



AP to DOA

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DO Section

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DGINT/2Cologne

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European Aviation Safety Agency

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Basic Regulation

➤ EC 1592/2002

✦ Article 5 - Airworthiness

→ Organisations responsible for the **design**, manufacture and 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.

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Part 21 – Subpart O (1/3)

➤ 21A.602B Demonstration of Capability

✦ Any applicant for an ETSO authorisation shall demonstrate its capability as follows:

→ (a) for production ...

→ (b) for design:

1. for an Auxiliary Power Unit, by holding a design organisation approval, issued by the Agency in accordance with Subpart J;
2. for all other articles, by using procedures setting out the **specific design practices, resources and sequence of activities** necessary to comply with this Part.

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Part 21 – Subpart O (2/3)

➤ 21A.605 Data requirements

✘ The applicant shall submit the following documents, to the Agency:

- (a) ..., (b) ..., (c) ..., (d) ...
- (e) For an APU, the handbook (or a reference to the handbook) referred to in 21A.243 for the purpose of obtaining an appropriate design organisation approval under Subpart J.
- (f) for all other articles, **the procedures referred to in 21A.602B(b)(2)** [*Demonstration of Capability*].

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Part 21 – Subpart O (3/3)

➤ 21A.609 Obligations

✘ The holder of an ETSO authorisation under this Subpart shall:

- (a) ..., to (f) ...
- (g) **Continue to meet** the qualification requirements of 21A.602B. [*Demonstration of Capability*]

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AMC & GM to Part 21 (1/2)

➤ AMC 21A.602B(b)(2)

Procedures for ETSO authorisations

✘ 1 Scope

- 1.1 **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.
- 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**.

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AMC & GM to Part 21 (2/2)

➤ AMC 21A.602B(b)(2)

✘ The procedures should cover:

- Management of the ETSO authorisation process
[See AMC 21A.14(b) §2.1, §2.2, and §2.3]
- Management of design changes
[See AMC 21A.14(b) §3.2, §3.3, and §3.4]
 - Design changes
 - Repairs and Production Deviations
- Obligations addressed in 21A.609
- Control of design subcontractors

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Management of ETSO process

➤ AMC 21A.14(b), 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:

- Part 1 [*Project Management & Milestones*]
- Part 2 [*Attribution of responsibilities*]
- Part 3 [*Applicable Minimum Performance Standards*]
- Part 4 [*Means & Method of compliance, flow of the information to the Agency, Configuration Control, Establishment of Compliance Documentation, Control of time schedule*]



Management of ETSO process

➤ AMC 21A.14(b), 2.2

✦ The applicant must establish procedures for creating compliance documents.

- Kind of document & technical objectives
- Numbering system
- Control of document issues
- Each document must contain: (1) References to the covered requirements; (2) Statement of compliance to the above mentioned requirements

Except as otherwise agreed with the Agency, all compliance documents must be produced before issuance of the final statement of compliance required by 21A.605(a)



Management of ETSO process

➤ AMC 21A.14(b), 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.



Management of design changes

➤ AMC 21A.14(b), 3.2

✦ Procedure for Classification

- Identification of changes to type design
- Airworthiness classification
- Changes to Type Design initiated by subcontractors
- Documents to justify the classification
- Authorised signatories



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Management of design changes

➤ AMC 21A.14(b), 3.3

✕ Procedure for Approval of Changes

- (Additional) Compliance Documentation
- Approval Process
- Authorised Signatories

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Management of design changes

➤ AMC 21A.14(b), 3.4

✕ Repairs and Production Deviations

- 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).

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Obligations

➤ AMC 21A.602B(b)(2), 4

✕ The applicant should establish the necessary procedures to show to the Agency how it will fulfil the obligations.

- The holder of an ETSO authorisation under this Subpart shall:
 - (a) Manufacture each article in accordance with Subpart G or Subpart F that ensures that each completed article conforms to its design data and is safe for installation;
 - (b) Prepare and maintain, for each model of each article for which an ETSO authorisation has been issued, a current file of complete technical data and records in accordance with 21A.613;
 - (c) Prepare, maintain and update master copies of all manuals required by the applicable airworthiness specifications for the article;
 - (d) Make available to users of the article and to the Agency on request those maintenance, overhaul and repair manuals necessary for the usage and maintenance of the article, and changes to those manuals;
 - (e) Mark each article in accordance with 21A.807; and
 - (f) Comply with 21A.3(b), (c), 21A.3B and 21A.4.
 - (g) Continue to meet the qualification requirements of 21A.602B.

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Control of subcontractors

➤ AMC 21A.602B(b)(2), 5

✕ The applicant must establish the control of design subcontractors.

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Conclusions

➤ The Alternative Procedures should be seen not only as a legal obligation, but also as a *working* tool for the management of the interfaces between the applicant/holder of ETSOA and the Agency

➤ Once back *home*, please check your APs to verify if they still reflect your organization working methods, and if they continue to meet the applicable requirements and guidance material published on EASA website and briefly presented today.

If not, please let us know !! [EASA Form 81]



Questions ?