source,
  (b) Major repair design approval sheet identifying applicable specifications and references of justifications,
  (c) repair drawing and/or instructions and scheme identifier,
  (d) correspondence with the TC, STC, or APU TSO authorization holder, if its advice on the design has been sought,
  (e) structural justification (static strength, fatigue, damage tolerance, flutter etc) or references to this data,
  (f) effect on the aircraft, engines and/or systems, (performance, flight handling, etc as appropriate)
  (g) effect on maintenance programme,
  (h) effect on Airworthiness limitations, the Flight Manual and the Operating Manual,
  (i) weight and moment change,
  (j) special test requirements

(2) Relevant Minor repair documentation includes paragraphs 1(a) and (c). Other points of paragraph 1 above may be included where necessary. If the repair is outside the approved data, justification for classification is required.

(3) Special consideration should be given to repairs that impose subsequent limitations on the part, product or appliance, (e.g., engine turbine segments that may only be repaired a finite number

of times, number of repaired turbine blades per set, oversizing of fastener holes, etc.).

(4) Special consideration should also be given to Life Limited parts and Critical Parts, notably with the involvement of the Type Certificate or STC holder, when deemed necessary under IS-21.433 (b).

(5) Repairs to engine or APU critical parts would normally only be accepted with the involvement of the TC holder.

IS-21.435 CLASSIFICATION OF REPAIRS

(a) A repair may be 'Major' or 'Minor'. The classification shall be made in accordance with the criteria of IS-21.91 for a change in the Type Design.

(b) A repair shall be classified 'Major' or 'Minor' under paragraph (a) either:

(1) By the DGCA., or

(2) By a design organization acceptable to DGCA., provided

(i) The design organization furnishes a handbook to the DGCA describing, directly or by cross-reference, the organization, the relevant procedures and the products or changes to products to be designed.

(ii) The handbook is amended as necessary to remain an up-to-date description of the organization, and copies of amendments shall be supplied to the DGCA.

GM 21.435 (a) Classification of repairs

(1) Clarification of the terms Major/Minor

(i) In line with the definitions given in IS-21.91, a new repair is classified as 'Major' if the result on the approved Type Design has an appreciable effect on structural performance, weight, balance, systems, operational characteristics or other characteristics affecting the airworthiness of the product, part or appliance. In particular, a repair is classified as Major if it needs extensive static, fatigue and damage tolerance strength justification and/or testing in its own right, or if it needs methods, techniques or practices that are unusual (i.e., unusual material selection, heat treatment, material processes, jigging diagrams, etc.)

(ii) Repairs that require a re-assessment and re-evaluation of the original certification substantiation data to ensure that the aircraft still complies with all the relevant requirements, are to be considered as Major repairs.

(iii) Repairs whose effects are considered Minor and require minimal or no assessment of the original certification substantiation data to ensure that the aircraft still complies with all the relevant requirements, are to be considered "Minor".

(iv) It is understood that not all the certification substantiation data will be available to those persons/organizations classifying repairs. A qualitative judgement of the effects of the repair will therefore be acceptable for the initial classification. The subsequent review of the design of the repair may lead to it being re-classified, owing to early judgements being no longer valid.

(2) Airworthiness concerns for Major/Minor classification

The following should be considered for the significance of their effect when classifying repairs. Should the effect be considered to be significant then the repair should be classified 'Major'. The repair may be classified as 'Minor' where the effect is known to be without appreciable consequence.

(i) Structural performance

Structural performance of the product includes static strength, fatigue, damage tolerance, flutter and stiffness characteristics. Repairs to any element of the structure should be assessed for their effect upon the structural performance.

(ii) Weight and balance
The weight of the repair may have a greater effect upon smaller aircraft as opposed to larger aircraft. The effects to be considered are related to overall aircraft centre of gravity and aircraft load distribution. Control surfaces are particularly sensitive to the changes due to the effect upon the stiffness, mass distribution and surface profile which may have an effect upon flutter characteristics and controllability.

(iii) Systems
Repairs to any elements of a system should be assessed for the effect intended on the operation of the complete system and for the effect on system redundancy. The consequence of a structural repair on an adjacent or remote system should also be considered as above, (for example: airframe repair in an area of a static port).

(iv) Operational characteristics. Changes may include:
- stall characteristics
- handling
- performance and drag
- vibration

(v) Other characteristics
- changes to load path and load sharing
- change to noise and emissions
- fire protection / resistance

Note: Considerations for classifying repairs 'Major/Minor' should not be limited to those listed above.

(3) Examples of 'Major' repairs

(i) A repair that requires a permanent additional inspection to the approved maintenance programme, necessary to ensure the continued airworthiness of the product. Temporary repairs for which specific inspections are required prior to installation of a permanent repair do not necessarily need to be classified as 'Major'. Also, inspections and changes to inspection frequencies not required as part of the approval to ensure continued airworthiness do not cause classification as 'Major' of the associated repair.

(ii) A repair to life limited or critical parts.

(iii) A repair that introduces a change to the Aircraft Flight Manual.

GM 21.435 (b) Classification of repairs

(1) An owner/operator may get their repair classified and approved by the TC/STC holder even though the TC/STC holder has not submitted the handbook to the DGCA.

(2) The requirement to submit a handbook to DGCA is for design organizations other than TC/STC holders.

IS-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 and environmental protection requirements of IS-21.433(a)(1), it shall be approved:

(a) by the DGCA, or

(b) by a design organization accepted by DGCA, that is also the Type Certificate or the supplemental Type Certificate or APU TSO authorization holder.

(c) For Minor repairs only, by a design organization acceptable to DGCA, provided

(1) The design organization furnishes a handbook to the DGCA describing, directly or by cross- reference, the organization, the relevant procedures and the products or changes to products to be designed.

(2) The handbook is amended as necessary to remain an up-to-date description of the organization, and copies of amendments shall be supplied to the DGCA.

GM 21.437 ISSUE OF REPAIR DESIGN APPROVAL

(1) Approval by DOA holder
The DOA may approve repairs through the use of procedures in the handbook without requiring DGCA involvement. However, the owner or operator shall provide the DGCA
(i) Notification before incorporation of modification by sending all the documents relevant to the modification
(ii) Any instructions for continued airworthiness issued by the design organization

(2) Previously approved data for other applications
When it is intended to use previously approved data for other applications, it is expected that applicability and effectiveness would be checked with an appropriately approved design organization. After damage identification, if a repair solution exists in the available approved data, and if the application of this solution to the identified damage remains justified by the previous approved repair design, (structural justifications still valid, possible airworthiness limitations unchanged), the solution can be considered approved and can be used again.

(3) Temporary repairs.
These are repairs that are life limited, to be removed and replaced by a permanent repair after a limited service period. These repairs should be classified under IS-21.435 and the service period defined at the approval of the repair.

(4) Fatigue and damage tolerance.
When the repaired product is released into service before the fatigue and damage tolerance evaluation has been completed, the release should be for a limited service period, defined at the issue of the repair.

IS-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) (reserved)
(b) (reserved)
(c) by an appropriately approved Production Organization. (at Present DGCA is not issuing POA)

GM 21.439 PRODUCTION OF REPAIR PARTS

A maintenance organization may fabricate parts for its own repair purposes when expressly authorized under the scope approved by the DGCA.

IS-21.441 REPAIR EMBODIMENT

(a) The embodiment of a repair shall be made in accordance with IS Part-M or IS-145 as appropriate, or by a production organization accepted by DGCA.
(b) The design organization shall transmit to the organization performing the repair all the necessary installation instructions and data.

IS-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 held by the operator.

GM 21.443 LIMITATIONS

Instructions and limitations associated with repairs should be specified and controlled by those procedures required by the applicable operations rules.

IS-21.445 UNREPAIRED DAMAGE

(a) When a damaged product, part or appliance, is left unrepaired, and is not covered by previously approved data, the evaluation of the damage for its airworthiness consequences may only be made;
  (1) by the DGCA, or
  (2) by a design organization accepted by DGCA, provided
    (i) The design organization furnishes a handbook to the DGCA describing, directly or by cross-reference, the organization, the relevant procedures and the products or changes to products to be designed.
    (ii) The handbook is amended as necessary to remain an up-to-date description of the organization, and copies of amendments shall be supplied to the DGCA.
    Any necessary limitations shall be processed in accordance with the procedures of IS-21.443.

(b) Where the organization evaluating the damage under paragraph (a) is neither the DGCA nor the Type Certificate, supplemental Type Certificate or APU TSO authorization 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, supplemental Type Certificate or APU TSO authorization holder, or manufacturer, as applicable.

GM 21.445 UNREPAIRED DAMAGE

This is not intended to supersede the normal maintenance practices defined by the Type Certificate holder, (e.g., blending out corrosion and re-protection, stop drilling cracks, etc.), but addresses specific cases not covered in the manufacturer's documentation

GM 21.445 (a) Unrepaired damage

(1) An owner/operator may get their unrepaired damage evaluated for its airworthiness consequences by the TC/STC holder even though the TC/STC holder has not submitted the handbook to the DGCA.
(2) The requirement to submit a handbook to DGCA is for design organizations other than TC/STC holders.

IS-21.446 MDIFICATION AND REPAIRE APPROVAL

ICAO Annex 6, Part 1, 8.6, which states; "All modifications and repairs shall be shown to comply with airworthiness requirements acceptable to the State of Registry. Procedures shall be established to ensure that the substantiating data supporting compliance with the airworthiness requirements are retained".

1. Major Modification

1.1 Definition of Major Modification

A major modification to an aeronautical product means a change to the type design which is not a repair. A major modification means a change to the type design not listed in the aircraft, aircraft engine or propeller specifications that might appreciably affect the mass and balance limits, structural strength, performance, power plant operation, flight characteristics or other qualities affecting airworthiness or environmental characteristics.

1.2 General

The approval of a major modification by the Director General of Civil Aviation signifies that he is satisfied that the applicant has considered the Airworthiness and environmental standards and that the design changes comply with those standards. The approval is recorded by the issue of a document such as a Supplemental Type Certificate issued by the Design Authority or a Service Bulletin issued by the manufacturer.

2. MAJOR REPAIRS

2.1. Definition of Major Repair

A major repair to an aeronautical product means a design change intended to restore it to an airworthy condition after it has been damaged or subjected to wear.

A major repair means a design change, which is intended to restore an aeronautical product to an airworthy condition:

(1). Where the damage being repaired might appreciably affect the structural strength, performance, power plant operation, flight characteristics, or other qualities affecting airworthiness or environmental characteristics; or
(2). That will be embodied in the product using non-standard practices.

2.2. Minor Modifications and Minor Repairs

Minor Modification/ Minor repair

A minor modification/ repair means a modification/ repair other than a major modification/ Repair

A Minor Modification / Minor Repair should be supported by data acceptable to the Director General of Civil Aviation. The DGCA must be informed with the list of all kind of Modifications and Repairs carried out on aircraft registered in Sri Lanka Civil Aircraft Register on frequent intervals acceptable to the DGCA.

2.3 Data Sources for Major Modifications and Major Repairs

Data sources that may be used to obtain approval are;

Structural Repair Manual
Manufacturer of the product.
Design Organization approved by the Director-General of Civil Aviation
Airworthiness Authority of the State of Design

2.4 Acceptable Data Sources for Minor Modifications and Minor Repairs

Documents published by the manufacturer on subject modification or repair, Repair Schemes derived from Manufacturers approved Structural Repair Manual Previous approvals granted by the Director General of Civil Aviation

2.5 Documentation

The applicant seeks any modification/repair approval must prepare all necessary documentation, which may include –

(a) Master Documentation list detailing individual drawings and specifications
(b) Drawings and instructions required for installation
(c) Compliance Programme
(d) Engineering reports used to determine compliance of modified product with approval basis
(e) Record of change in Mass and Balance and Moment Arm after modification
(f) Changes in electrical load if applicable
(g) Changes to flight manual if applicable
(h) Instructions for Maintenance, continuing airworthiness and repair.
(i) Submission of ECO (Engineering Change Order) and application to obtain the DGCA approval for the modification.

In order to obtain the necessary approval or acceptance, the following procedures should be carried out by the applicant or his agent,

(a) Conduct all analysis, calculations and ground tests, flight test to determine compliance with Airworthiness and environmental standards.
(b) Prepare all documentation
(c) Determine that modification can be installed in the product in accordance with drawings and instructions
(d) Determine that operating and maintenance instructions are adequate for safe operation and continuing Airworthiness of the product.
(e) Forward all above and any other relevant data with an application for approval of the modification.
(f) Necessary application (Appendix-H) and Engineering Change Order (ECO) prepared in accordance with the contents in Appendix-I to be submitted to DGCA for review and subsequent approval. The Airworthiness Section allocates a unique number for the Modification / Repair as per the procedure described under IS-21.446 (2.3) Data Source

2.6. Flight Tests

It may be necessary to "Check Flight" for a modified aircraft if changes to the following have resulted by the modification.

(i). Flight characteristics

(ii) Performance
(iii) Flight Deck Design
(iv) Flight Guidance Systems
(v) Navigation Systems
(vi) System Operation not listed above

The final approval or acceptance of Data will be at the sole discretion of the Director-General of Civil Aviation. Major Modification / Repair to be carried out only by an organization approved by the Director General of Civil Aviation for the purpose. Each Major modification/ Repair should carry a unique number allocated by the CAA airworthiness section. This number is given in a sequential order.

For example; A340-300 aircraft modification is given as follows;
ADD/A343/MSN034/**MOD** - XXX.

Where; ADD- Aircraft Registration mark.
A343- Type of Aircraft
MSN034 – Manufacturer serial number.
MOD-XXX- Number given by DGCA

For example: A340-300 aircraft Repair is given as follows
ADD/A343/MSN034/**REP** – XXX
Where; REP – XXX - Number given by DGCA and otherr notations are same as above

Service Limitations for Repairs

Pending completion of a permanent repair it may be necessary to restore a damaged aeronautical product. Such a repair may be permissible under controlled operating conditions, subject to approval of the Director-General of Civil Aviation

Interim Repairs

Interim Repairs, which comply with design standards, may be carried out for a limited time with the approval of the Director-General of Civil Aviation. However, such repairs should not have long-term effects, which could compromise regulatory requirements.

Temporary Repair

Do not fully restore damage, but restore to a condition acceptable for Ferry flight with appropriate restrictions.

IS-21.447 RECORD KEEPING

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

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

AMC 21.447 Record Keeping

Refer to AMC 21.433 (a)

IS-21.449 INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

(a) The holder of the design organization accepted by DGCA 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 design organization accepted by DGCA 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. The operator shall provide these updates to DGCA.

IS-21.451 RESERVED

SUBPART N — RESERVED

SUBPART O — TECHNICAL STANDARD ORDER AUTHORISATIONS

IS-21.601A SCOPE

DGCA does not issue technical standard order (TSO) authorizations. This Subpart describes the requirements for the acceptance of TSO authorizations.

IS-21.601B ACCEPTABILITY OF FOREIGN TSO AUTHORIZATIONS

The following foreign TSO authorizations may be accepted by the DGCA:

(a) a TSO authorization issued by the EASA
(b) a TSO authorization accepted by EASA
(c) a TSO authorization issued by an ICAO Contracting State in compliance with Annexes 8 and 16 to the Convention on International Civil Aviation.

SUBPART P — PERMIT TO FLY

IS-21.701 SCOPE

(a) 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:

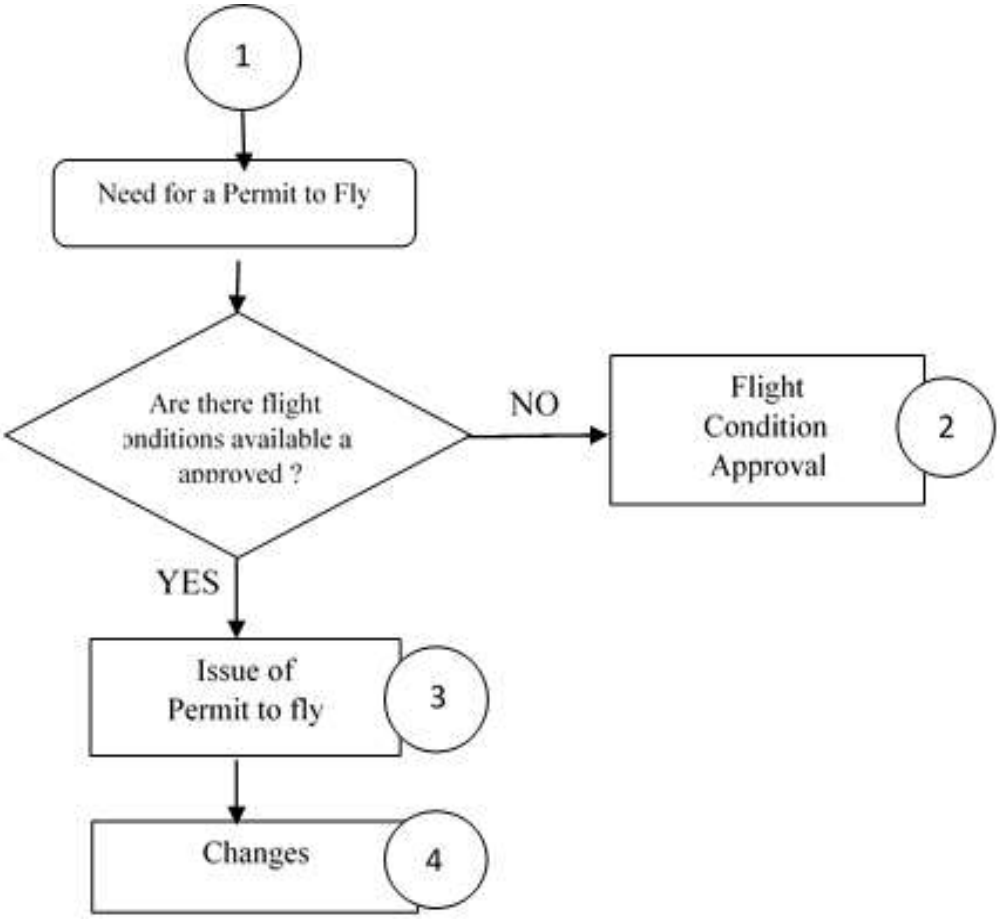
(1) development;
(2) showing compliance with Implementing Standards or certification specifications;
(3) design organizations or production organizations crew training;
(4) production flight testing of new production aircraft;
(6) flying aircraft under production between production facilities;
(7) flying the aircraft for customer acceptance;
(8) delivering or exporting the aircraft;
(9) flying the aircraft for DGCA acceptance;
(10) market survey, including customer's crew training;
(11) exhibition and air show;
(12) flying the aircraft to a location where maintenance or airworthiness review are to be performed, or to a place of storage;
(13) flying an aircraft at a weight in excess of its maximum certificated takeoff weight for flight beyond the normal range over water, or over land areas where adequate landing facilities or appropriate fuel is not available;
(14) record breaking, air racing or similar competition;
(15) flying aircraft meeting the applicable airworthiness requirements before conformity to the environmental requirements has been found;
(16) for non-commercial flying activity on individual non-complex aircraft or types for which a certificate of airworthiness is not appropriate.
(17) flying an aircraft for troubleshooting purposes or to check the functioning of one or more systems, parts or appliances after maintenance

(b) This subpart establishes the procedure for issuing permits to fly and approving associated flight conditions, and establishes the rights and obligations of the applicants for, and holders of, those permits to fly and approvals of flight conditions.;

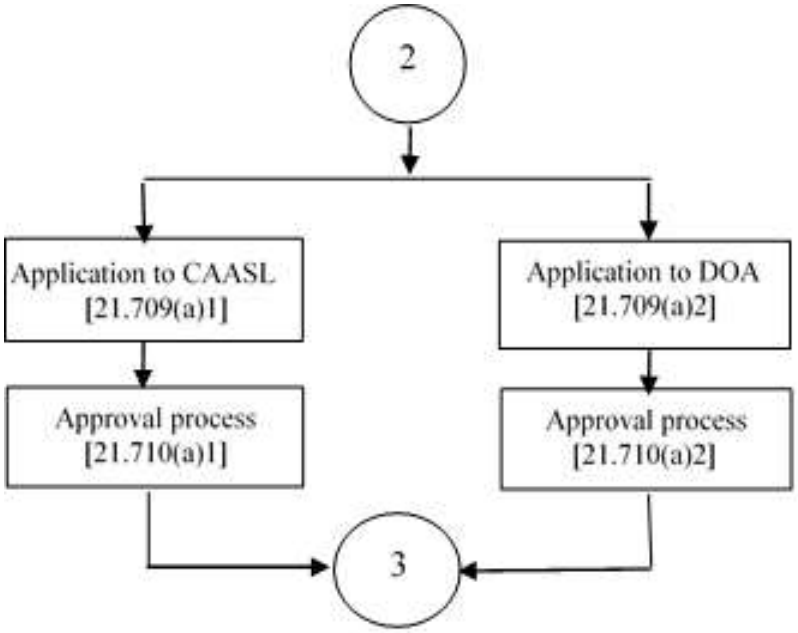
SUBPART P - GM - PERMIT TO FLY

(1) The process allowing a flight under a permit to fly can be described as follows:
Flowchart 1 – Overview
Flowchart 2 – Approval of flight conditions
Flowchart 3 – Issue of permit to fly
Flowchart 4 – Changes after the first issue of permit to fly

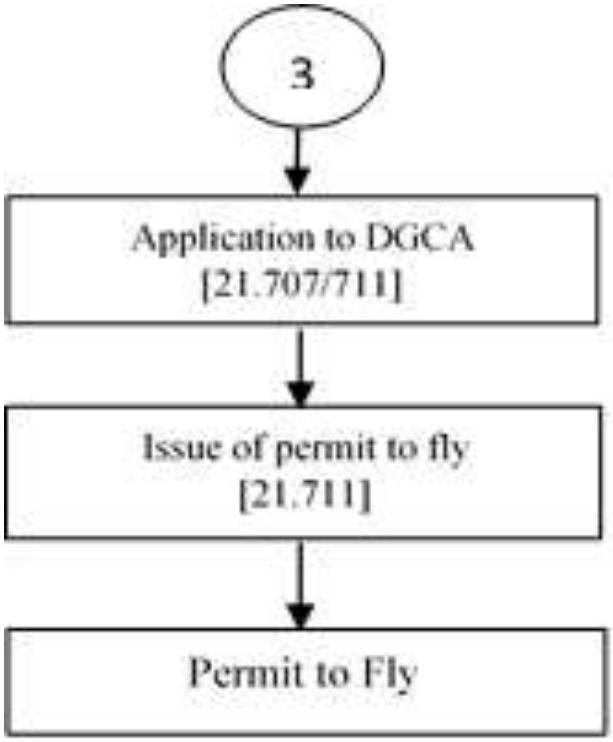
Flowchart 1 to GM Subpart P – Overview



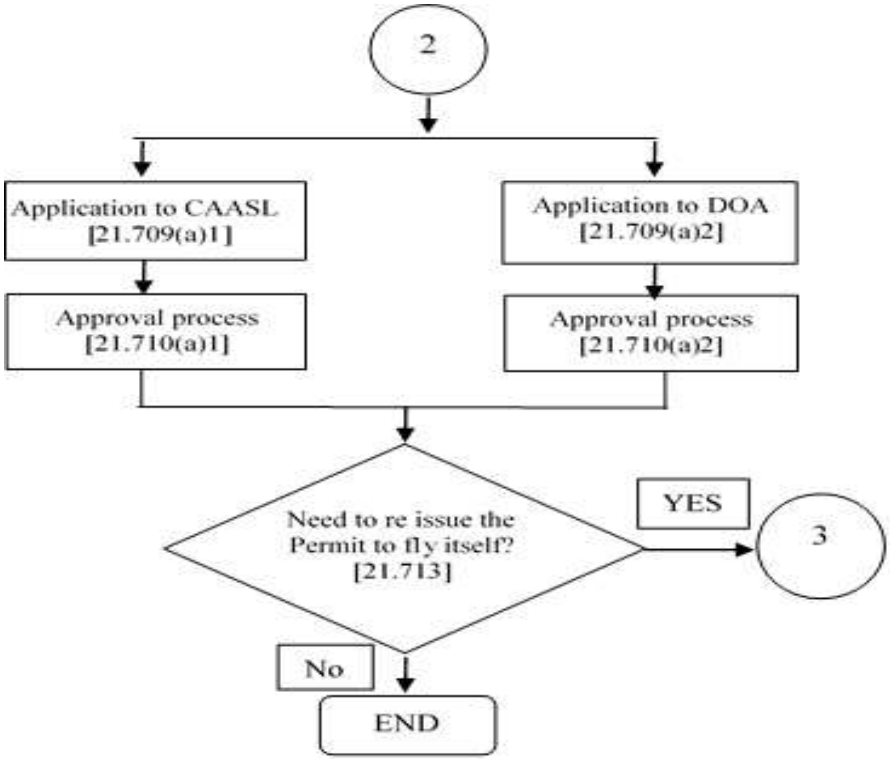
Flowchart 2 to GM Subpart P – Approval of flight conditions



Flowchart 3 to GM Subpart P – Issue of permit to fly



Flowchart 4 to GM Subpart P – Changes after the first issue of permit to fly



GM 21.701 (a) Permit to fly when certificate of airworthiness is not appropriate

A certificate of airworthiness may not be appropriate for an individual aircraft or aircraft type when it is not practicable to comply with the normal continued airworthiness requirements and the aircraft is to a design standard that is demonstrated to be capable of safe flight under defined conditions.
IS-21.701 identifies cases where the issuance of a Certificate of Airworthiness may not be possible or appropriate and this GM provides further information and typical examples for clarification where appropriate: -

Note: This list of examples is not exhaustive

(1) Development:
- testing of new aircraft or modifications
- testing of new concepts of airframe, engine propeller and equipment;
- testing of new operating techniques;

(2) Demonstration of compliance with Implementing Standards or certification specifications:
- certification flight testing for type certification, supplemental Type Certificates, changes to Type Certificates or Technical Standard Order authorization;

(3) Design organizations or production organizations crew training:
- Flights for training of crew that will perform design or production flight testing before the design approval or Certificate of Airworthiness can be issued.

(4) Production flight testing of new production aircraft:
- For establishing conformity with the approved design, typically this would be the same program for a number of similar aircraft;

(5) Flying aircraft under production between production facilities:
- green aircraft ferry for follow on final production.

(6) Flying the aircraft for customer acceptance:
- Before the aircraft is sold and/or registered.

(7) Delivering or exporting the aircraft:
- Before the aircraft is registered in the State where the Certificate of Airworthiness will be issued.

(8) Flying the aircraft for CAASL acceptance:
- In the case of an inspection flight test by the CAASL before the Certificate of Airworthiness is issued.

(9) Market survey, including customer's crew training:
- Flights for the purpose of conducting market survey, sales demonstrations and customer crew training with non-Type Certificated aircraft or aircraft for which conformity has not yet been established or for non-registered a/c and before the Certificate of Airworthiness is issued

(10) Exhibition and air show:
- Flying the aircraft to an exhibition or show and participating to the exhibition or show before the design approval is issued or before conformity with the approved design has been shown.

(11) Flying the aircraft to a location where maintenance or airworthiness review are to be performed, or to a place of storage:
- Ferry flights in cases where maintenance is not performed in accordance with approved programmes, where an AD has not been complied with where certain equipment outside the Minimum Equipment List (MEL) is unserviceable or when the aircraft has sustained damage beyond the applicable limits.

(12) Flying an aircraft at a weight in excess of its maximum certificated takeoff weight for flight beyond the normal range over water, or over land areas where adequate landing

facilities or appropriate fuel is not available:
- Oversees ferry flights with additional fuel capacity.

(13) Record breaking, air racing or similar competition:
- Training flight and positioning flight for this purpose are include

(14) Flying aircraft meeting the applicable certification specifications before conformity to the environmental requirements has been found:
- Flying an aircraft which has been demonstrated to comply with all applicable certification specifications but not with environmental requirements.

(15) For non-commercial flying activity on individual non-complex aircraft or types for which a certificate of airworthiness is not appropriate.
- For aircraft which cannot practically meet all applicable certification specifications, such as certain aircraft without TC-holder ("generically termed orphan aircraft") or aircraft which have been under national systems of Permit to Fly and have not been demonstrated to meet all applicable requirements. The option of a permit to fly for such an aircraft should only be used if a certificate of airworthiness cannot be issued due to conditions which are outside the direct control of the aircraft owner, such as the absence of properly certified spare parts.

Note: The above listing is of cases when a permit to fly MAY be issued; it does not mean that in the described cases a permit to fly MUST be issued. If other legal means are available to allow the intended flight(s) they can also be used.

IS-21.703 ELIGIBILITY

(a) A registered owner of an aircraft, registered in accordance with IS-85, shall be eligible as an applicant for a permit to fly.
(b) A person eligible for an application for permit to fly is also eligible for application for the approval of the flight conditions.

IS-21.705 CONCEPT

Flight Permits are issued by the Director General of Civil Aviation who may delegate this function to an appropriate officer of the Airworthiness Division.

Flight Permits are categorized as: –
- Experimental Flight Permit
- Special Purpose Flight Permit

Experimental Flight Permits – May be issued for any aircraft which is manufactured for or engaged in aeronautical research and development, or for showing compliance with Airworthiness Standards.

Application for an Experimental Flight Permit should contain
- Statement setting out flight purpose - Data describing aircraft including drawings
- Data to assure safe operation inclusive of a certificate from an AME certifying aircraft is safe for intended flight
- Areas over which the flights will take place
- Weight and Balance Report
- Any Operating Limitations

The aircraft has to be inspected by an authorized Inspector delegated by the Director General of Civil Aviation.

The flight permit will contain the following details –

- The period during which the flights may take place (not to exceed one year)
- Instructions regarding the display of the permit
- The need for signs and placards
- Any operating restrictions

Special purpose flight permit may be issued for

- Ferry flight for repairs or maintenance
- Importation / Exportation flight
- Test following repair, modification or maintenance
- Any other purpose approved by the Director General of Civil Aviation

Applications should be on forms available with Civil Aviation Authority of Sri Lanka.

- detailing the flight purpose
- Additional equipment required for flight
- Proposed conditions and limitations

An AME of an appropriately rated Approved Maintenance Organization with necessary certifying authority shall carryout the necessary maintenance and inspection of the aircraft and make the following entry in the log.

"I hereby certify that the above aircraft and records have been inspected to a degree necessary and found to be in a safe condition for the intended ferry flight.

Signature and Authorization No of AME"

IS-21.707 APPLICATION FOR PERMIT TO FLY

(a) Pursuant to IS-21.703, an application for a permit to fly shall be made to the DGCA in a form and manner established by the DGCA.
(b) Each application for a permit to fly shall include:
  (1) the purpose(s) of the flight(s), in accordance with IS-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 IS-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 IS-21.709.

GM 21.707 (b) Application

An application should be made on CAASL Form CAASL/AW/A/004.

IS-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.

GM 21.708 (b) 6 Continuing airworthiness

(1) In most cases a simple reference to existing maintenance requirements will suffice for aircraft that have a temporarily invalid Certificate of Airworthiness.
(2) For other aircraft it will have to be proposed by the applicant as part of the flight conditions. For approved organizations they can be included in their procedures.

GM No. 1 21.708(c) Safe flight

(1) Safe flight normally means continued safe flight and landing but in some limited cases (e.g. higher risk flight testing) it can mean that the aircraft is able to fly in a manner that will primarily ensure the safety of overflown third parties, the flight crew and, if applicable, other occupants.

(2) This definition of 'safe flight' should not be interpreted as allowing a test pilot, equipped with a parachute and operating over a sparsely populated area, to set out on a test flight in the full knowledge that there is a high probability of losing the aircraft. The applicant should take reasonable care to minimize safety risks and to be satisfied that there is a reasonable probability that the aircraft will carry out the flight without damage or injury to the aircraft and its occupants or to other property or persons whether in the air or on the ground.

GM No. 2 21.708(c) Substantiations

The substantiations should include analysis, calculations, tests or other means used to determine under which conditions or restrictions the aircraft can perform safely a flight.
Substantiations

GM No.3 21.708(c) Operation of Overweight Aircraft

This GM provides information and guidance with respect to permit to fly for operating an aircraft in excess of its maximum certificated takeoff weight, for flight beyond the normal range over water, or over land areas where adequate landing facilities or appropriate fuel is not available.

(1) GENERAL.

(a) The excess weight that may be authorized for overweight operations should be limited to additional fuel, fuel carrying facilities, and navigational equipment necessary for the flight.
(b) It is recommended that the applicant discuss the proposed flight with the TC holder of the aircraft to determine the availability of technical data on the installation of additional fuel carrying facilities and/or navigational equipment.

CRITERIA USED TO DETERMINE THE SAFETY OF ADDITIONAL FACILITIES.

In evaluating the installation of additional facilities, the DGCA or the design organization must find that the changed aircraft is safe for operation. To assist in arriving at such a determination, the following questions are normally considered:

(a) Does the technical data include installation drawings, structural substantiating reports, weight, balance, new centre of gravity limits computations, and aircraft performance limitations in sufficient detail to allow a conformity inspection of the aircraft to be made?

(b) In what ways does the aircraft not comply with the applicable certification specifications?

(c) Are the fuel tanks vented to the outside? Are all areas in which tanks are located ventilated to reduce fire, explosion, and toxicity hazards?

(d) Are the tanks even when empty strong enough to withstand the differential pressure at maximum operating altitude for a pressurized aircraft?

(e) Have means been provided for determining the fuel quantity in each tank prior to flight?

(f) Are shutoff valves, accessible to the pilot, provided for each additional tank to disconnect these tanks from the main fuel system?

(g) Are the additional fuel tank filler connections designed to prevent spillage within the aircraft during servicing?

(h) Is the engine oil supply and cooling adequate for the extended weight and range?

LIMITATIONS.

The following types of limitations may be necessary for safe operation of the aircraft:
(a) Revised operational airspeeds for use in the overweight condition.
(b) Increased pilot skill requirements.
(c) A prescribed sequence for using fuel from various tanks as necessary to keep the aircraft within its centre of gravity range.
(d) Notification to the control tower of the overweight takeoff condition to permit use of a runway to minimize flight over congested areas.
(e) Avoidance of severe turbulence. If encountered, the aircraft should be inspected for damage as soon as possible.

1. EXAMPLE OF OPERATING LIMITATIONS WHICH MAY BE PRESCRIBED AS PART OF THE PERMIT TO FLY.
   Aircraft type: XXXX Model: YYYY Limitations:

   (a) Maximum weight must not exceed 8,150 pounds.
   (b) Maximum quantity of fuel carried in auxiliary tanks must not exceed 106 gallons in fwd. tank, 164 gallons in centre tank, and 45 gallons in aft tank.
   (c) Centre of gravity limits must not exceed (fwd.) +116.8 and (aft) +124.6.
   (d) Aerobatics are prohibited.
   (e) Use of autopilot while in overweight condition is prohibited.
   (f) Weather conditions with moderate to severe turbulence should be avoided.
   (g) When an overweight landing is made or the aircraft has been flown through moderate or

severe turbulence while in an overweight condition, the aircraft must be inspected for damage after landing. The inspections performed and the findings must be entered in the aircraft log. The pilot must determine, before the next takeoff, that the aircraft is airworthy.

(h) When operated in the overweight condition, the cruising speed (Vc) shall not exceed 185 m.p.h. and the maximum speed (Vne) shall not exceed 205 m.p.h.

(i) Operation in the overweight condition must be conducted to avoid areas having heavy air traffic, to avoid cities, towns, villages, and congested areas, or any other areas where such flights might create hazardous exposure to person or property on the ground.

GM 21.708(d) Control of aircraft configuration

(a) The applicant should establish a method for the control of any change or repair made to the aircraft, for changes and repairs that do not invalidate the conditions established for the permit to fly.

(b) All other changes should be approved in accordance with IS 21.713 and when necessary a new permit to fly should be issued in accordance with IS 21.711.

IS-21.709 APPLICATION FOR APPROVAL OF FLIGHT CONDITIONS

(a) Pursuant to IS-21.707(c), an application for approval of the flight conditions shall be made to:
  (1) DGCA in a form and manner established by the DGCA; or
  (2) an appropriately approved design organization accepted by the DGCA, under subpart J

(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 IS-21.708(b).

AMC 21.709 (b) Submission of documentation supporting the establishment of flight conditions

(1) Together with the application, the documentation required by IS 21.709 (b) must be submitted with the approval form (CAASL-AW-006), completed with all relevant information. If the complete set of data is not available at the time of application, the missing elements can be provided later. In such cases, the approval form must be provided only when all data are available, to allow the applicant to make the statement required in box 9 of the form.

(2) When the flight conditions are approved under a privilege, this form should be used by the approved organization to document the approval.

IS-21.710 APPROVAL OF FLIGHT CONDITIONS

(a) Flight conditions shall be approved by:
  (1) the DGCA; or
  (2) an appropriately approved design organization accepted by DGCA, under subpart J.

(b) Reserved

(c) Before approving the flight conditions, DGCA or 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.

IS-21.711 ISSUE OF A PERMIT TO FLY

(a) The DGCA shall issue a permit to fly:
  (1) Upon presentation of the data required by IS-21.707; and
  (2) When the conditions of IS-21.708 have been approved in accordance with IS-21.710; and
  (3) When the 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 IS-21.708 before flight.

(b) Reserved

(c) Reserved

(d) Reserved

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

(f) Reserved

(g) Reserved

GM 21.711 (e) Additional conditions and restrictions

The conditions and restrictions prescribed by the DGCA may include airspace restrictions to make the conditions approved under IS 21.710 more concrete, or conditions outside the scope of the ones mentioned in IS 21.708 (b) such as a radio station license.

IS-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 IS-21.710. When relevant an application shall be made in accordance with IS-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 IS-21.711.

GM 21.713 Changes

(1) Changes to the conditions or associated substantiations that are approved but do not affect the text on the permit to fly do not require issuance of a new permit to fly.

(2) In case a new application is necessary, the substantiation for approval of the flight conditions only needs to address the change.

IS-21.715 LANGUAGE

The manuals, placards, listings, and instrument markings and other necessary information required by applicable certification specifications shall be presented in English.

IS-21.719 TRANSFERABILITY

(a) A permit to fly is not transferable.

(b) Reserved

IS-21.721 INSPECTION

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

IS-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 IS-21.711(e) associated to the permit to fly;
  (2) the permit to fly not being surrendered or revoked by the DGCA;
  (3) the aircraft remaining on Sri Lanka civil aircraft register.
(b) Notwithstanding subparagraph (a), a permit to fly issued for the purpose of IS-21.701 (15) may be issued for unlimited duration.
(c) Upon surrender or revocation, the permit to fly shall be returned to the DGCA.

IS-21.725 RENEWAL OF PERMIT TO FLY

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

IS-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.

IS-21.729 RECORD KEEPING

(a) All documents produced to establish and justify the flight conditions shall be held by the holder of the approval of the flight conditions at the disposal of the DGCA and shall be retained in order to provide the information necessary to ensure the continued airworthiness of the aircraft.
(b) Reserved

SUBPART Q IDENTIFICATION OF PRODUCTS, PARTS AND APPLIANCES

IS-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 the DGCA finds appropriate.
(b) An aircraft or engine shall be identified 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) A propeller, propeller blade, or propeller hub shall be identified 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, load frame assembly and any heater assembly shall be permanently and legibly marked with the manufacturer's name, part number, or equivalent, and serial number, or equivalent.

IS-21.803 HANDLING OF IDENTIFICATION DATA

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

IS-21.804 IDENTIFICATION OF PARTS AND APPLIANCES

(a) Each part or appliance shall be permanently and legibly marked with:
  (1) a name, trademark, or symbol identifying the manufacturer in a manner identified by the applicable design data; and
  (2) the part number, as defined in the applicable design data; and
  (3) the letters EPA (European Part Approval)/PMA (Parts Manufacturer Approval) or equivalent for parts or appliances produced in accordance with approved design data not belonging to the Type Certificate holder of the related product, except for TSO articles.
(b) By way of derogation from paragraph (a), if the 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.

IS-21.805 IDENTIFICATION OF CRITICAL PARTS

In addition to the requirement of IS-21.804, a part to be fitted on a Type Certificated product which has been identified as a critical part shall be permanently and legibly marked with a part number and a serial number.

IS-21.807 IDENTIFICATION OF TSO ARTICLES

(a) Each TSO article shall be permanently and legibly marked with the following information:
  (a) The name and address of the manufacturer;
  (c) The name, type, part number or model designation of the article;

(d) The serial number or the date of manufacture of the article or both; and
(e) The applicable TSO number.

(a) By way of derogation from paragraph (a), if the 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.

(b) An APU shall be identified 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.

APPENDICES TO THE IMPLEMENTING STANDARDS

APPENDIX 1 (RESERVED)

APPENDIX IIA AIRWORTHINESS REVIEW CERTIFICATE FORM (CAASL FORM 15a) (*AT PRESENT RESERVED*)

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

CIVIL AVIATION AUTHORITY OF SRI LANKA

AIRWORTHINESS REVIEW CERTIFICATE

ARC reference: ……..…….

Pursuant to Implementing Standard for the time being into force, the [CAASL] hereby certifies that the following aircraft:

Aircraft manufacturer: ……
Manufacturer's designation: ……..
Aircraft registration: ……..
Aircraft serial number: …….

is considered airworthy at the time of the review.

Date of issue: ..... Date of expiry: ……

Airframe Flight Hours (FH) at date of issue (*)

Signed: ..... Authorization No: ……...

1st Extension: The aircraft has remained in a controlled environment in accordance with *point M.901 of Part M* for the last year. The aircraft is considered to be airworthy at the time of the issue.

Date of issue: ..... Date of expiry: ……
Airframe Flight Hours (FH) at date of issue (*)

Signed: ..... Authorization No: ……...
Company Name: .....Approval reference: ……

2nd Extension: The aircraft has remained in a controlled environment in accordance with *point M.901 of Part M* for the last year. The aircraft is considered to be airworthy at the time of the issue.

Date of issue: ..... Date of expiry: .....
Airframe Flight Hours (FH) at date of issue (*)

Signed: ..... Authorization No: .....
Company Name: ..... Approval reference: .....

CAASL Form 15a
(*) except for balloons and airships

APPENDIX IIB AIRWORTHINESS REVIEW CERTIFICATE FORM (CAASL FORM 15b) (*AT PRESENT RESERVED*)

AIRWORTHINESS REVIEW CERTIFICATE

ARC reference: ……..

Pursuant to National Applicable Implementing Standard for the time being into force, the following continuing airworthiness management organization, approved in accordance with, Subpart G of Part M

[NAME OF ORGANISATION APPROVED AND ADDRESS]
Approval reference: CAASL.MG. [XXXX].

Hereby certifies that it has performed an airworthiness review in accordance with point *M.710 of Part-M* on the following aircraft:

Aircraft manufacturer: ……
Manufacturer's designation: ……..
Aircraft registration: ……..
Aircraft serial number: ……

and this aircraft is considered airworthy at the time of the review.

Date of issue: ..... Date of expiry: ……
Airframe Flight Hours (FH) at date of issue (*)

Signed: ..... Authorization No: ……..

1st Extension: The aircraft has remained in a controlled environment in accordance with point *M.901* of *Part-M* for the last year. The aircraft is considered to be airworthy at the time of the issue.

Date of issue: ..... Date of expiry: ……
Airframe Flight Hours (FH) at date of issue (*)

Signed: ..... Authorization No: ……..
Company Name: ..... Approval reference: ……..

2nd Extension: The aircraft has remained in a controlled environment in accordance with point *M.901* of *Part-M* for the last year. The aircraft is considered to be airworthy at the time of the issue.

Date of issue: ..... Date of expiry: ……
Airframe Flight Hours (FH) at date of issue (*)

Signed: ..... Authorization No: ……..
Company Name: ..... Approval reference: ……

CAASL Form 15b
(*) except for balloons and airships

APPENDIX III PERMIT TO FLY APPROVAL FORM (CAASL-AW-010)

Registry No: 02	**File Ref: AW/11/XXX**

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

CIVIL AVIATION AUTHORITY OF SRI LANKA

PERMIT TO FLY

<table>
<tr><td rowspan="4">1. Nationality and Registration Marks</td><td colspan="3">2. Aircraft Manufacturer/Type</td><td rowspan="4">3. Aircraft Serial Number</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="3">Aircraft Type</td></tr>
<tr><td>2.1 Make</td><td>2.2 Model</td><td>2.3 Series</td></tr>
<tr><td colspan="4">4. The permit cover: [purpose in accordance with IS-21.701(a)]</td></tr>
<tr><td colspan="4">5. Holder: [in case of a permit to fly issued for the purpose of IS-21.A701(a)(15) this should state: ‘the registered owner’]</td></tr>
<tr><td colspan="4">6. Conditions/ remarks:</td></tr>
<tr><td colspan="4">7. Validity period:</td></tr>
<tr><td colspan="2">8. Place and date of issue</td><td colspan="3">9. Signature of CAASL representative</td></tr>
<tr><td colspan="2"></td><td colspan="3"></td></tr>
</table>

APPENDIX IV (RESERVED)

APPENDIX V (RESERVED)

APPENDIX VI CERTIFICATE OF AIRWORTHINESS FORM (CAASL-AW-011)

Registry No:	File Ref:

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

CIVIL AVIATION AUTHORITY OF SRI LANKA

CERTIFICATE OF AIRWORTHINESS

1. Nationality and Registration Marks	2. Manufacturer and Manufacturers' Designation of Aircraft (Type)			3. Aircraft Serial Number
	Aircraft Type			
	2.1 Make	2.2 Model	2.3 Series	

4. Aircraft Classification (Categories and /or operation)

4.1 Category of Aircraft	4.2 Class of Aircraft	4.3 Authorized Operations 4.3.1. ..... 4.3.2. ..... 4.3.3. .....

5. This Certificate of Airworthiness is issued, pursuant to the Convention on International Civil Aviation dated 7th December, 1944, which has been given effect to in Sri Lanka in terms of the Civil Aviation Act No.14 of 2010 (Section 51 refers) and the Operating Implementing Standards made thereunder, in respect of the above mentioned aircraft which is considered to be airworthy when maintained and operated in accordance with the foregoing and the pertinent Operating Limitations contained in the approved Latest Flight Manual of the aircraft, subject to the special conditions stated overleaf.

Date of Issue: ……

……
Director General of Civil Aviation

6. This certificate is valid for the period(s) shown below, subject to stipulations aforementioned		Signature, Official stamp	Date
From	**To**		

Special Conditions applicable to continuation of Airworthiness of Aircraft

Regardless of the period of validity specified in the Certificate of Airworthiness of the aircraft, failure to comply with anyone or more of the following, shall immediately invalidate the Certificate of Airworthiness:

a. The aircraft remains in conformity with the Type Design approved by Director General of Civil Aviation Sri Lanka with special emphasis on the following

i) Any modification or repair is conducted in accordance with procedures and methods approved by the Director General of Civil Aviation;

ii) Replacement of any component, part, equipment or material is performed in accordance with the Design Requirements and installed in accordance with the approved procedures;

iii) All markings and placards included in the approval of the Type Design by the Director General of Civil Aviation are present;

iv) In addition to the information specified in ICAO Annex 8 which is implemented in terms of IS-21, the aircraft Flight Manual includes any changes made mandatory by the Director General of Civil Aviation as required by Annex 6, Part I, Chapter 11 or Part III, Section II, Chapter 9, which is implemented in terms of IS 20 and ASN 123 as applicable;

v) If the aircraft is released to service with any airworthiness significant systems, components or equipment unserviceable, it is in compliance with the Minimum Equipment List approved by Director General of Civil Aviation;

vi) If the aircraft is released to service with any parts missing, it is in compliance with procedures approved by the Director General of Civil Aviation; and (Note – Information of this nature is sometimes included as a configuration deviation list in the aircraft Flight Manual)

vii) Unrepaired damage is within limits acceptable to the Director General of Civil Aviation (reference could be made to the structural repair manual for the concerned aircraft type to determine acceptable limits)

b. The aircraft has been maintained in an airworthy condition, including:

i) Its compliance with a Maintenance Programme approved by the Director General of Civil Aviation;

ii) The aircraft being the subject of a Reliability Programme, if applicable, including in particular engine trend monitoring, corrective action has been taken to rectify any adverse trends;

iii) Its compliance with any certification maintenance requirements at the prescribed intervals;

iv) Its compliance with all modifications declared mandatory by Director General of Civil Aviation;

v) Those parts of the aircraft that are life limited items declared by the organization responsible for the Type Design or the Director General of Civil Aviation have not exceeded their approved life limits;

vi) Conformity of the aircraft Mass and Balance data with the requirements of the Director General of Civil Aviation, including re-weighting if appropriate and/or compliance with a system for recording progressive mass and balance change; and

vii) Conformity of the aircraft records with the requirements of the Director General of Civil Aviation which must at a minimum meet the requirement of Annex 6, Part I, Chapter 6, 7 and 8 or Part III, Section II, Chapter 4, 5 and 6, which is implemented in terms of IS 15, 16, 17 and ASN 123 as applicable.

APPENDIX VII NOISE CERTIFICATE FORM (CAASL -AW- 014)

Registry No:	**File Ref:** AW/24/XX

CIVIL AVIATION AUTHORITY OF SRI LANKA

NOISE CERTIFICATE

(01) Nationality and Registration Marks;	**(02) Manufacturer and Manufacturer's Designation of aircraft;**	**(03) Aircraft Serial No;**
(04) Engine Manufacturer Type /Model:		**(05) Propeller Type/ Model;**
(06) Maximum Take-off mass; Kg	**(07) Maximum Landing mass** Kg	**(08) Noise Certification Standards**
(09) Additional modification incorporated for the purpose of compliance with the applicable noise certification standards:		

(10) Lateral/ full power noise level	**(11) Approach Noise level**	**(12) Flyover noise level**	**(13) Overflight noise level**	**(14) Take-off noise level**

(15) Remarks;

This noise certificate is issued pursuant to volume 1 of Annex 16 to the Convention on International Civil Aviation, in respect of the above mentioned aircraft, which is considered to comply with the indicated noise standard when mentioned and operated in accordance with the relevant requirements and operating limitations.

Date of issue : DD/MM/YYYY for Director General of Civil Aviation

APPENDICES TO THE AMC

APPENDIX A TO GM 21.91 EXAMPLES OF MAJOR CHANGES PER DISCIPLINE;

The information below is intended to provide a few Major change examples per discipline, resulting from application of IS-21.91 and paragraph 3.3 conditions. It is not intended to present a comprehensive list of all Major changes. Examples are categorized per discipline and are applicable to all products (aircraft, engines and propellers). However, a particular change may involve more than one discipline, e.g., a change to engine controls may be covered in engines and systems (software).
Those involved with classification should always be aware of the interaction between disciplines and the consequences this will have when assessing the effects of a change (i.e., operations and structures, systems and structures, systems and systems, etc.; see example in paragraph 2 (ii).
Specific rules may exist which override the guidance of these examples.
In the IS-21 a negative definition is given of Minor changes only. However, in the following list of examples it was preferred to give examples of Major changes.

Where in this list of examples the words 'has effect' or 'affect(s)' are used, they have always to be understood as being the opposite of 'no appreciable effect' as in the definition of Minor change in IS-21.91. Strictly speaking the words 'has appreciable effect' and 'appreciably affect(s)' should have been used, but this has not been done to improve readability.

1. **Structure**

i. changes such as a cargo door cut-out, fuselage plugs, change of dihedral, addition of floats;
ii. changes to materials, processes or methods of manufacture of primary structural elements, such as spars, frames and critical parts;
iii. changes that adversely affect fatigue or damage tolerance or life limit characteristics;
iv. changes that adversely affect aero elastic characteristics.

2. Cabin Safety

i. changes which introduce a new cabin layout of sufficient change to require a re- assessment of emergency evacuation capability or which adversely affect other aspects of passenger or crew safety. Items to consider include, but are not limited to:

- changes to or introduction of dynamically tested seats.
- change to the pitch between seat rows.
- change of distance between seat and adjacent obstacle like a divider.
- changes to cabin layouts that affect evacuation path or access to exits.
- installation of new galleys, toilets, wardrobes, etc.
- installation of new type of electrically powered galley insert.

ii. Changes to the pressurization control system which adversely affect previously approved limitations.

3. Flight

i. Changes which adversely affect the approved performance, such as high altitude operation, brake changes that affect braking performance.
ii. Changes which adversely affect the flight envelope.
iii. Changes which adversely affect the handling qualities of the product including changes to the flight controls function (gains adjustments, functional modification to software) or changes to the flight protection or warning system.

4. Systems

For systems assessed under CS 25.1309 or equivalent, the classification process is based on the functional aspects of the change and its potential effects on safety.

i. Where failure effect is 'Catastrophic' or 'Hazardous', the change should be classified as Major.
ii. Where failure effect is 'Major', the change should be classified as Major if
- aspects of the compliance demonstration use means that have not been previously accepted for the nature of the change to the system; or
- the change affects the pilot/system interface (displays, controls, approved procedures); or
- the change introduces new types of functions/systems such as GPS primary, TCAS, Predictive windshear, HUD.

iii. The assessment of the criteria for software changes to systems also needs to be performed. When software is involved, account should be taken also of the following guidelines:

Where a change is made to software produced in accordance with the guidelines of the latest edition of EASA AMC 20-115 (see EASA AMC-20 document) or equivalent, the change should be classified as Major if either of the following apply, and the failure effect is Catastrophic, Hazardous or Major:

i. the executable code for software, determined to be Level A or Level B in accordance with the guidelines, is changed unless that change involves only a variation of a parameter value within a range already verified for the previous certification standard; or
ii. the software is upgraded to or downgraded from Level A, Level B or Level C; or
iii. the executable code, determined to be level C, is deeply changed, e.g., after a software re-engineering process accompanying a change of processor.

For software developed to guidelines other than the latest edition of EASA AMC 20-115 or equivalent, the applicant should assess changes in accordance with the foregoing principles.
For other codes the principles noted above may be used. However, due consideration should be given to specific certification specification/interpretations.

5. Propellers

Changes to:

i. diameter
ii. airfoil
iii. planform
iv. material
v. blade retention system, etc.

6. Engines

Changes:

i. that adversely affect operating speeds, temperatures, and other limitations.
ii. that affect or introduce parts identified by CS E-510 or equivalent where the failure effect has been shown to be hazardous.
iii. that affect or introduce engine critical parts (CS E-515 or equivalent) or their life limits.
iv. to a structural part which requires a re-substantiation of the fatigue and static load determination used during certification.
v. to any part of the engine which adversely affects the existing containment capability of the structure.
vi. that adversely affect the fuel, oil and air systems, which alter the method of operation, or require reinvestigation against the type-certification basis.
vii. that introduce new materials or processes, particularly on critical components.

7. Rotors and drive systems

Changes that:

i. adversely affect fatigue evaluation unless the service life or inspection interval are unchanged. This includes changes to materials, processes or methods of manufacture of parts, such as
   - rotor blades
   - rotor hubs including dampers and controls
   - gears
   - drive shafts
   - couplings

ii. affect systems the failure of which may have hazardous or catastrophic effects. The design assessment will include:
   - cooling system
   - lubrication system
   - rotor controls

iii. adversely affect the results of the rotor drive system endurance test, the rotor drive system being defined in CS 27/29-917 or equivalent.

iv. adversely affect the results of the shafting critical speed analysis required by CS 27/29-931 or equivalent.

8. Environment

A change that introduces an increase in noise or emissions.

9. Power plant Installation

Changes which include:

i. control system changes which affect the engine/propeller/airframe interface;
ii. new instrumentation displaying operating limits;
iii. modifications to the fuel system and tanks (number, size and configuration);
iv. change of engine/propeller type

APPENDIX B FLIGHT CONDITIONS FOR A PERMIT TO FLY APPROVAL FORM (CAASL - AW- 006)

CIVIL AVIATION AUTHORITY OF SRI LANKA

FLIGHT CONDITIONS FOR A PERMIT TO FLY – APPROVAL

1. Applicant *[Name of organization providing the flight conditions and associated substantiations*]	**2. Approval Form No:** **Issue:** *[number and issue, for traceability purpose]*

3. Aircraft manufacturer/type	**4. Serial number(s)**

5. Purpose
[Purpose in accordance with 21.701(a)]

6. Aircraft Configuration
The above aircraft for which a permit to fly is requested is defined in [add reference to the document(s) identifying the configuration of the aircraft]

[For change(s) affecting the initial approval form: description of change(s). This form must be re-issued]

7. Substantiations
[References to the document(s) justifying that the aircraft (as described in 6) can perform the intended flight(s) safely under the defined conditions or restrictions.]

[For change(s) affecting the initial approval form: reference(s) to additional substantiation(s). This form must be re-issued]

8. Conditions/Restrictions
The above aircraft must be used with the following conditions or restrictions:

[Details of these conditions/restrictions, or reference to relevant document, including specific maintenance instructions and conditions to perform these instructions]

9. Statement
The flight conditions have been established and justified in accordance with 21.708.
The aircraft as defined in block 6 above has no features and characteristics making it unsafe for the intended operation under the identified conditions and restrictions

[When approved under a privilege of an approved organization]
10. Approved under: [ORGANIZATION APPROVAL NUMBER]

11. Date of issue	**12. Name and signature** *[Authorized signatory*]

[DGCA Approval. When not approved under a privilege of an approved organization]
13. Approval and date

APPENDIX C APPLICATION FOR A PERMIT TO FLY FORM (CAASL/AW/A/004)

CIVIL AVIATION AUTHORITY OF SRI LANKA

APPLICATION FOR A FERRY/PERMIT TO FLY

1. Applicant	*[Name of applicant]*
2. Aircraft nationality and identification marks:	
3. Aircraft owner:	
4. Aircraft manufacturer/type	
5. Serial number(s)	

6. Purpose of Flight
[Use terminology of 21.701(a) and add any additional information for accurate description of the purpose. e.g. place, itinerary, duration…]
[For an application due to a change of purpose (ref. 21.713): reference to initial request and description of new purpose]

7. Expected target date(s) for the flight(s) and duration	

8. Aircraft configuration as relevant for the permit to fly

8.1 The above aircraft for which a permit to fly is requested is defined in [add reference to the document(s) identifying the configuration of the aircraft. Same as required in AMC 21.263(c)(6) or AMC 21.709(b) application approval form? or box 6]

8.2 The aircraft is in the following situation related to its maintenance schedule:
[Describe status]

9. AME/Authorized Certifying Staff;
I hereby certify that the above aircraft and records have been inspected to a degree necessary and found to be in a safe condition for the intended ferry flight/permit to fly

……..
Signature and Authorization No of AME **Date…….**

10. Approval of flight conditions subject to the special conditions stated overleaf
[if not available at the time of application, indicate reference of request for approval]
Reference to:
1. **CAASL approval, if flight conditions are approved by CAASL; or**
2. **DOA approval form, if approved under DOA privilege.**

11. Date	**12. Name and signature [Authorized signatory]**

Note: A copy of this authorization should be displayed in the aircraft at all times when operating under the terms of this authorization

Special Conditions applicable to flight permit/ ferry flights;

The following should be noted and strictly adhered to on–

a) a copy of the authorization should be displayed in the aircraft at all times when operating under the terms of the authorization;
b) the identification marks assigned to the aircraft by the State of Registry and signs & placards should be displayed on the aircraft in conformity with the requirements of that State;
c) persons or property should not be carried for compensation or hire;
d) no person should be carried in the aircraft unless the person is essential to the purpose of operation of aircraft and has been advised of the contents of the authorization and the airworthiness status of the aircraft;
e) the aircraft should be operated only by crew holding appropriate certificates or licenses issued or validated by the State of Registry.
f) all flights should be conducted in accordance with the applicable general operating rules of the States in or over which the operations are conducted;
g) all flights should be conducted so as to avoid areas having heavy traffic or any other areas where flights might create hazardous exposure to persons or property;
h) all flights should be conducted within the performance operating limitations prescribed in the Aeroplane Flight Manual and those additional limitations specified by the State of Registry for the particular flight; and
i) all flights should be conducted prior to the expiry date of the authorization If the flight involves operations over States other than the State of Registry, the operator of the aircraft must obtain authorization from the appropriate authorities of that State prior to undertaking the flight.

APPENDIX D TYPE ACCEPTANCES

A. PURPOSE

This procedure provides guidance on type acceptance and the issue of Type Acceptance Certificates (TAC).

B. LEGISLATION

Origin	Legislation
Act	No. 14/ 2010
ICAO	Annex 8
IS	IS-21

C. PROCEDURE

1. Application

Application to enter a new type of aircraft into the Civil Aircraft Register shall be accompanied with the application for a TAC (on CAASL/AW/A/005). Applicants seeking an AOC shall make the application ahead of the AOC application to ensure a smooth AOC process.

The data listed in IS-21.15(b) should be supplied at the time of application, or, if not available at that time, the reasons and details of when the data will be available should be stated in the letter. All data shall be in the English language.

2. Evaluation

The application shall be entered into airworthiness pending tasks and an Inspector assigned to the task.

The Inspector shall check the form and respective documents for completeness; ensure the models to be evaluated are included on the foreign Type Certificate; and the TC is authentic by visiting the applicable NAA website. Any non-conformances must be communicated (preferably by e-mail) to the applicant.

3. Type Data

The Inspector shall inform the TC holder that CAASL is in the process of entering the aircraft type into the Civil Aircraft Register. Access to the aircraft/engine/propeller technical documentation shall be requested.
A folder shall be made in the Technical Library to store soft copies of the aircraft technical documentation.

4. Aircraft Flight Manual

AFM applicable to the aircraft type shall be approved as part of the type acceptance. Note that 'Pilot's Operating Handbook' (POH) that are in the 'GAMA Specification No.1' are considered as basic AFMs.
Basic AFM, AFM amendments or AFM supplements that have already been approved

by the NAA responsible for the TC do not need additional approval from CAASL.
The aircraft owner shall ensure:

- The basic Flight Manual is the correct and current TC holders Flight Manual that was approved by the relevant NAA
- All other required information - such as approved Flight Manual supplements - is present, correct and current
- CAASL is informed of every change to the Flight Manual

The above shall be checked as part of the Airworthiness Review. Refer to IS-M.710 (a) 2.

5. Inspector Training

TCs issued by EASA and those accepted under International Working Arrangements or Article 2a of Commission Implementing Standard (EC) No 375/2007 can be obtained from EASA website.

The applicant shall provide flight crew training to one flight operations inspector and IS-66 type training to one airworthiness inspector.
The Inspector shall coordinate with the applicant and Operations department to arrange the type training.

6. Type Acceptance Report

The Inspector shall produce a TAC report with at least the following information:

- Foreign TC details
- The type data requirements to meet IS-21.15

7. Airworthiness Review Template

The Airworthiness Inspector in collaboration with the Flight Operations Inspector shall create the Airworthiness Review template. This should cater to the needs of IS-M.710(a) as a minimum.

8. Issue of Type Acceptance Certificate

Once the documents and training have been provided to CAASL, the Inspector shall prepare the TAC and assign a TAC number. Master copy of the TAC shall be held by CAASL. A copy of the TAC shall be given to the applicant.

CAASL shall advise the State of Design that it has entered the type of aircraft into its register. This will allow the state of design to fulfill its obligation under ICAO Annex 8 paragraph 4.2.1.1(a). A copy of the TAC shall be sent to the foreign TC holder as a courtesy.

Once the TAC is issued the TAC register and the TAC should be uploaded to the CAASL website.

9. Amendment to a TAC

The same procedure will be followed for amendment. If the application relates to a

variant of an aircraft type for this there is already a TAC in force, then only data peculiar to the variant needs to be supplied. The applicant shall provide maintenance and flight crew type training relevant to the changes in type acceptance certificate, to CAASL Inspectors.

The TAC will be amended to include the new variant once the applicant has fulfilled his obligations. Amendment to a TAC is accomplished by re-issuing it under the same number with a new issue number.

10. Suspension or cancellation of an accepted Type Certificate

The CAASL may suspend or cancel a Type Acceptance Certificate if it considers that it is necessary to do so in the interests of aviation safety. An inability on the part of the original Type Certificate holder to provide ongoing technical support for the aircraft type may constitute grounds for such suspension or cancellation.

11. Type Acceptance Certificate

The TAC is prepared using CAASL Form CAASL-AW-009, the template for Type Acceptance Certificates. The template is available in the 'Forms and Checklists' folder. Ensure that only the applied type is indicated in the certificate rather than all the types included in the foreign Type Certificate.

12. TAC Number

The TAC number can be obtained from the TAC Register and shall not be assigned until the TAC is ready to be issued. This is to prevent the uncontrolled use of TAC numbers which can lead to a perception that a TAC has been issued in cases where projects never reach fruition.

The TAC number format consists of an alphabetical letter followed by three numbers (e.g. A123). The preceding letters can be A (Aeroplanes), R (Rotorcraft) and L (Lighter than Air). Note that the numbers start from 001 - e.g. the first TAC for an aircraft would be A001.

A. CHECKLIST FOR TYPE ACCEPTANCE

Date	Applicant	Aircraft	Inspector

	Task	Status
a	Application form complete and correct	Yes ☐ No ☐ NA ☐
b	Check all documents required under IS-21.15(b) are attached	Yes ☐ No ☐ NA ☐
c	Check the foreign Type Certificate for validity	Yes ☐ No ☐ NA ☐
d	Communicate to foreign TC holder	Yes ☐ No ☐ NA ☐
e	Technical documents received	Yes ☐ No ☐ NA ☐
f	Type training provided to both Airworthiness and Operations	Yes ☐ No ☐ NA ☐
g	AFM approved?	Yes ☐ No ☐ NA ☐
h	Airworthiness review template produced?	Yes ☐ No ☐ NA ☐
i	TAC form created and entered into the Register	Yes ☐ No ☐ NA ☐
j	Only the applied type included in the TAC?	Yes ☐ No ☐ NA ☐
k	Copy of TAC sent to NAA and applicant	Yes ☐ No ☐ NA ☐
l	Website updated	Yes ☐ No ☐ NA ☐
m	All documents filed including e-mails	Yes ☐ No ☐ NA ☐

APPENDIX E TAC APPLICATION FORM (CAASL/AW/A/005)

APPLICATION FOR TYPE ACCEPTANCE CERTIFICATE

ABOUT THIS APPLICATION FORM

Complete this form if the applicant is:

1) Seeking a Type Acceptance Certificate (TAC) for a type of aircraft not currently under Sri Lankan Register, or
2) Seeking an amendment of a TAC to add another model of the aircraft type.

This application is made up of four parts

Part - A; Applicant`s Details
Part - B; Aircraft Description
Part - C; Applicant's Declaration
Part - D; Submitting the Application

Submitting the application;

Send the application and required associated documents by post to:

The Director Aircraft Registration & Airworthiness
Civil Aviation Authority of Sri Lanka
152/1, Minuwangoda Road,
Katunayake
Sri Lanka
By fax: +94 11 2304694
By e-mail: daw@caa.lk

What is a Type Acceptance Certificate (TAC) and do I need one?

When a new type and model of imported aircraft which is not already in the Sri Lanka Civil Aircraft Register has been accepted in Sri Lanka, the Civil Aviation Authority issues a TAC. Individual examples of the type and model of aircraft are then eligible for issuance of certificates of airworthiness in the category nominated in the TAC. If you wish to introduce a type and model of aircraft new to Sri Lanka, you should apply to CAASL for the issuance of a TAC.
CAASL is able to issue a TAC if the subject aircraft type has been issued a valid Type Certificate (TC) in accordance with IS 21.012.A. TAC is issued in respect of an aircraft type but there is no holder of the TAC. The applicant for the TAC will be provided with a copy of the TAC.

Part A - Applicant`s Details

The name, address and contact details should be adequate for enquiries from CAASL about the aircraft nominated on the application.

Identification – Individuals must provide the following documentation as proof of identity, unless the documentation has previously been supplied to the CAASL or the nominee is the holder of a valid license
Issued by CAASL. Company`s must provide the company`s name as registered in Sri Lanka. For foreign applicants, please provide a copy of your nationally recognized registration record. Proof

of identity includes National ID card for Sri Lankans and passport for foreigners.

Part B – Aircraft Description

The applicant must also support your application by supplying all the documents required by IS 21.15 (b). and must nominate the airworthiness category or categories in which you want Sri Lanka certificates of airworthiness to be issued. (This will normally be the category or categories nominated on the foreign TC).

Part C – Applicant's Declaration

By signing the Declaration, the Applicant indicates to the CAASL that he/she has read guidelines, completed the application in full, supplied proof of identification and accepted the terms and conditions for processing the application. This application must be signed by the applicant (s).

Part D – Submitting your application

This section provides information for submitting your application.

If you have any questions regarding this application or require further information on TAC approvals, please contact the CAASL by email at daw@caa.lk

Part A - Applicant`s Details

A1

Are you an individual? Yes ☐ No ☐

If yes, Complete Part A2
If no, Complete Part A3
If you are a combination of the two, please complete both **Part A2** and **Part A3**

A2

Surname……..

Date of Birth……..

Given Names…….

Do you have a Sri Lankan License (E.g. Flight crew/AML/air traffic controller)?

☐ **Yes** **License number……**

☐ **No** **If No, Proof of ID/Passport must be attached with your application**

ID/Passport number……

A3

(a) Name of incorporated company or association

…….....
……...…….
…….…….
……...
……..

(b) Do you have a Sri Lankan AOC /IS 145 or 147 approval?

☐ **Yes; Approval no……**

☐ **No Provide proof of Company registration with your application**

A4

Provide the following contact details.

Business or Residential address

Permanent Address……...……
…….

Phone……...…Mobile……Facsimile…….…..

E-mail…….

A5

Please provide Contact details of your company if different from A2 and A4 in relation to this application?

Name (in full)……..

Contact Details:

Phone……Mobile……

Facsimile……

Email……...

Part B – Aircraft Description

B1

Aircraft Details

Type Certificate Holder…… Aircraft Manufacturer…….

Aircraft Model……

Country of Manufacture……...……... Type Certificate Number……

State of Design (if different with the country of manufacture) ……..……

Attach Type Certificate Data Sheet

☐ **Attached by email** ☐ **Attached a Paper Copy or**

URL Web address……

B2
Identify which airworthiness category (ies) should be nominated on the TAC.

Certificate of Airworthiness Category

☐ **Transport** ☐ **Normal** ☐ **Utility** ☐ **Normal (SFAR 41)**

☐ **Acrobatic** ☐ **Manned Free Balloon** ☐ **Commuter**

Special Class – Please specify eg. airship, tiltrotor……

Part C – Declaration

C1
Applicant Declaration

I hereby declare that the information provided in this application is true and correct.

Name…….

Signature……

Date……

Part D – Submitting Your Application

D1

After reviewing your application, CAASL will advise you if any more information is required.

Submit the completed Application to the CAASL.

By post to: Director Aircraft Registration & Airworthiness
Civil Aviation Authority of Sri Lanka
152/1, Minuwangoda Road,
Katunayake
Sri Lanka

By fax:011 2304694

By e-mail:daw@caa.lk

This completes your application

APPENDIX F TYPE ACCEPTANCE CERTIFICATE FORM (CAASL-AW-009)

CIVIL AVIATION AUTHORITY OF SRI LANKA

TYPE ACCEPTANCE CERTIFICATE

File Ref./ TAC No. :……..…....

Pursuant to Implementing Standard IS-21 Subpart B this certifies the acceptance of ……
……..……...ae ro planes.

The basis of certification is as prescribed in the Type Certificate Data Sheet No. ……... issued by the European Union Aviation Safety Agency/FAA.

Aircraft of the type and models covered by this certificate are eligible for Sri Lanka Certificates of Airworthiness in the Large Aero planes Category.

The certificate is valid until suspended or cancelled by the **Director General of Civil Aviation** Sri Lanka.

Director General of Civil Aviation and
Chief Executive Officer.

Date of Issue: .....

Stamp;

APPENDIX G TYPE ACCEPTANCE REPORT FORM (CAASL-AW-009R)

TYPE ACCEPTANCE REPORT

MANUFACTURER; XYZ - MODELS ;.....

EASA/FAA TYPE CERTIFICATE NO. EASA. XXXX

1. Introduction

This report details the basis on which Type Acceptance Certificate No. CAA-AW-009 was granted in the Large Aero planes Category in accordance with IS-21 Subpart B. Specifically it aims to:

a. Record the airworthiness certification standard used for type acceptance of the applicable model(s) in Sri Lanka

b. Summarize any outstanding requirements that must be complied with for the issue of a Sri Lanka Airworthiness Certificate to aircraft covered by the Type Acceptance Certificate.

2. Foreign Type Certificate

The certification basis of the (Manufacturer /model) is JAR 25 Change 13 except for some paragraphs at Change 14 depending on the variant. One exception was issued against CS 25.561 and a number of equivalent safety findings were made. Compliance was also required with several Special Conditions. Full details are listed in the EASA TCDS.

Type Certificate:	EASA/FAA.
Issued By:	European Union Aviation Safety Agency/FAA
Model:	…….
Engines:	……
MTOW:	Refer TCDS
Noise Certification:	EASA TCDSN No. EASA. XXXX FAA; XXXX

This is an acceptable type certification basis in accordance with IS-21.12 as JAR 25 is the basic standard for Large Aeroplanes Category called under IS-21.

There are no non-compliances and the CAASL has not prescribed any special conditions.

3. Type Acceptance Application

The application for type acceptance was made by (OEM name) on (date) on behalf of (Operator/Owner name).

Type acceptance was issued on (date). DD/MM/YYYY

4. Type Data

The type data requirements of IS-21.15(b) have been satisfied by the supply of the following documents:

21.15(b)	Requirement	Means of compliance
1	Type Certificate	EASA /FAA Type Certificate (number)
2	Airworthiness design requirements	In compliance with EASA/FAA design requirements acceptable to the CAA SL
3	TCDS	TCDS (number)
4	TCDSN	TCDSN (number)
5	Flight Manual	Access to all documents through (refer source) All publications are customized to the Operator. Note: EASA/FAA approved AFM is accepted by the CAASL.
6	Instructions for continuing airworthiness	
7	Parts catalogue	
8	Service documents	
9	Supply of data	
10	Type training	Refer (Operator/Owner commitment letter)

5. Additional CAASL Certification Requirements

a. Airworthiness Requirements
Additional airworthiness certification requirements are (not mandated/mandated by the CAASL for the model xxx)

Note: IS-66 type rating list should be updated to include the (model xxx).

b. Operational Requirements
(To be determined based on individual aircraft and/or operation.)

6. Summary

Type Acceptance Certificate File Ref./TAC No. XXX XX XXXX may be granted to the OEM XXX model XXX aircraft for the serial numbers listed in the EASA/FAA are now eligible for the issuance of a Sri Lanka Airworthiness Certificate in Aeroplanes Category in accordance with IS-21 Subpart H.

7. Sign-off;

…….
Authorized Inspector/SCAIAW *Date:* DD/MM/YYYY

Name:…….

APPENDIX H APPLICATION FOR ENGINEERING CHANGE ORDER (CAASL/AW/A/007)

CIVIL AVIATION AUTHORITY SRILANKA

APPLICATION FOR ENGINEERING CHANGE ORDER

1. Name of Organization / Operator: ……..……

   ……..……..…

2. Subject…….…

   ……..……..…

3. ECO NO. & Date: ……..…..…

4. Issue/ Revision No: ……..…….……

5. Total pages of ECO: ……..…

6. Drawing No: ……..……

7. ATA Chapter: ……..……

8. Affectivity: ……..……

9. Reasons: ……..…

   ……...

   ……..…...

10. Manufacture's Comments (if any):

    ……..…

    ……..…….

11. Description: ……..……..

12. Bill of Work: ……

13. Compliance Status: ……

14. Aircraft Down Time: ……...……

15. Weight & Balance Change: ……..…

16. Total Man-hour Required: ……...……

17. Electrical load change: ……

18. Special Tooling, if required (give list of details): ……..…...

……..….

19. Structural stress analysis: ……..……

……..….

20. Prepared by:

20.1. Signature: ……...

20.2. Name: …….

20.3. Designation: ……...

20.4. Date: ……..

21. Checked by;

21.1. Signature: ……...

21.2. Name: …….

21.3. Designation: ……...

21.4. Date: ……

22. Signature of applicant:

22.1. Signature: ……...

22.2. Name: …….

22.3. Designation: ……...

22.4. Date: ……

23. Airworthiness Section Comments: …….……...

……..…

……..……

……..……

24. Signature: ……

24.1. Name: ……

24.2. Designation: ……

24.3. Date: ……

APPENDIX I THE CONTENTS OF THE ENGINEERING CHANGE ORDER (ECO)

The Airworthiness Section shall review the operator's ECO prepared in accordance with this contents list in order to check adequate coverage of following items and to issue a unique number for the Modification and Repairs.

(a) The Title page application is properly filled and signed by operator. All the pages of the ECO bear page and ECO number in the top right hand column as:

ECO Number
Issue number
Date
Page Number as "------of------"
Type of the aircraft
ATA chapter reference

(b) SUBJECT/TITLE: -
This item in the ECO shall have the title of the ECO, indicating Type of the aircraft and /or ATA Chapter

(c) BACKGROUND/DESCRIPTION:
Under this heading background details pertaining to this request for ECO are presented briefly that why operator is raising this ECO. What is to be accomplished on the aircraft

d) REFERENCES
Listing of references related to ECO is given under this item.

(e) PUBLICATIONS AFFECTED
Listing of all affected pages, figures, drawings (WDM, IPC etc) Part number or quantity changes if any Configuration drawing changes, if any

(f) ACTION
The actions, which are required to be taken by the operator for incorporation of this ECO, are given under this heading.

(g) EFFECTIVELY
The Registration Number of the affected aircraft by this ECO is given under this heading as: -

AP-XXX and /or
MSN (Manufacturer Serial Number).

(h) REASON

Reason for the ECO, which may be either of these:
Airworthiness/ safety requirement
Standardization
Improvement in reliability
Operator's internal requirement, Improvement in Economics,
Obsolescence.

(i) APPROVAL

This should contain the statement of the airworthiness approvals of the Engineering content, or part thereof, from any other regulatory agency (such

as FAA, EASA etc) as applicable. This part will include a formal request from the DGCA to approve this ECO.

(j) MANPOWER

This item presents details of the Manpower required to accomplish the ECO on aircraft such as:
Number of Engineers,
Number of Technicians etc.
Total man-hours and
elapsed time.

(k) MATERIAL & AVAILABILITY

Material required and its Availability details.

(l) SPECIAL TOOLS

Special Tools required for accomplishment of this ECO (if applicable.

(m) WEIGHT & BALANCE

Weight and Balance Changes created by this ECO are given under this item

(n) ELECTRICAL LOAD CHANGES

Electrical Load increases or decreases are given in Watts or Kilowatts for DC and KVA for AC.

(o) STRUCTURE STRESS ANALYSIS

Structure Stress Analysis is given, if applicable

(p) MATERIAL INFORMATION

All kits, material required is tabulated along-with part no and quantity required per aircraft. Any disposition of old parts such as re-work, modification or discard is to be mentioned as well.

(q) ACCOMPLISHMENT INSTRUCTIONS

Step by step procedure for accomplishment of the engineering changes is given under this heading. Check for proper reference to attached ECO Drawings and Figures.

(r) ENGINEERING DRAWINGS

Numbers of the Engineering drawings being used in this ECO are given here. Review the ECO Engineering Drawings for adequacy of incorporation on aircraft.

APPENDIX J APPLICATION FOR A REPAIR DESIGN ACCEPTANCE FORM (CAASL/AW/A/012)

CIVIL AVIATION AUTHORITY OF SRI LANKA

APPLICATION FOR A REPAIR DESIGN ACCEPTANCE

Notes for completing this form

1. The completed application and supporting documentation, should be Sent to: Director General of Civil Aviation
   No. 152/1, Minuwangoda Road
   Katunayake
   Sri Lanka

   E-mail: sldgca@ caa.lk
   Fax : +94 112 2440231

2. Fees Payable shall be in accordance with published fees levied by Civil Aviation Authority of Sri Lanka.- (Refer CAASL website: www.caa.lk).

01	Design Organization Organization's Repair Reference No Design Organization Approval Ref	: : :	
02	Aircraft Type Registration Marks Owner	: : :	
03	Brief description of Damage (to include photographs or diagrams)	:	
04	Repair Area Reference Numbers (in accordance with guidelines of manufacturer and attach relevant SRM/IPC chapters)	:	
05	Airworthiness Requirements Affected	:	
06	Brief Description of Repair (to attach details and substantiation)	:	MAJOR/MINOR
07	Description of Follow-up Action After Repair (e. g. inspections, replacement of parts, other permanent repairs)	:	TEMP/PERM

08 Document affected. (SRM, Flight Manual, Maintenance Schedule etc. Particulars of changes to be attached.)	1)				
	2)				
	3)				
	4)				
09) Weight and Balance Change	☐ No	☐ Yes Weight Moment	Original	New	% Change

I have reviewed all the substantiation documents submitted herewith and found them to be complete and in order.

…… …….. ...……..
Date Name & Designation of Applicant Signature

Notes

(1) This form (in duplicate) must be submitted with one complete set of approved documents and a covering Letter. An incomplete submission may delay the acceptance of the repair.

(2) The evaluation time can be reduced if the applicant, before submitting the application keeps DGCA informed early the extent of damage, repair assessment and progress of the repair. Applicant is advised to provide periodic and timely progress updates and discussions with DGCA.

FOR OFFICIALUSE ONLY

Received : ……. …….. Date Name & Sign	Accepted by : …….. …… Date For DGCA
CAASL Approval Reference :	

APPENDIX K APPLICATION FOR A MODIFICATION ACCEPTANCE CAASL/AW/A/010

CIVIL AVIATION AUTHORITY OF SRI LANKA
APPLICATION FOR A MODIFICATION ACCEPTANCE

Note: If additional space is required for any item, attached additional sheets.

Notes for completing this form

1. The completed application and supporting documentation should be sent to:

   Director General of Civil Aviation
   152/1, Minuwangoda Road,
   Katunayake, Sri Lanka.

   E-mail: sldgca@caa.lk
   Fax : +94 112 2440231

2. Fees Payable shall be in accordance with published fees levied by Civil Aviation Authority of Sri Lanka. - (Refer CAASL website: www.caa.lk).

01	Aircraft Type Registration Marks	
02	Owner of Aircraft Organization carrying out the modification	
03	Component Name Component Part / Serial No	
04	Reason for Modification	
05	Brief Description of Modification	
06	Approved Design Organization Modification Reference No.	

Documents affected		Certificate of Airworthiness		Electrical Load Analysis
		Flight Manual		Wiring Diagram Manual
		Maintenance Program		Radio Station License

(Particulars of changes to be attached)		Maintenance Manual		Parts Manual	
		Structural Repair Manual		Weight and Balance Report	
		Compass Log		Others(to specify)	

Weight and Balance Change	☐ No	☐ Yes		Original	New	% Change
			Weight			
			Moment			

I have reviewed all the substantiation documents submitted herewith and found them to be complete and in order.

___/___/_____ _____ _____

Date Name & Designation of Applicant Signature

Notes

(1) This form (in duplicate) must be submitted with one complete set of approved documents and a covering Letter. An incomplete submission may delay the acceptance of the modification.

(2) If the modification is complex (e.g. involving an STC) or uncommon the applicant is advised to inform and involve CAASL at an early stage by first submitting a letter of intent, the test schedule and any available test plans, followed on with periodic updates and discussions. DGCA may require to witness the tests as part of the process to accept the modification.

FOR OFFICIALUSE ONLY

Received:	Accepted by :
_____ Name & Sign	_____ For DGCA
___/___/_____ Date	___/___/_____ Date

DGCA Approval Reference :