

# **European Aviation Safety Agency Rulemaking Directorate**

# **EXPLANATORY NOTE**

**DECISION No 2012/020/R** 

'AMC and GM to Part 21'

Issue 2

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# **Executive summary**

This Explanatory Note provides background information to the Decision 2012/020/R which adopts issue 2 of 'AMC and GM to Part 21' document (Acceptable Means of Compliance and Guidance Material to Part 21). The Explanatory Note details the reasons for re-issuing 'AMC and GM to Part 21' and describes the changes that this new issue of 'AMC and GM to Part 21' incorporates, compared to its initial issue by Decision No 2003/1/RM of 17 October 2003.

#### A. General

- 1. Executive Director Decision No. 2012/020/R adopts a new issue (issue 2) of the Acceptable Means of Compliance and Guidance Material to Part-21 for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations ('AMC and GM to Part-21').
- 2. This new issue -of 'AMC and GM to Part-21' incorporates all the amendments issued by the Agency by means of amending Decisions by the Executive Director of the Agency adopted since the initial issue of 'AMC and GM to Part-21' (Decision No 2003/1/RM of 17 October 2003<sup>1</sup>).
- 3. This new issue of 'AMC and GM to Part-21' incorporates changes that are linked to the four Agency Opinions which were included in Commission Regulation (EU) No 748/2012<sup>2</sup> and in particular in its Annex I (Part 21 ). It also contains other changes which are necessary to align it with the new regulation. Commission Regulation (EU) No 748/2012 replaced and repealed Commission Regulation (EC) No 1702/2003 of 24 September 2003<sup>3</sup>.

## B. Overview of amending Decisions and other changes incorporated

4. Since the initial issue of 'AMC and GM to Part 21' by Decision No 2003/1/RM of 17 October 2003 nine (9) amending ED Decisions have been adopted which are all incorporated in this new issue of 'AMC and GM to Part-21':

Amendment 21/1: ED DECISION No 2006/13/R of 20 December 2006

'Standard parts'

Amendment 21/2: ED DECISION No 2007/008/R of 2 April 2007

'Noise certificate'

Amendment 21/3: ED DECISION No 2007/06/R of 4 April 2007

'Permit to Fly'

Amendment 21/4: ED DECISION No 2007/012/R of 22 November 2007

Decision No 2003/01/RM of the Executive Director of the Agency of 17 October 2003 on Acceptable Means of Compliance and Guidance Material for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations ('AMC and GM to Part 21')

Commission Regulation (EU) No 748/2012 of 03/08/2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations (OJ L 224, 21.8.2012, p.1-85)

<sup>&</sup>lt;sup>3</sup> Commission Regulation (EC) No 1702/2003 of 24/09/2003 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production (OJ L 243, 27.9.2003, p.6)

• 'Resolving ambiguity between AMC/GM and Part 21 in respect of eligibility for Subpart F and G for manufacturers of raw material'

### Amendment 21/5: ED DECISION No 2009/011/R of 24 August 2009

- 'Fuel tank flammability reduction'
- 'Repair and design changes to European Technical Standard Order (ETSO)'

#### **Amendment 21/6:** ED DECISION No 2010/001/R of 23 March 2010

- 'Miscellaneous Part-21'
- 'Permit to Fly for Continuing Airworthiness Management Organisation and Approved Maintenance Organisations'
- 'Authorised Release Certificate EASA Form 1'

## Amendment 21/7: ED DECISION No 2010/016/R of 16 December 2010

- 'Extended Range Operations with Two-Engined Aeroplanes ETOPS Certification and Operation'
- 'Systematic review and transposition of existing FAA TSO standards for parts and appliances into EASA ETSO'
- 'Other party supplier control'

# Amendment 21/8: ED DECISION No 2011/006/R of 19 August 2011

• 'Environmental protection – classification of changes to a type design'

#### Amendment 21/9: ED DECISION No 2011/010/R of 1 December 2011

• 'Improvement of GM to 21A.101' (Establishment of the type-certification basis of Changed Aeronautical Products

For details on the above ED Decisions and related NPA/CRD documents see EASA website:

http://easa.europa.eu/agency-measures/acceptable-means-of-compliance-and-guidance-material.php

5. This new issue of 'AMC and GM to Part-21' also incorporates changes, including new or amended AMCs/GMs related to the adoption by Commission Regulation (EU) No 748/2012 of the following Opinions:

Opinion No 01/2009 'Possibility to deviate from airworthiness code in case of design changes':

- **GM 21.A.101** Chapter 2, section 2 paragraphs (a) is amended and new paragraph (i) is introduced to reflect the amendment of point 21.A.101(a) and new point 21.A.101(f) adopted by Opinion No 012009 to introduce an elect to comply possibility for changes to TC and STCs consistent with the elect to comply possibility for new TCs

Opinion No 02/2009 on 'Repair and design changes to European Technical Standard Order'

Changes are made to:

- GM 21.A.431(d)
- **AMC 21.A.433 (a) and 21.A.447** paragraph (5)
- AMC 21.A.437(b)

to reflect the rule changes to Part-21 Subpart M introduced by Opinion No 02/2009 in order to ensure that design changes and repairs to APUs are treated in the same way as design changes and repairs to products.

Opinion No 01/2010 on 'Subpart J DOA'

Changes are made to:

- AMC 21.A.14(b)
- GM No. 1 to 21A.239(a)
- GM 21A.263(c)(4)
- AMC 21A.602B(b)(2)

and the following new AMCs/GMs are introduced:

- AMC 21.A.20(b)
- GM 21.A.20(b)
- AMC 21A.20(c)
- GM 21A.20(d)
- AMC 21A.97
- AMC 21A.114

to support rule changes introduced by the above Opinion No 01/2010 requiring applicants for TC, changes to TC and STCs to provide a certification programme; and extending the DOA privileges to include a possibility to approve minor revisions to Aircraft Flight Manuals.

Opinion No 01/2011 on 'European Light Aircraft (ELA) process' and 'standard changes and repairs'

This opinion introduced:

- a new class of European Light Aircraft ELA1 and ELA2,
- a new, 3rd way to demonstrate design capability by establishing a certification programme only,
- a concept of 'standard changes and repairs' that do not need EASA or DOA approval, and
- a new category of replacement parts that can be installed in ELA1 and ELA2 aircraft without an EASA Form 1 under the responsibility of the owner (see 21.A.307)

However, the opinion No 01/2011 was not supported by any new or amended AMCs/GMs to be incorporated in this issue 2 of 'AMC and GM to Part 21'.

For details on the above opinions and related NPA/CRD documents see EASA website: <a href="http://easa.europa.eu/agency-measures/opinions.php">http://easa.europa.eu/agency-measures/opinions.php</a> .

- 6. This new issue of 'AMC and GM to Part-21' incorporates also changes to align with changes that were introduced in Regulation (EU) No 748/2012 by the Commission in addition to the changes relating to the opinions as described above.:
  - Changed style of numbering of Part 21 paragraphs (now 'points') introducing a dot between '21' and 'A' or 'B'; (e.g.21.A.101)
  - Changed convention in use of capital letters (e.g. 'Competent Authority' is replaced by 'competent authority' etc.)
  - Replacement of the term 'the Basic Regulation' by reference to Regulation (EC) 216/2008
  - Replacement of the term 'paragraph' by 'point' when referring to Part 21 elements
  - Replacement of the cross-references to 'Commission Regulation (EC) No 1702/2003' by cross-references to 'Commission Regulation (EU) No 748/2012'
- 7. Finally, this new issue of 'AMC and GM to Part 21' took the opportunity -
  - to remove any known errors, incorrect cross-references, editorials etc.,
  - to remove any identified inconsistencies either within the document itself or inconsistencies against the Commission Regulation (EU) No 748/2012 and/or other Regulations and Agency measures. This includes alignment of inconsistent terms, designations, cross-references, terminology, writing conventions etc., and
  - to improve formatting of the document.