



Course Syllabus

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DOA

Specialised Course

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A. THE EU LEGAL FRAMEWORK - PRINCIPLES

The Community being a supranational organisation, Member States may no more:

- deviate from common rules;
- impose additional requirements; or
- conclude arrangements with third countries.

Legislative powers

The Legislator, through the Basic Regulation:

- Defines the scope of powers transferred to the Community (the products, organizations and personnel that will be regulated by the Community to protect public interest)
- Adopts the essential requirements specifying the objectives to be met (the obligations and means to reach the desired level of protection)
- Distributes the executive tasks among the executive agents
- Establishes the means of judicial control when executive powers are given to Community bodies

Executive powers

Certification is carried out:

- By the Agency (when centralized action is more efficient).
- By the National Aviation Authorities (Commission oversight through the Agency).

Judicial powers

Oversight and enforcement are carried out by the national systems, under the supervision of national Courts

The interpretation of Community law is made by the Court of Justice of the European Community.

The Agency:

- Drafts common rules (EASA Regulation and implementing rules)
- Adopts material for the implementation of common rules (airworthiness codes, interpretation and guidance material)
- Issues type certificates (TC, STC,...), approves organisations (DOA and, outside the European territory, POA, MOA...), ensures their continued oversight
- Oversees the application of rules by the Member States and recommends the necessary enforcement actions to the Commission
- Acts as a focal point for third countries and international organizations for the harmonisation of rules and the recognition / validation of certificates



The Member States (NAAS):

- Provide expertise as appropriate for rulemaking tasks
- Develop national administrative rules for the implementation and enforcement of common rules (administrative procedures)
- May take action on a case by case basis if so required to ensure safety or appropriate operational flexibility (safeguards)
- Approve organisations in their territory (except DOs)
- Issue certificates for individual products on their registry
- Issue personnel licences for aircraft maintenance certifying staff (Part-66)

B. STRUCTURE OF THE EU REGULATORY SYSTEM

a) BASIC REGULATION

- The Parliament and the Council define the Scope of Powers transferred from the Member States to the Community
- They adopt the Essential Requirements specifying the objectives to be met
- The Basic Regulation was adopted by the European Parliament and the Council, according to the co-decision procedure
- It defines the scope of Community competence
- It establishes the objectives and principles of Community action
- It establishes the division of regulatory and executive powers between the Agency, the European Institutions and the Member States

b) IMPLEMENTING RULES

The Commission adopts standards for implementing the essential requirements

The Implementing Rules were adopted by the Commission, according to the comitology procedure

They **establish common standards in the fields of airworthiness, continuing airworthiness and environmental protection that:**

- Fulfil the objectives and principles established in the Essential Requirements
- Are in compliance with ICAO SARPs

They define the Competent Authority for the executive functions and establish rules and procedures for its implementation

c) ACCEPTABLE MEANS OF COMPLIANCE

145.B.17 Acceptable means of compliance

The Agency shall develop acceptable means of compliance that the Member States may use to establish compliance with this Part. When the acceptable means of compliance are complied with, the related requirements of this Part shall be considered as met.



| C. REGULATION (EC) NO 216/2008 | | | |
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| CHAPTER I | | PRINCIPLES | |
| Article 1 | Scope | <p>1. Applicability of the Basic Regulation to products, parts and appliances</p> <p>This Regulation shall apply to:</p> <p>(a) the design, production, maintenance and operation of aeronautical products, parts and appliances, as well as personnel and organisations involved in the design, production and maintenance of such products, parts and appliances</p> <p>(b) Personnel and organisations involved in the operation of aircraft.</p> | |
| CHAPTER II | | SUBSTANTIVE REQUIREMENTS | |
| Article 4 | Basic principles and applicability | <p>Aircraft, including any installed product, part and appliance shall comply with this Regulation,</p> <p>which are:</p> <p>(a) designed or manufactured by an organisation for which the Agency or a Member State ensures safety oversight or</p> <p>(b) registered in a Member State, unless their regulatory safety oversight has been delegated to a third country and they are not used by a Community operator or</p> <p>(c) registered in a third country and used by an operator for which any Member State ensures oversight of operations, or used into, within or out of the Community by an operator established or residing in the Community or</p> <p>(d) registered in a third country, or registered in a Member State which has delegated their regulatory safety oversight to a third country, and used by a third country operator into, within or out of the Community</p> | |



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| <p>Article 5</p> | <p>Airworthiness</p> | <p>2. Paragraph 1 shall not apply to aircraft referred to in Annex II.</p> <p>1. Aircraft referred to in Article 4(1) (a), (b) and (c) shall comply with the essential requirements for airworthiness laid down in Annex I.</p> <p>2. Compliance of aircraft referred to in Article 4(1)(b), and of products, parts and appliances mounted thereon shall be established in accordance with the following.</p> <p>(d) Organisations responsible for the maintenance of products, parts and appliances shall demonstrate their capability and means to discharge the responsibilities associated with their privileges. Unless otherwise accepted these capabilities and means shall be recognised through the issuance of an organisation approval. The privileges granted to the approved organisation and the scope of the approval shall be specified in the terms of approval.</p> <p>5. The measures designed to amend non-essential elements of this Article, by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 65(4). Those measures shall specify in particular:</p> <p>(f) conditions to issue, maintain, amend, suspend or revoke organisation approvals i.a.w. § 2(d), (e) and (g) and conditions under which such approvals need not be requested;</p> <p>(h) responsibilities of the holders of certificates.</p> | |
| <p>Article 11</p> | <p>Recognition of certificates</p> | <p>1. Member States shall, without further technical requirements or evaluation, recognise the certificates issued in accordance with this Regulation. When the original recognition is for a particular purpose, or purposes, any subsequent recognition shall cover only the same purpose or purpose(s).</p> <p>2. The Commission, on its own initiative or at the request of a Member State or of the Agency, may initiate the procedure referred to in Article 65(7) to decide whether a certificate issued in accordance with this Regulation effectively complies with this Regulation and its implementing rules. In case of non-compliance or ineffective compliance, the Commission shall require the issuer</p> | |



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| | | <p>of a certificate to take appropriate corrective action and safeguard measures, such as limitation or suspension of the certificate. Moreover, the provisions of paragraph 1 shall cease to apply to the certificate from the date of the notification of the Commission's decision to the Member States.</p> <p>3. When the Commission has sufficient evidence that appropriate corrective action has been taken by the issuer referred to in paragraph 2 to address the case of non-compliance or ineffective compliance and that the safeguard measures are no longer necessary, it shall decide that the provisions of paragraph 1 apply again to this certificate. These provisions shall apply as from the date of the notification of this decision to the Member States.</p> | |
| Article 14 | Flexibility provisions | <p>4. Member States may grant exemptions in the event of unforeseen urgent operational circumstances or operational needs of a limited duration, provided the level of safety is not adversely affected thereby. Appropriate notification.</p> | |
| Article 18 | Agency measures | <p>The Agency shall, where appropriate:</p> <p>(a) Issue opinions addressed to the Commission.</p> <p>(b) Issue recommendations addressed to the Commission for the application of Art. 14</p> <p>(c) Issue certification specifications, including airworthiness codes and acceptable means of compliance, as well as any guidance material for the application of this Regulation and its implementing rules.</p> | |
| ANNEX I | Essential requirements for airworthiness referred to in Article 5 | | |
| 3. | Organisations | <p>3.a. Organisation approvals must be issued when the following conditions are met:</p> | |



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| | | <p>3.a.1. the organisation must have all the means necessary for the scope of work.</p> <p>These means comprise, but are not limited to, the following:</p> <ul style="list-style-type: none"> • facilities • personnel • equipment • tools • material <p>documentation of tasks, responsibilities and procedures, access to relevant data and record-keeping.</p> <p>3.a.2. the organisation must implement and maintain a management system to ensure compliance with these essential requirements for airworthiness, and aim for continuous improvement of this system.</p> <p>3.a.3. the organisation must establish arrangements with other relevant organisations, as necessary, to ensure continuing compliance with these essential requirements for airworthiness.</p> <p>3.a.4. the organisation must establish an occurrence reporting and/or handling system, which must be used by the management system under point 3.a.2 and the arrangements under point 3.a.3, in order to contribute to the aim of continuous improvement of the safety of products.</p> | |
| D. ICAO REFERENCE MATERIAL | | | |
| ICAO Doc 7300 Convention on International Civil Aviation | | | |
| Chapter 6: | International Standards and Recommended Practices | Article 37: Adoption of international standards and practices | |
| ICAO Annex 6 | | | |
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| Chapter 8: | Aeroplane Maintenance | 8.7: Approved maintenance organization | |
| E. COMMISSION REGULATION (EC) No. 1702/2003 as last amended by Reg. (EC) 287/2008 | | | |
| Article 1 | Scope and definitions | <ol style="list-style-type: none"> 1. This Regulation lays down, in accordance with Article 5(4) and 6(3) of the basic Regulation, common technical requirements and administrative procedures for the airworthiness and environmental certification of products, parts and appliances specifying: <ol style="list-style-type: none"> (a) the issue of type-certificates, restricted type-certificates, supplemental type-certificates and changes to those certificates; (b) the issue of certificates of airworthiness, restricted certificates of airworthiness, permits to fly and authorised release certificates; (c) the issue of repair design approvals; (d) the showing of compliance with environmental protection requirements; (e) the issue of noise certificates; (f) the identification of products, parts and appliances; (g) the certification of certain parts and appliances; (h) the certification of design and production organisations; (i) the issue of airworthiness directives. 2. For the purpose of this Regulation, the following definitions shall apply: <ol style="list-style-type: none"> (a) "JAA" means the "Joint Aviation Authorities". (b) "JAR" means "Joint Aviation Requirements". (c) "Part 21" means the requirements and procedures for the certification of aircraft and related products, parts and appliances, and of design and production organisations annexed to this Regulation. (d) "Part M" means the applicable continuing airworthiness requirements adopted in pursuance to the basic Regulation. | |
| Article 2 | Products, parts and appliances certification | <ol style="list-style-type: none"> 1. Products, parts and appliances shall be issued certificates as specified in Part 21. 2. By way of derogation from paragraph 1, aircrafts, including any | |



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| | | <p>installed product, part and appliance, which are not registered in a Member State shall be exempted from the provisions of Subparts H and I of Part 21. They shall also be exempted from the provisions of Subpart P of Part 21 except when aircrafts identification marks are prescribed by a Member State.</p> <p>3. Where reference is made in the Annex (Part 21) to apply and/or to comply with the provisions of Annex I (Part M) to Commission Regulation (EC) No 2042/2003 and a Member State has elected, pursuant to Article 7(3)(a) and (b) of that Regulation, not to apply that Part until 28 September 2008, the relevant national rules shall apply instead until that date.</p> | |
| <p>Article 2a</p> | <p>Continued validity of type-certificates and related certificates of airworthiness</p> | <p>1. With regard to products which had a type-certificate, or a document allowing the issuing of a certificate of airworthiness, issued before 28 September 2003 by a Member State, the following provisions shall apply:</p> <p>(a) the product shall be deemed to have a type-certificate issued in accordance with this Regulation when:</p> <p>(i) its type-certification basis was:</p> <ul style="list-style-type: none"> - the JAA type-certification basis, for products that have been certificated under JAA procedures, as defined in their JAA data sheet, or - for other products, the type-certification basis as defined in the type-certificate data sheet of the State of design, if that State of design was: - a Member State, unless the Agency determines, taking into account, in particular, airworthiness codes used and service experience, that such type-certification basis does not provide for a level of safety equivalent to that required by the Basic Regulation and this Regulation, or - a State with which a Member State had concluded a bilateral airworthiness agreement or similar arrangement under which such products have been certificated on the basis of that State of design airworthiness codes, unless the Agency determines that such airworthiness codes or service | |



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| | | <p>experience or the safety system of that State of design do not provide for a level of safety equivalent to that required by Regulation (EC) No 1592/2002 and this Regulation.</p> <p>The Agency shall make a first evaluation of the implication of the provisions of the second indent in view of producing an opinion to the Commission including possible amendments to this Regulation;</p> <ul style="list-style-type: none">(ii) the environmental protection requirements were those laid down in Annex 16 to the Chicago Convention, as applicable to the product;(iii) the applicable airworthiness directives were those of the State of design. <p>(b) The design of an individual aircrafts, which was on the register of a Member State before 28 September 2003, shall be deemed to have been approved in accordance with this Regulation when:</p> <ul style="list-style-type: none">(i) its basic type design was part of a type-certificate referred to in point (a);(ii) all changes to this basic type design, which were not under the responsibility of the type-certificate holder, had been approved; and(iii) the airworthiness directives issued or adopted by the Member State of registry before 28 September 2003 were complied with, including any variations to the airworthiness directives of the State of design agreed by the Member State of registry. <p>(c) The Agency shall determine the type-certificate of the products not meeting the requirements of point (a) before 28 March 2007.</p> <p>(d) The Agency shall determine the type-certificate data sheet for noise for all products covered by point (a) before 28 March 2007. Until such determination, Member States may continue to issue noise certificates in accordance with applicable national regulations.</p> <p>2. With regard to products for which a type-certification process was proceeding through the JAA or a Member State on 28 September 2003, the following shall apply:</p> | |
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| | | <ul style="list-style-type: none">(a) if a product is under certification by several Member States, the most advanced project shall be used as the reference;(b) 21A.15(a), (b) and (c) of Part 21 shall not apply;(c) by way of derogation from 21A.17(a) of Part 21, the type-certification basis shall be that established by the JAA or, where applicable, the Member State at the date of application for the approval;(d) compliance findings made under JAA or Member State procedures shall be deemed to have been made by the Agency for the purpose of complying with 21A.20(a) and (b) of Part 21. <p>3. With regard to products that have a national type-certificate, or equivalent, and for which the approval process of a change carried out by a Member State was not finalised at the time when the type-certificate had to be in accordance with this Regulation, the following shall apply:</p> <ul style="list-style-type: none">(a) if an approval process is being carried out by several Member States, the most advanced project shall be used as the reference;(b) 21A.93 of Part 21 shall not apply;(c) the applicable type-certification basis shall be that established by the JAA or, where applicable, the Member State at the date of application for the approval of change;(d) compliance findings made under JAA or Member State procedures shall be deemed to have been made by the Agency for the purpose of complying with 21A.103(a)(2) and (b) of Part 21. <p>4. With regard to products that had a national type-certificate, or equivalent, and for which the approval process of a major repair design carried out by a Member State was not finalised at the time when the type-certificate had to be determined in accordance with this Regulation, compliance findings made under JAA or Member State procedures shall be deemed to have been made by the Agency for the</p> | |
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| | | <p>purpose of complying with 21A.433(a) of Part 21.</p> <p>5. A certificate of airworthiness issued by a Member State attesting conformity with a type-certificate determined in accordance with paragraph 1 shall be deemed to comply with this Regulation.</p> | |
| <p>Article 2b</p> | <p>Continued validity of supplemental type-certificates</p> | <p>1. With regard to supplemental type-certificates issued by a Member State under JAA procedures or applicable national procedures and with regard to changes to products proposed by persons other than the type-certificate holder of the product, which were approved by a Member State under applicable national procedures, if the supplemental type-certificate, or change, was valid on 28 September 2003, the supplemental type-certificate, or change shall be deemed to have been issued under this Regulation.</p> <p>2. With regard to supplemental type-certificates for which a certification process was being carried out by a Member State on 28 September 2003 under applicable JAA supplemental type-certificate procedures and with regard to major changes to products, proposed by persons other than the type-certificate holder of the product, for which a certification process was being carried out by a Member State on 28 September 2003 under applicable national procedures, the following shall apply:</p> <ul style="list-style-type: none"> (a) if a certification process was being carried out by several Member States, the most advanced project shall be used as the reference; (b) 21A.113 (a) and (b) of Part 21 shall not apply; (c) the applicable certification basis shall be that established by the JAA or, where applicable, the Member State at the date of application for the supplemental type-certificate or the major change approval; (d) the compliance findings made under JAA or Member State procedures shall be deemed to have been made by the Agency for the purpose of complying with 21A.115(a) of Part 21. | |



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| Article 2c | Continued operation of certain aircrafts registered by Member States | <ol style="list-style-type: none">1. With regard to an aircrafts that cannot be deemed to have a type-certificate issued in accordance with Article 2a (1)(a) of this Regulation, that has been issued a certificate of airworthiness by a Member State before Regulation (EC) No 1702/2003 became applicable in that Member State [5], was on its register on that date, and was still on the register of a Member State on 28 March 2007, the combination of the following shall be deemed to constitute the applicable specific airworthiness specifications issued in accordance with this Regulation:<ol style="list-style-type: none">(a) the type-certificate data sheet and type-certificate data sheet for noise, or equivalent documents, of the State of design, provided that the State of design has concluded the appropriate working arrangement in accordance with Article 18 of Regulation (EC) No 1592/2002 with the Agency covering the continued airworthiness of the design of such an aircrafts;(b) the environmental protection requirements laid down in Annex 16 to the Chicago Convention, as applicable to that aircrafts; and(c) the mandatory continuing airworthiness information of the State of design.2. The specific airworthiness specifications shall allow the continuation of the type of operations that the aircrafts concerned was entitled to perform on 28 March 2007 and shall be valid until 28 March 2008, unless these specifications are replaced before that date by a design and environmental approval issued by the Agency in accordance with this Regulation. Restricted certificates of airworthiness for the aircrafts concerned shall be issued by Member States pursuant to Part 21 Subpart H when conformity with these specifications is attested.3. The Commission may extend the period of validity referred to in paragraph 2 by a maximum of 18 months for aircrafts of a certain type, provided that a certification process of that type of aircrafts has been undertaken by the Agency before 28 March 2008 and that the Agency determines that such process can be concluded within the additional period of validity. In such case the Agency will notify its determination to the Commission. | |
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| Article 2d | Continued validity of parts and appliances certificates | <ol style="list-style-type: none">1. Approvals of parts and appliances issued by a Member State and valid on 28 September 2003 shall be deemed to have been issued in accordance with this Regulation.2. With regard to parts and appliances for which an approval or authorisation process was being carried out by a Member State on 28 September 2003, the following shall apply:<ol style="list-style-type: none">(a) if an authorisation process was being carried out by several Member States, the most advanced project shall be used as the reference;(b) 21A.603 of Part 21 shall not apply;(c) the applicable data requirements under 21A.605 of Part 21 shall be those established by the relevant Member State, at the date of application for the approval or authorisation;(d) compliance findings made by the relevant Member State shall be deemed to have been made by the Agency for the purpose of complying with 21A.606(b) of Part 21. | |
| Article 2e | Permit to fly | <p>The conditions determined before 28 March 2007 by the Member States for permits to fly or other airworthiness certificate issued for aircrafts which did not hold a certificate of airworthiness or restricted certificate of airworthiness issued under this Regulation, are deemed to be determined in accordance with this Regulation, unless the Agency determines before 28 March 2008 that such conditions do not provide for a level of safety equivalent to that required by Regulation (EC) No 1592/2002 or this Regulation.</p> <p>The permit to fly or other airworthiness certificate issued by Member States before 28 March 2007 for aircrafts which did not hold a certificate of airworthiness or restricted certificate of airworthiness issued under this Regulation, are deemed to be a permit to fly issued in accordance with this Regulation until 28 March 2008.</p> | |



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| Article 3 | Design organisations | <ol style="list-style-type: none">1. An organisation responsible for the design of products, parts and appliances or for changes or repairs thereto shall demonstrate its capability in accordance with Part 21.2. By way of derogation from paragraph 1, an organisation whose principal place of business is in a non-member State may demonstrate its capability by holding a certificate issued by that State for the product, part and appliance for which it applies, provided:<ol style="list-style-type: none">(a) that State is the State of design; and(b) the Agency has determined that the system of that State includes the same independent level of checking of compliance as provided by this Regulation, either through an equivalent system of approvals of organisations or through direct involvement of the competent authority of that State.3. Design organisation approvals issued or recognised by a Member State in accordance with the JAA requirements and procedures and valid before 28 September 2003 shall be deemed to comply with this Regulation. In such case, the period for closure of level two findings, referred to in Subpart J of Part 21, shall not exceed one year when those findings are associated with differences with previous applicable JAR.4. A type-certificate holder who does not hold on 28 September 2003 an appropriate design organisation approval issued under applicable JAA procedures shall demonstrate its capability under the conditions laid down in 21A.14 of Part 21 before 28 September 2005.5. An organisation, being the applicant for a supplemental type-certificate, a major repair design approval or an Auxiliary Power Unit design approval which does not hold on 28 September 2003 an appropriate design organisation approval issued by a Member State under applicable JAA procedures shall demonstrate its capability before 28 September 2005 in accordance with Part 21, 21A.112, 21A.432B, or in the case of an Auxiliary Power Unit, 21A.602B.6. With regard to organisations for which a design organisation approval is proceeding through a Member State on 28 September 2003 under applicable JAA procedures:<ol style="list-style-type: none">1. 21A.234 of Part 21 shall not apply;2. compliance findings made under JAA procedures shall be deemed to have been made by the Agency for the purpose of complying with 21A.245 of Part 21. | |
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| Article 5 | Entry into force | <ol style="list-style-type: none">1. This Regulation shall enter into force on 28 September 2003, except for 21A.804(a)(3) of Part 21 which shall enter into force on 28 March 2004 and Subparts H of Part 21 which shall enter into force on 28 September 2004.2. By way of derogation from 21A.159 of Part 21, Member States may issue approvals of a limited duration until 28 September 2007.3. By way of derogation from 21A.181 of Part 21, Member States may issue certificates of a limited duration until 28 September 2008.4. When a Member State makes use of the provisions of paragraphs 2 or 3 it shall notify the Commission and the Agency. | |
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F. General structure of Part-21 applicable to DOA

- **General**
- **Section A: Certification of aircraft and related products, parts and appliances, and of design and production organisations**
- **Section B: Procedures for Competent Authorities**

| ANNEX - Part-21 | Subject | F = Full contents O = Overview X = Not Relevant |
|---|---|---|
| 21.1 | General | O |
| 21A.1 | Scope | O |
| 21A.2 | Undertaking by another person than the applicant for, or holder of, a certificate | O |
| 21A.3 | Failures, malfunctions and defects | F |
| GM 21A.3(a) | The system for collection, investigation and analysis of data | F |
| GM 21A.3(b) | Occurrence reporting | F |
| AMC 21A.3(b)(2) | Reporting to the Agency | F |
| 21A.3B | Airworthiness directives | F |
| <i>GM 21A.3B(d)(4)</i> | <i>Defect correction – Sufficiency of proposed corrective action</i> | <i>X</i> |
| <i>AMC 21A.3B(b)</i> | <i>Unsafe condition</i> | <i>X</i> |
| <i>GM 21A.3B(b)</i> | <i>Determination of an unsafe condition</i> | <i>X</i> |
| 21A.4 | Coordination between design and production | F |
| <i>AMC 21A.4</i> | <i>Transferring of information on eligibility and approval status from the design holder to production organisations.</i> | <i>X</i> |
| SUBPART B – TYPE-CERTIFICATES AND RESTRICTED TYPE-CERTIFICATES | | |
| 21A.11 | Scope | F |
| 21A.13 | Eligibility | F |
| 21A.14 | Demonstration of capability | F |
| AMC 21A.14(b) | Alternative Procedures | F |



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| GM 21A.14(b) | Eligibility for alternative procedures | F |
| SUBPART D – CHANGES TO TYPE-CERTIFICATES AND RESTRICTED TYPE-CERTIFICATES | | |
| 21A.91 | Classification of changes in type design | F |
| GM 21A.91 | Classification of changes to a type design | F |
| SUBPART J - DESIGN ORGANISATION APPROVAL | | |
| 21A.231 | Scope | F |
| 21A.233 | Eligibility | F |
| 21A.234 | Application | F |
| 21A.235 | Issue of design organisation approval | F |
| 21A.239 | Design assurance system | F |
| AMC 21A.239(a)(3) | Design assurance system - Independent system monitoring | F |
| AMC 21A.239(b) | Design assurance system - Independent checking function of the showing of compliance | F |
| GM No. 1 to 21A.239(a) | Design assurance system | F |
| GM No. 2 to 21A.239(a) | Design assurance system for minor changes to type design or minor repairs to products | F |
| GM 21A.239(c) | Design assurance system | F |
| 21A.243 | Data | F |
| AMC No. 1 to 21A.243(a) | Data requirements | F |



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| AMC No. 2 to 21A.243(a) | Data requirements - Model content of handbook for organisations designing minor changes to type design or minor repairs to products | F |
| GM No. 1 to 21A.243(d) | Statement of qualifications and experience | F |
| GM No. 2 to 21A.243(d) | Data requirements - Statement of the qualification and experience- Organisations designing minor changes to type design or minor repairs to products | F |
| 21A.245 | Approval requirements | F |
| GM No. 1 to 21A.245 | Requirements for approval See 21A.245 | F |
| GM No. 2 to 21A.245 | Requirements for approval - Organisations designing minor changes to type design or minor repairs to products | F |
| 21A.247 | Changes in design assurance system | F |
| 21A.247 | GM Significant changes in the design assurance system | F |
| GM 21A.247 | Significant changes in the design assurance system | F |
| 21A.249 | Transferability | F |
| 21A.251 | Terms of approval | F |
| GM No. 1 to 21A.251 | Terms of approval | F |
| GM No. 2 to 21A.251 | Terms of approval - Organisations designing minor changes to type design or minor repairs to products | F |
| 21A.253 | Changes to the terms of approval | F |
| 21A.257 | Investigations | F |
| GM 21A.257(a) | Investigations | F |



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| 21A.258 | Findings | F |
| 21A.259 | Duration and continued validity | F |
| 21A.263 | Privileges | F |
| AMC No. 1 to 21A.263(c)(1) | Procedure for the classification of changes to type design and repairs as minor and major | F |
| AMC No. 2 to 21A.263(c)(1) | Privileges - Organisations designing minor changes to type design or minor repairs to products : classification procedure | F |
| AMC No. 1 to 21A.263(c)(2) | Procedure for the approval of minor changes to type design or minor repairs | F |
| AMC No. 2 to 21A.263(c)(2) | Privileges - Organisations designing minor changes to type design or minor repairs to products : procedure for the approval of minor changes to type design or minor repairs | F |
| GM 21A.263(b) | DOA privilege related to compliance documents | F |
| GM 21A.263(c)(3) | Issue of information or instructions | F |
| 21A.265 | Obligations of the holder | F |
| AMC 21A. 265(a) | Administration of the Handbook | F |
| GM 21A.265(b) | Use of the Handbook | F |
| Subpart P - PERMIT TO FLY | | |
| 21A.701 | Scope | F |
| GM 21A.701(a) | PtF when CofA or restricted CofA is not appropriate | F |
| <i>GM 21A.701</i> | <i>Scope</i> | <i>X</i> |
| 21A.703 | Eligibility | F |
| GM 21A.703 | Applicant for a PtF | F |



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| 21A.705 | Competent Authority | F |
| GM 21A.705 | Competent Authority | F |
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| 21A.707 | Application for permit to fly | F |
| GM 21A.707(b) | Application for permit to fly | F |
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| 21A.708 | Flight conditions | F |
| GM 21A.708(b)(6) | Continuing airworthiness | F |
| GM No. 1 to 21A.708(c) | Safe flight | F |
| GM No. 2 to 21A.708(c) | Substantiations | F |
| GM No. 3 to 21A.708(c) | Operation of Overweight Aircraft | F |
| GM 21A.708(d) | Control of aircraft configuration | F |
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| 21A.709 | Application for approval of flight conditions | F |
| AMC 21A.709(b) | Submission of documentation supporting the establishment of flight conditions | F |
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| 21A.710 | Approval of flight conditions | F |
| GM 21A.710 | Approval of flight conditions | F |
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| 21A.711 | Issue of a permit to fly | F |
| GM 21A.711(d) | Additional conditions and restrictions | F |
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| 21A.713 | Changes | F |
| GM 21A.713 | Changes | F |
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| 21A.715 | Language | F |
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| 21A.719 | Transferability | F |
| GM 21A.719 | Transfer of a permit to fly | F |
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| 21A.721 | Inspections | F |
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| 21A.723 | Duration and continued validity | F |
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| 21A.725 | Renewal of permit to fly | F |
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| 21A.727 | Obligations of the holder of a permit to fly | F |



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| 21A.729 | Recordkeeping | F |
| PROCEDURE FOR COMPETENT AUTHORITIES | | |
| SECTION B | | |
| 21B.20 | Obligations of the competent authority | O |
| <i>GM 21B.20</i> | <i>Obligations of the competent authority</i> | X |
| 21B.25 | <i>Requirements for the organisation of the competent authority</i> | X |
| <i>GM 21B.25(a)</i> | <i>Requirements for the organisation of the competent authority</i> | X |
| <i>GM 21B.25(b)</i> | <i>Requirements for the organisation of the competent authority</i> | X |
| <i>GM 21B.25(c)</i> | <i>Requirements for the organisation of the competent authority</i> | X |
| 21B.30 | Documented procedures | O |
| <i>AMC 21B.30(a)</i> | <i>Documented procedures</i> | X |
| 21B.35 | Changes in organisation and procedures | O |
| <i>AMC 21B.35(a)</i> | <i>Changes in organisation and procedures</i> | X |
| 21B.40 | Resolution of disputes | O |
| <i>GM 21B.40</i> | <i>Resolution of disputes</i> | X |
| 21B.45 | Reporting/coordination | O |
| <i>GM No. 1 to 21B.45</i> | <i>Reporting/coordination</i> | X |
| <i>GM No. 2 to 21B.45</i> | <i>Reporting/coordination</i> | X |
| <i>GM No. 3 to 21B.45</i> | <i>Reporting/coordination</i> | X |
| 21B.55 | Record keeping | O |
| 21B.60 | Airworthiness directives | O |
| SUBPART J – DESIGN ORGANISATION APPROVAL | | |
| Administrative procedures established by the Agency shall apply. | | |



| G. DETAILED CONTENTS AND LEVEL OF DETAIL EXPECTED (Full contents / Specific Paragraphs / Overview) | | | |
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| GENERAL | 21.1 General | <p>Competent Authority</p> <p>For the purpose of this Part, 'Competent Authority' shall be:</p> <p>(a) for organisations having their principal place of business in a Member State, the authority designated by that Member State; or the Agency if so requested by that Member State;</p> <p style="text-align: center;">or</p> <p>(b) for organisations having their principal place of business in a non-member State, the Agency.</p> | <i>Overview</i> |
| SECTION A REQUIREMENTS FOR APPLICANTS AND ACQUIRED RIGHTS AND OBLIGATIONS | | | |
| SUBPART A GENERAL PROVISION | | | |
| 21A.1 | Scope | This Section establishes general provisions governing the rights and obligations of the applicant for, and holder of, any certificate issued or to be issued in accordance with this Section. | <i>Overview</i> |
| 21A.2 | Undertaking by another person than the applicant for, or holder of, a certificate | The actions and obligations required to be undertaken by the holder of, or applicant for, a certificate for a product, part or appliance under this Section may be undertaken on its behalf by any other natural or legal person, provided the holder of, or applicant for, that certificate can show that it has made an agreement with the other person such as to ensure that the holder's obligations are and will be properly discharged. | <i>Overview</i> |
| 21A.3 | Failures, malfunctions and defects | (a) System for Collection, Investigation and Analysis of Data. The holder of a type-certificate, restricted type-certificate, supplemental type-certificate, European Technical Standard Order (ETSO) authorisation, major repair design approval or | <i>Full content</i> |



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| | | <p>any other relevant approval deemed to have been issued under this Regulation shall have a system for collecting, investigating and analysing reports of and information related to failures, malfunctions, defects or other occurrences which cause or might cause adverse effects on the continuing airworthiness of the product, part or appliance covered by the type-certificate, restricted type-certificate, supplemental type-certificate, ETSO authorisation, major repair design approval or any other relevant approval deemed to have been issued under this Regulation. Information about this system shall be made available to all known operators of the product, part or appliance and, on request, to any person authorised under other associated implementing Regulations.</p> <p>(b) Reporting to the Agency.</p> <ol style="list-style-type: none">1. The holder of a type-certificate, restricted type-certificate, supplemental type-certificate, ETSO authorisation, major repair design approval or any other relevant approval deemed to have been issued under this Regulation shall report to the Agency any failure, malfunction, defect or other occurrence of which it is aware related to a product, part, or appliance covered by the type-certificate, restricted type-certificate, supplemental type-certificate, ETSO authorisation, major repair design approval or any other relevant approval deemed to have been issued under this Regulation, and which has resulted in or may result in an unsafe condition.2. These reports shall be made in a form and manner established by the Agency, as soon as practicable and in any case dispatched not later than 72 hours after the identification of the possible unsafe condition, unless exceptional circumstances prevent this. | |
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| | | <p>(c) Investigation of Reported Occurrences.</p> <ol style="list-style-type: none"> 1. When an occurrence reported under paragraph (b), or under 21A.129(f)(2) or 21A.165(f)(2) results from a deficiency in the design, or a manufacturing deficiency, the holder of the type-certificate, restricted type-certificate, supplemental type-certificate, major repair design approval, ETSO authorisation, or any other relevant approval deemed to have been issued under this Regulation, or the manufacturer as appropriate, shall investigate the reason for the deficiency and report to the Agency the results of its investigation and any action it is taking or proposes to take to correct that deficiency. 2. If the Agency finds that an action is required to correct the deficiency, the holder of the type-certificate, restricted type-certificate, supplemental type-certificate, major repair design approval, ETSO authorisation, or any other relevant approval deemed to have been issued under this Regulation, or the manufacturer as appropriate, shall submit the relevant data to the Agency. | |
| GM 21A.3(a) | The system for collection, investigation and analysis of data | In the context of that requirement the word "Collection" means, the setting up, of systems and procedures which will enable relevant malfunctions, failures and defects to be properly reported when they occur. | <i>Full contents</i> |
| GM 21A.3(b) | Occurrence reporting | For occurrence reporting, refer to AMC 20-8, in AMC 20. | <i>Full contents</i> |
| AMC 21A.3(b)(2) | Reporting to the Agency | Within the overall limit of 72 hours the degree of urgency for submission of a report should be determined by the level of hazard judged to have resulted from the occurrence. | <i>Full contents</i> |



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| | | <p>Where an occurrence is judged by the person identifying the possible unsafe condition to have resulted in an immediate and particularly significant hazard the Agency (or the competent authority of the Member State as required) expects to be advised immediately and by the fastest possible means (telephone, fax, email, telex, etc.) of whatever details are available at that time. This initial report must be followed up by a full written report within 72 hours. A typical example would be an uncontained engine failure resulting in damage to aircraft primary structure.</p> <p>Where the occurrence is judged to have resulted in a less immediate and less significant hazard, report submission may be delayed up to the maximum of three days in order to provide more details.</p> | |
| <p>21A.3B</p> | <p>Airworthiness directives</p> | <p>a) An airworthiness directive means a document issued or adopted by the Agency 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.</p> <p>(b) The Agency shall issue an airworthiness directive when:</p> <ol style="list-style-type: none"> 1. an unsafe condition has been determined by the Agency 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. <p>(c) When an airworthiness directive has to be issued by the agency to correct the unsafe condition referred to in paragraph (b), or to require the performance of an inspection, the holder of the type-certificate, restricted type-certificate, supplemental type-certificate, major repair design approval, ETSO authorisation or any other relevant approval</p> | <p><i>Full contents</i></p> |



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| | | <p>deemed to have been issued under this Regulation, shall:</p> <ol style="list-style-type: none"> 1. Propose the appropriate corrective action or required inspections, or both, and submit details of these proposals to the Agency for approval. 2. Following the approval by the Agency of the proposals referred to under subparagraph (1), make available to all known operators or owners of the product, part or appliance and, on request, to any person required to comply with the airworthiness directive, appropriate descriptive data and accomplishment instructions. <p>(d) An airworthiness directive shall contain at least the following information:</p> <ol style="list-style-type: none"> 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. | |
| <p>21A.4</p> | <p>Coordination between design and production</p> | <p>Each holder of a type-certificate, restricted type-certificate, supplemental type certificate, ETSO authorisation, approval of a change to type design or approval of a repair design, shall collaborate with the production organisation as necessary to ensure:</p> <p>(a) The satisfactory coordination of design and production required by 21A.122 or 21A.133 or 21A.165(c)(2) as appropriate,</p> <p style="text-align: center;">and</p> <p>(b) The proper support of the continued airworthiness of the product, part or appliance.</p> | <p><i>Full contents</i></p> |



| SUBPART B - TYPE-CERTIFICATES AND RESTRICTED TYPE-CERTIFICATES | | | |
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| 21A.11 | Scope | This Subpart establishes the procedure for issuing type-certificates for products and restricted type-certificates for aircraft, and establishes the rights and obligations of the applicants for, and holders of, those certificates. | <i>Full contents</i> |
| 21A.13 | Eligibility | Any natural or legal person that has demonstrated, or is in the process of demonstrating, its capability in accordance with 21A.14 shall be eligible as an applicant for a type-certificate or a restricted type-certificate under the conditions laid down in this Subpart. | <i>Full contents</i> |
| 21A.14 | Demonstration of capability | <p>(a) Any organisation applying for a type-certificate or restricted type-certificate shall demonstrate its capability by holding a design organisation approval, issued by the Agency in accordance with Subpart J.</p> <p>(b) By way of derogation from paragraph (a), as an alternative procedure to demonstrate its capability, an applicant may seek Agency agreement for the use of procedures setting out the specific design practices, resources and sequence of activities necessary to comply with this Part, when the product is one of the following:</p> <p style="text-align: center;">1. a very light aeroplane or rotorcraft, a sailplane or a powered sailplane, a balloon, a hot air airship;</p> <p style="text-align: center;">Or</p> <p>2. a small aeroplane meeting all of the following elements:</p> <p style="margin-left: 40px;">(i) Single piston engine, naturally aspirated, of not more than 250 hp Maximum Take-Off Power (MTOPI);</p> <p style="margin-left: 40px;">(ii) Conventional configuration.</p> | <i>Full contents</i> |



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| | | <ul style="list-style-type: none"> (iii) Conventional material and structure. (iv) Flights under VFR, outside icing conditions; (v) Maximum 4 seats including the pilot and maximum take off mass limited to 3000 lb. (1361 kg). (vi) Unpressurised cabin. (vii) Non-power assisted controls. (viii) Basic aerobatic flights limited to +6/-3g. <p style="text-align: center;">or</p> <ul style="list-style-type: none"> 3. a piston engine. <p style="text-align: center;">or</p> <ul style="list-style-type: none"> 4. an engine or a propeller type-certificated under the applicable airworthiness code for powered sailplanes. <p style="text-align: center;">or</p> <ul style="list-style-type: none"> 5. a fixed or variable pitch propeller. | |
| <p>AMC 21A.14(b)</p> | <p>Alternative Procedures</p> | <p>Alternative procedures are an acceptable means to demonstrate design capability in the cases described in 21A.14, 21A.112B or 21A.432B. This concept is the implementation, in the context of specific projects, of procedures required in Subpart J DOA, to ensure that the applicant will perform relevant activities as expected by the Agency, but without the requirements on the organisation itself that can be found in Subpart J. The establishment of these alternative procedures may be seen as a starting phase for a Subpart J DOA, allowing at a later stage, at the discretion of the applicant, to move towards a full Subpart J DOA by the addition of the missing elements.</p> <p>1 Scope</p> <p>1.1 As alternative to DOA, a manual of procedures must set out specific design practices, resources and sequence of activities relevant for the specific projects, taking account of Part 21 requirements.</p> | <p><i>Full contents</i></p> |



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| | | <p>1.2 These procedures must be concise and limited to the information needed for quality and proper control of activities by the applicant/holder, and by the Agency</p> <p>2 Management of the (supplemental) type certification process</p> <p>2.1 For a particular project, at the beginning of the process, the applicant must propose to the Agency for acceptance a certification programme that includes:</p> <p>Part 1 Procedures for the management of the certification programme: creation and update all along the certification process to integrate the progress of the activities, distribution. This part must also include the milestones of the project development up to the type certification or approval of the major change, with the minimum administrative delays imposed by the Agency when necessary.</p> <p>Part 2 The attribution of responsibilities, as follows:</p> <ul style="list-style-type: none">- names of the persons having specific responsibilities in the frame of the certification programme- the description of their tasks, responsibilities and associated competences- scope of authority of signatories. <p>Part 3 The airworthiness requirements applicable to the project, corresponding interpretations, and the equivalence of safety or other specific cases related to the applicable requirements.</p> <p>Part 4 Working methods for showing of compliance and providing to the Agency the means by which such compliance has been shown.</p> | |
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| | | <p>This includes all or part of the following, depending on the complexity of the product:</p> <ul style="list-style-type: none">- the means by which compliance will be shown (means of compliance), in relation with the requirements and/or their detailed interpretation- the technical criteria associated with the means of compliance.- milestones specific to particular technical areas in relation with the general planning of the project.- the decision process, especially the key points where an Agency decision is needed before further action.- the flow of information to the Agency.- the configuration control, especially of the test specimen used to show compliance.- the organisation of the work for the interfaces or multidisciplinary subjects.- those compliance documents that will be subject to verification by the Agency.- the establishment of the compliance documentation, including the time schedule and availability to the Agency.- the control of the time schedule, for the accomplishment of the tasks in due time. <p>The applicant must submit all revisions of the certification programme to the Agency for acceptance.</p> <p>2.2 The applicant must establish procedures for creating compliance documents in such a way that:</p> <ul style="list-style-type: none">- the kind of document and the technical objectives for each document | |
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| | | <p>are determined at the beginning of the process</p> <ul style="list-style-type: none">- the production of the documents is carefully managed all along the process, in accordance with the milestones defined in the certification programme- the various issues of a document are controlled. <p>Each document must contain:</p> <ul style="list-style-type: none">-the reference of the requirements covered by the document-data showing compliance and a statement by the applicant declaring compliance with these requirements <p>A numbering system to identify the compliance documents must be defined in order to have an adequate link with the certification programme.</p> <p>Except as otherwise agreed with the Agency, all compliance documents must be produced before issuance of the final statement of compliance required by 21A.20(b) or 21A.97(a)(3). 2.3 There are no privileges associated with alternative procedures, however the Agency will decide on the extent of its involvement in the verification of compliance documents. This involvement may vary according to the Agency knowledge of the applicant from previous and on-going activities and the resulting assessment of competence, and must be addressed in the certification programme.</p> <p>3 Management of design changes</p> <p>3.1 Approval of changes to type design, repairs and production deviations from the approved design data</p> <p>The TC or STC applicant must provide procedures acceptable to the Agency for classification and approval of changes to type design (see paragraphs 3.2 and 3.3), and repairs and production deviations from the approved design data (see paragraph 3.4).</p> <p>3.2 Classification</p> <p>3.2.1 Content</p> | |
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| | | <p>The procedure must address the following points:</p> <ul style="list-style-type: none">- identification of changes to type design- airworthiness classification- changes to type design initiated by subcontractors- documents to justify the classification- authorised signatories <p>Criteria used for classification must be in compliance with 21A.91 and corresponding interpretations.</p> <p>3.2.2 Identification of changes to type design</p> <p>The procedure must indicate how the following are identified:</p> <ul style="list-style-type: none">- major changes to type design- those minor changes to type design where additional work is necessary to show compliance with the airworthiness requirementsother minor changes to type design requiring further showing of compliance. <p>3.2.3 Airworthiness classification</p> <p>The procedure must show how the effects on airworthiness are analysed, from the very beginning, by reference to the applicable requirements.</p> <p>If no specific requirements are applicable to the change, the above review must be carried out at the level of the part or system where the change is integrated and where specific requirements are applicable.</p> <p>3.2.4 Control of changes to type design initiated by subcontractors</p> <p>The procedure must indicate, directly or by cross-reference to written procedures, how changes to type design initiated by subcontractors are controlled.</p> <p>3.2.5 Documents to justify the classification</p> <p>All decisions of classification of changes to type design must be</p> | |
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| | | <p>documented and approved by the Agency. It may be in the format of meeting notes or register.</p> <p>3.2.6 Authorised signatories</p> <p>The procedure should identify the persons authorised to sign the proposed classification before release to the Agency for approval.</p> <p>3.3 Approval of changes to type design</p> <p>3.3.1 Content</p> <p>The procedure must address the following points:</p> <ul style="list-style-type: none">- compliance documentation- approval process- authorised signatories <p>3.3.2 Compliance documentation</p> <p>For major changes and those minor changes to type design where additional work to show compliance with the applicable airworthiness requirements is necessary, compliance documentation must be established following guidelines of paragraph 2.2.</p> <p>3.3.3 Approval process</p> <p>A For the approval of major changes to type design, a certification programme as defined in paragraph 2.1 must be established.</p> <p>B For major changes and those minor changes to type design where additional work to show compliance with the applicable airworthiness requirements is necessary, the procedure should define a document to support the approval process.</p> <p>This document must include at least :</p> <ul style="list-style-type: none">- identification and brief description of the change and its classification- applicable requirements- reference to the compliance documents | |
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| | | <ul style="list-style-type: none">- effects, if any, on limitations and on the approved documentation- authorised signatory <p>C For the other minor changes, the procedure must define a means:</p> <ul style="list-style-type: none">- to identify the change- to present the change to the Agency for approval. <p>3.3.4 Authorised signatories</p> <p>The procedure must identify the persons authorised to sign the change before release to the Agency for approval.</p> <p>3.4 Repairs and production deviations from the approved design data</p> <p>A procedure following the principles of paragraphs 3.2 and 3.3 must be established for the classification and approval of repairs and unintentional deviations from the approved design data occurring in production (concessions or non-conformance's). For repairs, the procedure must be established in accordance with Part 21 Section A Subpart M and associated acceptable means of compliance (AMC) or guidance material (GM).</p> <p>4 Issue of information and instructions to owners</p> <p>4.1 General</p> <p>The information or instructions issued by a TC, STC, approval of changes to type design, approval of repair design holder are intended to provide the owners of a product with all necessary data to implement a change on the product, or a repair, or to inspect it.</p> <p>The information or instructions may be issued in a format of a Service Bulletin as defined in ATA 100 system, or in Structural Repair Manuals, Maintenance Manuals, Engine and Propeller Manuals, etc.</p> <p>The preparation of this data involves design, production and inspection. The three aspects should be properly addressed and a procedure should exist.</p> | |
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| | | <p>4.2 Procedure</p> <p>The procedure should address the following points:</p> <ul style="list-style-type: none">- preparation - verification of technical consistency with corresponding approved change(s), repair(s) or approved data, including effectivity, description, effects on airworthiness, especially when limitations are changed - verification of the feasibility in practical applications. <p>The persons authorised to sign before release of information and instructions to the Agency for approval should be identified in the procedure.</p> <p>The procedure should include the information or instructions prepared by subcontractors or vendors, and declared applicable to its products by the TC, STC, approval of changes to type design or approval of repair design holders.</p> <p>4.3 Statement</p> <p>The information and instructions should contain a statement showing Agency approval.</p> <p>5 Obligations addressed in 21A.44 (TC holder), 21A.118A (STC holder) or 21A.451 (repair design approval holder)</p> <p>The applicant should establish the necessary procedures to show to the Agency how it will fulfil the obligations required under 21A.44, 21A.118A or 21A.451, as appropriate.</p> <p>6 Control of design subcontractors</p> <p>The applicant should establish the necessary procedures to show to the Agency how it will control design subcontractors.</p> | |
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| GM 21A.14(b) | Eligibility for alternative procedures | <p>Design organisations approved under Part 21 Section A Subpart J ("Subpart J DOA") should be the normal approach for type certification, supplemental type certification, approval of major changes to type design or approval of major repair design, except when agreed otherwise by the Agency in accordance with 21A.14, 21A.112B and 21A.432B.</p> <p>The acceptance of alternative procedures, as defined in AMC 21A.14(b), should be limited where the Agency finds it more appropriate for the conduct of type certification, supplemental type certification, approval of changes to type design, approval of repair design.</p> | <i>Full contents</i> |
| SUBPART D - CHANGES TO TYPE-CERTIFICATES AND RESTRICTED TYPE-CERTIFICATES | | | |
| 21A.91 | Classification of changes in type design | <p>Changes in type design are classified as minor and major. A "minor change" is one that has no appreciable effect on the mass, balance, structural strength, reliability, operational characteristics, noise, fuel venting, exhaust emission, or other characteristics affecting the airworthiness of the product. Without prejudice to 21A.19, all other changes are "major changes" under this Subpart. Major and minor changes shall be approved in accordance with 21A.95 or 21A.97 as appropriate, and shall be adequately identified.</p> | <i>Full contents</i> |
| GM 21A.91 | Classification of changes to a type design | <p>1. PURPOSE OF CLASSIFICATION</p> <p>Classification of changes to a type design into MAJOR or MINOR is to determine the approval route to be followed in Part 21 Subpart D, i.e., either 21A.95 or 21A.97, or alternatively whether application and approval has to be made in accordance with Part 21 Subpart E.</p> <p>2. INTRODUCTION</p> <p>2.1 21A.91 proposes criteria for the classification of changes to a type design as minor and major.</p> | <i>Full contents</i> |



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| | | <p>This GM is intended to provide guidance on the term appreciable effect affecting the airworthiness of the product from 21A.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 21A.91 and 21A.117 where classification is the first step of a procedure.</p> <p>Note: For classification of Repairs see GM 21A.435.</p> <p>(i) Although this GM provides guidance on the classification of major changes, as opposed to minor changes as defined in 21A.91, the GM and 21A.91 are deemed entirely compatible.</p> <p>2.2 For an ETSO authorisation, 21A.61 1 gives specific additional requirements for design changes to ETSO articles. For APU, this GM should be used.</p> <p>3 ASSESSMENT OF A DESIGN CHANGE FOR CLASSIFICATION</p> <p>3.1 Changes to the type design</p> <p>21A.31 defines what constitutes the type design. Alteration to any of the data included within the scope of 21A.31 is considered a change to the type design.</p> <p>3.2 Classification Process (see attached diagram)</p> <p>21A.91 requires all changes to be classified as either major or minor, using the criteria of 21A.91 and the complementary guidance of paragraph 3.3.</p> <p>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</p> | |
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| | | <p>wait for availability of data before making a decision.</p> <p>Wherever there is doubt as to the classification of a change, the Agency should be consulted for clarification.</p> <p>When the strict application of the paragraph 3.3 criteria results in a major classification, the applicant may request re-classification, if justified, and Agency could take the responsibility in re-classifying the change.</p> <p>A simple design change planned to be mandated by an airworthiness directive may be reclassified minor due to the involvement of the Agency in the continued airworthiness process.</p> <p>Reasons for a classification decision should be recorded.</p> <p>3.3</p> <p>Complementary guidance for classification of changes.</p> <p>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:</p> <ul style="list-style-type: none">(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, that has not been published as AMC material or otherwise agreed with the Agency.(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 | |
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| | | <p>comply with the applicable airworthiness requirements and the degree to which the original substantiation data has to be re-assessed and re-evaluated is considerable.</p> <p>(v) The change alters the Airworthiness Limitations or the Operating Limitations.</p> <p>(vi) The change is made mandatory by an airworthiness directive or the change is the terminating action of an airworthiness directive (ref. 21A.3B). See note 1.</p> <p>(vii) Where the change introduces or affects functions where the failure effect is classified catastrophic or hazardous.</p> <p><u>Note 1</u>: The design change previously classified minor and approved prior to the airworthiness directive issuance decision needs no re-classification. However, the Agency retains the right to review the change and re-classify/re-approve if found necessary.</p> <p><u>Note 2</u>: These above conditions are an explanation of the criteria noted in 21A.91.</p> <p>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 21A.91.</p> <p>See Appendix A to GM 21.91 at the end of this section</p> | |
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| SUBPART J - DESIGN ORGANISATION APPROVAL | | | |
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| 21A.231 | Scope | This Subpart establishes the procedure for the approval of design organisations and rules governing the rights and obligations of applicants for, and holders of, such approvals. | <i>Full contents</i> |
| 21A.233 | Eligibility | Any natural or legal person ("organisation") shall be eligible as an applicant for an approval under this Subpart (a) in accordance with 21A.14, 21A.112B, 21A.432B or 21A.602B. or (b) for approval of minor changes or minor repair design, when requested for the purpose of obtaining privileges under 21A.263. | <i>Full contents</i> |
| 21A.234 | Application | Each application for a design organisation approval shall be made in a form and manner established by the Agency and shall include an outline of the information required by 21A.243, and the terms of approval requested to be issued under 21A.251. | <i>Full contents</i> |
| 21A.235 | Issue of design organisation approval | An organisation shall be entitled to have a design organisation approval issued by the Agency when it has demonstrated compliance with the applicable requirements under this Subpart. | <i>Full contents</i> |
| 21A.239 | Design assurance system | (a) The design organisation shall demonstrate that it has established and is able to maintain a design assurance system for the control and supervision of the design, and of design changes, of products, parts and appliances covered by the application. This design assurance system shall be such as to enable the organisation: 1. To ensure that the design of the products, parts and appliances or the design change thereof, comply with the applicable type-certification basis and environmental protection requirements | <i>Full contents</i> |



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| | | <p style="text-align: center;">and</p> <p>2. To ensure that its responsibilities are properly discharged in accordance with:</p> <p style="padding-left: 40px;">(i) The appropriate provisions of this Part; and</p> <p style="padding-left: 40px;">(ii) The terms of approval issued under 21A.251.</p> <p>3. To independently monitor the compliance with, and adequacy of, the documented procedures of the system. This monitoring shall include a feed-back system to a person or a group of persons having the responsibility to ensure corrective actions.</p> <p>(b) The design assurance system shall include an independent checking function of the showings of compliance on the basis of which the organisation submits compliance statements and associated documentation to the Agency.</p> <p>(c) The design organisation shall specify the manner in which the design assurance system accounts for the acceptability of the parts or appliances designed or the tasks performed by partners or subcontractor according to methods which are the subject of written procedures.</p> | |
| <p>GM No. 1 to 21A.239(a)</p> | <p>Design assurance system</p> | <p>1 Purpose This GM outlines some basic principles and objectives of 21A.239(a).</p> <p>2 Definitions</p> <p>2.1 The design assurance system is the organisational structure, responsibilities, procedures and resources to ensure the proper functioning of the design organisation.</p> <p>2.2 The design assurance means all those planned and systematic actions necessary to provide adequate confidence that the</p> | <p><i>Full contents</i></p> |



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| | | <p>organisation has the capability to design products or parts in accordance with the applicable CS and environmental protection requirements, to show and verify the compliance with these CS and environmental protection requirements, and to demonstrate to the Agency this compliance.</p> <p>2.3 The "Type Investigation" means the tasks of the organisation in support of the type-certificate, supplemental type-certificate or other design approval processes necessary to show and verify and to maintain compliance with the applicable CS and environmental protection requirements.</p> <p>3 Design Assurance</p> <p>The complete process, starting with the CS and environmental protection requirements and product specifications and culminating with the issuing of a type-certificate, is shown in the diagram on Figure 1. This identifies the relationship between the design, the Type Investigation and design assurance processes.</p> <p>Effective Design Assurance demands a continuing evaluation of factors that affect the adequacy of the design for intended applications, in particular that the product, or part, complies with applicable CS and environmental protection requirements and will continue to comply after any change.</p> <p>Two main aspects should therefore be considered:</p> <ol style="list-style-type: none">1 How the planned and systematic actions are defined and implemented, from the very beginning of design activities up to continued airworthiness activities;2 How these actions are regularly evaluated and corrective actions implemented as necessary. <p>See figure 1 below</p> | |
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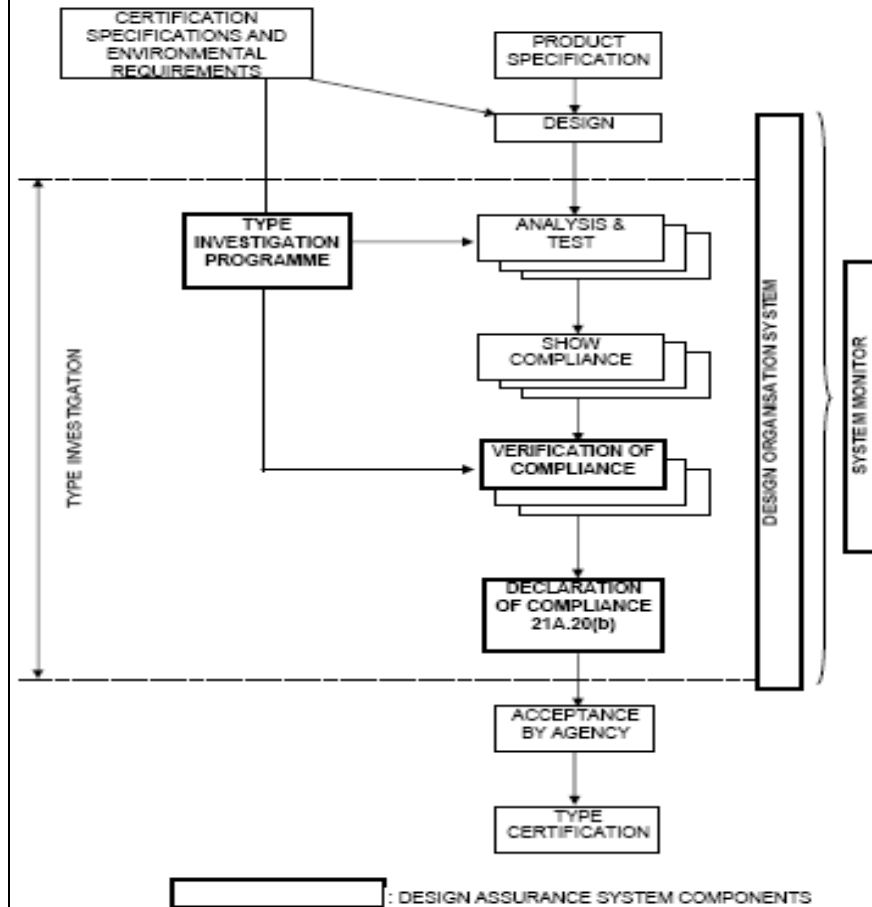


Figure 1 - RELATIONSHIPS BETWEEN DESIGN, DESIGN ASSURANCE AND TYPE INVESTIGATION

3.1 Planned and Systematic Actions

For design organisations carrying out Type Investigation of products, the planned and systematic actions should cover the following tasks and procedures should be defined accordingly:

3.1.1 General



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| | | <ul style="list-style-type: none">a. To issue or, where applicable, supplement or amend the handbook in accordance with 21A.243, in particular to indicate the initiation of design activities on a product.b. To assure that all instructions of the Handbook are adhered to.c. To conduct Type Investigation.d. To nominate staff as "compliance verification engineers" responsible to approve compliance documents as defined in paragraph 3.1.3.e. To nominate personnel belonging to the Office of Airworthiness responsible as defined in paragraph 3.1.4.f. In the case of an applicant for a supplemental type-certificate, to obtain the agreement of the type-certificate holder for the proposed supplemental type-certificate to the extent defined in 21A.15.g. To ensure full and complete liaison between the type design organisation and related organisations having responsibility for products manufactured to the type-certificate.h. To provide the assurance to the Agency that prototype models and test specimens adequately conform to the type design (see 21A.33(b)(1)). <p><i>3.1.2 Chief Executive and Head of design organisation (or his or her Deputy)</i></p> <ul style="list-style-type: none">a. The Chief Executive should provide the necessary resources for the proper functioning of the design organisation.b. The Head of the design organisation, or an authorised representative, should sign a declaration of compliance (see 21A.20(b) and 21A.97(a)(3)) with the applicable CS and environmental protection requirements after verification of | |
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| | | <p>satisfactory completion of the Type Investigation. In accordance with 21A.20(c) and 21A.97(a)(4), his or her signature on the declaration of compliance confirms that the procedures as specified in the handbook have been followed (see also GM 21A.A265(b)).</p> <p>c. The functions of Chief Executive and Head of the design organisation may be performed by the same person.</p> <p><i>3.1.3 Compliance Verification</i></p> <p>a. Approval by signing of all compliance documents, including test programmes and data, necessary for the verification of compliance with the applicable CS and environmental protection requirements as defined in Type Investigation programme.</p> <p>b. Approval of the technical content (completeness, technical accuracy...), including any subsequent revisions, of the manuals approved by the Agency (Aircraft Flight Manual, the Airworthiness Limitations section of the Instructions for Continued Airworthiness and the Certification Maintenance Requirements (CMR) document, where applicable).</p> <p><i>3.1.4 Office of Airworthiness</i></p> <p>a. Liaison between the design organisation and the Agency with respect to all aspects of Type Investigation.</p> <p>b. Ensuring that a handbook is prepared and updated as required in 21A.243.</p> <p>c. Co-operation with the Agency in developing procedures to be used for the type certification process.</p> <p>d. Issuing of guidelines for documenting compliance.</p> <p>e. Co-operation in issuing guidelines for the preparation of</p> | |
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| | | <p>the manuals required by the applicable implementing rules, Service Bulletins, drawings, specifications, and standards.</p> <ul style="list-style-type: none">f. Ensuring procurement and distribution of applicable CS and environmental protection requirements and other specifications.g. Co-operating with the Agency in proposing the type-certification basish. Interpretation of CS and environmental protection requirements and requesting decisions of the Agency in case of doubt.i. Advising of all departments of the design organisation in all questions regarding airworthiness, environmental protection approvals and certification.j. Preparation of the Type Investigation programme and co-ordination of all tasks related to Type Investigation in concurrence with the Agency.k. Regular reporting to the Agency about Type Investigation progress and announcement of scheduled tests in due time.l. Ensuring co-operation in preparing test programmes needed for demonstration of compliance.m. Establishing the compliance checklist and updating for changes.n. Checking that all compliance documents are prepared as necessary to show compliance with all CS and environmental protection requirements, as well as for completeness, and signing for release of the documents.o. Checking the required type design definition documents described in 21A.31 and ensuring that they are provided to the Agency for approval when required. | |
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| | | <ul style="list-style-type: none">p. Preparation, if necessary, of a draft for a type-certificate data sheet and/or type-certificate data sheet modification.q. Providing verification to the head of the design organisation that all activities required for Type Investigation have been properly completed.r. Approving the classification of changes in accordance with 21A.91 and granting the approval for minor changes in accordance with 21A.95(b).s. Monitoring of significant events on other aeronautical products as far as relevant to determine their effect on airworthiness of products being designed by the design organisation.t. Ensuring co-operation in preparing Service Bulletins and the Structural Repair Manual, and subsequent revisions, with special attention being given to the manner in which the contents affect airworthiness and environmental protection and granting the approval on behalf of the Agency.u. Ensuring the initiation of activities as a response to failure (accident/incident/in-service experience) evaluation and complaints from the operation and providing of information to the Agency in case of airworthiness impairment (continuing airworthiness).v. Advising the Agency with regard to the issue of airworthiness directives in general based on Service Bulletinsw. Ensuring that the manuals approved by the Agency, including any subsequent revisions (the Aircraft Flight Manual, MMEL, the Airworthiness Limitations section of the Instructions for Continued Airworthiness and the Certification Maintenance Requirements (CMR) document, where applicable) are checked to determine that they meet the respective requirements, and that they are provided to the Agency for approval. | |
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| | | <p>3.1.5 <i>Maintenance and Operating Instructions</i></p> <p>a. Ensuring the preparation and updating of all maintenance and operating instructions (including Services Bulletins) needed to maintain airworthiness (continuing airworthiness) in accordance with relevant CS. For that purpose, the applicant should:</p> <ul style="list-style-type: none"> - establish the list of all documents it is producing to comply with the Appendix referred to in CS 23.1529, CS 25.1529, CS 27.1529, CS 29.1529, CS-E 25 or CS-P 40 (NPA P-3); - define procedures and organisation to produce and issue these documents, using where applicable and so elected 21A.263(c)(3) privilege. <p>b. In accordance with 21A.57, 21A.61, 21A.107, 21A.119, 21A.120 and 21A.449, ensuring that these documents are provided to all affected operators and all involved authorities.</p> <p>3.2 Continued Effectiveness of the design assurance system. The organisation should establish the means by which the continuing evaluation (system monitoring) of the design assurance system will be performed in order to ensure that it remains effective.</p> | |
| <p>GM No. 2 to 21A.239(a)</p> | <p>Design assurance system for minor changes to type design or minor repairs to products</p> | <p>1. Purpose This GM outlines some basic principles and objectives in order to comply with 21A.239(a) for organisations designing only minor changes to type design or minor repairs to products.</p> <p>2. Design assurance system The design assurance system should include the following:</p> <ul style="list-style-type: none"> • an organisational structure to: | <p><i>Full contents</i></p> |



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| | | <ul style="list-style-type: none"> -control the design - show compliance with applicable CS and environmental protection requirements - independently check showings of compliance - liaise with the Agency - continuously evaluate the design organisation - control sub-contractors <p>procedures and responsibilities associated with the functions listed above, taking due account of Part 21 requirements applicable to design and approval of minor changes to type design or minor repairs to products</p> | |
| GM 21A.239(c) | Design assurance system | <p>In meeting the requirements of 21A.239(c) the applicant for a design organisation approval under Subpart J may adopt the following policy:</p> <p>1 The satisfactory integration of the Partner/Sub-contractor and applicant's design assurance systems should be demonstrated for the activities covered under the applicant's terms of approval.</p> <p>2 In the event that a Partner/Sub-contractor holds a design organisation approval (DOA.), then in accordance with 21A.239(c), the applicant may take this into account in demonstrating the effectiveness of this integrated system.</p> <p>3 When any Partner/Sub-contractor does not hold a DOA then the applicant will need to establish to its own satisfaction and the satisfaction of the Agency, the adequacy of that partner's/sub-contractor's design assurance system in accordance with 21A.243(b).</p> | <i>Full contents</i> |
| AMC 21A.239(a)(3) | Design assurance system - Independent system monitoring | <p>The system monitoring function required by 21A.239(a)(3) may be undertaken by the existing quality assurance organisation when the design organisation is part of a larger organisation.</p> | <i>Full contents</i> |



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| <p>AMC 21A.239(b)</p> | <p>Design assurance system - Independent checking function of the showing of compliance</p> | <p>1 The independent checking function of the showing of compliance should consist of the verification by a person not creating the compliance data. Such person may work in conjunction with the individuals who prepare compliance data.</p> <p>2 The verification should be shown by signing compliance documents, including test programmes and data.</p> <p>3 For a product, there is normally only one compliance verification engineer nominated for each relevant subject. A procedure should cover the non-availability of nominated persons and their replacement when necessary.</p> <p>4 For STC cases, when compliance statement and associated documentation are produced by the TC holder, and when these data are approved under the system of the authority of TC holder, then the STC applicant does not need to provide, within its own DOA, the independent checking function required in 21A.239(b) for these data.</p> | <p><i>Full contents</i></p> |
| <p>21A.243</p> | <p>Data</p> | <p>(a) The design organisation shall furnish a handbook to the Agency describing, directly or by cross-reference, the organisation, the relevant procedures and the products or changes to products to be designed.</p> <p>(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 give, for all parts and appliances, the assurance of compliance required by 21A.239(b), and shall contain, directly or by cross-reference, descriptions and information on the design activities and organisation of those partners or subcontractors, as necessary to establish this statement.</p> <p>(c) 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 Agency.</p> | <p><i>Full contents</i></p> |



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| | | <p>(d) The design organisation shall furnish a statement of the qualifications and experience of the management staff and other persons responsible for making decisions affecting airworthiness and environmental protection in the organisation.</p> | |
| <p>AMC No. 1 to 21A.243(a)</p> | <p>Data requirements</p> | <p>The handbook should provide the following information for each product covered by the design organisation approval.</p> <p>1 A description of the tasks which can be performed under the approval, according to the following classification:</p> <ul style="list-style-type: none"> a. General areas, like subsonic turbojet aeroplanes, turbopropeller aeroplanes, small aeroplanes, rotorcraft. b. Technologies handled by the organisation (composite, wood or metallic construction, electronic systems, etc.) c. A list of types and models for which the design approval has been granted and for which privileges may be exercised, supported by a brief description for each product. d. For repair design, classification and (if appropriate) approval activities it is necessary to specify the scope of activity in terms of structures, systems, engines, etc. <p>2 A general description of the organisation, its main departments, their functions and the names of those in charge; a description of the line management and of functional relationships between the various departments.</p> <p>3 A description of assigned responsibilities and delegated authority of all parts of the organisation which, taken together, constitute the organisation's design assurance system together with a chart indicating the functional and hierarchical relationship of the design assurance system to Management and to other parts of the organisation; also the chains of responsibilities within the design assurance system, and the control of the work of all partners and sub-contractors.</p> | <p><i>Full contents</i></p> |



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| | | <p>4 A general description of the way in which the organisation performs all the design functions in relation to airworthiness and environmental protection approvals including:</p> <p>The procedures followed and forms used in the Type Investigation process to ensure that the design of, or the change to the design of, the product as applicable is identified and documented, and complies with the applicable CS and environmental protection requirements, including specific requirements for import by importing authorities</p> <p>The procedures for classifying design changes as “major” or “minor” and for the approval of minor changes. The procedures for classifying and approving unintentional deviations from the approved design data occurring in production (concessions or non-conformance’s). The procedure for classifying and obtaining approval for repairs.</p> <p>5 A general description of the way in which the organisation performs its functions in relation to the continuing airworthiness of the product it designs, including co-operation with the production organisation when dealing with any continuing airworthiness actions that are related to production of the product, part or appliance, as applicable.</p> <p>6 A description of the human resources, facilities and equipment, which constitutes the means for design, and where appropriate, for ground and flight testing.</p> <p>7 An outline of a system for controlling and informing the Staff of the organisation of current changes in engineering drawings, specifications and design assurance procedures.</p> <p>8 A description of the recording system for:</p> <ul style="list-style-type: none">a. The type design, including relevant design information, drawings and test reports, including inspection records of test specimens.b. The means of compliance. | |
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| | | <p>c. The compliance documentation (compliance check list, reports...).</p> <p>9 A description of the record keeping system to comply with 21A.55 and 21A.105.</p> <p>10 A description of the means by which the organisation monitors and responds to problems affecting the airworthiness of its product during design, production and in service in particular to comply with 21A.3 (see also GM No. 1 to 21A.239, paragraphs 3.1.4(s) and (u)).</p> <p>11 The names of the design organisation authorised signatories. Nominated persons with specific responsibilities such as mentioned in 21A.33 and 21A.35 should be listed.</p> <p>12 (Reserved).</p> <p>13 A clear definition of the tasks, competence and areas of responsibility of the Office of Airworthiness.</p> <p>14 A description of the procedures for the establishment and the control of the maintenance and operating instructions (see 21A.57, 21A.61, 21A.107, 21A.119, 21A.120 and 21A.449).</p> <p>15 A description of the means by which the continuing evaluation (system monitoring) of the design assurance system will be performed in order to ensure that it remains effective.</p> | |
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| AMC No. 2 to 21A.243(a) | Data requirements - 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 (see GM No. 2 to 21A.243(d), paragraph 2) 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 | <i>Full contents</i> |
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| | | <p>2.2 Control of design subcontractors</p> <p>2.3 Collecting/Investigating of failures, malfunctions and defects</p> <p>2.4 Co-ordination with production</p> <p>2.5 Documentation control - in relations with the changes and repairs - in relation with failures/malfunctions and defects (i.e. Services - Bulletins)</p> <p>2.6 Record keeping</p> | |
| <p>GM No.1 to 21A.243(d)</p> | <p>Statement of qualifications and experience</p> | <p>1 Purpose</p> <p>This GM provides guidelines on the following points:</p> <ul style="list-style-type: none"> - Who are the persons covered by 21A.243(d)? - What is requested from the applicant for these persons? <p>2 Who are the persons?</p> <p>Three different types of functions are named or implicitly identified in the requirements of Part 21 Subpart J or in associated AMC and GM, using qualified and experienced personnel:</p> <ul style="list-style-type: none"> - the Chief Executive [see GM No. 1 to 21A.239(a), para. 3.1.2, GM 21A.249, GM 21A.265(b)] - the other management staff: <ul style="list-style-type: none"> - the Head of the design organisation [see GM No. 1 to 21A.239(a), para.3.1.2, GM No. 1 21A.245, para.4.1, GM 21A.265(b)] - the Chief of the Office of Airworthiness, or [see GM | <p><i>Full contents</i></p> |



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| | | <p>No. 1 to 21A.245, para. 4.2]</p> <ul style="list-style-type: none">- the Chief of the independent monitoring function of the design assurance system [see 21A.239(a)(3) and AMC No. 1 to 21A.243(a), para.2]- the personnel making decisions affecting airworthiness and environmental protection:<ul style="list-style-type: none">- compliance verification engineers [see GM No. 1 to 21A.239(a), para.3.1.3; AMC 21A.239(b)]- personnel of the Office of Airworthiness making decisions affecting airworthiness and environmental protection, especially those linked with the 21A.263 privileges (signing documents for release, approving classification of changes and repairs, and granting the approval of minor changes and minor repairs, granting the approval of SBs, and documentary changes to the aircraft flight manual) [see GM No. 1 to 21A.239(a), para. 3.1.4] <p>3 Kind of statement</p> <p>3.1 Chief Executive</p> <p>The Chief Executive should provide the necessary resources for the proper functioning of the design organisation.</p> <p>A statement of the qualification and experience of the Chief Executive is normally not required.</p> <p>3.2 Other management staff</p> <p>The person or persons nominated should represent the management structure of the organisation and be responsible through the Head of design organisation to the Chief Executive for</p> | |
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| | | <p>the execution of all functions as specified in Part 21, Subpart J. Depending on the size of the organisation, the functions may be subdivided under individual managers.</p> <p>The nominated managers should be identified and their credentials furnished to the Agency on EASA Form Four [EASA form expected] (see format in EASA administrative procedures) in order that they may be seen to be appropriate in terms of relevant knowledge and satisfactory experience related to the nature of the design activities as performed by the organisation.</p> <p>The responsibilities and the tasks of each individual manager should be clearly defined, in order to prevent uncertainties about the relations, within the organisation. Responsibilities of the managers should be defined in a way that all responsibilities are covered.</p> <p>3.3 Personnel making decisions affecting airworthiness and environmental protection</p> <p>For these personnel, no individual statement is required. The applicant should show to the Agency that there is a system to select, train, maintain and identify them for all tasks where they are necessary.</p> <p>The following guidelines for such a system are proposed:</p> <ul style="list-style-type: none">- These personnel should be identified in the handbook, or in a document linked to the handbook. This, and the corresponding procedures, should enable them to carry out the assigned tasks and to properly discharge associated responsibilities.- The needs, in terms of quantity of these personnel to sustain the design activities, should be identified by the organisation.- These personnel should be chosen on the basis of their knowledge, background and experience. | |
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| | | <ul style="list-style-type: none">- When necessary, complementary training should be established, to ensure sufficient background and knowledge in the scope of their authorization. The minimum standards for new personnel to qualify in the functions should be established. The training should lead to a satisfactory level of knowledge of the procedures relevant for the particular role.- Training policy forms part of the design assurance system and its appropriateness forms part of investigation by the Agency within the organisation approval process and subsequent surveillance of persons proposed by the organisation.- This training should be adapted in response to experience gained within the organisation- The organisation should maintain a record of these personnel which includes details of the scope of their authorisation. The personnel concerned should be provided with evidence of the scope of their authorisation.- The following minimum information should be kept on record:<ul style="list-style-type: none">a) Nameb) Date of birthc) Experience and trainingd) Position in organisatione) Scope of the authorisationf) Date of first issue of the authorisationg) If appropriate, date of expiry of the authorisationh) Identification number of the authorisation. <p>The record may be kept in any format and should be controlled.</p> <ul style="list-style-type: none">- Persons authorised to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorised manner or that such confidential records do not become accessible to unauthorised persons.- Personnel should be given access to their own record. | |
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| | | <ul style="list-style-type: none"> - Under the provision of 21A.257 the Agency has a right of access to the data held in such a system. - The organisation should keep the record for at least two years after a person has ceased employment with the organisation or withdrawal of the authorisation, whichever is the sooner. | |
| GM No.2 to 21A.243(d) | Data requirements - Statement of the qualification and experience- Organisations designing minor changes to type design or minor repairs to products | <p>For organisations designing minor changes to type design or minor repairs to products, the statement of the qualifications and experience required by 21A.243(d) should be addressed as follows :</p> <ol style="list-style-type: none"> 1. The nominated managers should be identified and their credentials submitted to the Agency on EASA Form Four [EASA form expected] (see format in EASA administrative procedures) in order that they may be seen to be appropriate in terms of relevant knowledge and satisfactory experience related to the nature of the design activities as performed by the organisation. 2. The persons responsible to: <ul style="list-style-type: none"> - classify changes to type design or repairs. - verify compliance [21A.239(b)]. - approve minor changes to type design and minor repairs [21A.263(c)(2)] - issue information or instructions [21A.263(c)(3)] should be selected. | <i>Full contents</i> |
| 21A.245 | Approval requirements | <p>The design organisation shall demonstrate, on the basis of the information submitted in accordance with 21A.243 that, in addition to complying with 21A.239:</p> <p>(a) The staff in all technical departments are of sufficient numbers and experience and have been given appropriate authority to be able to discharge their allocated responsibilities and that these, together with the accommodation, facilities and equipment are adequate to enable the staff to achieve the airworthiness, noise, fuel venting and exhaust emissions objectives for the</p> | <i>Full contents</i> |



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| | | <p>product.</p> <p>(b) There is full and efficient coordination between departments and within departments in respect of airworthiness and environmental protection matters.</p> | |
| <p>GM No. 1 to 21A.245</p> | <p>Requirements for approval See 21A.245</p> | <p>1 <i>General.</i> The data submitted in accordance with 21A.243 should show that sufficient skilled personnel are available and suitable technical and organisational provisions have been made for carrying out the Type Investigation defined by GM No. 1 to 21A.239(a), paragraph 2.3.</p> <p>2 <i>Personnel.</i> The applicant should show that the personnel available to comply with 21A.245(a) are, due to their special qualifications and number, able to provide assurance of the design or modification of a product, as well as the compilation and verification of all data needed to meet the applicable CS and environmental protection requirements while taking into account the present state of the art and new experience.</p> <p>3 <i>Technical.</i> The applicant should have access to:</p> <ol style="list-style-type: none"> a. Workshops and production facilities which are suitable for manufacturing prototype models and test specimens. b. Accommodation and test facilities which are suitable for carrying out tests and measurements needed to demonstrate compliance with the CS and environmental protection requirements. The test facilities may be subjected to additional technical conditions related to the nature of tests performed. | <p><i>Full contents</i></p> |



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| | | <p>4 Organisation. The data submitted in accordance with 21A.243 should show that:</p> <p>4.1 The Head of the design organisation for which an application for approval has been made, has the direct or functional responsibility for all departments of the organisation which are responsible for the design of the product. If the departments responsible for design are functionally linked, the Head of the design organisation still carries the ultimate responsibility for compliance of the organisation with Part 21Subpart J.</p> <p>4.2 An Office of Airworthiness, or equivalent function, has been established and staffed on a permanent basis to act as the focal point for co-ordinating airworthiness and environmental protection matters (see GM No. 1 to 21A.239 (a) paragraph 3.1.4); it reports directly to the Head of the design organisation or is integrated into an independent quality assurance organisation reporting to the Head of the design organisation.</p> <p>4.3 [Reserved]</p> <p>4.4 Responsibilities for all tasks related to Type Investigations are assigned in such a way that gaps in authority are excluded.</p> | |
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| | | <p>4.5</p> <p>The responsibility for a number of tasks as in paragraph 4.4 may be assigned to one person especially in the case of simple projects.</p> <p>4.6</p> <p>Co-ordination between technical departments and the persons in charge of the system monitoring required by 21A.239(a)(3) has been established :</p> <ul style="list-style-type: none"> • to ensure quick and efficient reporting and resolution of difficulties encountered using the handbook and associated procedures • to maintain the design assurance system • to optimise auditing activities. | |
| 21A.247 | Changes in design assurance system | <p>After the issue of a design organisation approval, each change to the design assurance system that is significant to the showing of compliance or to the airworthiness and environmental protection of the product, shall be approved by the Agency. An application for approval shall be submitted in writing to the Agency and the design organisation shall demonstrate to the Agency, on the basis of submission of proposed changes to the handbook, and before implementation of the change, that it will continue to comply with this Subpart after implementation.</p> | <i>Full contents</i> |
| GM 21A.247 | Significant changes in the design assurance system | <p>In addition to a change in ownership (see 21A.249), the following changes to the design assurance system should be considered as "significant" to the showing of compliance or to the airworthiness or environmental protection of the product</p> | <i>Full contents</i> |



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| | | <p>1 Organisation</p> <ul style="list-style-type: none">- Relocation to new premises (see also GM 21A.249)- Change in the industrial organisation (partnership, suppliers, design worksharing) unless it can be shown that the independent checking function of the showing of compliance is not affected- Change in the parts of the organisation that contribute directly to the airworthiness or environmental protection (independent checking function, office of airworthiness [or equivalent])- Change to the independent monitoring principles (see 21A.239(a)(3)) <p>2 Responsibilities</p> <ul style="list-style-type: none">- Change of the management staff- the Head of the design organisation [GM No. 1 to 21A.239(a), para.3.1.2, GM No. 1 to 21A.245, para.4.1, GM 21A.265(b)]- the Chief of the Office of Airworthiness [GM No. 1 to 21A.245, para. 4.2]- the Chief of the independent monitoring function of the design assurance system [21A.239(a)(3) and AMC No. 1 to 21A.243(a), para.2]- New distribution of responsibilities affecting airworthiness or environmental protection.- For organisations designing minor changes to type design or minor repairs to products, change of the persons identified in GM No. 2 to 21A.243(d). <p>3 Procedures</p> | |
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| | | <p>Change to the principles of procedures related to :</p> <ul style="list-style-type: none"> - the type certification - the classification of changes and repairs as ' major ' or ' minor ' [21A.263(c)(1)] - the treatment of major changes and major repairs - the approval of the design of minor changes and minor repairs [21A.263(c)(2)] - the issue of information and instructions under the privilege of 21A.263(c)(3) - the approval of documentary changes to the Aircraft Flight Manual [21A.263(c)(4)] - the approval of the design of major repairs [21A.437 or 21A.263(c)(5)] - continued airworthiness (see 21A.3) - the configuration control, when airworthiness or environmental protection is affected - the acceptability of design tasks undertaken by partners or subcontractors [21A.239(c)] <p>4 Resources Substantial reduction in number and/or experience of staff (see 21A.245(a)).</p> | |
| 21A.249 | Transferability | Except as a result of a change in ownership, which is deemed significant for the purposes of 21A.247, a design organisation approval is not transferable. | <i>Full contents</i> |
| GM 21A.249 | Transferability | <p>1. Transfer of the approval would normally only be agreed in cases where the organisation itself remains substantially unchanged.</p> <p>2. An acceptable transfer situation could be for example a change of company name (supported by the appropriate certificate from the National Companies Registration Office or equivalent) but with no changes to site address or Chief Executive. However, if the same legal entity were to relocate to new premises with a new Chief Executive</p> | <i>Full contents</i> |



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| | | <p>and/or new departmental heads, then a substantial investigation by the Agency would be necessary such that the change would be classified as a reapproval.</p> <p>3. In the event of receivership there may be good technical justification for continuation of the approval provided that the company continues to function in a satisfactory manner. It is likely that at a later stage the approval might be surrendered by the receiver or transferred to another legal entity in which case the former paragraphs apply.</p> | |
| 21A.251 | Terms of approval | <p>The terms of approval shall identify the types of design work, the categories of products, parts and appliances for which the design organisation holds a design organisation approval, and the functions and duties that the organisation is approved to perform in regard to the airworthiness and characteristics of noise, fuel venting and exhaust emissions of products. For design organisation approval covering type-certification or ETSO authorisation for Auxiliary Power Unit (APU), the terms of approval shall contain in addition the list of products or APU. Those terms shall be issued as part of a design organisation approval.</p> | <i>Full contents</i> |
| GM No.1 to 21A.251 | Terms of approval | <p>1 The terms of approval are stated on the certificate of approval issued by the Agency. The certificate states the scope of work and the products , changes or repairs thereof, with the appropriate limitations for which the approval has been granted. For design organisation approval covering type certification or ETSO authorisation for APU, the list of product types covered by the design assurance system should be included.</p> <p>2 Approval of a change in the terms of approval in accordance with 21A.253 will be confirmed by an appropriate amendment of the certificate of approval.</p> <p>3 The certificate references the handbook of the approved design organisation, provided in accordance with 21A.243. This handbook defines the tasks which may be performed under the approval.</p> | <i>Full contents</i> |



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| | | <p>4 Scopes of work are, for example, "subsonic turbojet aeroplanes", "turbopropeller aeroplanes", "small aeroplanes", "rotorcraft"... Technologies are quoted in the scope of work when it is considered by the Agency as a limitation for the design organisation approval.</p> <p>5 For repair design activities, the certificate states the scope of work with the appropriate limitations for which the approval has been granted.</p> | |
| GM No.2 to 21A.251 | Terms of approval - Organisations designing minor changes to type design or minor repairs to products | <p>Terms of approval issued for organisations designing minor changes to type design or minor repairs to products should contain:</p> <p>1. Scope of work This design organisation approval has been granted for: designing minor changes to type design or minor repairs to [aircraft, engine, propeller] in accordance with the applicable CS and environmental protection requirements, showing and verifying the compliance with these CS and environmental protection requirements.</p> <p>2. Category of products Any other indication if the Agency has found a limitation related to aircraft systems or technologies and reducing the scope as defined in paragraph 1.</p> <p>3. Privileges The holder of this approval is entitled to: List of the privileges granted with the approval, pursuant to 21A.263(c)(1), (2) and (3).</p> | <i>Full contents</i> |
| 21A.253 | Changes to the terms of approval | <p>Each change to the terms of approval shall be approved by the Agency. An application for a change to the terms of approval shall be made in a form and manner established by the Agency. The design organisation shall comply with the applicable requirements of this Subpart.</p> | <i>Full contents</i> |



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| <p>21A.257</p> | <p>Investigations</p> | <p>(a) The design organisation shall make arrangements that allow the Agency to make any investigations, including investigations of partners and subcontractors, necessary to determine compliance and continued compliance with the applicable requirements of this Subpart.</p> <p>(b) The design organisation shall allow the Agency to review any report and make any inspection and perform or witness any flight and ground test necessary to check the validity of the compliance statements submitted by the applicant under 21A.239(b).</p> | <p><i>Full contents</i></p> |
| <p>GM 21A.257(a)</p> | <p>Investigations</p> | <p>Arrangements that allow the Agency to make investigations include the complete design organisation including partners, sub-contractors and suppliers, whether they are in the State of the applicant or not, assisting and co-operating with the Agency in performing inspections and audits conducted during initial assessment and subsequent surveillance.</p> <p>Assistance to the Agency includes all appropriate means associated with the facilities of the design organisation to allow the Agency to perform these inspections and audits, such as a meeting room and office support.</p> | <p><i>Full contents</i></p> |
| <p>21A.258</p> | <p>Findings</p> | <p>(a) When objective evidence is found showing non-compliance of the holder of a design organisation approval with the applicable requirements of this Part, the finding shall be classified as follows:</p> <ol style="list-style-type: none"> 1. A level one finding is any non-compliance with this Part which could lead to uncontrolled non-compliances with applicable requirements and which could affect the safety of the aircraft. 2. A level two finding is any non-compliance with this Part which is not classified as level one. <p>(b) A level three finding is any item where it has been identified, by objective evidence, to contain potential problems that could lead to</p> | <p><i>Full contents</i></p> |



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| | | <p>a non-compliance under paragraph (a).</p> <p>(c) After receipt of notification of findings under the applicable administrative procedures established by the Agency,</p> <ol style="list-style-type: none"> 1. In case of a level one finding, the holder of the design organisation approval shall demonstrate corrective action to the satisfaction of the Agency within a period of no more than 21 working days after written confirmation of the finding; 2. In case of level two findings, the corrective action period granted by the Agency shall be appropriate to the nature of the finding but in any case initially shall not be more than six months. In certain circumstances and subject to the nature of the finding the Agency may extend the six month period subject to a satisfactory corrective action plan agreed by the Agency. 3. level three finding shall not require immediate action by the holder of the design organisation approval. <p>(d) In case of level one or level two findings, the design organisation approval may be subject to a partial or full suspension or revocation under the applicable administrative procedures established by the Agency. The holder of the design organisation approval shall provide confirmation of receipt of the notice of suspension or revocation of the design organisation approval in a timely manner.</p> | |
| <p>21A.259</p> | <p>Duration and continued validity</p> | <p>(a) A design organisation approval shall be issued for an unlimited duration. It shall remain valid unless:</p> <ol style="list-style-type: none"> 1. The design organisation fails to demonstrate compliance with the applicable requirements of this Subpart. <p style="text-align: center;">or</p> | <p><i>Full contents</i></p> |



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| | | <p>2. The Agency is prevented by the holder or any of its partners or subcontractors to perform the investigations in accordance with 21A.257.</p> <p style="text-align: center;">or</p> <p>3. There is evidence that the design assurance system cannot maintain satisfactory control and supervision of the design of products or changes thereof under the approval.</p> <p style="text-align: center;">or</p> <p>4. the certificate has been surrendered or revoked under the applicable administrative procedures established by the Agency.</p> <p>(b) Upon surrender or revocation, the certificate shall be returned to the Agency.</p> | |
| <p>21A.263</p> | <p>Privileges</p> | <p>(a) The holder of a design organisation approval shall be entitled to perform design activities under this Part and within its scope of approval.</p> <p>(b) Subject to 21A.257(b), the Agency shall accept without further verification the following compliance documents submitted by the applicant for the purpose of obtaining:</p> <ol style="list-style-type: none"> 1. The approval of flight conditions required for a permit to fly. <p style="text-align: center;">or</p> <ol style="list-style-type: none"> 2. A type-certificate or approval of a major change to a type design. <p style="text-align: center;">or</p> <ol style="list-style-type: none"> 3. A supplemental type-certificate. <p style="text-align: center;">or</p> | <p><i>Full contents</i></p> |



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| | | <p>4. AN ETSO authorisation under 21A.602B(b)(1).</p> <p style="text-align: center;">or</p> <p>5. A major repair design approval.</p> <p>(c) The holder of a design organisation approval shall be entitled, within its terms of approval and under the relevant procedures of the design assurance system:</p> <ol style="list-style-type: none">1. to classify changes to type design and repairs as "major" or "minor".2. to approve minor changes to type design and minor repairs.3. to issue information or instructions containing the following statement: "The technical content of this document is approved under the authority of DOA nr. [EASA]. J. [xyz]."4. to approve documentary changes to the aircraft flight manual, and issue such changes containing the following statement: "Revision nr. xx to AFM ref. yyy, is approved under the authority of DOA nr.[EASA].J.[xyz]."5. to approve the design of major repairs to products for which it holds the type-certificate or the supplemental type-certificate.6. to approve the conditions under which a permit to fly can be issued in accordance with 21A.710(a)(2),<ol style="list-style-type: none">(i) except for initial flights of:<ul style="list-style-type: none">-a new type of aircraft, or-an aircraft modified by a change that is or would be classified as a significant major change or significant STC, or-an aircraft whose flight and/or piloting(ii) except for permits to fly to be issued for the purpose of 21A.701(a)(15). | |
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| | | <p>7. To issue a permit to fly in accordance with 21A.711(b) for an aircraft it has designed or modified, and when the design organisation itself is controlling under its DOA the configuration of the aircraft and is attesting conformity with the design conditions approved for the flight.</p> | |
| <p>AMC No. 1 to 21A.263(c)(1)</p> | <p>Procedure for the classification of changes to type design and repairs as minor and major</p> | <p>1 INTENT</p> <p>This acceptable means of compliance provides means to develop a procedure for the classification of changes to type design and repairs.</p> <p>Each DOA applicant must develop its own internal classification procedure following this AMC, in order to obtain the associated 21A.263(c)(1) privilege.</p> <p>2 PROCEDURE FOR THE CLASSIFICATION OF CHANGES TO TYPE DESIGN AND REPAIRS</p> <p>2.1 Content</p> <p>The procedure must address the following points:</p> <ul style="list-style-type: none"> - the identification of changes to type design or repairs - classification - justification of the classification - authorised signatories - supervision of changes to type design or repairs initiated by subcontractors <p>For changes to type design, criteria used for classification must be in compliance with 21A.91 and GM 21A.91.</p> <p>For repairs, criteria used for classification must be in compliance with 21A.435 and GM 21A.435.</p> | <p><i>Full contents</i></p> |



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| | | <p>2.2 Identification of changes to type design or repairs</p> <p>The procedure must indicate how the following are identified:</p> <ul style="list-style-type: none">- major changes to type design or major repairs- those minor changes to type design or minor repairs where additional work is necessary to show compliance with the CS and environmental protection requirements- other minor changes to type design or minor repairs requiring no further showing of compliance. <p>2.3 Classification</p> <p>The procedure must show how the effects on airworthiness and environmental protection are analysed, from the very beginning, by reference to the applicable requirements.</p> <p>If no specific CS or environmental protection requirements are applicable to the change or repairs, the above review must be carried out at the level of the part or system where the change or repair is integrated and where specific CS or environmental protection requirements are applicable.</p> <p>2.4 Justification of the classification</p> <p>All decisions of classification of changes to type design or repairs as "major" or "minor" must be recorded and, for those which are not straightforward, also documented. These records must be easily accessible to the Agency for sample check.</p> <p>2.5 Authorised signatories</p> <p>All classifications of changes to type design or repairs must be accepted by an appropriate authorised signatory.</p> <p>The procedure must indicate the authorised signatories for the</p> | |
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| | | <p>various products listed in the terms of approval.</p> <p>For those changes or repairs that are handled by subcontractors, as described under paragraph 2.6, it must be described how the DOA holder manages its classification responsibility.</p> <p>2.6 Supervision of changes to type design or repairs initiated by</p> <p>The procedure must indicate, directly or by cross-reference to written procedures, how changes to type design or repairs may be initiated and classified by subcontractors and are controlled and supervised by the DOA holder.</p> | |
| <p>AMC No.2 to 21A.263(c)(1)</p> | <p>Privileges - Organisations designing minor changes to type design or minor repairs to products : classification procedure</p> | <p>1. Content</p> <p>The procedure must address the following points:</p> <ul style="list-style-type: none"> - configuration control rules, especially the identification of changes to type design or repairs - classification, in compliance with 21A.91 and GM 21A.91 for changes and GM 21A.435 for repairs - justification of the classification - authorised signatories <p>2. Identification of changes to type design or repairs</p> <p>The procedure must indicate how the following minor changes to type design or minor repairs are identified:</p> <ul style="list-style-type: none"> - those minor design changes to type design or minor repairs where additional substantiation data is necessary to show compliance with the CS or environmental protection requirements <p style="padding-left: 40px;">other minor design changes to type design or minor repairs requiring no further showing of compliance.</p> <p>3. Classification</p> | <p><i>Full contents</i></p> |



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| | | <p>The procedure must show how the effects on airworthiness and environmental protection are analysed, from the very beginning, by reference to the applicable requirements.</p> <p>If no specific requirements are applicable to the change or the repair, the above review must be done at the level of the part or system where the change or repair is integrated and where specific CS or environmental protection requirements are applicable.</p> <p>For repair, see also GM 21A.435.</p> <p>4. Justification of the classification</p> <p>All decisions of classification of changes to type design or repairs as "minor " must be recorded and, for those which are not straightforward, also documented. These records must be easily accessible to the Agency for sample check. It may be in the format of meeting notes or register.</p> <p>5. Authorised signatories</p> <p>6. All classifications of changes to type design or repairs must be accepted by an appropriate authorised signatory.</p> <p>The procedure must indicate the authorised signatories for the various products listed in the terms of approval.</p> | |
| <p>AMC No.1 to 21A.263(c)(2)</p> | <p>Procedure for the approval of minor changes to type design or minor repairs</p> | <p>1 INTENT</p> <p>This acceptable means of compliance provides means to develop a procedure for the approval of minor changes to type design or minor repairs.</p> <p>Each DOA applicant must develop its own internal procedures following this AMC, in order to obtain the associated privilege under 21A.263(c)(2).</p> | <p><i>Full contents</i></p> |



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| | | <p>2 PROCEDURE FOR THE APPROVAL OF MINOR CHANGES TO TYPE DESIGN OR MINOR REPAIRS</p> <p>2.1 Content</p> <p>The procedure must address the following points:</p> <ul style="list-style-type: none">- compliance documentation- approval under the DOA privilege- authorised signatories- supervision of minor changes to type design or minor repairs handled by subcontractors. <p>2.2 Compliance documentation</p> <p>For those minor changes to type design or minor repairs where additional work to show compliance with the applicable CS and environmental protection requirements is necessary, compliance documentation must be established and independently checked as required by 21A.239(b).</p> <p>The procedure must describe how the compliance documentation is produced and checked.</p> <p>2.3 Approval under the DOA privilege</p> <p>2.3.1 For those minor changes to type design or minor repairs where additional work to show compliance with the applicable CS and environmental protection requirements is necessary, the procedure must define a document to formalise the approval under the DOA privilege.</p> <p>This document must include at least :</p> <ul style="list-style-type: none">- identification and brief description of the change or repair and reasons for change or repair- applicable CS or environmental protection requirements and methods of compliance- reference to the compliance documents- effects, if any, on limitations and on the approved documentation- evidence of the independent checking function of the showing of | |
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| | | <p>compliance</p> <ul style="list-style-type: none"> - evidence of the approval under the privilege of 21A.263(c)(2) by an authorised signatory - date of the approval <p>For repairs, see AMC 21A.433(a).</p> <p>2.3.2 For the other minor changes to type design or minor repairs, the procedure must define a means to identify the change or repair and reasons for the change or repair, and to formalise its approval by the appropriate engineering authority under an authorised signatory. This function may be delegated by the Office of Airworthiness but must be controlled by the Office of Airworthiness, either directly or through appropriate procedures of the DOA holder’s design assurance system.</p> <p>2.4 Authorised signatories</p> <p>The persons authorised to sign for the approval under the privilege of 21A.263(c)(2) must be identified (name, signature and scope of authority) in appropriate documents that maybe linked to the handbook.</p> <p>2.5 Supervision of minor changes to type design or minor repairs handled by subcontractors</p> <p>For the minor changes to type design or minor repairs described in 2.3.2, that are handled by subcontractors, the procedure must indicate, directly or by cross-reference to written procedures how these minor changes to type design or minor repairs are approved at the subcontractor level and the arrangements made for supervision by the DOA holder.</p> | |
| <p>AMC No. 2 to 21A.263(c)(2)</p> | <p>Privileges - Organisations designing minor changes to type design or minor repairs to products : procedure for the approval of minor changes to</p> | <p>1. Content</p> <p>The procedure must address the following points :</p> <ul style="list-style-type: none"> - compliance documentation - approval under the DOA privilege | <p><i>Full contents</i></p> |



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| | type design or minor repairs | <ul style="list-style-type: none">- authorised signatories <p>2. Compliance documentation</p> <p>For those minor changes to type design or minor repairs where additional work to show compliance with the applicable CS and environmental protection requirements is necessary, compliance documentation must be established and independently checked as required by 21A.239(b).</p> <p>The procedure must describe how the compliance documentation is produced and checked.</p> <p>3. Approval under the DOA privilege</p> <p>3.1. For those minor changes to type design or minor repairs where additional work to show compliance with the applicable CS or environmental protection requirements is necessary, the procedure must define a document to formalise the approval under the DOA privilege</p> <p>This document must include at least :</p> <ul style="list-style-type: none">- identification and brief description of the change or the repair and reason for change or repair- applicable CS or environmental protection requirements and methods of compliance- reference to the compliance documents- effects, if any, on limitations and on the approved documentation- evidence of the independent checking function of the showing of compliance- evidence of the approval under the privilege of 21A.263(c)(2) by an authorised signatory- date of the approval <p>For repairs, see also AMC 21A.433(a).</p> <p>3.2. For the other minor changes to type design or minor repairs, the procedure must define a means to identify the change or repair and reasons for the change or repair, and to formalise its</p> | |
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| | | <p>approval by the appropriate engineering authority under an authorised signatory. This function must be controlled through appropriate procedures of the DOA holder's design assurance system.</p> <p>4. Authorised signatories</p> <p>The persons authorised to sign for the approval under the privilege of 21A.263(c)(2) must be identified (name, signature and scope of authority) in appropriate documents that may be linked to the handbook.</p> | |
| GM 21A.263(b) | DOA privilege related to compliance documents | <p>A compliance document is the end result of a certification process, where the showing of compliance is recorded. For each specific certification process, the Agency is involved in the process itself at an early stage, especially through the establishment of the certification programme. The inspections or tests under 21A.257(b) may be performed at various stages of the whole certification process, not necessarily when the compliance document is presented.</p> <p>Therefore, according to the scheduled level of involvement, the Agency should agree with the DOA holder documents to be accepted without further Agency verification under the DOA privilege of 21A.263(b)</p> | <i>Full contents</i> |
| GM 21A.263(c)(3) | Issue of information or instructions | <p>1 INTENT</p> <p>This GM provides guidelines to address the various aspects the DOA should cover in order to have a comprehensive procedure for the issue of information or instructions.</p> <p>2 SCOPE</p> <p>The information or instructions referred to in 21A.263(c)(3) are issued by a DOA holder to make available to the owners or operators of a product with all necessary data to implement a change on the product or a repair, or to inspect it. Some are also issued to provide maintenance organisations and other interested persons with all necessary maintenance data for the performance of maintenance, including implementation of a change on the product or a repair, or</p> | <i>Full contents</i> |



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| | | <p>inspection, in accordance with 21A.61, 21A.107, 21A.120 or 21A.449 (Instructions for Continued Airworthiness).</p> <p>This information or instructions may be issued in a format of a Service Bulletin as defined in ATA 100 system , or in Structural Repair Manuals, Maintenance Manuals, Engine and Propeller Manuals etc. The preparation of this data involves design, production and inspection. As the overall responsibility, through the privilege, is allocated to the DOA holder, the three aspects should be properly handled under the DOA to obtain the privilege "to issue information or instructions containing a statement that the technical content is approved", and a procedure should exist.</p> <p>3 PROCEDURE</p> <p>For the information and instructions issued under 21A.263(c)(3), the DOA holder should establish a procedure addressing the following points :</p> <ul style="list-style-type: none">- preparation- verification of technical consistency with corresponding approved change(s) , repair(s) or approved data, including effectivity, description, effects on airworthiness and environmental protection, especially when limitations are changed- verification of the feasibility in practical applications- authorised signatories. <p>The procedure should include the information or instructions prepared by subcontractors or vendors, and declared applicable to its products by the DOA holder.</p> <p>4 STATEMENT</p> <p>The statement provided in the information or instructions should also cover the information or instructions prepared by subcontractors or vendors and declared applicable to its products by the DOA holder.</p> | |
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| | | <p>The technical content is related to the design data and accomplishment instructions, and its approval means that:</p> <ul style="list-style-type: none"> - the design data has been appropriately approved. <p style="text-align: center;">and</p> <ul style="list-style-type: none"> - the instructions provide for practical and well defined installation/inspection methods, and, when accomplished, the product is in conformity with the approved design data. <p>Note : Information and instructions related to required actions under 21A.3B(b) (airworthiness directives) are submitted to the Agency to ensure compatibility with Airworthiness directive content (see 21A.265(e)), and contain a statement that they are, or will be, subject to an airworthiness directive issued by the Agency.</p> | |
| <p>GM 21A.263(c)(4)</p> | <p>Procedure for the approval of documentary changes to the Aircraft Flight Manual</p> | <p>1 INTENT This GM provides guidelines to develop a procedure for the approval of documentary changes to the Aircraft Flight Manual (AFM).</p> <p>Each DOA applicant should develop its own internal procedure, based on these guidelines, in order to obtain the associated privilege under 21A.263(c)(4).</p> <p>2 DEFINITION OF DOCUMENTARY CHANGES TO THE AFM Examples of documentary changes to the AFM that may be approved under the DOA privilege:</p> <p>A - FOR AFM ISSUED BY THE TYPE-CERTIFICATE HOLDER</p> <p>Editorial changes or corrections to the AFM.</p> <p>Changes to weight limitations that are within all previously EASA approved limitations (e.g., structural, noise, etc.)</p> <p>The addition of compatible and previously EASA approved AFM</p> | <p><i>Full contents</i></p> |



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| | | <p>Temporary changes, appendices or Supplements. Conversions of previously FAA or EASA approved combinations of units of measurement added to the AFM in a previously approved manner.</p> <p>The addition of aircraft serial numbers to an existing AFM where the aircraft configuration, as related to the AFM, is identical to aircraft already in that AFM.</p> <p>The removal of reference to aircraft serial numbers no longer applicable to that AFM.</p> <p>B - FOR AFM SUPPLEMENTS ISSUED BY STC HOLDERS Editorial changes or corrections to the AFM Supplement. Changes to weight limitations that are within all previously EASA approved limitations (e.g., structural, noise, etc.)</p> <p>Conversions of previously FAA or EASA approved combinations of units of measurement added to the AFM Supplement in a previously approved manner.</p> <p>The addition of aircraft serial numbers to an existing AFM Supplement where the aircraft configuration, as related to the AFM Supplement, is identical to aircraft already in that AFM Supplement.</p> <p>The removal of reference to aircraft serial numbers no longer applicable to that AFM Supplement.</p> <p>3 PROCEDURE FOR THE APPROVAL OF DOCUMENTARY CHANGES 3.1 Content The procedure should address the following points:</p> <ul style="list-style-type: none">- preparation of all AFM changes,- classification as documentary AFM change,- verification by the airworthiness function, especially regarding the classification of the AFM change,- approval of AFM changes, | |
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| | | <ul style="list-style-type: none">- approval statement and authorised signatories,- distribution. <p>3.2 Preparation The procedure should indicate how AFM changes are prepared and how the co-ordination with people in charge of design changes is performed.</p> <p>3.3 Classification The procedure should indicate how AFM changes are classified as documentary changes, in accordance with the criteria of paragraph 2.</p> <p>Changes to the AFM of an editorial nature should be non-technical and should normally only affect existing approved data.</p> <p>3.4 Verification by Office of airworthiness function The procedure should indicate how people in charge of Office of airworthiness function will :</p> <ul style="list-style-type: none">- verify the classification as documentary changes- review the content of the AFM changes. <p>3.5 Approval Any change to the AFM should be approved, either by the Agency, or under the privilege of 21A.263(c)(4) for documentary AFM changes.</p> <p>For documentary AFM changes, the procedure should indicate how the approval under the privilege will be formalised.</p> <p>3.6 Approval statement and authorised signatories Revisions of the AFM containing only documentary changes should be issued with the approval statement defined in 21A.263(c)(4).</p> <p>When approval status is shown on each page, a simplified statement such as "Approved under the authority of DOA nr.[EASA].J.[xyz] " may be used.</p> | |
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| | | <p>The authorised signatories should be identified (name, signature), together with the scope of authorisation, in a document that can be linked to the DOA handbook.</p> <p>3.7 Maintaining, updating and distribution The procedure should indicate how the master copy of the AFM is maintained and updated, and how approved revisions are distributed, taking account of 21A.57 or 21A.1 19.</p> | |
| <p>21A.265</p> | <p>Obligations of the holder</p> | <p>The holder of a design organisation approval shall:</p> <ul style="list-style-type: none"> (a) Maintain the handbook in conformity with the design assurance system; (b) Ensure that this handbook is used as a basic working document within the organisation; (c) Determine that the design of products, or changes or repairs thereof, as applicable, comply with applicable requirements and have no unsafe feature; (d) Except for minor changes or repairs approved under the privilege of 21A.263, provide to the Agency statements and associated documentation confirming compliance with paragraph (c); (e) Provide to the Agency information or instructions related to required actions under 21A.3B. (f) Where applicable, under the privilege of 21A.263(c)(6), determine the conditions under which a permit to fly can be issued. (g) Where applicable, under the privilege of 21A.263(c)(7), establish compliance with 21A.711(b) and (d) before issuing a permit to fly (EASA Form 20b, see Appendix) to an aircraft. | <p><i>Full contents</i></p> |



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| AMC 21A. 265(a) | Administration of the Handbook | <p>1. The handbook of the applicant must be in the language which will permit the best use of it by all personnel charged with the tasks performed for the purpose of the design organisation. The applicant may be requested to provide an English translation of the handbook and other supporting documents as necessary for the investigation.</p> <p>2. The handbook must be produced in a concise form with sufficient information to meet 21A.243 relevant to the scope of approval sought by the applicant. The handbook must include the following:</p> <ul style="list-style-type: none">a. Organisation name, address, telephone, telex and facsimile numbers.b. Document title, and company document reference No (if any).c. Amendment or revision standard identification for the document.d. Amendment or revision record sheet.e. List of effective pages with revision/date/amendment identification for each page.f. Contents list or index.g. A distribution list for the Handbook.h. An introduction, or foreword, explaining the purpose of the document for the guidance of the organisation's own personnel. Brief general information concerning the history and development of the organisation and, if appropriate, relationships with other organisations which may form part of a group or consortium, must be included to provide background information for the Agency. | <i>Full contents</i> |
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| | | <p>i. The certificate of approval must be reproduced in the document.</p> <p>j. Identification of the department responsible for administration of the Handbook.</p> <p>NOTE: In the case of an initial or revised approval it is recognised that certificate will be issued after Agency agreement to the handbook content in draft form. Arrangements for formal publication in a timely manner must be agreed before the certificate of approval is issued.</p> <p>3 An updating system must be clearly laid down for carrying out required amendments and modifications to the handbook.</p> <p>4 The handbook may be completely or partially integrated into the company organisation manual. In this case, identification of the information required by 21A.243 must be provided by giving appropriate cross references, and these documents must be made available, on request, to the Agency.</p> | |
| <p>GM 21A.265(b)</p> | <p>Use of the Handbook</p> | <p>1 The handbook should be signed by the Chief Executive and the Head of the design organisation and declared as a binding instruction for all personnel charged with the development and type investigation of products.</p> <p>2 All procedures referenced in the handbook are considered as parts of the handbook and therefore as basic working documents.</p> | <p><i>Full contents</i></p> |



| SUBPART P PERMIT TO FLY | | | |
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| 21A.701 | Scope | <p>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:</p> <ol style="list-style-type: none">1. development;2. showing compliance with regulations or certification specifications3. 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 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 takeoff weight for flight 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 | <i>Full contents</i> |



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| | | <p>found;</p> <p>15. for non-commercial flying activity on individual non-complex aircraft or types for which a certificate of airworthiness or restricted certificate of airworthiness is not appropriate.</p> | |
| <p>GM21A.701 (a)</p> | <p>Permit to fly when certificate of airworthiness or restricted certificate of airworthiness is not appropriate</p> | <p>A CofA or restricted category CofA 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.</p> <p>§ 21A.701 identifies cases where the issuance of a (Restricted) CofA may not be possible or appropriate and this § provides further information and typical examples for clarification where appropriate.</p> <p><u>Note:</u> This list of examples is not exhaustive.</p> <p><u>Note:</u> List = cases when a PtF MAY be issued; it does not mean that in such cases a PtF MUST be issued. If other legal means are available to allow the intended flight(s) they can also be used.</p> <p>(1) Development: -testing of new aircraft or modifications -testing of new concepts of airframe, engine, propeller, equipment -testing of new operating techniques</p> <p>(2) Showing compliance with regulations or certification specifications: - certification flight testing for type certification, supplemental type - certificates, changes to type certificates or ETSO authorisation</p> <p>(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 CofA</p> | <p><i>Full contents</i></p> |



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| | | <p>can be issued</p> <p>(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</p> <p>(5) Flying aircraft under production between production facilities: -green aircraft ferry for follow on final production.</p> <p>(6) Flying the aircraft for customer acceptance: - Before the aircraft is sold and/or registered.</p> <p>(7) Delivering or exporting the aircraft: -Before the a/c is registered in the State where CofA will be issued.</p> <p>(8) Flying the aircraft for Authority acceptance: -In the case of inspection flight test by the authority before the CofA is issued.</p> <p>(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 CofA is issued</p> <p>(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.</p> <p>(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 i.a.w. approved programmes, where an AD has not been</p> | |
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| | | <p>complied with, where certain equipment outside the MEL is unserviceable or when the aircraft has sustained damage beyond the applicable limits.</p> <p>(12) Flying an aircraft at a weight in excess of its maximum certificated takeoff weight for flight beyond the normal range over water, or over land areas where adequate landing facilities or appropriate fuel is not available: -Overseas ferry flights with additional fuel capacity.</p> <p>(13) Record breaking, air racing or similar competition: -Training flight and positioning flight for this purpose are included</p> <p>(14) Flying aircraft meeting the applicable airworthiness requirements before conformity to environmental requirements has been found: -Flying an aircraft which has been shown to comply with all applicable airworthiness requirements but not with environmental requirements.</p> <p>(15) For non-commercial flying activity on individual non-complex aircraft or types for which a CofA or restricted CofA 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 PtF and have not been shown to meet all applicable requirements. -The option of a PtF for such an aircraft should only be used if a CofA or restricted CofA 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.</p> | |
| <p>GM 21A.701</p> | <p>Scope</p> | <p>An aircraft registered outside the Member States and used for flight testing by an organisation which has its principle place of business in a Member State, remains under the authority of its state of registry. The Agency or an appropriately approved design organisation can</p> | <p><i>Full contents</i></p> |



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| | | provide, on request, technical assistance to the state of registry for the issue of a permit to fly, or equivalent authorisation, under the state of registry applicable regulations. | |
| 21A.703 | Eligibility | <p>Requisites for the eligibility of applicants for a permit to fly.</p> <p>Any natural or legal person shall be eligible as an applicant for a permit to fly except for a permit to fly requested for the purpose of 21A.701 (a) (15) where the applicant shall be the owner.</p> <p>A person eligible for an application for permit to fly is also eligible for application for the approval of the flight conditions.</p> | <i>Full contents</i> |
| GM 21A.703 | Applicant for a permit to fly | <p>1. The applicant for a PtF may be a person other than the registered owner of the aircraft. As the holder of this permit will be responsible for ensuring that all the conditions and limitations associated with the PtF are continuously satisfied, the applicant for the permit should be a person or organisation suitable for assuming these responsibilities. In particular, the organisations designing, modifying or maintaining the aircraft should normally be the holder of the associated PtF.</p> <p>2. An appropriately approved design organisation can apply for the approval of the flight conditions when using its privilege in accordance with 21A.263 (b) (1).</p> | <i>Full contents</i> |
| 21A.705 | Competent Authority | <p>Definition of Competent Authority in the context of the issuance of a permit to fly.</p> <p>Notwithstanding 21.1, for the purpose of this Subpart, the "Competent Authority" shall be:</p> <p>(a) the authority designated by the Member State of registry</p> <p style="text-align: center;">or</p> | <i>Full contents</i> |



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| | | (b) for unregistered aircraft, the authority designated by the Member State which prescribed the identification marks. | |
| GM 21A.705 | Competent Authority | <p>An aircraft registered in a Member State is under the responsibility of this Member State for continuing airworthiness aspects. Consequently, any PtF under Part 21 should be issued by that Member State, including cases where the aircraft will fly in another State.</p> <p>The PtF contains all the conditions and restrictions to ensure safe flight but other airspace and operational rules remain the competence of the authority of the State where the flight will take place.</p> <p>The applicant should therefore also ensure compliance with the relevant regulations of that State.</p> | <i>Full contents</i> |
| 21A.707 | Application for permit to fly | <p>Content of the application for a permit to fly.</p> <p>(a) Pursuant to 21A.703 and when the applicant has not been granted the privilege to issue a permit to fly, an application for a permit to fly shall be made to the Competent Authority in a form and manner established by that authority.</p> <p>(b) Each application for a permit to fly shall include:</p> <ol style="list-style-type: none"> 1. the purpose(s) of the flight(s), in accordance with 21A.701; 2. the ways in which the aircraft does not comply with the applicable airworthiness requirements; 3. the flight conditions approved in accordance with 21A.710. <p>(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</p> | <i>Full contents</i> |



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| | | conditions shall be made in accordance with 21A.709. | |
| GM 21A.707(b) | Application | EASA form 21 | <i>Full contents</i> |
| 21A.708 | Flight conditions | <p>Content of the flight conditions to approve in relation to the issuance of a permit to fly.</p> <p>Flight conditions include:</p> <p>(a) the configuration(s) for which the permit to fly is requested.</p> <p>(b) any condition or restriction necessary for safe operation of the aircraft, including:</p> <ol style="list-style-type: none"> 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. <p>(c) the substantiation that the aircraft is capable of safe flight under the conditions or restrictions of subparagraph (b).</p> <p>(d) the method used for the control of the aircraft configuration, in order to remain within the established conditions.</p> | <i>Full contents</i> |



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| <p>GM 21A.708 (b)(6)</p> | <p>Continuing airworthiness</p> | <p>In most cases a simple reference to existing maintenance requirements will suffice for aircraft that have a temporarily invalid CofA.</p> <p>For other aircraft it will have to be proposed by the applicant as part of the flight conditions.</p> <p>For approved organisations they can be included in their procedures.</p> | <p><i>Full contents</i></p> |
| <p>GM No. 1 to 21A.708(c)</p> | <p>Safe flight</p> | <p>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.</p> <p>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.</p> | <p><i>Full contents</i></p> |
| <p>GM No. 2 to 21A.708(c)</p> | <p>Substantiations</p> | <p>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.</p> | <p><i>Full contents</i></p> |
| <p>GM No. 3 to 21A.708(c)</p> | <p>Operation of Overweight Aircraft</p> | <p>This GM provides information and guidance with respect to PtF for operating an aircraft > its maximum certificated takeoff weight, for flight beyond the normal range over water, or over land areas where adequate landing facilities or appropriate fuel is not available.</p> | <p><i>Full contents</i></p> |



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| | | <p>1. GENERAL</p> <p>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 availability of technical data on the installation of additional fuel carrying facilities and/or navigational equipment.</p> <p>2 CRITERIA USED TO DETERMINE THE SAFETY OF ADDITIONAL FACILITIES</p> <p>In evaluating the installation of additional facilities, the Agency or 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:</p> <ul style="list-style-type: none">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 airworthiness requirements?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? | |
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| | | <p>f. Are shutoff valves, accessible to the pilot, provided for each additional tank to disconnect these tanks from the main fuel system?</p> <p>g. Are the additional fuel tank filler connections designed to prevent spillage within the aircraft during servicing?</p> <p>h. Is the engine oil supply and cooling adequate for the extended weight and range?</p> <p>3. LIMITATIONS</p> <p>The following types of limitations may be necessary for safe operation of the aircraft:</p> <p>a. Revised operational airspeeds for use in the overweight condition.</p> <p>b. Increased pilot skill requirements.</p> <p>c. A prescribed sequence for using fuel from various tanks as necessary to keep the aircraft within its centre of gravity range.</p> <p>d. Notification to the control tower of the overweight takeoff condition to permit use of a runway to minimize flight over congested areas.</p> <p>e. Avoidance of severe turbulence. If encountered, the aircraft should be inspected for damage as soon as possible.</p> <p>EXAMPLE of operating limitations which may be prescribed as part of the PtF:</p> <p>Aircraft type: xxxxxx Model: yyyy</p> <p>Limitations:</p> <ol style="list-style-type: none">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 gl. in centre tank, and 45 gl. in | |
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| | | <p>aft tank</p> <p>3. Centre of gravity limits must not exceed (fwd) +116.8 and (aft) +124.6.</p> <p>4. Aerobatics are prohibited.</p> <p>5. Use of autopilot while in overweight condition is prohibited.</p> <p>6. Weather conditions with moderate to severe turbulence should be avoided.</p> <p>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 takeoff, that the aircraft is airworthy.</p> <p>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.</p> <p>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.</p> | |
| <p>GM 21A.708(d)</p> | <p>Control of aircraft configuration</p> | <p>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 PtF.</p> <p>All other changes should be approved i.a.w. 21A.713 and when necessary a new PtF should be issued i.a.w. 21A.711</p> | <p><i>Full contents</i></p> |



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| <p>21A.709</p> | <p>Application for approval of flight conditions</p> | <p>Content of the application for the approval of flight conditions in the context of the approval of a permit to fly.</p> <p>(a) Pursuant to 21A.707(c) and when the applicant has not been granted the privilege to approve the flight conditions, an application for approval of the flight conditions shall be made:</p> <ol style="list-style-type: none"> 1. when approval of the flight conditions is related to the safety of the design, to the Agency in a form and manner established by the Agency; <p style="text-align: center;">or</p> <ol style="list-style-type: none"> 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. <p>(b) Each application for approval of the flight conditions shall include:</p> <ol style="list-style-type: none"> 1. the proposed flight conditions 2. the documentation supporting these conditions <p style="text-align: center;">and</p> <ol style="list-style-type: none"> 3. a declaration that the aircraft is capable of safe flight under the conditions or restrictions of paragraph 21A.708(b). | <p><i>Full contents</i></p> |
| <p>AMC 21A.709(b)</p> | <p>Submission of documentation supporting the establishment of flight Conditions</p> | <p>Together with the application, the documentation required by 21A.709 (b) must be submitted with the approval form (EASA Form 18B) defined below, completed with all relevant information.</p> <p>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.</p> | <p><i>Full contents</i></p> |



| FLIGHT CONDITIONS FOR A PERMIT TO FLY – APPROVAL FORM | |
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| 1. Applicant <i>[Name of organisation providing the flight conditions and associated substantiations]</i> | 2. Approval form nr. Issue: <i>[number and issue, for traceability purpose]</i> |
| 3. Aircraft manufacturer/type | 4. Serial number(s) |
| 5. Aircraft configuration The above aircraft for which a permit to fly is requested is defined in <i>[add reference to the document(s) identifying the configuration of the aircraft]</i> <i>[For change(s) affecting the initial approval form: description of change(s). This form must be re-issued]</i> | |
| 6. Substantiations <i>[References to the document(s) justifying that the aircraft (as described in 5.) can perform the intended flight(s) safely under the defined conditions or restrictions.]</i> <i>[For change(s) affecting the initial approval form: reference(s) to additional substantiation(s). This form must be re-issued]</i> | |
| 7. Conditions/Restrictions The above aircraft must be used with the following conditions or restrictions: <i>[Details of these conditions/restrictions, or reference to relevant document, including specific maintenance instructions and conditions to perform these instructions]</i> | |
| 8. Statement The flight conditions have been established and justified in accordance with 21A.708. The aircraft has no features and characteristics making it unsafe for the intended operation under the identified conditions and restrictions. | |
| <i>[when approved under a privilege of an approved organisation]</i> | |
| 9. Approved under [ORGANISATION APPROVAL NUMBER]" | |



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| | | 10. Date of issue | 11. Name and signature <i>[Authorised signatory]</i> | |
| EASA Form 18B When the flight conditions are approved under a privilege, this form should be used by the approved organisation to document the approval. | | <i>[when not approved under a privilege of an approved organisation]</i> 12. Approval and date <i>the appropriate approval: EASA, Competent Authority</i> | | |
| 21A.710 | Approval of flight conditions | <p>(a) When approval of the flight conditions is related to the safety of the design, the flight conditions shall be approved by:</p> <p style="text-align: center;">1. the Agency or</p> <p style="text-align: center;">2. an appropriately approved design organisation, under the privilege of 21A.263(c)(6).</p> <p>(b) When approval of the flight conditions is not related to the safety of the design, the flight conditions shall be approved by the Competent Authority or the appropriately approved organisation that will also issue the permit to fly.</p> <p>(c) Before approving the flight conditions, the Agency, the Competent Authority or the approved organisation must be satisfied that the aircraft is capable of safe flight under the specified conditions and restrictions. The Agency or the Competent Authority may make or require the applicant to make any necessary inspections or tests for that purpose.</p> | | <i>Full contents</i> |
| GM 21A.710 | Approval of flight conditions | <p>1. The approval of flight conditions is related to the safety of the design, when:</p> <p>a. the aircraft does not conform to an approved design</p> <p style="text-align: center;">or</p> | | <i>Full contents</i> |



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| | | <p>b. an Airworthiness Limitation, a Certification Maintenance Requirement or an Airworthiness Directive has not been complied with</p> <p style="text-align: center;">or</p> <p>c. the intended flight(s) are outside the approved envelope</p> <p>d. the permit to fly is issued for the purpose of 21A.701(a)(15).</p> <p>2. Examples when the approval of flight conditions is not related to the safety of the design are:</p> <p>a. production flight testing for the purpose of conformity establishment;</p> <p>b. delivery / export flight of a new aircraft the design of which is approved;</p> <p>c. demonstrating continuing conformity with the standard previously accepted by the Agency for the aircraft or type of aircraft to qualify or re-qualify for a (restricted) CofA.</p> | |
| <p>21A.711</p> | <p>Issue of a permit to fly</p> <p><i>By reference: Appendix III – EASA Form 20a Permit to Fly Appendix III – EASA Form 20b Permit to Fly (issued by approved organisations)</i></p> | <p>Requisites for the issuance of a permit to fly.</p> <p>(a) The Competent Authority shall issue a permit to fly:</p> <p style="padding-left: 40px;">1. upon presentation of the data required by 21A.707</p> <p style="text-align: center;">and</p> <p style="padding-left: 40px;">2. when the conditions of 21A.708 have been approved in accordance with 21A.710</p> <p style="text-align: center;">and</p> <p style="padding-left: 40px;">3. when the Competent Authority, through its own investigations, which may include inspections, or through</p> | <p><i>Full contents</i></p> |



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| | | <p>procedures agreed with the applicant, is satisfied that the aircraft conforms to the design defined under 21A.708 before flight.</p> <p>(b) An appropriately approved design organisation may issue a permit to fly (EASA Form 20b, see Appendix) under the privilege granted under 21A.263(c)(7), when the conditions of 21A.708 have been approved in accordance with 21A.710.</p> <p>(c) An appropriately approved production organisation may issue a permit to fly (EASA Form 20b, see Appendix) under the privilege granted under 21A.163(e), when the conditions of 21A.708 have been approved in accordance with 21A.710.</p> <p>(d) The permit to fly shall specify the purpose(s) and any conditions and restrictions approved under 21A.710.</p> <p>(e) For permits issued under subparagraph (b) or (c), a copy of the permit to fly shall be submitted to the Competent Authority.</p> <p>(f) Upon evidence that any of the conditions specified in 21A.723(a) are not met for a permit to fly that an organisation has issued pursuant to subparagraph (b) or (c), that organisation shall revoke that permit to fly.</p> | |
| GM 21A.711(d) | Additional conditions and restrictions | The conditions and restrictions prescribed by the Competent Authority may include airspace restrictions to make the conditions approved under 21A.710 more concrete, or conditions outside the scope of the ones mentioned in 21A.708(b) such as a radio station license | <i>Full contents</i> |
| 21A.713 | Changes | <p>Possibility of having changes to a permit to fly. Cases and requisites.</p> <p>(a) Any change that invalidates the flight conditions or associated substantiation established for the permit to fly shall be approved in</p> | <i>Full contents</i> |



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| | | <p>accordance with 21A.710. When relevant an application shall be made in accordance with 21A.709.</p> <p>(b) A change affecting the content of the permit to fly requires the issuance of a new permit to fly in accordance with 21A.711.</p> | |
| GM 21A.713 | Changes | <p>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.</p> <p>In case a new application is necessary, the substantiation for approval of the flight conditions only needs to address the change.</p> | <i>Full contents</i> |
| 21A.715 | Language | <p>The manuals, placards, listings, and instrument markings and other necessary information required by applicable certification specifications shall be presented in one or more of the official language(s) of the European Community acceptable to the Competent Authority.</p> | <i>Full contents</i> |
| 21A.719 | Transferability | <p>Conditions for the transferability of a permit to fly.</p> <p>(a) A permit to fly is not transferable.</p> <p>(b) Notwithstanding subparagraph (a) for a permit to fly issued for the purpose of 21A.701 (a)(15), where ownership of an aircraft has changed, the permit to fly shall be transferred together with the aircraft provided the aircraft remains on the same register, or issued only with the agreement of the competent authority of the Member State of registry to which it is transferred.</p> | <i>Full contents</i> |
| GM 21A.719 | Transfer of a permit to fly | <p>Except for PtF issued under 21A.701 (a)(15), like aircraft without TC holder, a PtF is issued based upon the applicant's declaration of many aspects of the proposed flight or flights, some of which are specific to the applicant.</p> | <i>Full contents</i> |



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| | | Accordingly, the basis upon which a PtF has been issued necessarily is no longer fully in place when the holder of a PtF changes, ownership changes, and/or there is a change of register. Such changes necessitate a new application under 21A.707. | |
| 21A.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 Competent Authority. | <i>Full contents</i> |
| 21A.723 | Duration and continued validity | <p>Duration and requisites for the validity of a permit to fly.</p> <p>(a) A permit to fly shall be issued for a maximum of 12 months and shall remain valid subject to:</p> <ol style="list-style-type: none"> 1. compliance with the conditions and restrictions of 21A.711(d) associated to the permit to fly; 2. the permit to fly not being surrendered or revoked under 21B.530; 3. the aircraft remaining on the same register. <p>(b) Notwithstanding subparagraph (a), a permit to fly issued for the purpose of 21A.701(a)(15) may be issued for unlimited duration.</p> <p>(c) Upon surrender or revocation, the permit to fly shall be returned to the Competent Authority.</p> | <i>Full contents</i> |
| 21A.725 | Renewal of permit to fly | <p>Possibility and procedure.</p> <p>Renewal of the permit to fly shall be processed as a change in accordance with 21A.713.</p> | <i>Full contents</i> |



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| 21A.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. | <i>Full contents</i> |
| 21A.729 | Recordkeeping | <p>(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 Agency and Competent Authority and shall be retained in order to provide the information necessary to ensure the continued airworthiness of the aircraft.</p> <p>(b) All documents associated to the issue of permits to fly under the privilege of approved organisations, including inspection records, documents supporting the approval of flight conditions and the permit to fly itself, shall be held by the related approved organisation at the disposal of the Agency or the Competent Authority and shall be retained in order to provide the information necessary to ensure the continued airworthiness of the aircraft.</p> | <i>Full contents</i> |

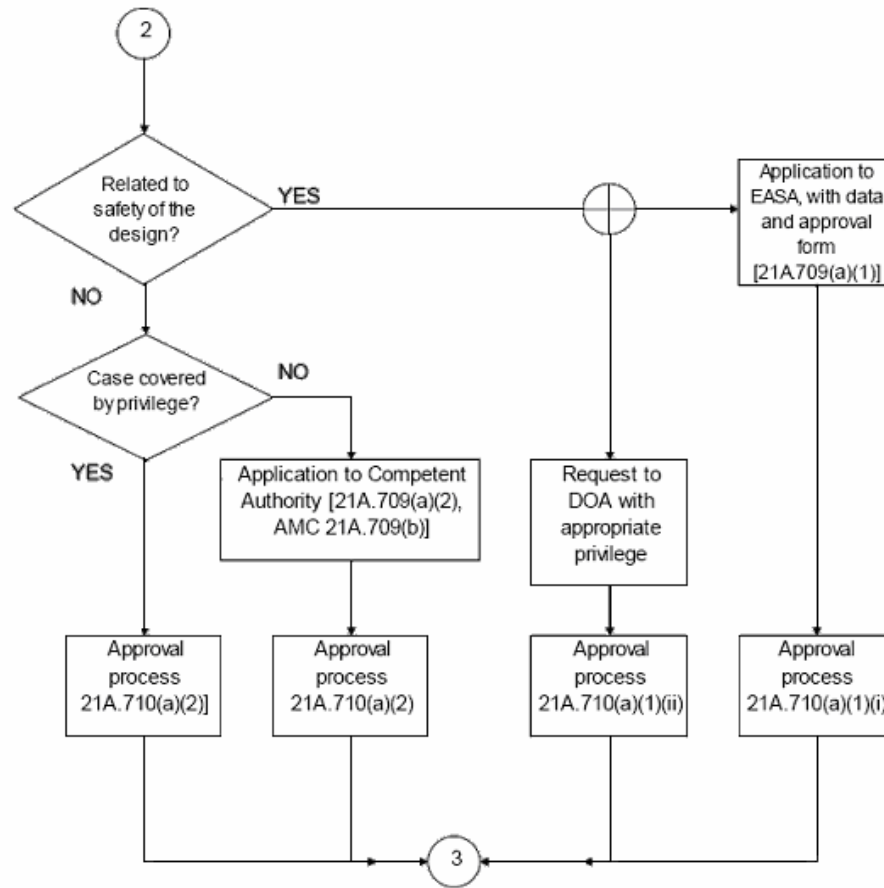


| GM to Subpart P | | | |
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| The progress allowing a flight under a permit to fly cab be described as follows | | | |
| Flow-chart 1: | Overview | <p style="text-align: center;">Operator / Owner</p> <pre>graph TD; Start((1)) --> A[Need for a permit to fly]; A --> B{Are there flight conditions available and approved?}; B -- NO --> C[Flight conditions approval (2)]; B -- YES --> D[Issue of permit to fly (3)]; D --> E[Changes (4)];</pre> | <i>Full contents</i> |



Flow-chart 2:

Approval of flight conditions

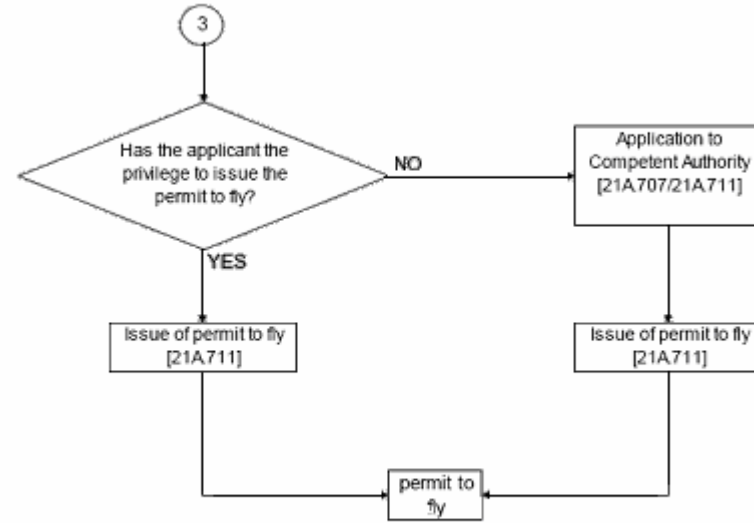


Full contents



Flow-chart 3:

Issue of permit to fly



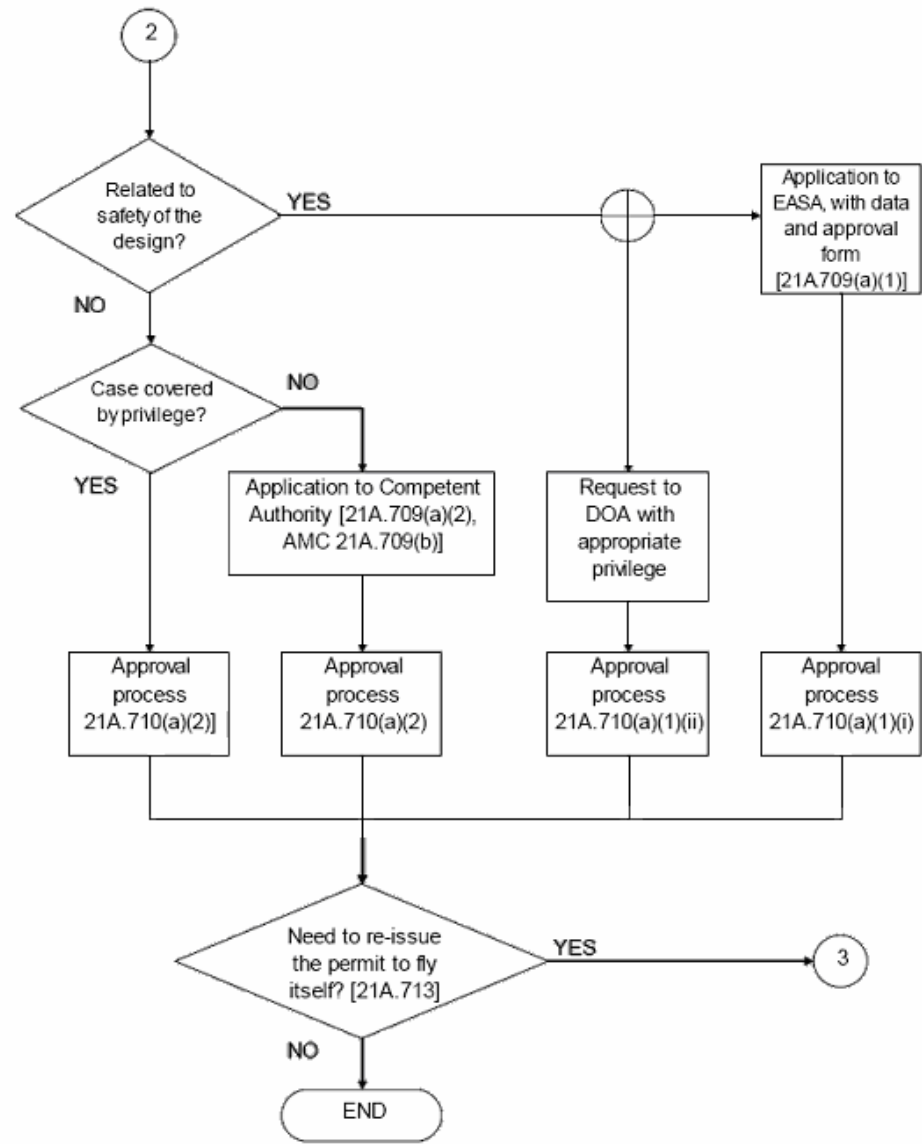
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Flow-chart 4:

Changes after first issue of permit to fly

Full contents





| Section B | | | |
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| SUBPART A | GENERAL PROVISIONS | | |
| 21B.20 | Obligations of the competent authority | <p>General applicability of section B:</p> <p>Each competent authority of the Member State is responsible for the implementation of Section A, Subparts F, G, H, I and P only for applicants, or holders, whose principal place of business is in its territory.</p> | <i>Overview</i> |
| 21B.25 | Requirements for the organisation of the competent authority | <p>General requirements</p> <p>(a) General: The Member State shall designate a competent authority with allocated responsibilities for the implementation of Section A, Subparts F, G, H, I and P with documented procedures, organisation structure and staff.</p> <p>(b) Resources:</p> <ol style="list-style-type: none"> 1. The number of staff shall be sufficient to perform the allocated tasks. 2. The competent authority of the Member State shall appoint a manager, or managers, who are responsible for the execution of the related task(s) within the authority, including the communication with the Agency and the other national authorities as appropriate. <p>(c) Qualification and training: All staff shall be appropriately qualified and have sufficient knowledge, experience and training to perform their allocated task.</p> | <i>Overview</i> |
| 21B.30 | Documented procedures | Need to have documented procedures. | <i>Overview</i> |



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| | | <p>(a) The competent authority of the Member State shall establish documented procedures to describe its organisation, means and methods to fulfil the requirements of this Part. The procedures shall be kept up to date and serve as the basic working documents within that authority for all related activities.</p> <p>(b) A copy of the procedures and their amendments shall be available to the Agency.</p> | |
| 21B.35 | Changes in organisation and procedures | <p>Possibility to introduce changes into the organisation and procedure to introduce them.</p> <p>(a) The competent authority of the Member State shall notify any significant change in its organisation and documented procedures to the Agency.</p> <p>(b) The competent authority of the Member State shall update its documented procedures relating to any change to regulations in a timely manner to ensure effective implementation.</p> | <i>Overview</i> |
| 21B.40 | Resolution of disputes | <p>Need of having a procedure for resolution of disputes.</p> <p>(a) The competent authority of the Member State shall establish a process for the resolution of disputes within its organisation documented procedures.</p> <p>(c) Where a dispute, which cannot be resolved, exists between the competent authorities of the Member States it is the responsibility of the managers as defined in 21B.25(b)(2) to raise the issue with the Agency for mediation.</p> | <i>Overview</i> |
| 21B.45 | Reporting/coordination | <p>Need of reporting and coordination.</p> <p>(a) The competent authority of the Member State shall ensure coordination as applicable with other related certification,</p> | <i>Overview</i> |



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| | | <p>investigation, approval or authorisation teams of that authority, other Member States and the Agency to ensure efficient exchange of information relevant for safety of the products, parts and appliances.</p> <p>(b) The competent authority of the Member State shall notify any difficulty in the implementation of this Part to the Agency.</p> | |
| 21B.55 | Record keeping | <p>Need of record keeping.</p> <p>The competent authority of the Member State shall keep, or maintain access to, the appropriate records related to the certificates, approvals and authorisations it has granted in accordance with the respective national regulations, and for which responsibility is transferred to the Agency, as long as these records have not been transferred to the Agency.</p> | <i>Overview</i> |
| 21B.60 | Airworthiness directives | <p>Actions to be performed by the competent authority in relation to the airworthiness directives received from third countries.</p> <p>When the a competent authority of a Member State receives an airworthiness directive from the competent authority of a non-member State, that airworthiness directive shall be transferred to the Agency for dissemination in accordance with Article 15 of the basic Regulation.</p> | <i>Overview</i> |
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| SUBPART P PERMIT TO FLY | | | |
| 21B.520 | Investigation | Need to perform an investigation for applications for a | |



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| | | <p>permit to fly.</p> <p>(a) The Competent Authority shall perform sufficient investigation activities to justify the issuance, or revocation of the permit to fly.</p> <p>(b) The Competent Authority shall prepare evaluation procedures covering at least the following elements:</p> <ol style="list-style-type: none"> 1. evaluation of the eligibility of the applicant 2. evaluation of the eligibility of the application 3. evaluation of the documentation received with the application 4. inspection of the aircraft 5. approval of the flight conditions in accordance with 21A.710(b). | |
| 21B.525 | Issue of permits to fly | <p>Procedure for the issuance of a permit to fly.</p> <p>The Competent Authority shall issue a permit to fly (EASA Form 20a, see Appendix) when it is satisfied that the applicable requirements of Section A, Subpart P are met.</p> | |
| 21B.530 | Revocation of permits to fly | <p>Procedure for the suspension and revocation of a permit to fly.</p> <p>(a) Upon evidence that any of the conditions specified in 21A.723 (a) are not met for a permit to fly it has issued, the Competent Authority shall revoke that permit to fly.</p> <p>(c) Upon issuance of the notice of revocation of a permit to fly the Competent Authority shall state the reasons for the revocation and inform the holder of the permit to fly on the right to appeal.</p> | |



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| 21B.545 | Record keeping | Records needed to be kept in relation to the issuance of a permit to fly. (a) The Competent Authority shall operate a system of record keeping that provides adequate traceability of the process for the issue and revocation of each individual permit to fly. (b) The records shall at least contain: 1. the documents provided by the applicant 2. documents established during the investigation , in which the activities and the final results of the elements defined in 21B.520(b) are stated and 3. a copy of the permit to fly. (c) The records shall be kept for a minimum of six years after the permit ceases to be valid. | |
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