REPUBLIC OF MAURITIUS

DEPARTMENT OF CIVIL AVIATION

Sir Seewoosagur Ramgoolam International Airport, Plaine Magnien

MAURITIUS CIVIL AVIATION REQUIREMENTS

MCAR PART-21

CERTIFICATE OF PRODUCTS AND ARTICLES AND OF DESIGN AND PRODUCTION ORGANISATION

ISSUE 3 | REV 0

20 August 2024

FORWARD

Regulation 14 of the Civil Aviation Regulations stipulates that there shall be a Certificate of Airworthiness for operation of aircraft in Mauritius. The prerequisite to this Regulation is to have a type certificate validated or accepted by the Authority in accordance with Regulation 13.

MCAR-Part-21 prescribes procedural requirements for acceptance of type certificates and changes to these certificates, issue of certificate of airworthiness, issue of noise certificate and issue of export airworthiness certificate. It covers matters related to design, manufacture and all other issues related to airworthiness including continued airworthiness, repairs, etc. MCAR-Part-21 also contains requirements for approval of design and production organisations as per the provisions of Regulation 12.

This Mauritius Civil Aviation Requirements MCAR-Part-21 Issue 03 Rev 00 is issued under the provisions of Regulation 135 of the Civil Aviation Regulations and will replace the requirements prescribed in Mauritius Civil Aviation Requirements issue 2 dated 17 July 2015 by the effective date, 20 August 2024.

Operators are required to implement the MCAR-Part-21 requirements and to fully comply as of 20 August 2024.

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Director of Civil Aviation

RECORD OF REVISIONS

REV NO.	DATE	INSERTED BY
Issue 1	21 March 2008	DCA
Issue 2	22 July 2013	DCA
Issue 3	20 August 2024	DCA

NOTE

The content of this document is arranged as follows:

The main requirements appear first, followed by the related acceptable means of compliance (AMC) and guidance material (GM) paragraph(s).

All elements (i.e. requirement, AMC and GM) are colour-coded and can be identified according to the illustration below:

Requirements

Acceptable means of compliance

Guidance Material

TABLE OF CONTENT

ABBREVIATIONS

AFM	Aircraft flight manual
AMC	Acceptable means of compliance
APU	Auxiliary power unit
CEO	Chief executive officer
CMR	Certification maintenance requirement
CofA	Certificate of airworthiness
CRI	Certification review item
CS	Certification specification
CS-CCD	Certification Specifications for Cabin Crew Data
CS-FCD	Certification Specifications for Operational Suitability Data (OSD) Flight Crew Data
CS-GEN-MMEL	Certification Specifications for Generic Master Minimum Equipment List
CS-MMEL	Certification Specifications for Master Minimum Equipment List
CS-MCSD	Certification Specifications for Maintenance Certifying Staff Data
CS-SIMD	Certification Specifications for Simulator Data
DAH	Design approval holder
DO	Design organisation
DOA	Design organisation approval
EDTO	Extended diversion time operation
ELOS	Equivalent level of safety
ESF	Equivalent safety finding
ETSO	European technical standard order
FOD	Foreign object damage
HDO	Head of the design organisation
ICAO	International Civil Aviation Organization
ICA	Instructions for continued airworthiness
OP	Other party
OSD	Operational suitability data

PAH	Production approval holder
PO	Production organisation
POA	Production organisation approval
POATL	Production organisation approval team leader
POE	Production organisation exposition
GM	Guidance material
MoC	Means of compliance
RTC	Restricted type certificate
SC	Special condition
SMS	Safety management system
STC	Supplemental type certificate
TC	Type certificate
TCDS	Type certificate data sheet

GENERAL REQUIREMENTS

MCAR 21.1 General

For the purpose of these Requirements, the Authority shall be:

1. for organisations having their principal place of business in Mauritius, the Authority, or;

2. for organisations having their principal place of business located in a third country, seeking an MCAR-PART-145 approval, the Authority.

SECTION A

TECHNICAL REQUIREMENTS

MCAR 21.2 Scope

This requirement establishes the general rights and obligations of the applicant for, and holder of, any certificate/approval that has been issued or is to be issued in accordance with this Requirement.

MCAR 21.A.2 Undertaking by another person than the applicant for, or holder of, a certificate

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

MCAR 21.A.3A Reporting System

a) all natural or legal persons that have applied for or hold a type-certificate, restricted type-certificate, supplemental type-certificate, European Technical Standard Order (ETSO) authorisation, major repair design approval or any other relevant approval deemed to have been issued under this Requirement shall:

1. establish and maintain a system for collecting, investigating, and analysing occurrence reports in order to identify adverse trends or to address deficiencies and to extract occurrences whose reporting is mandatory in accordance with point 3 and those which are reported voluntarily. The reporting system shall include:

(i) reports of and information related to failures, malfunctions, defects or other occurrences which cause or might cause adverse effects on the continuing airworthiness of the product, part or appliance covered by the type-certificate, restricted type-certificate, supplemental type-certificate, ETSO authorisation, major repair design approval or by any other relevant approval deemed to have been issued under this Regulation;

(ii) errors, near misses and hazards that do not fall under point (i).

b) Any natural or legal person that holds or has applied for a production organisation approval certificate under Subpart G of this Section, or that produces a product, part or appliance under Subpart F of this Requirement, shall:

1. establish and maintain a system for collecting and assessing occurrence reports, including reports on errors, near misses and hazards, in order to

identify adverse trends or to address deficiencies and extract occurrences whose reporting is mandatory in accordance with points 2 and 3 and those which are reported voluntarily.;

2. Report to the responsible design approval holder all the cases where products, parts or appliances have been released by the production organisation and possible deviations from the applicable design data have been subsequently identified, and investigate with the design approval holder to identify those deviations which could lead to an unsafe condition;

3. Report to the Authority the deviations that have been identified in accordance with point 21.A.3A(b)2 and which could lead to an unsafe condition;

4. if the production organisation acts as a supplier to another production organisation, also report to that other organisation all the cases where it has released products, parts or appliances to that organisation and possible deviations from the applicable design data have been subsequently identified.

c) Any natural or legal person, when reporting in accordance with points (a)(3), (b)(2), (b)(3) and (b)(4), shall appropriately protect the confidentiality of the person who reports and of the person(s) mentioned in the report.

d) Any natural or legal person shall make the reports referred to in points (a)(3) and (b)(3) in a form and manner established by the Authority or the competent authority, respectively, and dispatch them as soon as practicable and in any case not later than 72 hours after the natural or legal person has identified that the occurrence may lead to a possible unsafe condition, unless exceptional circumstances prevent this

e) If an occurrence reported under point (a)(3) or under point (b)(3) results from a deficiency in the design or a production deficiency, the holder of the type-certificate, restricted type-certificate, supplemental type-certificate, major repair design approval, ETSO authorisation or any other relevant approval deemed to have been issued under this Regulation, or the production organisation as appropriate, shall investigate the reason for the deficiency and report to the competent authority of the Member State responsible in accordance with point 21.1 and to the Authority the results of its investigation and any action it intends to take or proposes to be taken to correct that deficiency.

f) If the competent authority finds that action is required to correct the deficiency, the holder of the type-certificate, restricted type-certificate, supplemental type-certificate, major repair design approval, ETSO authorisation or any other relevant approval deemed to have been issued under this Regulation, or the production organisation as appropriate, shall submit the relevant data to the competent authority upon its request.

GM1 21.A.3A Reporting system

Point 21.A.3A lays down requirements for the mandatory reporting of events to the competent authority, in view of performing the necessary activities linked to the continued airworthiness of aircraft, parts, and appliances.

For Part 21 design organisations (DOs) and production organisations (POs), the reportability criteria (i.e. a potential unsafe condition) are the same as the ones laid down by Civil Aviation Regulations.

Any natural or legal person who has more than one role subject to the obligation to report may discharge all those obligations through a single report. Organisations are encouraged to properly describe this in their organisation manual, to address cases in which the responsibilities are discharged on behalf of the organisation.

AMC1 21.A.3A(a) Reporting system

COLLECTION, INVESTIGATION, AND ANALYSIS OF EVENTS

In the context of the following AMC and GM to point 21.A.3A, the term ‘event’ refers to any failure, malfunction, defect, error, near miss, hazard identification, incident, accident, or other occurrence that is subject to a reporting system.

The ‘collection’, ‘investigation’, and ‘analysis’ functions of the system should include means:

- to analyse events and related available information;
- to identify adverse trends; — to investigate the associated root cause(s); and
- to determine any necessary corrective action.

It should also allow the determination of reportable occurrences as required by point 21.A.3A(a)(3) or 21.A.3A(b)(3), as applicable.

In addition, for parts whose failure could lead to an unsafe condition, the ‘analysis’ function of the system should ensure that reports and information sent, or available, to the design approval holder (DAH) are fully investigated so that the exact nature of any event and its effect on continuing airworthiness is understood. This may then result in changes to the design and/or to the instructions for continued airworthiness (ICA), and/or in establishing a mitigation plan to prevent or minimise the possibility of such occurrences in the future, as necessary. The ‘analysis’ is not limited to those occurrences that require the involvement under point 21.A.3A(e).

AMC2 21.A.3A(a) Reporting system

COLLECTION, INVESTIGATION, AND ANALYSIS OF DATA RELATED TO FLAMMABILITY REDUCTION MEANS (FRM) RELIABILITY

Holders of a TC, an RTC, an STC, or any other relevant approval that is deemed to have been issued under Part 21, which have included an FRM in their design, should continuously assess the effects of aeroplane component failures on FRM reliability.

This should be part of the system for the collection, investigation, and analysis of data, which is required by point 21.A.3A(a). The applicant/holder should therefore:

(a) demonstrate effective means to collect FRM reliability data; those means should provide data that affect FRM reliability, such as component failures;

(b) unless alternative reporting procedures are approved, submit a report to the Authority every 6 months for the first 5 years after service introduction; after that period, continued reporting every 6 months may be: — replaced with other FRM reliability tracking methods that are deemed acceptable by Authority; or — eliminated if it is established that the FRM reliability meets, and will continue to meet, the exposure specifications in paragraph M25.1 of Appendix M to the Certification Specifications for Large Aeroplanes (CS-25); and

(c) develop service instructions or revise the applicable aeroplane manual, according to a schedule that is approved by Authority, to correct any failures of the FRM that occur in service, which could increase any fuel tank's fleet average flammability exposure.

AMC3 21.A.3A(a) Reporting system

COLLECTION, INVESTIGATION, AND ANALYSIS OF DATA RELATED TO EDTO-SIGNIFICANT OCCURRENCES

(a) Holders of a TC, an RTC, an STC, or any other relevant approval that is deemed to have been issued under Part 21 and includes extended diversion time operation (EDTO) capability should implement a specific tracking, reporting, and resolution system for EDTO-significant occurrences. That system should be suitable to ensure the initial and continued fleet compliance with the applicable EDTO reliability objectives, and be part of the system for the collection, investigation, and analysis of data, which is required by point 21.A.3A(a).

Appropriate coordination should exist between the engine TC holder, the propeller TC holder, the auxiliary power unit (APU) ETSO authorisation holder, and the aircraft TC holder, to ensure compliance with the EDTO reliability objectives.

(b) For the tracking, reporting, and resolution of EDTO-significant occurrences, refer to the latest edition of AMC 20-6 of the 'General Acceptable Means of Compliance for Airworthiness of Products, Parts and Appliances' (AMC-20).

GM1 21.A.3A(a) and 21.A.3A(b) Reporting system

GENERAL — COLLECTING SYSTEM

The term 'collection' means the setting up of systems and procedures that will enable relevant failures, malfunctions, and defects, or other occurrences, to be properly collected when they occur.

As the collection system needs to accept reports that originate outside the organisation (from operators, maintenance organisations, suppliers, etc.), it is necessary to inform possible reporters of the existence of the system and of the appropriate means to

introduce reports into it. This does not presume that direct access to the system is to be granted if other mechanisms are more appropriate.

The collection system should also ensure the collection, through an internal reporting scheme, of internal errors, near misses, and hazards that are perceived by the reporter as an actual or potential aviation safety risk.

Considerations for the collection of information related to events should include the following:

- The analysis of failure rates;
- The early rejection of parts from service; and;
- Comparison with the certification assumptions.

GM1 21.A.3A(a)(1) and (b)(1) Reporting System

EVENTS REPORTED VOLUNTARILY TO THE ORGANISATION

A natural or a legal person (including organisations that are not approved by a Authority) may voluntarily report to an organisation any event that is perceived by that person as posing an actual or potential hazard to aviation safety.

Voluntary reports may be originated by:

(a) Any persons; or

(b) an organisation, if such organisation cannot determine whether the event should be mandatorily reported.

Example

A maintenance staff member in a maintenance organisation is reporting to their maintenance organisation a perceived design issue that is not covered bythe Regulations. The maintenance organisation should make a final assessment of the voluntary report and if it assesses that the reported event ‘may involve an actual or potential aviation safety risk’, then it should mandatorily report it to the TC holder, the Authority, etc.,. If the maintenance organisation cannot determine whether a safety risk exists (due to lack of competence, lack of data, etc.), it could voluntarily report the event to the TC holder for further assessment.

GM2 21.A.3A(a)(1) and (b)(1) Reporting system

INTERNAL SAFETY REPORTING SCHEME

The internal safety reporting scheme is part of the overall collection system. The objective of this GM

is to provide specific guidance on the internal safety reporting scheme only.

(a) The overall objectives of the internal safety reporting scheme are:

- to collect information that is reported by the organisation staff; and

- to use that reported information to improve the safety of operations,

in conjunction with the safety management elements that are defined in points 21.A.139 and

21.A.239. Each internal safety reporting scheme should include provisions for confidentiality and enable and encourage free and frank reporting of events, as those listed in points 21.A.3A(a)(1)(i) and (ii). This is facilitated by establishing a 'just culture'.

(b) The specific objectives of the scheme are to:

(1) enable an assessment of the safety implications of each relevant event that is reported, including previous similar events, so that any necessary action can be initiated; and

(2) ensure that lessons from relevant events are shared so that other persons and parts of the organisation may learn from them.

(c) The scheme is an essential part of the overall management system and should be complementary to routine procedures and 'control' systems; it is not intended to duplicate or supersede any of them. The scheme is a tool to identify those instances in which routine procedures have failed or may fail.

(d) All safety-related reports should be retained as the significance of such reports may only become obvious later.

(e) The collection and analysis of timely, appropriate, and accurate data will allow the organisation to react to the information that it receives and to take necessary action.

GM1 21.A.3A(a)(3), 21.A.3A(b)(3) and 21.A.3A(d) Reporting system

REPORTING TO THE AUTHORITY — GENERAL

(a) The reference to 'is aware of an occurrence' implies that the organisation identifies the event as one that falls into the category of occurrences to be reported — usually when the organisation determines that the event is reportable. The 72-hour period starts when the possible unsafe condition is identified.

(b) AMC-20 provides further details on occurrence reporting (AMC 20-8) and also applies to organisations that are approved under Part 21 and do not have their principal place in Mauritius.

(c) Point 21.A.3A(a)(3) requires the reporting of occurrences that may result in an unsafe condition. GM1 21.A.3B(b) 'Failures, malfunctions and defects — Determination of an unsafe condition' could be used to assist in that determination.

AMC1 21.A.3A(e) Reporting System

FOLLOW-UP TO, AND CLOSURE OF, REPORTED OCCURRENCES

(a) The organisation should transmit the following information to the Authority within 30 days from the date of notification of the occurrence to the competent authority:

(1) the latest position of the design organisation (DO) as to whether an unsafe condition is confirmed;

(2) the results of the analysis and of the first investigation — including the cause(s) of the occurrence, if known; and

(3) the measures it has taken, intends to take, or proposes to be taken, including:

(i) containment measures that have already been defined by the reporting organisation and put in place (if any) ; and

(ii) in the case of reports made by the DO, for unsafe conditions, a risk assessment supporting that the product can be operated safely (see GM 21.A.3B(d)(4)) until the corrective action is defined and implemented, or that immediate mitigation measures need to be implemented until a more refined risk assessment can be provided.

Organisations are encouraged to provide a complete analysis and follow-up as soon as available and, in principle, no later than 3 months after the occurrence notification. It is recognised that analysing an occurrence may take longer than 3 months, especially if the investigation is complex or where the services of a special investigator are required.

The requirements for follow-up are not intended to jeopardise the quality and thoroughness of an occurrence analysis. It may be detrimental to safety if the analysis is completed in a rush within the encouraged 3-month period without properly establishing the root cause(s), making a risk assessment, and determining whether remedial action is required.

The design approval holder (DAH) and the production approval holder (PAH) should cooperate, as necessary, to ensure that any corrective action can be implemented. In addition, affected organisations are expected to cooperate under their respective regulatory framework from the reporting of an occurrence until its closure, to ensure complete results.

The final (close-out) report should include:

- the final DAH position as to whether an unsafe condition exists;

- the results of the occurrence analysis and of the final investigation, including the cause(s) of the occurrence;

- any corrective and preventive action by the reporting organisation; and

- in the case of reports made by the DO, a risk assessment supporting that those corrective and preventive measures allow the product to be operated safely (see GM 21.A.3B(d)(4)).

(b) Notwithstanding point (a), when the organisation identifies that no unsafe condition exists as a result of its analysis of a voluntarily reported occurrence, it can delay further communication to the competent authority up to the issuance of the final report and report the occurrence as closed upon issue (data exchange). In such cases, no follow-up report should be submitted. The final report to the Authority should include confirmation and justification that no unsafe condition exists. The organisation is requested to provide information on the cause(s) of the occurrence and on any corrective or preventive action that was taken by the organisation.

This way of reporting should not be understood as an accepted deviation from the requirements of Part 21. If at any stage during the investigation, the organisation identifies that a possible unsafe condition exists, this should be communicated to the Authority via a mandatory report within 72 hours.

MCAR 21.A.3B Airworthiness Directives

(a) An airworthiness directive means a document issued or adopted by the Authority 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 Authority shall issue an airworthiness directive when:

1. an unsafe condition has been determined by the Authority to exist in an aircraft, as a result of a deficiency in the aircraft, or an engine, propeller, part or appliance installed on this aircraft; and

2. that condition is likely to exist or develop in other aircraft.

(c) When an airworthiness directive has to be issued to correct the unsafe condition referred to in point (b), or to require the performance of an inspection, the holder of the type certificate, restricted type certificate, supplemental type certificate, major repair design approval, ETSO authorisation or any other relevant approval deemed to have been issued under this Regulation, shall:

1. propose the appropriate corrective action or required inspections, or both, and submit details of these Authority for approval;

2. following the approval by the Authority of the proposals referred to under point (1), make available to all known operators or owners of the product, part or appliance and, on request, to any person required to comply with the airworthiness directive, appropriate descriptive data and accomplishment instructions.

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

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

MCAR-21. A.03

(a) The continuing airworthiness of aircraft and components shall be ensured in accordance with the provisions of MCAR-Part-M;

(b) Organisations and personnel involved in the continuing airworthiness of aircraft and components, including maintenance, shall comply with the provisions of MCAR-Part-M and where appropriate those specified in MCAR-A.04 and MCAR-A.05.

(c) By derogation from paragraph 1, the continuing airworthiness of aircraft holding permit to fly shall be ensured on the basis of the specific continuing airworthiness arrangements as defined in the permit to fly issued in accordance with the MCAR-Part-21.

AMC1 21.A.3B(B) Failures, Malfunctions and Defects

UNSAFE CONDITION

An unsafe condition exists if there is factual evidence (from service experience, analysis or tests) that:

(a) An event may occur that would result in fatalities, usually with the loss of the aircraft, or reduce the capability of the aircraft or the ability of the crew to cope with adverse operating conditions to the extent that there would be:

(i) A large reduction in safety margins or functional capabilities, or;

(ii) Physical distress or excessive workload such that the flight crew cannot be relied upon to perform their tasks accurately or completely, or

(iii) Serious or fatal injury to one or more occupants unless it is shown that the probability of such an event is within the limit defined by the applicable certification specifications, or

(b) There is an unacceptable risk of serious or fatal injury to persons other than occupants, or

(c) Design features intended to minimise the effects of survivable accidents are not performing their intended function.

Note 1: Non-compliance with applicable certification specifications is generally considered as an unsafe condition, unless it is shown that possible events resulting from this non-compliance do not constitute an unsafe condition as defined under paragraphs (a), (b) and (c).

Note 2: An unsafe condition may exist even though applicable airworthiness requirements are complied with.

Note 3: The above definition covers the majority of cases where the Authority considers there is an unsafe condition. There may be other cases where overriding safety considerations may lead the Authority to issue an airworthiness directive.

Note 4: There may be cases where events can be considered as an unsafe condition if they occur too frequently (significantly beyond the applicable safety objectives) and could eventually lead to consequences listed in paragraph (a) in specific operating environments. Although having less severe immediate consequences than those listed in paragraph (a), the referenced events may reduce the capability of the aircraft or the ability of the crew to cope with adverse operating conditions to the extent that there would be, for example, a significant reduction in safety margins or functional capabilities, a significant increase in crew workload, or in conditions impairing crew efficiency, or discomfort to occupants, possibly including injuries.

MCAR 21.A.4 Coordination between Design and Production

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

(a) the satisfactory coordination of design and production required by 21.A.122, 21.A.130(b)(3) and (4), 21.A.133 and 21.A.165(c)(2) and (3) as appropriate; and

(b) the proper support of the continued airworthiness of the product, part or appliance.

AMC 21.A.4 Transferring of information on eligibility and approval status from the design holder to production organisations

Where there is a need to provide (normally outside the design organisation) a visible statement of approved design data or airworthiness, operational suitability or environmental protection data associated with the approved design data, the following minimum information must be provided. The need for a visible statement may be in relation to Company holding a production organisation approval (POA) in relation to 21.A.163(c).

The procedures related to the use of forms or other electronic means to provide this information must be agreed with the Authority.

Information to be provided:

Company Name: the name of the responsible design organisation (TC, STC, approval of repair or minor change design, ETSO authorisation holder) issuing the information.

Date: the date at which the information is released.

Eligibility: indicate the specific products or articles, in case of ETSO authorisation, for which data have been approved.

Identification: the part number of the part or appliance. Preference should be given to the use of the Illustrated Parts Catalogue (IPC) designation. Alternatively the reference to the instruction for continued airworthiness (e.g., SB, AMM, etc.) could be stated. Marking requirements of Part 21 Section A Subpart Q should be taken into account.Description: the name or description of the part or document should be given. In the case of a part or appliance preference should be given to use of IPC designation. The description is to include reference to any applicable ETSO authorisation or EPA marking, or previous national approvals still valid.

Purpose of data: the reason for the provision of the information should be stated by the design approval holder.

Examples:

(a) Provision of approved design data to a production organisation to permit manufacture (AMC No 1 to 21.A.133(b) and (c));

(b) Information regarding eligibility for installation (replacement parts, repair, modification, etc.

(c) Direct Delivery Authorisation (AMC No 1 to 21.A.133(b) and (c)) If the data is in support of a change or repair, then reference to the aircraft level approval should be given (make reference to the approved STC, change or repair).

Limitations/Remarks: state any information, either directly or by reference to supporting documentation that identifies any particular data or limitations (including specific importing requirements) needed by a production organisation to complete Block 12 of the DCA Form 1 or regulation Form 1.

Approval: provide reference information related to the approval of the data.

Authorised signature: name and hand-written normal or electronic signature of a person who has written authority from the design organisation, as indicated in the procedures agreed with the Authority.

MCAR 21.A.5 Record-keeping

All natural or legal persons that hold or have applied for a type-certificate, restricted type-certificate, supplemental type-certificate, ETSO authorisation, design or repair approval, permit to fly, production organisation approval certificate or letter of agreement under this Regulation shall:

(a) when they design a product, part or appliance or changes or repairs thereto, establish a recordkeeping system and maintain the relevant design information/data; that information/data shall be made available to the Authority in order to provide the information/data that is necessary to ensure the continued airworthiness of the product, part or appliance, the continued validity of the operational suitability data, and compliance with the applicable environmental protection requirements;

(b) when they produce a product, part or appliance, record the details of the production process relevant to the conformity of the product, part or appliances with the applicable design data, and the requirements imposed on their partners and suppliers, and make that data available to their competent authority in order to provide the information that is necessary to ensure the continuing airworthiness of the product, part or appliance;

(c) with regard to permits to fly:

1. maintain the documents that are produced to establish and justify the flight conditions, and make them available to the Authority and to their competent authority of the Member State in order to provide the information that is necessary to ensure the continued airworthiness of the aircraft;

2. when they issue a permit to fly under the privilege of approved organisations, maintain the documents associated with it, including inspection records and documents that support the approval of the flight conditions and the issuance of the permit to fly itself, and make them available to the Authority and to their competent authority of the Member State responsible for the oversight of the organisation in order to provide the information that is necessary to ensure the continued airworthiness of the aircraft;

(d) retain records of the competence and qualifications, referred to in points 21.A.139(c), 21.A.145(b), 21.A.145(c), 21.A.239(c), 21.A.245(a) or 21.A.245(e)(1), of the personnel that are involved in the following functions:

1. design or production;
2. independent monitoring of the compliance of the organisation with the relevant requirements; 3. safety management;

(e) retain records of the authorisation of personnel, when they employ personnel that:

1. exercise the privileges of the approved organisation pursuant to points 21.A.163 and/or 21.A.263, as appropriate;
2. carry out the independent function to monitor the compliance of the organisation with the relevant requirements pursuant to points 21.A.139(e) and/or 21.A.239(e), as appropriate;
3. carry out the independent verification function of the demonstration of compliance pursuant to point 21. A.239(d)(2).

AMC1 21.A.5 Record-keeping

GENERAL

(a) The record-keeping system should ensure that all the records that are required by point 21.A.5 are accessible within a reasonable time. Those records should be organised in a manner that ensures their traceability and retrievability throughout the required retention period.

(b) The records should remain legible throughout the required retention period and be protected against damage, alteration, and tampering.

(c) The format of the records should be specified in the organisation's procedures.

(d) The organisation should ensure that copies of all the documents and supporting information that are developed:

(1) under the privileges that are defined under points 21.A.163 and 21.A.263; or

(2) for type certificates (TCs), restricted type certificates (RTCs), supplemental type certificates (STCs), major changes, and major repairs that are not issued under the privileges that are defined under point 21.A.263,are retained throughout the operational life of the product or part.

(e) The retention period starts when the record is created or when it is last amended. If the organisation transfers a certificate or a letter of agreement to another natural or legal person, the records related to the certificate or to the letter of agreement should be transferred to the new holder.

GM1 21.A.5 Record-Keeping

GENERAL

For organisations that hold or have applied for a type certificate (TC), restricted type certificate (RTC), supplemental type certificate (STC), a European technical standard order (ETSO) authorisation, a change to the TC approval, a repair design approval, a permit to fly, a production organisation approval (POA), or a letter of agreement under Part 21, the relevant design information/data includes at least the following, as applicable:

- design data such as type design data, as defined in point 21.A.31, and changes to that data, ETSO design data, and repair design data;

- drawings and test reports, including inspection records for the product tested;

- the certification programme, including related certification basis data (certification review items (CRIs), special conditions (SCs), equivalent safety findings (ESFs)); and

- compliance demonstration data.

For repair designs, the record-keeping requirement of point 21.A.5 applies to the data described in AMC1 21.A.433(b).

For production organisations (POs), the relevant records include at least:

- conformity justification data; and

- conformity attestation data (e.g. DCA Form 1 or EASA Form 1 or EASA Form 52)

GM1 21.A.5(a) and (b) Record-keeping

RECORDING AND ARCHIVING SYSTEM

The main objective of record-keeping in design organisations (DOs) and production organisations (POs) is to ensure the retrievability of data that is required for the continued airworthiness of in service products.

In addition, records within the design environment are essential to ensure proper control of the configuration of the type design and of its compliance with the certification basis.

In the production environment, records are also required, to ensure that products or parts are in conformity with the applicable data throughout the manufacturing cycle. In addition, certain records of milestones are needed, to subsequently provide objective evidence that all the prescribed stages of the production process have been satisfactorily completed.

Therefore, the approved DO or PO (or a natural or legal person that is demonstrating their design capability through an agreement on alternative procedures or through the acceptance of the organisation's certification programme, or a natural or legal person that produces products and parts under Part 21, Subpart F) are required to implement a system for the compilation and retention of records during all stages of design or production, which covers short-term and long-term records as appropriate to the nature of the product and its processes.

The management of such information is subject to the appropriately documented procedures in the management system that is required by points 21.A.139 and 21.A.239 or to the manual/procedures that are required by points 21.A.14(b), 21.A.125A(b), or 21.A.602B(b)(2), as appropriate. This also applies in case of demonstrating the design capability through the acceptance of the certification programme under point 21.A.14(c).

All forms of recording media are acceptable (paper, film, magnetic, etc.), including the use of electronic records*, provided that they can meet the required duration for archiving under the given conditions and that the continued readability of the records is ensured.The related procedures are required to:

- identify the records to be kept;

- describe the organisation of, and responsibility for, the archiving system (its location, compilation, format) and the conditions for access to the information (e.g. by product, subject, etc.);

- control access to the data and provide effective protection from deterioration or accidental damage, alteration, and tamperering;

- ensure the continued readability of the records;

- demonstrate to the competent authority the proper functioning of the record system; and

- define an archiving period for each type of data as follows:

- production data that supports the conformity of a product, part, or appliance is kept for not less than 3 years from the issue date of the related statement of conformity or authorised release certificate; and design data, including data that supports the compliance of a product, part, or appliance with the certification basis (see GM1 21.A.5), as well as data that is considered essential for continuing airworthiness, is kept throughout the operational life of the product, part, or appliance; such continued airworthiness data may include, but are not limited to, in-service occurrence reports and mandatory continuing-airworthiness information;

- for organisations that are approved according to Part 21, Subparts G and J and organisations that demonstrate their design capability through an agreement on alternative procedures or acceptance of their certification programme by EASA, ensure that the recording and record-keeping systems that are used by the partners, suppliers, and subcontractors meet the record-keeping objectives with the same level of confidence as they do for their own system; in each case, it should be defined who should retain the data record (organisation, partner, supplier, or subcontractor), as well as the method of surveillance of the recording/record-keeping system of the partners, suppliers, or subcontractors; and

- for natural or legal persons that produce items under Part 21, Section A, Subpart F, the data on supplied parts may be retained by the supplier if the supplier has a system that is agreed by the Authority under Part 21, Section A, Subpart F; in each case, the PO is required to define the archiving period and satisfy itself and the competent authority that the recording media are acceptable.

*Related to electronic records, the following definitions apply:

- electronic record: electronic or digital data that is created, generated, sent, communicated, received, or stored by electronic means

- electronic data: it is typically in the form of documentation that is statically stored in a computer file that is not modifiable (e.g. pdf of a scanned document with wet ink signatures); and

- digital data: it is typically in the form of computer-generated bytes of information that is stored in a computer workable file (e.g. MS Word file, MS Excel file, 3D CAD file).

AMC1 21.A.5 (d) & (e) Record-keeping

RECORD OF STAFF INVOLVED IN DESIGN OR PRODUCTION

(a) The following should be the minimum information to be recorded for each person that exercises the privileges of an organisation that is approved according to Part 21, Subparts G and J, or according to points 21.A.163 or 21.A.263, or that carries out the independent monitoring of compliance and adequacy according to points 21.A.139(e) and 21.A.239(e), or that carries out the independent verification function of demonstration of compliance pursuant to point 21.A.239(d)(2):

(a) name;
(b) date of birth;
(c) basic training received and standard attained;
(d) specific training received and standard attained;
(e) continuation training received (if appropriate);
(f) experience gained;
(g) scope of the authorisation;
(h) date of first issue of the authorisation;
(i) expiry date of the authorisation (if appropriate;
(j) identification number of the authorisation (or equivalent means to identify the link between the authorisation and the staff member that holds the authorisation); and
(k) changes to the data.

(b) The record may be kept in any format and should be controlled through an internal procedure of the organisation. That procedure is part of the management system.

(c) The staff member should be given reasonable access, on request, to their own records.

(d) A design organisation (DO) or production organisation (PO) should keep the record for at least 3 years after the staff member is no longer employed by the organisation or has changed their position in the organisation, or after the withdrawal of the authorisation, whichever occurs sooner.

(e) Records of authorisation of the production staff are to be archived for at least 3 years after the staff member is no longer employed by the organisation or as soon as the authorisation is withdrawn. This staff member is any person that has an activity that is essential for ensuring:

- the conformity to applicable design data, or
- a condition for the safe operation of a product, part, or appliance.

MCAR 21.A.6 Manuals

The holder of a type-certificate, restricted type-certificate, or supplemental type-certificate shall produce, maintain and update master copies of all manuals or variations in the manuals required by the applicable type-certification basis, the applicable operational suitability data certification basis and the environmental protection requirements for the product or article, and provide copies, on request, to the Authority.

MCAR 21.A.7 Instructions for continued airworthiness

(a) The holder of a type-certificate, restricted type-certificate, supplemental type-certificate, design change or repair design approval shall develop or reference the instructions which are necessary for ensuring that the airworthiness standard related to the aircraft type and any associated part is maintained throughout the operational life of the aircraft, when demonstrating compliance with the applicable type-certification basis established and notified by the Authority in accordance with point 21.B.80.

(b) At least one set of complete instructions for continued airworthiness shall be provided by the holder of:

1. a type-certificate or restricted type-certificate to each known owner of one or more products upon its delivery or upon the issuance of the first certificate of airworthiness or restricted certificate of airworthiness for the affected aircraft, whichever occurs later,

2. a supplemental type-certificate or design change approval to all known operators of the product affected by the change upon the release to service of the modified product,

3. a repair design approval to all known operators of the product affected by the repair upon the release to service of the product in which the repair design is embodied. The repaired product, part or appliance may be released into service before the related instructions for continued airworthiness have been completed, but this shall be for a limited-service period, and in agreement with the Authority. Thereafter, those design approval holders shall make those instructions available on request to any other person required to comply with those instructions.

(c) By way of derogation from point (b), the type-certificate holder or restricted type-certificate holder may delay the availability of a part of the instructions for continued airworthiness, dealing with long lead accomplishment instructions of a scheduled nature, until after the product or modified product has entered into

service, but shall make those instructions available before the use of this data is required for the product or modified product.

(d) The design approval holder, who is required to provide instructions for continued airworthiness in accordance with point (b), shall also make available changes to those instructions to all known operators of the product affected by the change and, on request, to any other person required to comply with those changes. That design approval holder shall demonstrate to the Authority, on request, the adequacy of the process of making changes to the instructions for continued airworthiness available in accordance with this point.

AMC1 21.A.7(a) ICA contents

(a) The instructions for continued airworthiness (ICA) should identify the following, in accordance with the applicable certification specifications:

(1) any limitations that are necessary for the continued airworthiness of the product or article;

(2) the means to determine when the product or article has deteriorated to the extent that it is no longer airworthy;

(3) the minimum actions required to restore the airworthiness of the product or article before the limitations (as per point (1)) have been exceeded or before their deterioration (as per point (2)), as an alternative to the withdrawal of the product or article from service.

(b) The ICA should, therefore, include, in accordance with the applicable certification specifications:

(1) any limitations determined through the certification of the product or article, and instructions on how to determine that the limitations have been exceeded;

(2) any inspection, servicing or maintenance actions determined to be necessary by the certification process;

(3) any inspection or troubleshooting actions determined to be necessary to establish the nature of faults and the necessary remedial actions;

(4) sufficient general information on the operation of the product or article to enable the understanding of the instructions in (a)(1) to (a)(3) above.

AMC2 21.A.7(a) Identification of ICA

The instructions for continued airworthiness (ICA) may be provided together with other, additional or optional, maintenance information, as described in point 21.A.6, or in another acceptable format as per GM1 21.A.7(a), with the following conditions:

(a) The information that is necessary for the continued airworthiness is clearly identified (refer to AMC1 21.A.7(b)).

(b) The ICA may reference additional instructions for continued airworthiness in separate publications, where necessary (for example, those produced by suppliers). If the product ICA reference the use of supplier's data (e.g. component maintenance manual (CMM) or section of it) as the appropriate location for the ICA, those applicable instructions are incorporated by reference and become part of the complete set of the ICA for the product.

(c) Additional or optional maintenance information not considered as ICA but referenced by the design approval holder (DAH) together with the ICA should be evaluated appropriately by the DAH in order to ensure that its use will not compromise the continued airworthiness of the product or article.

(d) If the maintenance data made available by a DAH includes data from an operator (i.e. in order to customise the data for the operator, and created under the authority of the operator), the operator's data should be identified as such, and the DAH is not required to additionally evaluate it.

AMC3 21.A.7(a) DAH responsibility to check the supplier data which is part of the ICA or referenced with the ICA

The DAH may carry out a complete check of the supplier data, or may choose to rely, in whole or in part, on the supplier's process. In the latter case, the DAH will propose a means to validate the supplier's process. Supplier data may also be issued by the supplier to the DAH under a contract or an arrangement, addressing the following:

(a) the accuracy and the adequacy of the technical documentation, which should be checked through a verification processes (e.g. component workshop verification);

(b) evidence showing that workshop verification was performed should be kept by the supplier and a clear statement should be given in the introduction to the supplier data as a confirmation that component verification is complete;

(c) evidence that the supplier has taken into account all justified feedback and changes to data requested by any person required to use the ICA; typical examples would be the correction of reported errors, or mistakes.

In addition, some validation activities may be decided by the DAH, depending on the articles and the capability level of the supplier.

For articles subject to an ETSO authorisation, the validation of the supplier's process is not needed.

This is also valid for other national TSO authorisations (e.g. FAA TSOs) accepted by Authority.

GM1 21.A.7(a) Scope of ICA, their publication format and typical ICA data

(a) ICA can be published in documents or in a manner other than the traditional understanding of a document — for example, as a series of web pages, or Information Technology (IT) tools, or in a publishing format linked to tasks or data modules rather than pages.

(b) The design approval holder (DAH) can decide — within the framework provided by point 21. A.7and its acceptable means of compliance and guidance material — to publish the ICA in the most suitable location as part of all the information published to support the airworthiness of an aircraft. Publications typically produced by DAHs (e.g. for the demonstration of compliance with a certification basis established on the basis of CS-25), and which may therefore include ICA, consist of:

- aircraft maintenance manuals (AMMs);
- scheduled maintenance requirements (e.g. MRBRs);
- off-wing component maintenance or overhaul manuals;
- parts catalogues;
- tooling manuals;
- wiring diagram manuals;
- weight and balance manuals;
- electrical loads analyses;
- extended range operations (ETOPS) configuration maintenance programs/plans;
- supplemental structural inspection documentation;
- certification maintenance requirements;
- Airworthiness Limitations items;
- ageing aircraft maintenance requirements;
- fuel tank safety related limitations (e.g. critical design configuration control limitation (CDCCL));
- electrical wiring interconnection system instructions;
- corrosion prevention and control programmes;
- troubleshooting manual.

Note: The above is only an example of the publications that may contain ICA according to CS-25; the list is not exhaustive, nor does it represent a minimum list of ICA.

(c) The requirement for ICA is not intended to ensure that all products or articles may be restored to an airworthy condition. A certain level of deterioration may require a product or an article to be permanently withdrawn from service, and restoration may not be reasonably achievable. Notwithstanding the above, the existence of an MRBR task other than 'Discard (DS or DIS)' should be a clear indication of the necessity/obligation to produce a corresponding ICA. Certain deteriorations or levels of deterioration may require specific instructions (e.g. inspection or restoration) that will only be developed and provided on a case-by-case basis, as needed, for a given product or article, and as such, will not be included in the ICA. In some exceptional cases, product ICA may ultimately instruct the user to contact the DAH in order to define the specific instructions on a case-by-case basis. This typically happens when the definition of generic instructions covering all possible cases is not possible. For example, following an aircraft hard landing, a detailed analysis may have to be carried out by the DAH to determine the specific instructions to be followed, which depends on the touchdown loads, recalculated postflight, based on recorded flight data

GM2 21.A.7(a) Determination of which supplier data is part of the ICA

Note 1: For the purpose of this GM, the term 'supplier data' also applies to similar types of data when issued directly by the DAH (e.g. component maintenance manuals issued by the DAH).

Note 2: For the purpose of this GM, the term 'supplier data' has to be understood as data coming from the supplier and related to either a full CMM or to part of a CMM.

Note 3: The link between the aircraft ICA and the engine/propeller CMM, as detailed below, is similar to the link between engine/propeller ICA and the CMM of equipment fitted to the engine/propeller.

Note 4: If the supplier is also the DAH (for instance, an engine or propeller manufacturer), then the ICA for these items will be made available by virtue of the DAH obligations as type-certificate holder (TCH) and need not be included in the aircraft ICA.

(a) When determining whether a supplier data is part of the ICA, the following should be considered:

(1) Supplier data related to the Airworthiness Limitations Section (ALS) of the ICA is part of the ICA. A typical CS-25 example is critical design configuration control limitation (CDCCL) items that are included in CMMs.

(2) Supplier data related to instructions on how to accomplish the scheduled maintenance part of the aircraft ICA (such as MRBR) are part of the aircraft ICA. A typical case is the periodical removal of a component to perform a workshop task.

Example: Escape slide removal for restoration in accordance with the supplier data instructions.

(3) Supplier data related to scheduled maintenance on the component should be endorsed by the DAH before becoming part of the aircraft ICA, to define and confirm that the supplier data is applicable and effective.

(4) If the ICA are defined at aircraft level, the following principles apply to the other supplier data that is not related to the ALS nor to scheduled maintenance:

(i) If the supplier data includes a maintenance instruction for an action identified in the aircraft-level ICA, including an engine or propeller, this supplier data should be referenced in the aircraft-level ICA and should be made available like any other ICA.

As an alternative to linking such supplier data to the aircraft-level ICA (e.g. with cross references), it is possible to include the relevant data directly into the aircraft ICA. In such a case, the supplier data is not part of the aircraft ICA since the aircraft ICA already contain all the required information.

(ii) If an aircraft ICA task only requires a replacement task for an engine, propeller, part or appliance (i.e. 'remove and replace' or 'discard') and does not refer to the supplier data for further maintenance of the removed engine, propeller, part or appliance, this means that the aircraft airworthiness may only be maintained by replacement action, and that the supplier data is not part of the ICA for the aircraft. In such cases, the supplier data does not need to be referenced in the aircraft ICA.

Example: If supplier data provides off-aircraft maintenance instructions for an engine, propeller, or other article (i.e. workshop maintenance), then this data may not be considered as part of the complete set of ICA for the aircraft, but may be considered as part of the complete set of ICA for the engine or propeller. However, the procedure for removal from / installation on the aircraft is necessarily part of the aircraft ICA.

(b) However, for the above cases, aircraft-level ICA can provide, as additional or optional maintenance information, the references to the supplier data even if it is not considered part of the ICA. In such cases, it should be made clear that the supplier data references are provided as additional or optional maintenance information and is not part of the product ICA. Besides, it should be ensured that the use of additional or optional maintenance information not considered as ICA but referenced together with the ICA will not compromise the continued airworthiness of the product or article.

(b) For the supplier data identified as part of the ICA, the DAH should: (1) identify the supplier data that is part of the ICA; this can be achieved either by creating a listing or by any other acceptable means that allow to identify which data is part

of the ICA and which data is not part of the ICA (refer to AMC1 21.A.7(b)); (2) just as for any other ICA, ensure the publication of the supplier data; (3) ensure the accuracy and the adequacy of the technical content of the supplier data (refer to GM No. 1 to 21.A.239(a), point 3.1.5)

GM3 21.A.7(a) non-ICA supplier data (e.g. component maintenance manuals (CMMs))

(a) Non-ICA supplier data referenced together with the ICA Supplier data, or parts of the supplier data, which is not considered to be part of the ICA but is additional or optional maintenance information referenced together with the product-level ICA, may be issued by the supplier to the DAH under a contract or an arrangement, using the methodology proposed in AMC3 21.A.7(a).

(b) Other non-ICA supplier data Non-ICA supplier data, which is not referenced together with the ICA, but which can be used for the maintenance of components approved for installation by the DAH, should be acceptable to the DAH. This non-ICA supplier data may be documented in a list.

AMC1 21.A.7(b) Identification of a complete set of instructions for continued airworthiness (ICA)

The design approval holder (DAH) should identify the complete set of ICA according to point 21.A.7(b)in such a way that the complete set can be:

(a) directly listed in the product TCDS; or

(b) indirectly referenced in the TCDS through other means, which allow the complete list of the ICA to be obtained (e.g. a complete listing of ICA contained in a ‘principal manual’ or a reference to a DAH’s website); or

(c) directly listed in the product STC; or

(d) indirectly referenced in the STC through other means, which allow the obtainment of the complete list of the ICA; or

(e) if direct reference is made to the ICA in the TCDS or the STC, no reference to the revision level of the ICA should be made; in this case, the revision level should be available elsewhere (e.g. on the DAH’s website).

For changes to type certificates and repairs, the identification of ‘a complete set of the changes to the instructions for continued airworthiness’ should be performed by the DAH by a statement to provide this information, or by confirmation that there are no changes to the ICA. This statement can also be made in the accomplishment document (e.g. embodiment instructions).

For products and articles for which the DAH holds a design organisation approval (DOA), the ICA are considered to be issued under the authority of the DOA and, therefore, the approval of the ICA should be made explicit to the reader in accordance with point 21.A.265(h), unless otherwise agreed with Authority.

GM1 21.A.7(b) Other persons required to comply

For the purpose of this GM, 'any other person required to comply' means:

- any independent certifying staff who performs maintenance on a product or article, in the framework of a contract (or work order) with the person or organisation responsible for the aircraft continuing airworthiness;

- any maintenance organisation approved to maintain a product or article, in the framework of a contract (or work order) with the owner of the engine or article, or the person or organisation responsible for the aircraft continuing airworthiness;

- any organisation approved to manage the aircraft continuing airworthiness in accordance with , in the framework of a contract with the aircraft owner or aircraft operator.

GM2 21.A.7(b) ICA — format

ICA can be furnished or made available by various means (including paper copies, electronic documents, or web-based access). Regardless of the format, the design approval holder (DAH) is expected to furnish or make ICA available in a means that is readily accessible for and useable by the owner and any person required to comply with the ICA. Service documents, such as service information letters, may be used for transmitting ICA information and updates.

(a) Formatting standardsApplicants may use the latest ATA, AECMA/ASD or GAMA formatting standards such as:

(1) AeroSpace and Defence Industries Association of Europe (ASD), ASD-S1000D, International Specification for Technical Publications Utilizing a Common Source Data Base, version 4 or higher;

(2) the Air Transport Association's (ATA) iSpec 2200, Information Standards for Aviation Maintenance, latest edition (ATA is now known as Airlines for America (A4A) but the standard is still listed as ATA); or

(3) General Aviation Manufacturers Association (GAMA) Specification No. 2, Specification for Manufacturers Maintenance Data, latest edition.

In regard to scheduled maintenance, applicants may also refer to the glossary of the ATA MSG-3 standard, latest revision, for standardised task definitions and designations.

(b) General considerations ICA should be easy to read and to follow. All ICA should include a means to identify their applicability (model, type, etc.), and the associated revision status. Refer to sample formats in the Air Transport Association's iSpec 2200, Information Standards for Aviation Maintenance, latest edition, or AECMA/ASD standards. There is no requirement for any specific format or arrangement of the ICA in document or documents. However, the specific format selected by the applicant should be used and applied in a uniform

manner. Empty pages in a document should contain a statement like 'Intentionally left blank' or similar.

At the beginning of each procedure, the ICA should contain cautions and warnings regarding possible mistakes that can be made when following the instructions.

Abbreviations, acronyms and symbolisation should be either avoided or explained as part of the ICA documentation.

ICA contain units of measurement. Measurements could be, for instance, instrument readings,

temperatures, pressures, torque values with tolerances, limits, and ranges when applicable. If

the ICA contain units of measurement of a system other than the metric, the ICA should include a conversion to the metric system for each measurement, tolerance, or torque value. A general conversion table alone should not be provided, as it may introduce an additional source of error.

The DAH should use a means to indicate changes to the ICA directly in relation to each item of the information/data of the ICA, e.g. using a vertical change bar in the margin next to the line.

(c) Publication of ICA in multiple documents

DAHs may prepare ICA as a document, or several documents, depending on how much data is necessary to provide a complete set of ICA.If there are multiple documents, there should be a principal document that describes the general scope of all other documents, in order to provide an overview of the multiple document structure. According to different standards, the Airworthiness Limitations Section (ALS) needs to be included in the principal document as a dedicated section. However, the Authority may also accept a separate Airworthiness Limitations document, when it is at least referenced as such in the principal document.

DAHs who decide to segregate information dedicated to a specific subject from a principal document into a separate document, e.g. 'Fuel Pipe Repair Manual', 'Cable Fabrication Manual',

'Duct Repair Manual' or 'Instrument Display Manual', should declare these documents to be ICA.

DAHs may decide to integrate certain information in a principal document (as, for example, troubleshooting information as part of the aircraft maintenance manual (AMM) instead of a separate troubleshooting manual (TSM)).

(d) Language

ICA should be provided in any of the official language(s) of the European Union which is (are) acceptable to the competent authority.

Note: In certain countries, such as the USA, English is required for ICA. EASA, therefore, recommends that DAHs include a version of the ICA in simplified technical English (e.g. in accordance with ASD Specification STE100).

(e) Electronic media

ICA may be provided in an electronic format (e.g. CDs, via the internet, etc.) instead of paper copies or microfilms (refer to AMC1 21.A.7(b)).

When an electronic format is used, the DAH should consider aspects such as the traceability of updates, keeping previous versions (record keeping), data security and the obligations of the person(s) or organisation(s) responsible for the aircraft continuing airworthiness, considering that the ICA form the basis of the data used for continuing airworthiness activities.

GM3 21.A.7(b) Approval status of the manual for a component or article

When the ICA refer to a document for a specific component or article, it is possible that this document is used for products from more than one DAH. In such cases, instead of placing approval statements from each DAH in the same manual, it may be more practical to identify the approved status of the relevant document through its inclusion in lists managed by the DAH in accordance with the AMC1 21.A.7(b).

GM4 21.A.7(b) Integration of ICA between products (aircraft, engines, propellers)

The aircraft/engine/propeller type-certificate holder (TCH) should ensure the availability of ICA to allow maintenance of the aircraft, including engines/propellers when installed on the aircraft.

When referring to engine/propeller ICA directly in the aircraft ICA, the aircraft TCH should not perform additional verification and validation. However, the integration and interface aspects between the aircraft and the engine/propeller are still under the responsibility of the aircraft TCH.

If the ICA published by the aircraft TCH include some engine/propeller ICA developed by the engine/propeller TCH, the engine/propeller TCH should make an arrangement with the aircraft TCH setting out engine/propeller TCH and aircraft TCH shared responsibilities with respect to the ICA under point 21.A.7.

This arrangement should:

- define the part of the engine/propeller ICA which is published in the aircraft ICA; and

- address the development, publication and update processes of these ICA, including completeness and timely availability aspects.

The incorporated engine/propeller data content remains under the responsibility of the engine/propeller TCH, and the publication is under the responsibility of the aircraft TCH. Therefore, the aircraft TCH must coordinate with the engine/propeller TCH regarding any modification or alteration of the incorporated data.

AMC1 21.A.7(c) Completeness and timely availability of the ICA

COMPLETENESS AND TIMELY AVAILABILITY OF THE ICA FOR TYPE-CERTIFICATE (TC) AND RESTRICTED TYPE-CERTIFICATE (RTC) APPLICANTS

(a) An applicant may wish to choose among the three options described below. Once the certification programme starts, it may be necessary to modify the initially selected option to accommodate programme changes. All such changes should be coordinated with Authority.

(1) Option 1: Complete ICA are available at the time of the design approval (TC/RTC)

(i) The ICA will be made available at the time of the design approval. This option minimises the risk of incomplete ICA, especially for changes.

(ii) With all ICA available at the time of the design approval, they should also be furnished / made available to the aircraft operator / aircraft owner and made available to any other person required to comply with any of those instructions in accordance with points 21.A.21(c)(4), 21.A.44 and 21.A.7, without using the provision to delay certain parts of the ICA after the entry into service.

(iii) Frequently, there is only a short period of time between the design approval and the entry into service. Nevertheless, applicants/holders may still wish to apply Option 2 or 3 for a part of their ICA as stated below.

(2) Option 2: Complete ICA are available at entry into service (TC/RTC)If an applicant plans to make part of the ICA available to EASA at entry into service, the following approach is acceptable:

(i) For the ALS, as part of the type design, notwithstanding the selection of Option 2:

the applicant submits the ALS for approval prior to the design approval. Any ALS content that is incomplete, not yet demonstrated for compliance, or delayed beyond the design approval, requires to be compensated through an interim limitation to establish compliance within this limitation. The interim limitation is notified to the aircraft operator(s) concerned as a temporary operational limitation in a manner agreed with Authority.

In this context, ALS content is understood as the task method (e.g. a detailed inspection), including its reference, title and applicability, and the associated threshold / interval / life-limit. The accomplishment procedure itself, i.e. how to carry out the task, is usually described in other parts of the ICA (e.g. in the AMM or NDT manual). However, the feasibility study of the accomplishment procedure is required for compliance with specific requirements (e.g. CS 25.611).

(A) This may typically apply when the aircraft structural full-scale fatigue testing required for compliance with the fatigue- and damage-tolerance requirements, considering the expected operational life, will not be completed prior to the type certificate being issued. In this case, a temporary operational limitation is assigned and stated in the ALS, dependent on the aircraft full-scale fatigue testing progress. The ALS is effectively incomplete beyond this temporary operational limitation, as the required justification and the resulting ICA are not yet available to support the safe operation of the aircraft beyond this limitation.

(B) A TCDS notation is not necessary, since the product is provided with complete ALS content up to the established temporary operational limitation.

(ii). A compliance plan identifying those parts of the ICA that are only to be made available at entry into service is produced, submitted to the Authority and agreed between the applicant and EASA prior to the design approval (refer also to (iv) for ICA considered to be necessary at the time of the design approval.

(iii). A commitment is provided to produce, verify and submit (when requested) to the Authority, the relevant ICA prior to entry into service. This commitment should be provided in a certification document (e.g. the compliance plan) and should also be addressed in a more general manner in a DOA procedure for /applicants in accordance with points 21.A.239 and 21.A.263. If the respective DOA holder has not previously exercised the practice of delaying the ICA beyond the design approval in order for the DOA to demonstrate this capability in its design assurance system (DAS), the required procedural changes need to be addressed via a significant change to the DAS in accordance with point 21.A.247.

(iv). ICA considered to be necessary at the time of design approval are provided or made available in a format that adequately defines the data. Furthermore, the way the data is presented at the time of the design approval offers the same understanding of the data as in the final published format.

The applicant should agree with the Authority, in a compliance plan, on all ICA necessary at the time of design approval. The Authority investigation may vary from no involvement or evaluating a limited sample of the ICA to performing a thorough review of specific parts of the ICA.

(v). In cases where the Authority has doubts as to whether the applicant/holder can fulfil the applicable requirements of point 21.A.44 to control and support delaying the ICA beyond the design approval, or TC/RTC, and until entry into service, Authority can decide to assign a condition for entry into service for non-ALS ICA.

As a condition for the entry into service, a note should be included in the type certificate data sheet (TCDS) as a result of these pending issues under the ICA paragraph as follows:

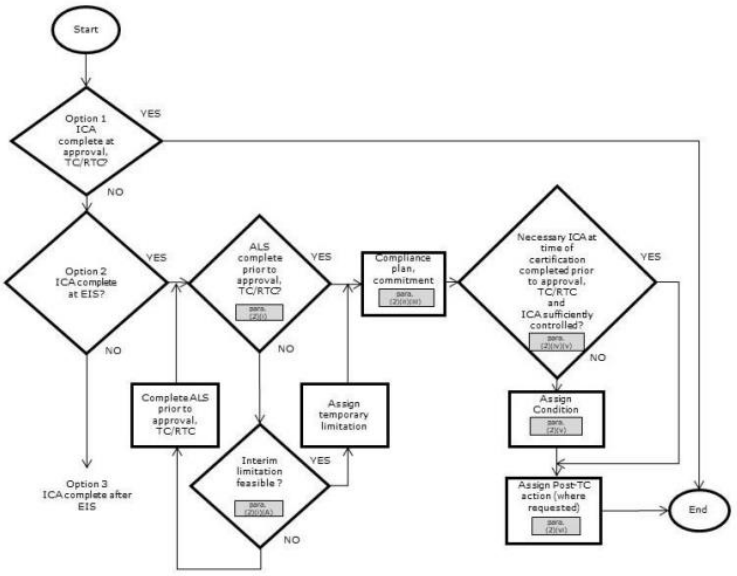
'Note: The ICA are not complete., they must be completed before the entry into service of the aircraft.

'The decision to assign a condition may be based on the applicant's performance, e.g. if the applicant has already demonstrated in previous projects that it provided the complete set of ICA before the entry into service, if the applicant has already experienced difficulties in providing the ICA considered necessary at the time of the design approval, or has previously failed on a different project to meet its commitment to complete the ICA prior to entry into service, or if the applicant/holder has no previous experience with the practice of delaying the ICA beyond the design approval.

(vi). Post-TC action is established together with EASA (if EASA requests such a review) to review the ICA status at entry into service.

(vii). If all ICA are made available to EASA at the time of entry into service, they should also be furnished at this time to the aircraft operator / aircraft owner and made available to any other person(s) required to comply with any of those instructions in accordance with points 21.A.21(c)(4), 21.A.44 and 21.A.7, without using the provision to delay certain parts of the ICA beyond the entry into service.

Flow chart A — 'Completeness of ICA', Option 1 and 2



(3) Option 3: Complete ICA is available after the entry into service (TC/RTC)

As per point 21.A.7(c), certain ICA dealing with the 'overhaul or other forms of heavy

maintenance' may be delayed until after the aircraft entry into service. Although there is no definition of what is meant by 'overhaul or other forms of heavy maintenance', the intention of the rule is to provide flexibility to applicants/holders for long-lead ICA of a scheduled nature.

If an applicant plans to make part of the ICA available only after the entry into service, the following is acceptable for the complete set of ICA:

(i). for the ALS, as it cannot be delayed until after the entry into service, point (i) of Option 2 applies;

(ii). for ICA considered to be necessary at the time of the design approval, point (iv) of Option 2 applies.

(iii). a detailed compliance plan identifying those parts of the ICA that are to be provided prior to and after the entry into service. For ICA made available after the entry into service, the plan should account for when the ICA are needed so that they can be complied with. This approach may only be used for scheduled maintenance accomplishment procedures, where threshold/interval / life-limit requirements of the related scheduled tasks are established. In that respect, the following aspects should be considered:

(A) The majority of the ICA are of an unscheduled nature; therefore, these items should be available at entry into service at the latest.

(B) Consideration should be given to the fact that a number of tasks are used for both scheduled and unscheduled maintenance (e.g. an operational check of a system is planned as a scheduled task at a certain point in time, but is also required as part of the installation procedure to determine the operational status of the system).

(C) For ICA to be made available after entry into service, the detailed plan should contain threshold(s) controlled by the applicant/holder, stating the maximum value in flight hours (FH) / flight cycles (FC) or calendar time (CT), or a combination of them as applicable, by which point in time the delayed ICA should be made available.

(D) This detailed plan should be available prior to the time of the design approval and should be either directly integrated or cross-referenced in a compliance plan.

(E) Information on the format in which the ICA delayed until after entry into service will be made available in time (e.g. regular revisions or temporary revisions (TRs) or service information (SBs, SIL, etc.).

(iv). A procedure/programme that ensures a detailed plan is produced and implemented in the applicant's organisation in order to ensure the timely availability (to the aircraft operator / aircraft owner and to any other person required to comply with any of those instructions and to the Authority, if involved and when requested).

(v). A commitment is made to produce, verify and provide the relevant ICA in accordance with the detailed plan. This commitment should be provided in a certification document (e.g. a compliance plan) and should also be addressed in a more general manner in a DOA procedure for applicants in accordance with points 21.A.239 and 21.A.263. If the respective DOA holder has not previously exercised the practice of delaying the ICA beyond the design approval in order for the DOA to demonstrate this capability in its design assurance system (DAS), the required procedural changes need to be addressed via a significant change to the DAS in accordance with point 21.A.247.

(vi). In order to ensure that the applicant/holder can meet their obligations as set out in point 21.A.44 to control and support delaying the ICA, EASA may decide:

(A) for ICA delayed until entry into service, to assign a condition/notation for the entry into service to be included in the TCDS as a result of these pending issues under the ICA paragraph, as per point (v) of Option 2;

(B) for ICA delayed until after entry into service, to assign an interim limitation to be published and included in the ALS as a temporary operational limitation, also for non-ALS ICA, to compensate for the delayed ICA; this approach may only be used for scheduled maintenance accomplishment procedures, where task and interval requirements are available.

The decision to assign a condition/limitation may be based on the applicant's performance, e.g. if the applicant has already demonstrated in previous projects that it provided the complete set of ICA before the entry into service, if the applicant had already difficulties in providing the ICA considered necessary at the time of the design approval, or has failed before in a different project to control and support delaying the ICA, or if the applicant/holder has not previously exercised the practice of delaying the ICA beyond the design approval.

(vii). Post-TC action should be established with EASA to regularly review the ICA status, if EASA requests such a review, taking into account the DOA oversight activities.

(viii). An applicant/holder should provide visibility, regarding the ICA that are delayed beyond entry into service, to the aircraft operator / aircraft owner and to any other person(s) required to comply with any of those

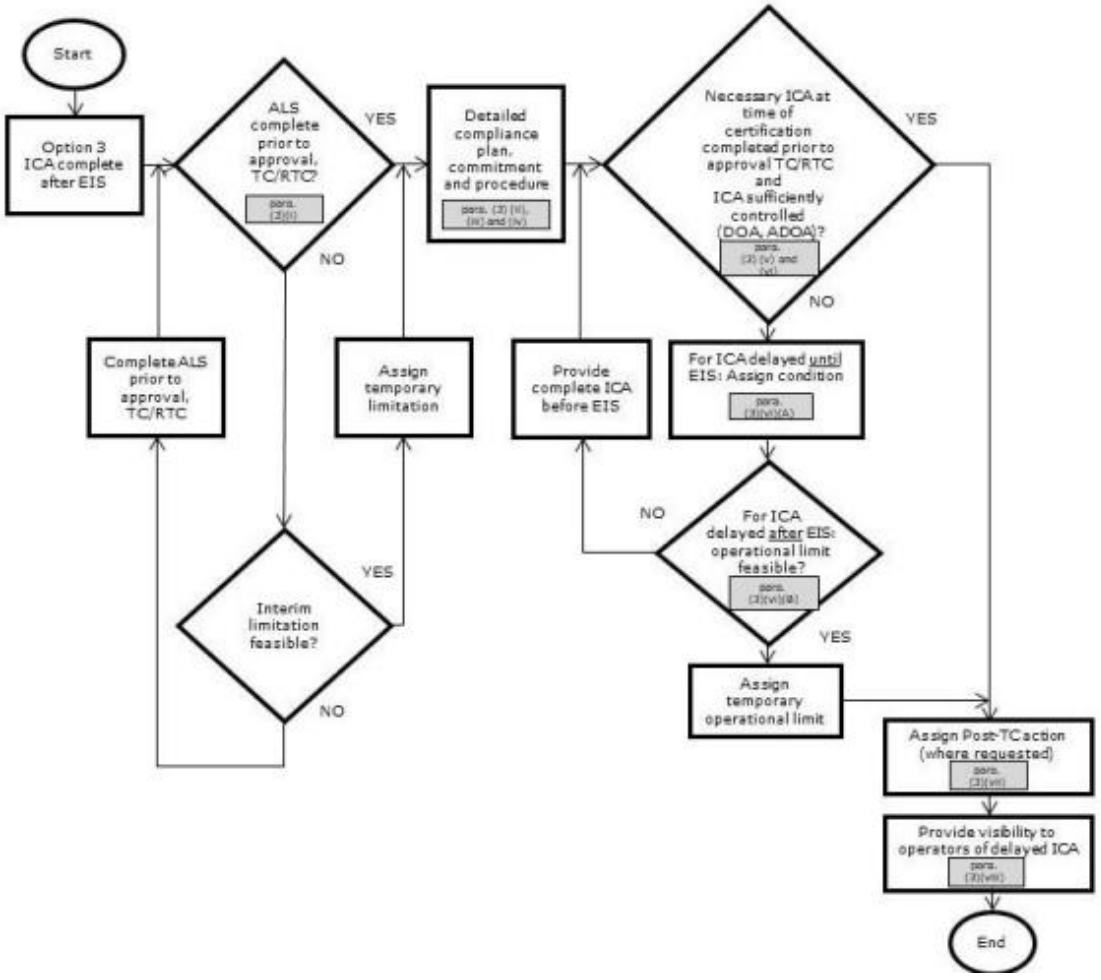
instructions. This can be achieved by providing this information, for example, on a website or in a document, such as an MPD or AMM, preferably in the principal ICA manual. This visibility information is then itself considered to be ICA information.

(ix). It is assumed that for those ICA that are made available to EASA at the time of entry into service, they are also at the same time furnished to the aircraft operator / aircraft owner and made available to any other person(s) required to comply with any of those instructions in accordance with points 21.A.21(c)(4), 21. A.44and 21.A.7.

This is to satisfy Authority that such a delayed publication will not have an adverse effect on the continuing airworthiness of any individual aircraft.

To allow the timely review and incorporation of a delayed part of the ICA into continuing airworthiness activities and processes (e.g. amendment of the aircraft Maintenance Programme) by the person or organisation responsible for the aircraft continuing airworthiness or for performing maintenance, the Authority considers that the delayed ICA should typically be made available two years before the actual ICA has to be used, when using normal revisions as a format. However, shorter time margins may be acceptable, provided that the format used ensures the prompt notification of the availability of the delayed ICA or the ICA itself, but they should not be less than 1 year before the ICA has to be used.

Flow chart B — 'Completeness of ICA', Option 3



(b) Completeness and timely availability of changes to the ICA (TC/RTC) Point 21.A.7(d) regulates the distribution of changes to the ICA required from the TC/RTC holder. Those changes to the ICA could result from the design change process (minor and major changes), in-service experience, corrections, and others.For TC/RTC holder/applicant, a programme showing how changes to the ICA are distributed is part of the respective procedures (e.g. design organisation procedures, or alternative procedures used to demonstrate capabilities). For changes to the ICA triggered by design changes, typically these procedures follow the same principles as those available for TC/RTC, Options 1 to 3, while taking into account the relevant privileges, e.g. that a DOA may approve minor changes in accordance with point 21.A.263(c)(2)

MCAR 21.A.9 Access and Investigation

Any natural or legal person that holds or has applied for a type-certificate, restricted type-certificate, supplemental type-certificate, ETSO authorisation, design change or repair approval, certificate of airworthiness, noise certificate, permit to fly, design

organisation approval, production organisation approval certificate or letter of agreement under this Regulation, shall:

(a) grant the Authority access to any facility, product, part and appliance, document, record, data, process, procedure or to any other material in order to review any report, make any inspection, or perform or witness any flight and ground test, as necessary, in order to verify the initial and continued compliance of the organisation with the applicable requirements.

(b) make arrangements to ensure the Authority has access, as provided for in point (a), also in respect of the natural or legal person's partners, suppliers and subcontractors.

GM1 21.A.9 Access and Investigations

ARRANGEMENTS

The arrangements made by the applicant for, or holder of, a type certificate (TC), restricted type certificate (RTC), supplemental type certificate (STC), a European technical standard order (ETSO)authorisation, a major repair design approval, a permit to fly, a design organisation approval (DOA), a production organisation approval (POA), or a letter of agreement under Part 21 are required to allow the Authority to make investigations that include the complete organisation, including its partners, subcontractors, and suppliers, whether they are in the State of the applicant or not.

The investigations may include audits, enquiries, questions, discussions, and explanations, monitoring, witnessing, inspections, checks, as well as flight and ground tests and inspections of completed products, parts, or appliances that are either designed or produced.

In order to maintain its confidence in the standards that are achieved by the organisation, the Authority may make an investigation into a sample product, part, or appliance and of its associated records, reports, and certifications.

The arrangements are required to enable the organisation to assist the competent authority and cooperate with it in conducting the investigation during the initial assessment and the subsequent surveillance.

'Cooperation in conducting the investigation' means that the competent authority has been granted full and free access to the facilities and to any information relevant to demonstrating compliance with the Part 21 requirements, and has been provided assistance, as necessary.

'Assistance to the competent authority' includes all the appropriate means regarding the facilities of

the organisation, to allow the competent authority to conduct the investigation, such as meeting rooms, offices, personnel support, records, documentation, computer data, and communication facilities, all properly and promptly made available, as necessary.

The competent authority seeks to have an open relationship with the organisation, and suitable liaison staff are required to be nominated to facilitate this, including one or more suitable representatives to accompany competent authority staff during visits, not only at the organisation's own facilities, but also at subcontractors, partners, or suppliers.

MCAR 21.A.10 Part 145 Maintenance Organisation Approvals

Maintenance Organisation Approvals

(1) Organisations involved in the maintenance of large aircraft or of aircraft used for commercial air transport, and components intended for fitment thereto, shall be approved in accordance with the provisions of MCAR- Part-145.

(2) Maintenance approvals issued by the Authority in accordance with the first issue of MCAR-Part-145 Requirements and procedures and valid before the entry into force of this Requirement shall be deemed to have been issued in accordance with this Requirement

(3) Personnel qualified to carry out and/or control a continued airworthiness non-destructive test of aircraft structures and/or components, on the basis of any standard recognised by a Mauritius prior to the entry into force of this Requirement as providing an equivalent level of qualification, may continue to carry out and/or control such tests.

(4) Certificates of release to service and authorised release certificates issued before the date of entry into force of this Requirement by a maintenance organisation approved under the MCAR-Part-145 first issue, requirements shall be deemed equivalent to those required under points M.A.801 and M.A.802 of MCAR-Part-M respectively.

MCAR 21.A.11.Part 66 Certifying Staff

(1) Certifying staff shall be qualified in accordance with the provisions of MCAR-Part-66, except as provided for in points M.A.606(h), M.A.607(b), M.A.801(d) and M.A.803 of MCAR-Part-M and in point 145.A.30(j) of MCAR-Part-145 and Appendix IV to MCAR-Part-145.

Any aircraft maintenance licence and if any, the technical limitations associated with that licence, issued or recognised by Mauritius in accordance with the MCAR-Section 7 requirements and procedures and valid at the time of entry into

force of this Requirement, shall be deemed to have been issued in accordance with this Requirement.

Certifying staff holding a licence issued in accordance with MCAR-Part- 66 in a given category/ sub-category are deemed to have the privileges described in MCAR-Part-66. A.20(a) of this Requirement corresponding to such a category/sub-category. The basic knowledge requirements.

MCAR 21.A.12 Part 174 Training Organisation Requirements

Organisations involved in the training of personnel referred to in MCAR-21.A.05 shall be approved or Accepted in accordance with MCAR-Part-147 to be entitled:

(a) to conduct recognised basic training courses; and/or

(b) to conduct recognised type training courses; and

(c) to conduct examinations; and

(d) to issue training certificates.

If authorised by the Authority and with the conditions attached.

2. Any maintenance training organisation approval issued by the Authority in accordance with the first issue of the MCAR-Part-147 requirements and procedures and valid at the time of entry into force of this Requirement shall be deemed to have been issued in accordance with this Requirement.

3. Basic training courses complying with the requirements applicable before this Requirement applies may be started until one year after the date by which this Requirement applies. Basic knowledge examinations conducted as part of these courses may comply with the requirements applicable before this requirement applies.

4. Basic knowledge examinations complying with the requirements applicable before this Requirement applies and conducted by the Authority or conducted by a maintenance training organisation if approved to do so, in accordance with MCAR-Part-147 while not being part of a basic training course, may be conducted until one year after the date by which this Requirement applies.

5. Type training courses and type examinations complying with the requirements applicable before this Requirement applies shall be started and finished not later than one year after the date by which this Requirement applies.

SUBPART B — TYPE-CERTIFICATES AND RESTRICTED TYPE CERTIFICATES

MCAR 21.A.11 Scope

(a) The Authority does not issue type certificates

(b) This Requirement establishes the procedure for issuing type acceptance certificates (TAC) for products with foreign type certificates.

GM 21.11 Scope

The type acceptance certificate has no holder as such. The type acceptance certificate is issued to recognise a foreign type certificate in Mauritius. Once issued, any subsequent aircraft of that type may enter Mauritius without going through the type acceptance process. 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.

MCAR-21. A.13 Acceptability of foreign type certificates

The following foreign type certificates may be accepted by the Authority for issuing type acceptance certificate:

(a) a type certificate issued by the EASA/FAA/Transport Canada.

(b) a type certificate accepted by EASA/FAA/Transport Canada.

(c) 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.

GM 21.12(b) Acceptability of foreign type certificates

EASA/FAA/Transport Canada website can be checked to see the type certificates accepted by EASA or the FAA or Transport Canada for acceptable type certificates.

MCAR 21.A.14 Demonstration of capability

Reserved

MCAR 21.A.15 Application

(a) An application for a type-certificate or restricted type-certificate shall be made in a form and manner established by the Authority.

(b) An application for a Type Certificate Approval (TAC) shall provide to the Authority.

(1) Evidence that a type certificate acceptable to the Authority as per MCAR-21. A.12, has been issued;

(2) Details of any airworthiness requirement not complied with is compensated for by a factor that provides an equivalent level of safety;

(3) a copy of the applicable type certificate data sheet;

(4) a copy of the type certificate date sheet for noise

(5) a copy of the flight manual that contains all the available options applicable to the type, and that was approved by the National Aviation Authority that issued the foreign type certificate;

(6) a copy of the manufacturer's instructions for continued airworthiness of the aircraft;

(7) a copy of the parts catalogue for the aircraft;

(8) a list of all current field service documents applicable to the aircraft;

(9) an undertaking from the holder of the foreign type certificate to continue to supply the Authority 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;

(10) maintenance and flight crew type training to the Authority Inspector;

(c) 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 Authority Inspector.

AMC 21.15(a) Application

1. The applicant should obtain and lodge a completed Form DCA-APPTAC "Type Acceptance Certificate - Application".

2. This form may be obtained from the Authority website at www.civilaviation.gov.mu. Alternatively; a copy of the form may be obtained from the Authority.

3. The application form should state exactly which models are to be included on the TAC. These models must be included on the foreign TC. The data requirements specified in MCAR-21. A.15 (c) must be met for each model included on the TAC.

AMC 21.93 Application

SUPPORTING DOCUMENTATION REQUIRED FOR MINOR CHANGE (MODIFICATION) APPROVAL APPLICATION IN SUPPORT OF MCAR- 21.A.93

1. The relevant Type Certificate Data Sheet (TCDS) reference number should be stated.

   The TCDS may be identified from the website of the primary certification authority.

2. The certification basis of the change (modification) must be defined (e.g. FAR 23).

   For a 'minor' change, this is typically the certification basis at the time of original aircraft certification as stated in the TCDS plus any additional requirements relevant to the modification. Alternatively, the applicant may simply elect to comply with the latest requirements (e.g. CS-23).

3. The individual requirements of the certification basis that are relevant to the change shall be stated, together with identification of the means of compliance with those requirements (see Para 4).

   For modifications to aircraft systems these identified individual requirements would include, as a minimum:

   - xx-1301
   - xx-1309
   - xx-1529

4. The data pack submitted shall show how the certification basis derived in the above paragraphs has been complied with. For a change to an aircraft system the following details would typically be included

- A description of the modification
- general arrangement drawing/diagram of the installed equipment
- Details of mechanical attachment means and precise locations of installed equipment (including antennas, indicators and switches)
- Instructions to support continued airworthiness (see xx-1529)
- Identification (by part number) and assessment of installed equipment suitability.

  This would include the assessment of any TSO limitations, deviations and environmental qualification (this is typically found in the equipment manufacturer's Declaration of Design and Performance – DDP)

And where applicable:

- Wiring Diagrams
- An electrical load analysis including details of battery load and generation system capacity
- Testing details (e.g. operation, performance, EMI)
- A stress analysis of attachments
- Any Flight Manual/POH amendments as applicable
- Any amendments to radio station license, if issued

MCAR-21. A.16 Suspension or cancellation of a TAC

The Authority may suspend or cancel a 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 on-going technical support for the aircraft type may constitute grounds for such suspension or cancellation.

MCAR-21. A.41 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.

(SUBPART C — NOT APPLICABLE) -RESERVED

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

MCAR 21.A.90A Scope

This Subpart establishes the procedure for the approval of changes to type designs.

MCAR-21. A.91 Classification of changes in type design

Changes in type design are classified as minor and major. A 'minor change' is one that has no appreciable effect on the mass, balance, structural strength, reliability, operational characteristics, noise, fuel venting, exhaust emission, or other characteristics affecting the airworthiness of the product. Except where the Authority 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 MCAR-21. A.95 or MCAR-21.A.97 as appropriate, and shall be adequately identified.

GM 21.91 Classification of changes to a 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 MCAR-21 Subpart D, i.e., either MCAR-21.A.95 or MCAR-21.A.97, or alternatively whether application and approval has to be made in accordance with MCAR-21 Subpart E.

2. INTRODUCTION

2.1 MCAR-21. A.91 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 MCAR- 21.A.91, 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 MCAR-21.A.91 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 MCAR- 21.A.91, the GM and MCAR-21.A.91 are deemed entirely compatible.

3. ASSESSMENT OF A 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.

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 attached diagram)

MCAR-21. A.91 requires all changes to be classified as either major or minor, using the criteria of MCAR-21.A.91 and the complementary guidance of paragraph 3.3.

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 the availability of data before making a decision.

Wherever there is doubt as to the classification of a change, the Authority should be consulted for clarification.

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, exemption, reversion, later requirements).

(ii) Where the applicant proposes a new interpretation of the requirements used for the type type-certification basis has not been published as AMC material or otherwise agreed with the Authority.

(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 airworthiness requirements and the degree to which the original substantiation data has to be reassessed 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. MCAR-21.A.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, the Authority 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 MCAR-21.A.91.

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 21.91.

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 MCAR-21.A.91 and paragraph 3.3 conditions. It is not intended to present a comprehensive list of all major changes. Examples are categorised 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 MCAR-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 MCAR-21.A.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 aeroelastic 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 the seat and adjacent obstacles 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 inserts.

(ii) changes to the pressurisation control system which adversely affect previously approved limitations.

3. Flight

Changes which adversely affect the approved performance, such as high altitude operation, brake changes that affect braking performance.

Changes which adversely affect the flight envelope.

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.

Where failure effect is 'Catastrophic' or 'Hazardous', the change should be classified as major

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.

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 EUROCAE ED12B/RTCA DO-178B "Software Considerations in Airborne

Systems and Equipment Certification" or equivalent, the change should be classified as major if either of the following apply, and the failure effect is Catastrophic, Hazardous or Major:

(1) 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

(2) the software is upgraded to or downgraded from Level A, Level B or Level C; or (3) the executable code, determined to be level C, is deeply changed, e.g., after a software reengineering process accompanying a change of processor.

For software developed to guidelines other than ED-12B/DO-178B 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 requirements/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
- 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:

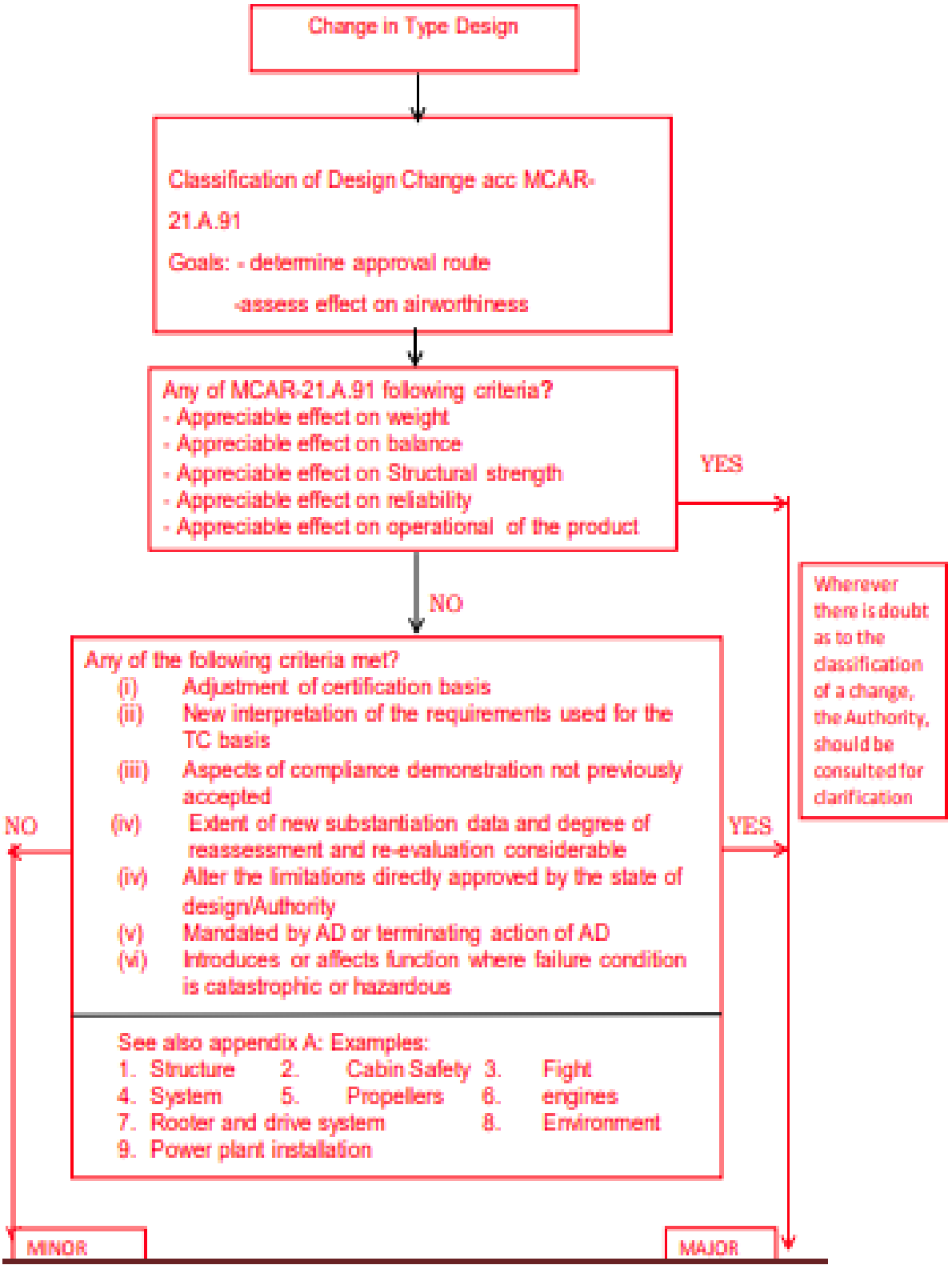
(i) control system changes which affect the engine/propeller/airframe interface;

(ii) new instrumentation displaying operating limits;

(iii) modifications to the fuel system and tanks (number, size and configuration);

(iv) change of engine/propeller type.

Classification Process



MCAR 21.A.92 Eligibility

Any natural or legal person may apply for approval of a change to a type design under this Subpart. The applicant shall have a sound knowledge of the design principles embodied in the aircraft type being modified.

MCAR 21.A.93 Application

An application for approval of a change to a type design shall be made in a form and manner established by the Authority 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 MCAR-21. A.101.

MCAR 21.A.95 Requirements for approval of a minor change

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

1. the Authority; or

2. By a design organisation acceptable to the Authority, provided

(i) It is within the scope of its privileges provided for in, as recorded in the terms of approval;

(ii) The design organisation shall furnish a handbook to the Authority describing, directly or by cross-reference, the organisation, the relevant procedures and the products or changes to products to be designed;

(iii) The handbook shall be amended as necessary to remain an up- to-date description of the organisation, and copies of amendments shall be supplied to the Authority;

(b) A minor change to a type design shall only be approved:

1. when it has been demonstrated that the change and areas affected by the change comply with the type-certification basis and the environmental protection requirements incorporated by reference in the type-certificate/type-design;

2. in the case of a change affecting the operational suitability data, when it has been demonstrated that the necessary changes to the operational suitability data comply with the operational suitability data certification basis incorporated by reference in the type certificate;

3. when compliance with the type-certification basis that applies in accordance with point (1) has been declared and the justifications of compliance have been recorded in the compliance documents; and

4. when no feature or characteristic has been identified that may make the product unsafe for the uses for which certification is requested.

(c) By derogation from point (1) in point (b), certification specifications which became applicable after those incorporated by reference in the type-certificate can be used for approval of a minor change, provided they do not affect the demonstration of compliance.

(d) By derogation from point (a), at the applicant's request included in the declaration referred to in point 21.A.20(d), a minor change to an aircraft type-certificate may be approved before compliance with the operational suitability data certification basis has been demonstrated, provided that the applicant demonstrates such compliance before the date at which those data are actually used.

(e) The applicant shall submit to the Authority the substantiation data for the change and a statement that compliance has been demonstrated in accordance with point (b).

(f) An approval of a minor change to a type-certificate shall be limited to the specific configuration(s) in the type-certificate or type-design to which the change relates.

ADD MAJOR CHANGE AND CORRESPONDING AMC

AMC 21.95 (b) 1 Minor changes

Model content of handbook for organisations designing minor changes to type design or minor repairs to products

Part 1 Organisation

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 organisation (including locations)
1.7 Scope of work (with identification of type and models of products)
1.8 Organisation Charts
1.9 Human resources

1.10 Management staff
1.11 Certifying personnel (i.e. the persons responsible to: classify changes to type design or repairs, verify compliance, approve minor changes to type design and minor repairs, issue information or instructions)
1.12 Independent system monitoring

Part 2 Procedures

2.1 Management of changes to type design and design of repairs

- Configuration Control
- Classification
- Approval of minor changes to type design and minor repairs

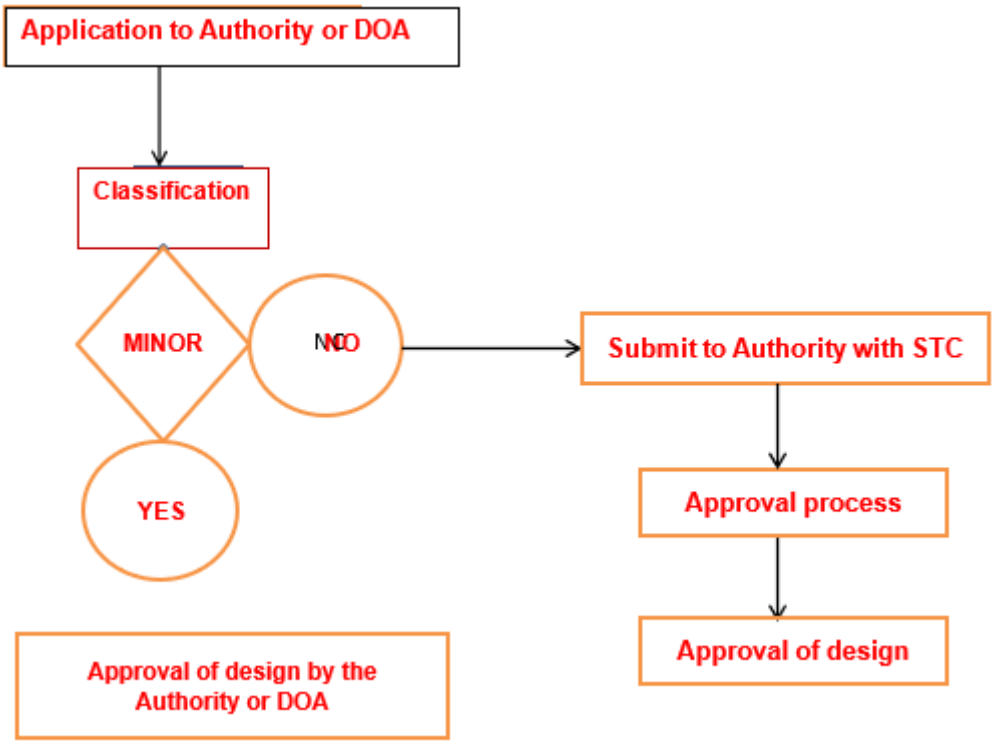
2.2 Control of Design Subcontractors
2.3 Collecting/Investigating of failures, malfunctions and defects
2.4 Co-ordination with production
2.5 Documentation control
- in relations with the changes and repairs
- in relation with failures/malfunctions and defects (i.e. Services Bulletins)

GM 21.95(b) Minor changes

An owner/operator may get their minor change classified and approved b holder even though the TC/STC holder has not submitted the handbook to t

The requirement to submit a handbook to the Authority is for design orgar than the TC/STC holder.

GM to 21.95 and 21.97 Type design change (modification) approval flowchart



MCAR 21.A.97 Requirements for approval of a major change

An applicant for approval of a major change shall submit a supplemental type certificate (STC) that meets Subpart E requirements.

MCAR-21. A.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.

MCAR-21. A.103 Issue of Approval

The applicant shall be entitled to have a major change to a type design approved by the Authority after submitting the STC referred to in MCAR-21.A.97

A minor change to a type design shall only be approved in accordance with MCAR-21.A.95 if it is shown that the changed product meets the applicable certification specifications/airworthiness code, as specified in MCAR-21.A.101.

MCAR-21. A.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 Authority 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 Authority 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.

MCAR 21.A.108 Availability of operational suitability data

In the case of a change affecting the operational suitability data, the holder of the minor change approval shall make available:

(a) at least one set of changes to the operational suitability data prepared in accordance with the applicable operational suitability certification basis, to all known operators of the changed aircraft, before the operational suitability data must be used by a training organisation or an EU operator; and

(b) any further change to the affected operational suitability data, to all known operators of the changed aircraft; and

(c) on request, the relevant parts of the changes in points (a) and (b) above, to:

1. the competent authority responsible for verifying conformity with one or more elements of the affected operational suitability data; and

2. any person required to comply with one or more elements of this set of operational suitability data.

MCAR 21.A.109 Obligations and EPA marking

The holder of a minor change approval to a type-certificate shall:

(a) specify the marking, including EPA (European Part Approval) letters.

SUBPART E — SUPPLEMENTAL TYPE-CERTIFICATES

MCAR-21. A.111 Scope

(a) The Authority does not issue supplemental type certificates.

(b) This subpart describes the requirements for the acceptance of supplemental type certificates.

MCAR 21.A.112A Eligibility

Any natural or legal person may apply for approval of a supplemental type certificates under this Subpart.

MCAR-21. A.111 B Acceptability of foreign supplemental type certificates

The following foreign supplemental type certificates may be accepted by the Authority:

(a) a supplemental type certificate issued by the EASA/FAA/Transport Canada

(b) a supplemental type certificate accepted by EASA/FAA/Transport Canada

(c) a supplemental type certificate issued by an ICAO Contracting State in compliance with Annexes 8 and 16 to the Convention on International Civil Aviation.

MCAR-21. A.111 C Incorporation of supplemental type certificates

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

MCAR 21.A.113 Application for a supplemental type-certificate Acceptance

(a) An application for the acceptance for the supplemental type-certificate shall be made in a form and manner established by the Authority.

SUBPART F (PRODUCTION WITHOUT PRODUCTION ORGANISATION APPROVAL) -RESERVED

SUBPART G – PRODUCTION ORGANISATION APPROVAL

MCAR-21. A.131 Scope

(a) The Authority does not issue Production Organisation Approvals (POA).

(b) This Subpart establishes the procedure for the acceptance of production organisations.

MCAR 21.A.133 Eligibility

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

MCAR AMC 21.A.133 -Eligibility – Link between design and production organisations

A POA holder must demonstrate that it has entered into an arrangement with the design organisation. The arrangement must be documented irrespective of whether the two organisations are separate legal entities or not.

In the case where the design organisation and POA holder are part of the same legal entity these interfaces may be demonstrated by company procedures accepted by the Authority.

In all other cases to define such a design/production interface the following sample format is offered:

Arrangement Sample Form

ARRANGEMENT	
The undersigned agree on the following commitments:	Relevant interface procedure
The design organisation [NAME] takes responsibility to - assure correct and timely transfer of up-to-date applicable design data (e.g., drawings, material specifications, dimensional data, processes, surface treatments, shipping conditions, quality requirements, etc.) to the production organisation approval holder [NAME]	

- provide visible statement(s) of approved design data.	
The production organisation approval holder [NAME] takes responsibility to - assist the design organisation [NAME] in dealing with continuing airworthiness matter and for required actions - assist the design organisation [NAME] in case of products prior to type certification in demonstrating compliance with certification specifications - develop, where applicable, its own manufacturing data in compliance with the airworthiness data package.	
The design organisation [NAME] and the POA holder [NAME] take joint responsibility to - deal adequately with production deviations and non-conforming parts in accordance with the applicable procedures of the design organisation and the production organisation approval holder - achieve adequate configuration control of manufactured parts, to enable the POA holder to make the final determination and identification for conformity	
The scope of production covered by this arrangement is detailed in [DOCUMENT REFERENCE/ATTACHED LIST]	
[When the design organisation is not the same legal entity as the production organisation approval holder] **Transfer of approved design data:** The TC/STC/ETSO holder [NAME] acknowledges that the approved design data provided, controlled and modified in accordance with the arrangement are recognised as approved by the competent authority and therefore the parts and appliances manufactured in accordance with these data and found in a condition for	

safe operation may be released certifying that the item was manufactured in conformity to approved design data and is in a condition for safe operation.	
[When the design organisation is not the same legal entity as the production organisation approval holder] **Direct Delivery Authorisation:** This acknowledgment includes also [OR does not include] the general agreement for direct delivery to end users in order to guarantee continued airworthiness control of the released parts and appliances.	
For the [NAME of the design organisation/DOA holder] Date: Signature: xx.xx.xxxx [NAME in block letters]	For the [NAME of the POA holder] Date: Signature: xx.xx.xxxx [NAME in block letters]

MCAR 21.A.134 Application

(a) An application for acceptance of a Production Organisation shall be made in a form and manner established by the Authority.

MCAR 21.A.125A Acceptability of Foreign Production Organisation

The following foreign production organisation approvals may be accepted by the Authority:

(a) a production organisation approval issued by the EASA/FAA/Transport Canada.

(b) a production organisation approval accepted by EASA/FAA/Transport Canada.

(c) a production organisation approval issued by an ICAO Contracting State in compliance with Annexes 8 and 16 to the Convention on International Civil Aviation.

MCAR 21.A.130 Statement of Conformity

(a) Each manufacturer of a product, part or appliance manufactured under this Subpart by an Production Organisation shall raise a statement of conformity, an EASA Form 52 or equivalent, for complete aircraft, and a DCA or EASA Form 1 or equivalent, for other products, parts or appliances. This statement shall be signed by an authorised 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 on forms 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;

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;

4. additionally, in the case of environmental protection 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 CO2 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, for validation by the competent authority.

(d) The competent authority of the production organisation shall validate by counter-signature the statement of conformity if it finds after inspection that the product, part or appliance conforms to the applicable design data and is in condition for safe operation.

SUBPART H — CERTIFICATES OF AIRWORTHINESS

MCAR-21. A.171 Scope

This Subpart establishes the procedure for issuing airworthiness certificates.

MCAR-21. A.172 Eligibility

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

MCAR-21. A.173 Classification

Certificates of airworthiness shall be issued to aircraft which conform to a type acceptance certificate that has been accepted in accordance with this Requirement.

MCAR-21. A.174 Application

(a) Pursuant to point 21.A.172, an application for an airworthiness certificate shall be made in a form and manner established by the Authority.

(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) A statement of conformity issued by the production organisation.
(ii) A weight and balance report with a loading schedule.
(iii) The flight manual, when required by the applicable airworthiness code for the particular aircraft.

(3) with regard to used aircraft:

(i) 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.

(ii) a weight and balance report with a loading schedule.

(iii) the flight manual when such material is required by the applicable airworthiness code for the particular aircraft.

(iv) historical records to establish the production, modification, and maintenance standard of the aircraft

(v) a recommendation for the issuance of a certificate of airworthiness and an airworthiness review certificate following an airworthiness review in accordance with MCAR-Part-M

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

(d) An application for airworthiness certificate shall be submitted to the Authority along with the requisite fees as applicable.

AMC 21.174 (b) 2(i) Application

(1) A statement of conformity confirms 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 issued for complete aircraft by EASA approved production organisations
(ii) FAA Form 8130-9 (previously Form 317) issued for complete aircraft in USA
(iii) CASA Form 724 in Australia

AMC 21.174 (b) 3(i) Application

(1) A statement reflecting the airworthiness state can be:

(i) An Airworthiness Review Certificate (ARC) issued under Part M or equivalent.

(ii) An Export Certificate of Airworthiness issued within 60 days preceding the date of receipt of the application by the Authority

(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 Authority

MCAR-21. A.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.

MCAR-21. A.177 Amendment or modification

An airworthiness certificate may be amended or modified only by the Authority.

MCAR-21. A.179 Transferability

Where ownership of an aircraft has changed the certificate of airworthiness shall be transferred together with the aircraft;

MCAR-21. A.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 the Authority.

MCAR-21. A.181 Duration and continued validity

(a) An airworthiness certificate shall be issued for a period of 12 months duration or any period defined by the Authority as the case may be and It shall remain valid subject to:

(1) compliance with the applicable type-design and continuing airworthiness requirements; and

(2) the aircraft remaining on the Mauritian civil aircraft register; and

(3) the type acceptance certificate under which it is issued not being previously invalidated under MCAR-21. A.16.

(4) the certificate not being surrendered or revoked by the Authority.

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

MCAR-21. A.182 Aircraft identification

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

MCAR-21. A.183 Issue of certificates of airworthiness

The Authority shall issue a certificate of airworthiness for:

(1) new aircraft:

(i) Upon presentation of the documentation required by MCAR- 21.A.174(b) (2)

(ii) When the aircraft conforms to an approved design and is in condition for safe operation. This may include inspections by the Authority.

(2) used aircraft:

(i). Upon presentation of the documentation required by MCAR-21.A.174 (b) (3) demonstrating that:

- the aircraft conforms to a type acceptance certificate and any supplemental type certificate, change or repair approved in accordance with this Part, and to applicable airworthiness directives, and

- the aircraft has been inspected by the Authority in accordance with the applicable provisions of MCAR-Part- M; and

(ii). when the aircraft conforms to an approved design and is in condition for safe operation. This may include inspections by the Authority.

MCAR-21. A.185 Application for an Export Certificate of Airworthiness

An application for an Export Certificate of Airworthiness must be made in a form and manner acceptable to the Authority and be submitted to the Authority along with the requisite fees as applicable.

MCAR-21.A.188 Training

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 the Authority Inspectors

SUBPART I - NOISE CERTIFICATES

MCAR-21.A.201 Scope

This Subpart establishes the procedure for issuing noise certificates.

MCAR-21. A.203 Eligibility

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

MCAR-21. A.204 Application

(a) Pursuant to MCAR-21. A.203, an application for a noise certificate shall be made in a form and manner established by the Authority.

(b) Each application shall include:

1. with regard to new aircraft:

(i) A statement of conformity issued by the production organisation,

(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 Authority.

MCAR-21. A.205 Issue of noise certificates

The Authority shall issue a noise certificate upon presentation of the documents required by MCAR- Part-21.204(b).

MCAR-21. A.207 Amendment or modification

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

MCAR-21. A.209 Transferability

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

MCAR-21. A.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 Authority for inspection.

MCAR-21. A.211 Duration and continued validity

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 Mauritian civil aircraft register; and

3. the type acceptance certificate under which it is issued not being previously invalidated under MCAR-21. A.16.

4. the certificate not being surrendered or revoked by the Authority

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

SUBPART J — DESIGN ORGANISATION APPROVAL

MCAR-21. A.231 Scope

(a) The Authority does not issue design organisation approvals

(b) This Subpart establishes the procedure for the acceptance of design organisations.

MCAR 21.A.233 Eligibility

Any natural or legal person may apply for approval of a Design Organisation under this Subpart. The applicant shall have a sound knowledge of the design principles embodied in the aircraft .

(b) An application for acceptance of a Production Organisation shall be made in a form and manner established by the Authority.

MCAR 21.A.234 Application

An application for acceptance of a Design Organisation shall be made in a form and manner established by the Authority.

MCAR-21.A.232 Acceptability of foreign design organisations

The following foreign design organisation approvals may be accepted by the Authority:

(a) a design organisation approval issued by the EASA/FAA/Transport Canada

(b) a design organisation approval accepted by EASA/FAA/Transport Canada

(c) a design organisation approval issued by an ICAO Contracting State in compliance with Annexes 8 and 16 to the Convention on International Civil Aviation.

MCAR 21.A.243 Handbook

(a) As part of the the design organisation shall create and furnish to the Authority a handbook that describes, directly or by cross reference, the organisation, its relevant policies, processes and procedures, the type of design work, and the categories of products, parts and appliances for which the design organisation holds a design organisation approval, as identified in the terms of approval issued

in accordance with point 21.A.251 and, where relevant, the interfaces with and the control of its partners or subcontractors.

If flight tests are to be conducted, a flight test operations manual that defines the organisation's policies and procedures in relation to flight tests shall also be created and furnished to the Authority. The flight test operations manual shall include:

1. a description of the organisation's processes for flight tests, including its involvement in the process for issuing a permit to fly;

2. crewing policy, including composition, competency, currency and flight time limitations,

3. procedures for the carriage of persons other than the crew members and for flight test training, where applicable;

4. a policy for the risk and safety management and associated methodologies;

5. procedures to identify the instruments and equipment to be carried on board;

6. a list of documents that need to be produced for the flight test.

(b) Where any parts or appliances or any changes to the products are designed by partner organisations or subcontractors, the handbook shall include a statement of how the design organisation is able to demonstrate, for all parts and appliances, the compliance in accordance with point 21.A.239(d)(2), and shall contain, directly or by cross reference, descriptions of and information on the design activities and the organisation of those partner organisations or subcontractors, as necessary to establish the statement.

(c) The handbook shall be amended as necessary to remain an up-to-date description of the organisation, and copies of the amendments shall be provided to the Authority when requested.

The design organisation shall establish and maintain a statement of the qualifications and experience of the management staff and of other persons in the organisation that are responsible for making decisions that affect airworthiness, operational suitability data and environmental protection matters. It shall submit that statement to the Authority.

SUBPART K — PARTS AND APPLIANCES

MCAR-21. A.301 Scope

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

MCAR-21. A.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) in conjunction with the type-certification procedures of Subpart B, D or E for the product in which it is to be installed; or

(b) compliance with Subpart O; or

(c) In the case of standard parts, in accordance with officially recognised Standards.

AMC 21.303(c) Standard Parts

In this context a part is considered as a “standard part”:

1. 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 recognised 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.

“Required” in the term “non-required” as used above means required by the applicable airworthiness code (CS 22.1303, 22.1305 and 22.1307 or equivalent) or required by the relevant operating regulations and the applicable Rules of the Air or as required by Air Traffic Management (e.g. a transponder in certain controlled airspace)

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 / turnpoint camera, bug-wipers and anti-collision systems.

Equipment which must be approved in accordance to the certification specifications shall comply with the applicable ETSO or equivalent and is not considered a standard part (e.g. oxygen equipment).

GM No 2 to 21.A.303(c)

In this context 'officially recognised Standards' means:

1. Those standards established or published by an official body whether having legal personality or not, which are widely recognised by the air transport sector as constituting good practice.

2. The standard used by the manufacturer of the equipment as mentioned in paragraph 2 of AMC 21.A.303(c)

MCAR-21. A.307 Release of parts and appliances for installation

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

(a) Accompanied by an authorised release certificate (DCA FORM 1or EASA FORM 1 or equivalent), certifying airworthiness; and

(b) Marked in accordance with Subpart Q.

GM 21.307 Release of Parts and Appliances for Installation

"Authorised release certificate certifying airworthiness for a new part or appliance" means certifying that the part or appliance conforms to the approved design data and is in condition for safe operation.

SUBPART L —RESERVED

SUBPART M — REPAIRS

MCAR-21. A.431 Scope

(a) This Subpart establishes the procedure for the approval of repair design.

(b) A 'repair' means elimination of damage and/or restoration to an airworthy condition following initial release into service by the manufacturer of any product, part or appliance.

(c) The elimination of damage by replacement of parts or appliances without the necessity for design activity shall be considered as a maintenance task and shall therefore require no approval under this Part.

(d) The 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 requirement.

(e) Reserved

GM 21.A.431A

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 ETSO authorisation as applicable) for operators, contain useful information for the development and approval of repairs. 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. Approved data is data which is approved either by the Authority, or by an appropriately approved design organisation.

MCAR 21.A.431B Standard Repair

(a) Standard repairs are repairs:

(1) in relation to:

(i) aeroplanes of 5 700 kg Maximum Take-Off Mass (MTOM) or less;
(ii) rotorcraft of 3 175 kg MTOM or less;
(iii) sailplanes and powered sailplanes, balloons and airships that follow design data included in certification specifications , containing acceptable methods, techniques and practices for carrying out and identifying standard repairs, including the associated instructions for continued airworthiness; and

(2) that are not in conflict with TC holders' data.

(b) Points 21.A.432A to 21.A.451 are not applicable to standard repairs.

MCAR-21. A.432A Eligibility

Any natural or legal person shall be eligible to apply for approval of a repair design. The applicant shall have a sound knowledge of the design principles embodied in the aircraft type being repaired.

MCAR-21. A.433 Repair Design

(a) The applicant for approval of a repair design shall only be approved:

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

2. Submit all necessary substantiation data, when requested by the Authority.

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 holder, as applicable, the applicant may comply with the requirements of paragraph (a) through the use of its own resources or through an arrangement with the type-certificate or supplemental type- certificate holder as applicable.

AMC 21.433 (a) and 21.447 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 requirements and references of justifications,

(c) repair drawing and/or instructions and scheme identifier,

(d) correspondence with the TC, STC, design approval or TSOA 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 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 MCAR-21.A.433 (b).

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

MCAR-21. A.435 Classification of Repairs

(a) A repair may be 'major' or 'minor'. The classification shall be made in accordance with the criteria of MCAR-21. A.91 for a change in the type design.

(b) A repair shall be classified ‘major’ or ‘minor’ under paragraph (a) either:

1. By the Authority, or

2. By a design organisation acceptable to the Authority, provided

The design organisation shall furnish a handbook to the Authority describing, directly or by cross-reference, the organisation, the relevant procedures and the products or changes to products to be designed.

The handbook shall be amended as necessary to remain an up-to-date description of the organisation, and copies of amendments shall be supplied to the Authority.

GM 21.A.435(a) Classification of Repairs

1. Clarification of the terms Major/Minor

In line with the definitions given in 21.A.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.)

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.

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’.

It is understood that not all the certification substantiation data will be available to those persons/organisations 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 center 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 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).1 Classification of repairs

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 Authority.

The requirement to submit a handbook to the Authority is for design organisations other than TC/STC holder.

MCAR-21.A.437 Issue of a repair design approval

When it has been declared and has been shown that the repair design meets the applicable certification specifications/airworthiness code and environmental protection requirements of MCAR-21.A.433 (a) (1), it shall be approved:

(a) by the Authority, or

(b) by a design organisation accepted by the Authority, that is also the type-certificate or the supplemental type-certificate holder. In this respect, any Repair Design Approval Sheet or equivalent issued by a type certificate holder and approved under a Design Organisation Approval granted by the type certificate holder primary certification Authority is approved under this Requirement.

(c) For minor repairs only, by a design organisation acceptable to the Authority, provided

1. The design organisation shall furnish a handbook to the Authority describing, directly or by cross-reference, the organisation, the relevant procedures and the products or changes to products to be designed.

2. The handbook shall be amended as necessary to remain an up- to-date description of the organisation, and copies of amendments shall be supplied to the Authority.

GM 21.437 Issue of Repair Design Approval

(1) Approval by DOA holder

The DOA may approve repairs through the use of procedures in handbook without requiring the Authority involvement. However, the owner or operator shall provide the Authority.

(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 organisation.

(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 organisation. 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 MCAR-21.A.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.

MCAR-21. A.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) By an organisation appropriately approved in accordance with Subpart G, or

(b) By an appropriately approved maintenance organisation.

MCAR-21. A.441 Repair embodiment

(a) The embodiment of a repair shall be made by an appropriately approved maintenance organisation, or by a production organisation accepted by the Authority.

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

21.A.443 Limitations

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

GM 21.443 Limitations

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.

MCAR-21. A.445 Unrepaired Damage

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 Authority, or

2. by a design organisation accepted by the Authority, provided

(i) The design organisation shall furnish a handbook to the Authority describing, directly or by cross-reference, the organisation, the relevant procedures and the products or changes to products to be designed.

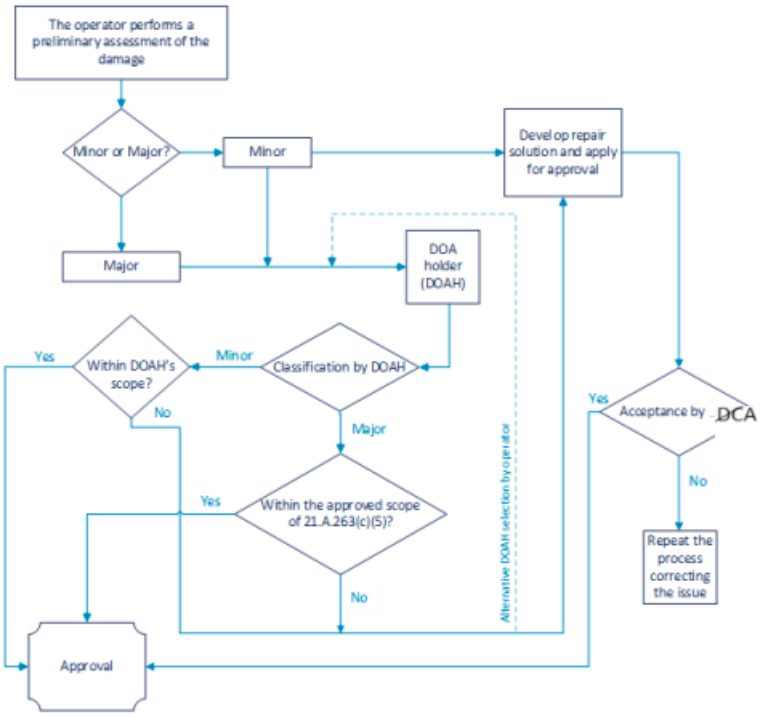
(ii) The handbook shall be amended as necessary to remain an up-to-date description of the organisation, and copies of amendments shall be supplied to the Authority. Any necessary limitations shall be processed in accordance with the procedures of MCAR- Part-21.443.

(c) Where the organisation evaluating the damage under paragraph (a) is neither the Authority nor the type-certificate or supplemental type-certificate holder, this organisation shall justify that the information on which the evaluation is based is adequate either from its organisation's

GM 21.445(a) Unrepaired damage

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 Authority.

The requirement to submit a handbook to the Authority is for design organisations other than TC/STC holder.



MCAR-21.A.447 Record keeping

For each repair, all relevant design information, drawings, test reports, instructions and limitations possibly issued in accordance with MCAR- 21.A.443, justification for classification and evidence of the design approval, shall:

(a) be held by the design organisation accepted by the Authority, at the disposal of the Authority, and

(b) be retained by the design organisation accepted by the Authority in order to provide the information necessary to ensure the continued airworthiness of the repaired products, parts or appliances.

AMC 21.445 and 21.447 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 designapproval sheet identifying applicable requirements and references of justifications,

(c) repair drawing and/or instructions and scheme identifier,

(d) correspondence with the TC, STC, design approval or TSOA 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 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 MCAR-21.A.433 (b).

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

MCAR-21. A.449 Instructions for Continued Airworthiness

(a) The holder of the design organisation accepted by the Authority 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 the Authority. 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 organisation accepted by the Authority 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 the Authority.

MCAR-21. A.451 Obligations and EPA marking

Reserved

SUBPART N — RESERVED

SUBPART O -- TECHNICAL STANDARD ORDER AUTHORISATIONS

MCAR-21. A.601 Scope

(a) The Authority does not issue technical standard order (TSO) authorisations

(b) This subpart describes the requirements for the acceptance of TSO authorisations

(c) For the purpose of this Subpart:

1. ‘article’ means any part and appliance to be used on civil aircraft.

2. ‘Technical Standard Order’ (referred to in this Part as ‘TSO’) is a detailed airworthiness specification issued by the National Aviation Authority to ensure compliance with a minimum performance standard for specified articles.

3. An article produced under a TSO authorisation accepted by the Authority, is an approved article for the purpose of Subpart K.

21.A.602A Eligibility

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

MCAR-21. A.601B Acceptability of foreign TSO authorisations

The following foreign TSO authorisations may be accepted by the Authority:

(a) a TSO authorisation issued by the EASA/FAA/Transport Canada

(b) a TSO authorisation accepted by EASA/FAA/Transport Canada

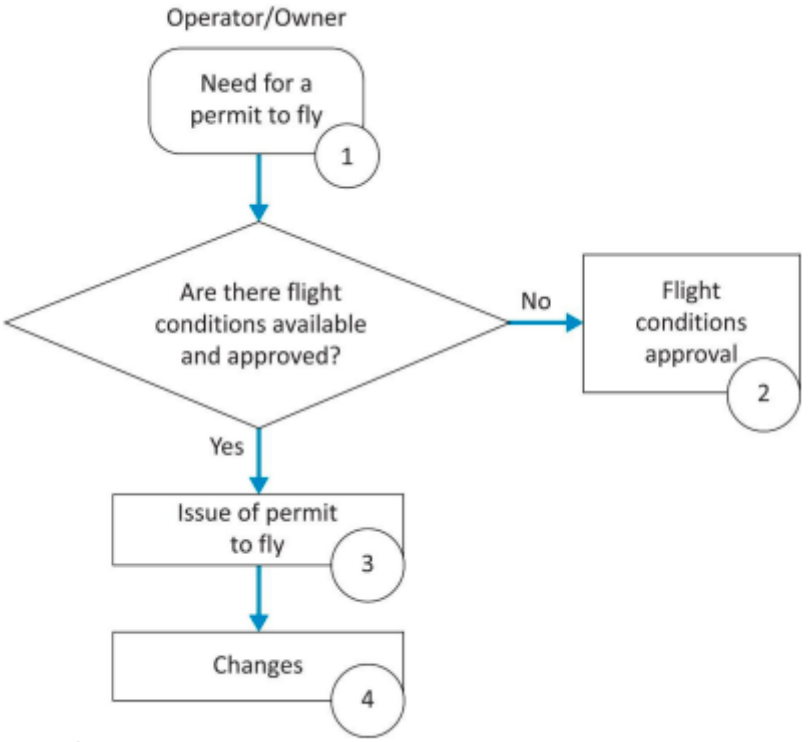
(c) a TSO authorisation issued by an ICAO Contracting State in compliance with Annexes 8 and 16 to the Convention on International Civil Aviation.

SUBPART P -- PERMIT TO FLY

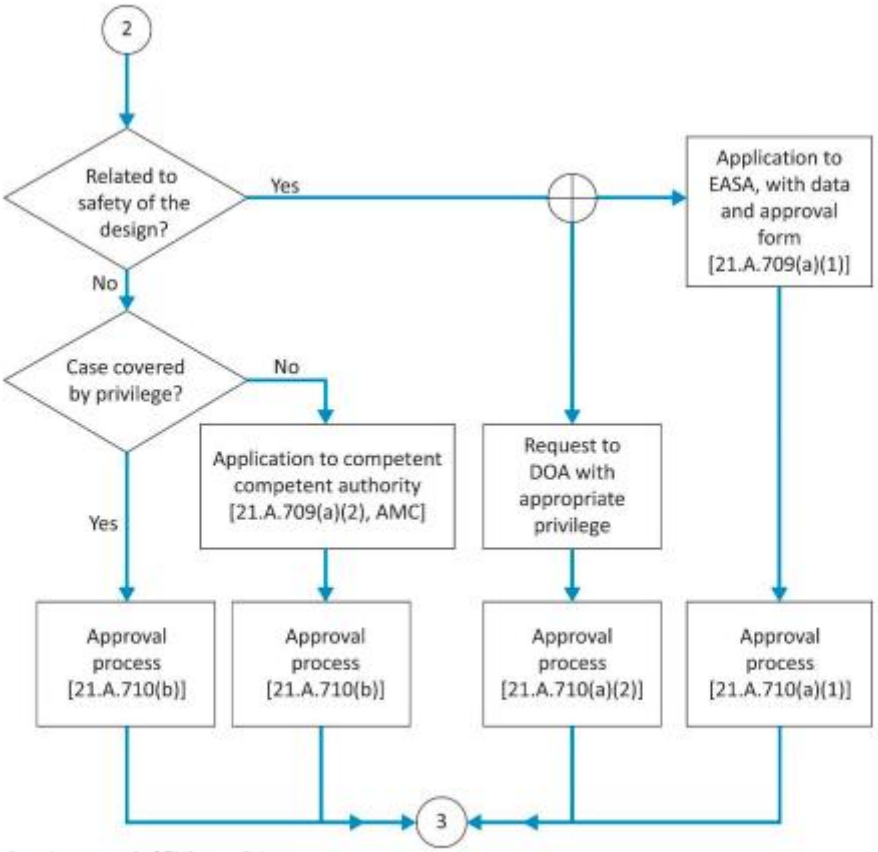
GM to Subpart P

The process of allowing a flight under a permit to fly can be described as follows:

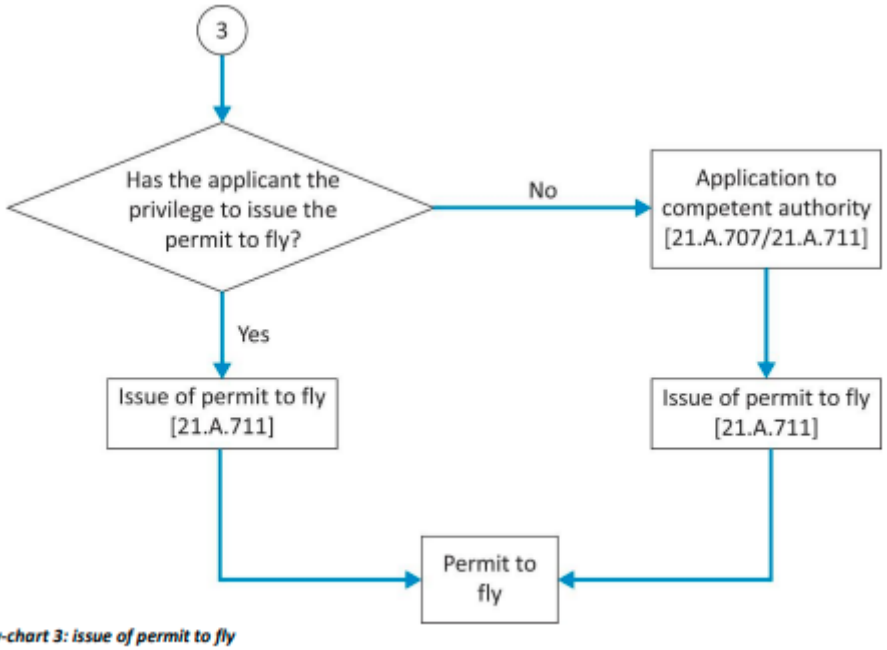
1. Flow-chart 1: overview
2. Flow-chart 2: approval of flight conditions
3. Flow-chart 3: issue of permit to fly
4. Flow-chart 4: changes after first issue of permit to fly



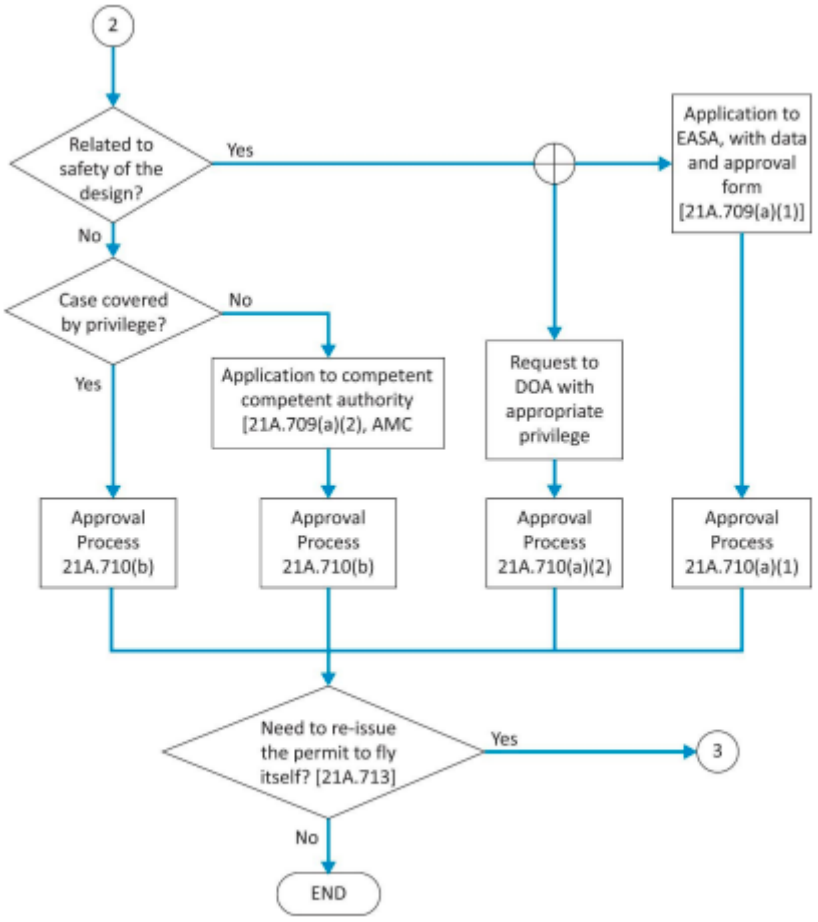
Flow-chart 1: overview



Flow-chart 2: approval of flight conditions



Flow-chart 3: issue of permit to fly



Flow-chart 4: changes after first issue of permit to fly

MCAR-21. A.701 Scope

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

1. development;
2. showing compliance with regulations or certification specifications/airworthiness code;
3. design organisations or production organisations crew training;
4. production flight testing of new production aircraft;
5. flying aircraft under production between production facilities;
6. flying the aircraft for customer acceptance;

7. delivering or exporting the aircraft;

8. flying the aircraft for the Authority acceptance;

9. market survey, including customer's crew training;

10. exhibition and air show;

11. flying the aircraft to a location where maintenance or airworthiness review are to be performed, or to a place of storage;

12. flying an aircraft at a weight in excess of its maximum certificated take- off weight for beyond the normal range over water, or over land areas where adequate landing facilities or appropriate fuel is not available;

13. record breaking, air racing or similar competition;

14. flying aircraft meeting the applicable airworthiness requirements before conformity to the environmental requirements has been found;

15. for non-commercial flying activity on individual non-complex aircraft or types for which a certificate of airworthiness.

16. 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 and approvals of flight conditions.

GM 21.701 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. Paragraph MCAR-21.A.701 identifies cases where the issuance of a Certificate of Airworthiness may not be possible or appropriate and this paragraph 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) Showing compliance with regulations or certification specifications:

- certification flight testing for type certification, supplemental type certificates, changes to type certificates or Technical Standard Order authorisation;

(3) Design organisations or production organisations crew training:

- Flights for training of crew that will perform design or production flight testing before the design approval and Certificate of Airworthiness (C of A) 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 C of A will be issued.

(8) Flying the aircraft for Authority acceptance:

- In the case of inspection flight test by the authority before the C of A 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 take-off 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 included

(14) Flying aircraft meeting the applicable airworthiness requirements before conformity to the environmental requirements has been found:

- Flying an aircraft which has been shown to comply with all applicable airworthiness requirements 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 airworthiness requirements, 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 shown 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

MCAR-21. A.703 Eligibility

A registered owner of an aircraft, registered in accordance with the Civil Aviation Regulations 6 and 7, shall be eligible as an applicant for a permit to fly. A person eligible for an application for permit to fly is also eligible for application for the approval of the flight conditions.

MCAR-21.A.707 Application for permit to fly

(a) Pursuant to MCAR-21. A.703, an application for a permit to fly shall be made to the Authority in a form and manner established by the Authority.

(b) Each application for a permit to fly shall include:

1. the purpose(s) of the flight(s), in accordance with MCAR- 21.A.701;

2. the ways in which the aircraft does not comply with the applicable airworthiness requirements;

3. the flight conditions approved in accordance with MCAR- 21.A.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 MCAR-21.A.709.

GM 21.707(a) Application

DCA –APP- 21 should be obtained from the Authority

21.A.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.A.708(b)(6) Continuing airworthiness

In most cases a simple reference to existing maintenance requirements will suffice for aircraft that have a temporarily invalid C of A.

For other aircraft it will have to be proposed by the applicant as part of the flight conditions. For approved organisations they can be included in their procedures.

GM No 1 to 21.A.708(c) Safe flight

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.

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 minimise 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 to 21.A.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.

GM No 3 to 21.A.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 take-off 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.**
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. 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.

2. **CRITERIA USED TO DETERMINE THE SAFETY OF ADDITIONAL FACILITIES**.

In evaluating the installation of additional facilities, the design organisation 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?

3. **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 take-off 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

EXAMPLE of operating limitations which may be prescribed as part of the permit to fly:

Aircraft type: xxxxxx Model: yyyy

Limitations:

1. Maximum weight must not exceed 8 150 pounds.

2. 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.

3. Centre of gravity limits must not exceed (fwd) +116.8 and (aft) +124.6.

4. Aerobatics are prohibited.

5. Use of autopilot while in overweight condition is prohibited.

6. Weather conditions with moderate to severe turbulence should be avoided.

7. 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 take-off, that the aircraft is airworthy.

8. 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.

9. 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.A.708(d) Control of aircraft configuration

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. All other changes should be approved in accordance with 21.A.713 and when necessary a new permit to fly should be issued in accordance with 21.A.711.

21.A.709 Application for approval of flight conditions

(a) The applicant must submit, an application for approval of the flight conditions shall be made:

1. when approval of the flight conditions is related to the safety of the design, to the Authority in a form and manner established by the Authority; or

2. when approval of the flight conditions is not related to the safety of the design, to the competent authority in a form and manner established by that authority.

(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 point 21.A.708(b)

AMC1 21.A.709(b) Application for the approval of flight conditions

SUBMISSION OF DOCUMENTATION SUPPORTING THE ESTABLISHMENT OF FLIGHT CONDITIONS

The applicant should submit, together with the application, the documentation required by MCAR 21.A.709 (b) must be submitted with the approval form (DCA Form 18B) defined below, 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 8 of the form. When the flight conditions are approved under a privilege, this form should be used by the approved organisation to document the approval.

FLIGHT CONDITIONS FOR A PERMIT TO FLY – APPROVAL FORM	
1. Applicant [Name of organisation 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	
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.A.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.	
10. Approval	
11. Date of issue	**12. Name and signature [Authorised signatory]**
13. Approval Number	**14. Date**
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21.A.710 Approval of flight conditions Regulation

(a) Flight conditions shall be approved by:

1. the Authority; or DEPARTMENT OF CIVIL AVIATION MCAR-PART-21 ISSUE 2 Rev 00 17 July 2015 Page 40

2. an appropriately approved design organisation accepted by the Authority, under subpart J.

(b) Reserved

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

GM 21.A.710 Approval of Flight Conditions

1. The approval of flight conditions is related to the safety of the design, when:

   a. the aircraft does not conform to an approved design; or

   b. an Airworthiness Limitation,Certification Maintenance Requirement or an Airworthiness Directive has not been complied with; or

   c. the intended flight(s) are outside the approved envelope;

   d. the permit to fly is issued for the purpose of 21.A.701(a)(15).

2. Examples when the approval of flight conditions is not related to the safety of the design are:

   a. production flight testing for the purpose of conformity establishment;

   b. delivery / export flight of a new aircraft the design of which is approved;

   c. demonstrating continuing conformity with the standard previously accepted by the Authority for the aircraft or type of aircraft to qualify or re-qualify for a (restricted) certificate of airworthiness.

21.A.711 Issue of a permit to fly

(a) The Authority shall issue a permit to fly:

1. upon presentation of the data required by MCAR-21.A.707; and

2. when the conditions of MCAR-21.A.708 have been approved in accordance with MCAR-21.A.710; and

3. when the Authority, 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 MCAR-21.A.708 before flight.

(b) Reserved

(c) Reserved

(d) The permit to fly shall specify the purpose(s) and any conditions and restrictions approved under MCAR-21. A.710.

(e) Reserved

(f) Reserved

GM 21.A.711(e) Additional conditions and restrictions

The conditions and restrictions prescribed by the Authority may include airspace restrictions to make the conditions approved more concrete, or conditions outside the scope of the ones mentioned in 21.A.708(b) such as a radio station license

MCAR 21.A.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 MCAR-21. A.710. When relevant an application shall be made in accordance with MCAR-21. A.709.

(b) A change affecting the content of the permit to fly requires the issuance of a new permit to fly in accordance with MCAR-21. A.711.

GM 21.A.713 Changes

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.

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

MCAR 21.A.715 Language

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

MCAR 21.A.719 Transferability

(a) A permit to fly is not transferable.
(b) Reserved

MCAR 21. A.721 Inspections

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

MCAR 21. A.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 MCAR21.A.711 (d) associated to the permit to fly;

2. the permit to fly not being surrendered or revoked by the Authority;

3. the aircraft remaining on Mauritius civil aircraft register.

(b) Notwithstanding subparagraph (a), a permit to fly issued for the purpose of MCAR-21.701(15) may be issued for unlimited duration.

(c) Upon surrender or revocation, the permit to fly shall be returned to the Authority. MCAR-21.A.725 Renewal of permit to fly Renewal of the permit to fly shall be processed as a change in accordance with MCAR-21.713

MCAR-21.A.725 Renewal of Permit to Fly

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

MCAR-21.A.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.

MCAR-21. A.729 Recordkeeping

(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 Authority 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

MCAR-21. A.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 Authority 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 and any heater assembly shall be permanently and legibly marked with the manufacturer's name, part number, or equivalent, and serial number, or equivalent.

MCAR-21. A.803 Handling of identification data

(a) No person shall remove, change, or place identification information referred to in MCAR-21.A.801 (a) on any aircraft, engine, propeller, propeller blade, or propeller hub, or in MCAR-21.A.807 (a) on an APU, without the approval of the Authority.

(b) No person shall remove or install any identification plate referred to in MCAR-21.A.801 or in MCAR-21.A.807 for an APU, without the approval of the Authority.

(c) By way of derogation from paragraphs (a) and (b), any natural or legal person performing maintenance work under the applicable Mauritius Civil Aviation

Regulations, in accordance with methods, techniques and practices established by the Authority:

1. Remove, change, or place the identification information referred to in MCAR-21.A.801(a) on any aircraft, engine, propeller, propeller blade, or propeller hub, or in MCAR- 21.807(a) on an APU; or

2. Remove an identification plate referred to in MCAR-21.A.801, or MCAR-21.A.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.

MCAR-21.A.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; 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 Authority 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 authorised release document accompanying the part or appliance or its container shall include the information that could not be marked on the part.

MCAR-21.A.805 Identification of critical parts

In addition to the requirement of MCAR-21.A.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.

MCAR-21.A.807 Identification of TSO articles

(a) Each TSO article shall be permanently and legibly marked with the following information:

1. The name and address of the manufacturer;

2. The name, type, part number or model designation of the article;

3. The serial number or the date of manufacture of the article or both; and 4

4. The applicable TSO number.

(b) By way of derogation from paragraph (a), if the Authority 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 authorised release document accompanying the part or its container shall include the information that could not be marked on the part.

(c) An APU 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.

DCA-APP-TAC

Department of Civil Aviation

Republic of Mauritius

Application for Type Acceptance

Certificate ABOUT THIS APPLICATION FORM

Complete this form if you are:

(i) Seeking a Type Acceptance Certificate (TAC) for a type of aircraft not currently under Mauritius register, or

(ii) Seeking an amendment of a TAC to add another model of the aircraft type.

This application is made up of five parts

Part A Applicant's Details

Part B Aircraft Description

Part C Applicant's Declaration

Part D Submitting your Application

Submitting your application
Send your application and associated documents to:

By post:

Director of Civil Aviation
DEPARTMENT OF CIVIL AVIATION
Sir Seewoosagur Ramgoolam Airport
Plaine Magnien
MAURITIUS

By fax: +230 6373164

By email: civil-aviation@mail.gov.mu

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

When a type and model of imported aircraft have been accepted in Mauritius the Department of Civil Aviation issues a TAC. Individual examples of the type and model of aircraft are then eligible for issue of certificates of airworthiness in the category

nominated in the TAC. If you wish to introduce a type and model of aircraft new to Mauritius you should apply to Department of Civil Aviation for the issue of a TAC.

The Department of Civil Aviation is able to issue a TAC if the aircraft type is the subject of a Type Certificate (TC) issued according to MCAR-21.A.12 A.

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 Department of Civil Aviation 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 Department of Civil Aviation, or the nominee is the holder of a valid license issued by Department of Civil Aviation.

Company's must provide the company's name as registered with the Registrar of Companies. For foreign applicants, please provide a copy of your nationally recognized registration record.

Proof of identity includes National ID card for Mauritians and Passport for foreigners

Part B – Aircraft Description

You must also support your application by supplying all the documents required by MCAR-21.A.15 (b).

You must nominate the airworthiness category or categories in which you want Mauritius 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, you indicate to the Department of Civil Aviation that you have read the guidelines, completed the application in full, supplied proof of identification, accept the terms and conditions for processing your application. This application must be signed by all the applicant(s).

Part D – Submitting your application

This section provides information for submitting your application.

Part A - Applicant's Details
A1 Are you an individual? Are you an incorporated company or association? □Yes > Complete PartA2 □No □Yes > Complete Part A3 □NO If you are a combination of the two please complete both A2 and A3
A2 **Surname**: **Date of Birth**: **Given Names**: **Do you have a Mauritian licence (flight crew/MCAR-66/air traffic controller)?** □ Yes Licence number: □ No Proof of ID must be with your application
A3 (i) Name of incorporated company or association Company Registration No: **(ii) Do you have a Mauritian AOC/MCAR-145 or 147 approval?** □Yes AOC/approval No: □No Provide proof of Company registration with your application
A5 Please provide details of the person that you wish the Department of Civil Aviation to contact in relation to this application? Name (in full): **Contact Details** Phone: Mobile: Email:
Part B - Aircraft Description
Type Certificate Holder: Aircraft Manufacturer: Aircraft Model: Country of Manufacture: Type Certificate Number: State of Design (if different to country of manufacture): Attach Type Certificate Data Sheet
Attached by email □Attached by Paper Copy or □ URL Web address:

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

Certificate of Airworthiness Category

□Transport(p) □Transport(c) □Aerial work □Helicopter

□Private □Manned Free Balloon □Special

□Special Class - Please specify e.g. airship, tilt rotor:

C1 Applicant Declaration

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

Name……..... Signature…….
Date……

D1 After reviewing your application, the Department of Civil Aviation will advise you if any additional information is required.

Submit the completed application to the Department of Civil Aviation.

By post:

Department of Civil Aviation
Sir Seewoosagur Ramgoolam International Airport
Plaine Magnien
MAURITIUS

Or By fax: +230 637 3164

Or By email: civil-aviation@mail.gov.mu

This completes your application.

EXAMPLE:

DEPARTMENT OF CIVIL AVIATION

REPUBLIC OF M AURITIUS

Document No: DCA-TAC-XXX

TYPE ACCEPTANCE CERTIFICATE

Pursuant to Regulation MCAR-21 Subpart B this certifies acceptance of the Boeing (The Boeing Company, PO Box 3707 Seattle, WA 98124, USA) model 757-200 series.

Aircraft of the type and models covered by this certificate are eligible for Mauritius Certificates of Airworthiness in the Transport passenger Aeroplane Category.

The certificate is valid until suspended or cancelled by the Mauritius Department of Civil Aviation. The basis of certification is as prescribed in the Type Certificate Data Sheet No. A2NM (Revision 30) issued by the Federal Aviation Administration of the United States of America.

Director of Civil Aviation