

Annex to ED Decision 2014/007/R

The Annex I 'Acceptable Means of Compliance and Guidance Material to be used in the airworthiness certification of products, parts and appliances and the approval of organisations involved in their design or manufacture' to ED Decision 2012/020/R of the Executive Director of the Agency of 30 October 2012 is hereby amended as follows:

The text of the amendment is arranged to show deleted text, new or amended text as shown below:

- (a) deleted text is marked with ~~strike through~~;
- (b) new or amended text is highlighted in grey;
- (c) an ellipsis (...) indicates that the remaining text is unchanged in front of or following the reflected amendment.

Amend AMC 21.A.4 as follows:

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

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

...

Amend AMC 21.A.14(b) as follows:

AMC 21.A.14(b) Alternative Procedures

...

4. Issue of information and instructions to owners, operators or others required to use the data

4.1 General

Information and instructions include the operational suitability data.

4.2 Data related to changes

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.

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.

The preparation of this data involves design, production and inspection. The three aspects should be properly addressed and a procedure should exist.

4.23 Procedure

The procedure should address the following points:

- preparation
- verification of technical consistency with corresponding approved change(s), repair(s) or approved data, including effectivity, description, effects on airworthiness or operational suitability, especially when limitations are changed
- verification of the feasibility in practical applications.

The persons authorised to sign before release of information and instructions to the Agency for approval should be identified in the procedure.

The procedure should include the information or instructions prepared by sub-contractors or vendors, and declared applicable to its products by the TC, STC, approval of changes to type design or approval of repair design holders.

4.34 Statement

The information and instructions should contain a statement showing Agency approval.

Insert new GMs as follows:

GM No 1 to 21.A.15(d) Clarification of the term 'as applicable'.

The term 'as applicable' indicates that not all elements as listed in 21.A.15(d)(1) through (6) are always part of the OSD. For example, when the operational rules do not require cabin crew for an aircraft with a certain number of passenger seats, the element of (d)(4) is not required for the OSD of this aircraft. Another example is that a minimum syllabus for pilot type rating training is not required if the aircraft is in a class rating.

If a new aircraft type is considered a variant for licensing purposes a full syllabus for type rating training is not required, but the applicant can suffice with the syllabus for differences training.

Most of the OSD elements are not applicable to aircraft in the category 'other than complex motor-powered'. In more detail:

- The requirement to produce minimum syllabi for type training of pilots is only applicable when the aircraft has a type rating. By default, small aircraft will be in a class rating. However, the Agency can decide on an ad-hoc basis that a type rating is necessary due to performance, design or other features that require specific training. For most small aircraft this is not the case and they will be in a class rating. Whether a new aircraft type should have a type rating or can be in a class rating will be part of the OSD approval process and finally will be decided by the Agency. The assessment is based on objective criteria which are included in the Certification Specifications for the related OSD element. When no individual type rating is required for the aircraft, it means that the relevant OSD elements are not required. Nevertheless, on a voluntary basis, the applicant can always provide a minimum syllabus for type training to be approved under OSD.
- The requirement to produce minimum syllabi for type training of maintenance certifying staff is only applicable for the aircraft required to have a type rating training, which are the aircraft in Group 1 as per Annex III of (EC) Regulation 2042/2003 (point 66.A.5). When no individual type rating training is required for the aircraft, it means that the relevant OSD elements are not required. Nevertheless, on a voluntary basis, the applicant can always provide a minimum syllabus for type training to be approved under OSD.
- Simulator data is only required when the syllabus for pilot type rating includes the use of full flight simulators. This is typically not the case for small aircraft.
- The type specific data for cabin crew training is only required when the operational rules require cabin crew for the maximum approved passenger seating capacity. Currently, cabin crew is required for aircraft with a maximum approved passenger seating configuration of more than 19. Small aircraft do not have this number of passenger seats.
- The requirement to establish an MMEL is applicable to all aircraft that can be used for commercial operations since the relevant operators must have MELs for those aircraft. This means that also for other-than-complex aircraft type certificate or restricted type-certificate an MMEL will be required. However, in order to minimise the burden for the TC and STC applicants the following applies:

- For other-than-complex aeroplanes excluding very light aeroplanes (VLA), light sport aeroplanes (LSA) and powered sailplanes generic MMELs by means of a dedicated CS are established by the Agency. The TC or STC applicant for an aircraft or change to an aircraft within that category can suffice with identifying the items of the generic MMEL that are appropriate for its design.
- For very light aeroplanes (VLA), light sport aeroplanes (LSA), very light rotorcraft (VLR), sailplanes, powered sailplanes, balloons and ELA2 airships, the Agency considers that the list of required equipment as included in the TCDS and/or AFM/POH, in combination with equipment required for the flight by the associated implement rules, such as operational requirements, airspace requirements and any other applicable requirements to the intended operation, establishes the list of equipment that must be operative for all flights. Other equipment may be inoperative and this constitutes the MMEL. Design approval applicants for these aircraft are, therefore, not required to establish an MMEL.

GM No 2 to 21.A.15(d) Determination of type or variant

The criteria for the determination whether an aircraft with a new type certificate (TC) is considered a new type or is a variant with reference to another aircraft type from the same TC holder for the purpose of the specific OSD element, are provided in the applicable certification specifications for maintenance certifying staff data, flight crew data and cabin crew data.

GM No 3 to 21.A.15(d) OSD content

The OSD will typically consist of elements that are required to be included by the TC applicant and elements that can be added at the request of the TC applicant. (see also GM No.4 to 21.A.15(d)).

Both the required elements and the additional elements will have a part that is mandatory to be used by the operator or training organisation (status of rule) and a part which is not mandatory to the operator or training organisation (status of AMC). For illustration of this concept the below figure is included.

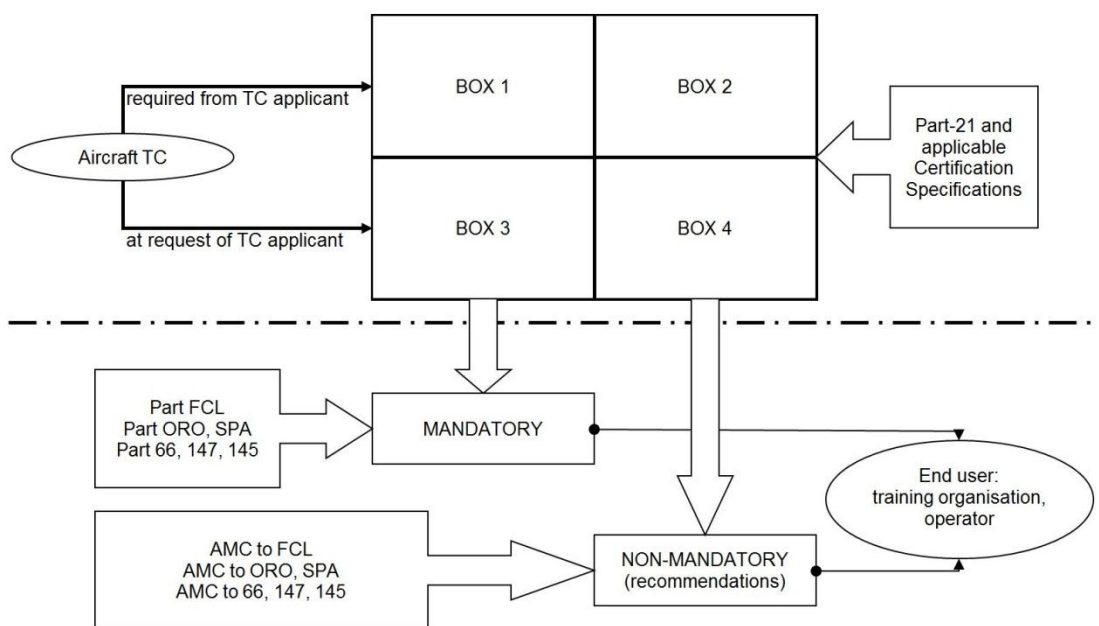


Figure 1: OSD boxes concept

Box 1: required from TC holder; mandatory for end-users.

Box 2: required from TC holder; not mandatory (recommendations) for end-users.

Box 3: at request of TC holder; mandatory for end-users.

The TC applicant may wish to apply for the approval of differences training between variants or types to reduce training, checking or currency requirements for operations of more than one type or variant. This is regarded as an optional element in addition to the required elements of Box 1 and 2.

Box 4: at request of TC holder; not mandatory (recommendations) for end-users.

The exact content of the four boxes in the above figure is determined by the certification specification that is applicable to the specific element.

The status the data will have on the side of the operator or training organisation should be indicated in the OSD by segregating the data in a section called 'Mandatory' and a section called 'Non-mandatory (recommendations)'.

GM No 4 to 21.A.15(d) Scope of operational suitability data.

- (a) In the application-extension for approval of operational suitability data, the TC applicant may apply for the approval of different types of operations. If the aircraft is certificated for certain types of operations (e.g. ETOPS, RNP, LVO) the impact on the elements of 21.A.15(d) should be addressed.
- (b) Under the term 'Other type-related operational suitability elements' of 21.A.15(d)(6) there are several possibilities for including elements in the OSD at the request of the TC applicant in addition to the required elements. These additional elements should be linked to one of the required elements or should concern the operational suitability of the aircraft type.

GM 21.A.17B (a)(1) Reference date for operational suitability certification basis

The date of application as referred to in 21.A.17B (a)(1) is the date of the TC application when this includes operational suitability data, or the date the application was supplemented to include operational suitability data.

Amend AMC 21.A.20(b) as follows:

AMC 21.A.20(b) Certification programme

1. For a particular project and as part of the technical familiarisation, the applicant provides a certification programme that includes:
 - 1.1 a plan containing the following information:
 - Description of the project and the kind of operations envisaged
 - The proposed certification specifications, special conditions, equivalent safety findings and environmental protection requirements
 - The description on how compliance will be demonstrated, with proposed means of compliance (see appendix to this AMC below for codes), and any selected guidance material. The description of the means of compliance should be sufficient to

determine that all necessary data will be collected and compliance can be demonstrated.

- A compliance checklist addressing each paragraphs of the type-certification basis, the operational suitability certification basis and environmental protection requirements applicable to the project, with reference to the means of compliance and to the related compliance documents.
- Identification of relevant personnel making decisions affecting airworthiness, operational suitability and environmental protection interfacing with the Agency, unless otherwise identified to the Agency;

1.2 a project schedule including major milestones.

...

Amend AMC 21.A.20(c) as follows:

AMC 21.A.20(c) Compliance documentation

1. Compliance documentation comprises of one or more reports, drawings, specifications, calculations, analysis etc. and provides a record of the means by which compliance with the applicable type-certification basis, the operational suitability certification basis and environmental protection requirements is demonstrated.

...

Insert new GMs as follows:

GM to 21.A.21(f), 21.A.23(b) and 21.A.103(a)4 Approval of OSD

It is acknowledged that it may not always be possible to have the operational suitability data available at the date of the issuance of the type certificate (TC) change approval or STC. The derogation provided by points 21.A.21(f), 21.A.23(b) and 21.A.103(a)4 are intended for that case. The TC, change approval or STC can be issued before compliance with the operational suitability data certification basis has been shown, provided the applicant declares the date that the OSD will be available. The OSD should be approved before the data must be used by a training organisation for the purpose of obtaining a European license, rating or attestation, or by an EU operator. This is normally at the entry into service of the first aircraft by an EU operator but could also be later for some of the elements such as the data for simulators which should only be available when a simulator has to be qualified.

However, there may be a need to make one or several OSD elements available before the entry into service, or even before the TC is issued. For example, there may be a need to start training activities before all elements contained in the OSD application can be approved.

Therefore, before the availability of a complete and fully compliant OSD, the Agency can certify partial compliance of only one or several provisional OSD elements under the TC, change approval or STC, the use of which can then be limited to specific purposes.

GM to 21.A.62, 21.A.108 and 21.A.120B Availability of Operational Suitability Data

(a) When making data available, the holder of the design approval (TC, change approval, STC) should take into account the applicable security laws.

- (b) When making data available, the holder of the design approval can impose conditions addressing the intellectual property nature of the data.

GM to 21.A.90A Scope

In case of changes to operational suitability data, the term 'changes' includes amendments, deviations, additions and supplements.

Amend GM No. 1 to 21.A.239(a) as follows:

GM No. 1 to 21.A.239(a) Design assurance system

...

3.1.4 Office of Airworthiness

...

- i. Advising of all departments of the design organisation in all questions regarding airworthiness, operational suitability, environmental protection approvals and certification.

...

- s. Monitoring of significant events on other aeronautical products as far as relevant to determine their effect on airworthiness or operational suitability of products being designed by the design organisation.

...

- u. Ensuring the initiation of activities as a response to a failure (accident/incident/in-service occurrence) evaluation and complaints from the operation and providing of information to the Agency in case of airworthiness or operational suitability impairment (continuing airworthiness and continued operational suitability).

...

3.1.5 Maintenance and Operating Instructions

...

- b. In accordance with 21.A.57, 21.A.61, 21.A.107, 21.A.119, 21.A.120A and 21.A.449, ensuring that these documents are provided to all affected operators and all involved authorities.

3.1.6 Operational Suitability Data

- a. Ensuring the preparation and updating of all operational suitability data in accordance with relevant CS. For that purpose, the applicant should:

- establish the list of all documents it is producing to comply with CS-MMEL or CS-GEN-MMEL, CS-FCO, CS-CCO, CS-SIMD and CS-MCSD as applicable;
- define procedures and organisation to produce and issue these documents, using where applicable and so elected 21.A.263(c)(3) privilege.

- b. In accordance with 21.A.57, 21.A.62, 21.A.108, 21.A.119 and 21.A.120B, ensuring that these documents are provided to all affected operators and training organisations and all involved authorities.

...

Amend AMC No. 1 to 21.A.243(a) as follows:

AMC No. 1 to 21.A.243(a) Data requirements

...

4. A general description of the way in which the organisation performs all the design functions in relation to airworthiness, operational suitability and environmental protection approvals including:

...

5. A general description of the way in which the organisation performs its functions in relation to the continuing airworthiness and continued operational suitability 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.

...

10. A description of the means by which the organisation monitors and responds to problems affecting the airworthiness or operational suitability of its product during design, production and in service in particular to comply with 21.A.3 (see also GM No. 1 to 21.A.239, paragraphs 3.1.4(s) and (u)).

...

14. A description of the procedures for the establishment and the control of the maintenance and operating instructions (see 21.A.57, 21.A.61, 21.A.107, 21.A.119, 21.A.120A and 21.A.449).

...

16. A description of the procedures for the establishment and the control of the operational suitability data (see 21.A.57, 21.A.62, 21.A.108, 21.A.119 and 21.A.120B).

Amend GM No. 1 to 21.A.243(d) as follows:

GM No. 1 to 21.A.243(d) Statement of qualifications and experience

...

2. Who are the persons?

...

- the personnel making decisions affecting airworthiness, operational suitability and environmental protection:

- compliance verification engineers [see GM No. 1 to 21.A.239(a), para.3.1.3; AMC 21.A.239(b)]
- personnel of the Office of Airworthiness making decisions affecting airworthiness, operational suitability and environmental protection, especially those linked with the 21.A.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 minor revisions to the aircraft flight manual) [see GM No. 1 to 21.A.239(a), para. 3.1.4]

3. Kind of statement

...

3.3 Personnel making decisions affecting airworthiness, operational suitability and environmental protection

...

Amend GM No. 1 to 21.A.245 as follows:

GM No. 1 to 21.A.245 Requirements for approval

...

4 Organisation. The data submitted in accordance with 21.A.243 should show that:

...

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, operational suitability and environmental protection matters (see GM No. 1 to 21.A.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.

...

Amend GM No. 2 to 21.A.245 as follows:

GM No. 2 to 21.A.245 Requirements for approval - Organisations designing minor changes to type design or minor repairs to products

...

2. Person(s) have been nominated to liaise with the Agency and to co-ordinate airworthiness, operational suitability and environmental protection matters. Their position in the organisation should allow direct report to the manager responsible for design.

...

Amend GM 21.A.247 as follows:

GM 21.A.247 Significant changes in the design assurance system

In addition to a change in ownership (see 21.A.249), the following changes to the design assurance system should be considered as 'significant' to the demonstration of compliance or to the airworthiness, operational suitability or environmental protection of the products:

1. Organisation

...

- Change in the parts of the organisation that contribute directly to the airworthiness, operational suitability or environmental protection (independent checking function, office of airworthiness [or equivalent])

...

2. Responsibilities

...

- New distribution of responsibilities affecting airworthiness, operational suitability or environmental protection

...

3. Procedures

Change to the principles of procedures related to :

...

- continued airworthiness or continued operational suitability (see 21.A.3)
- the configuration control, when airworthiness, operational suitability or environmental protection is affected

...