



**NOTICE OF PROPOSED AMENDMENT (NPA) No 2008-09**

**DRAFT OPINION OF THE EUROPEAN AVIATION SAFETY AGENCY**

**FOR A COMMISSION REGULATION AMENDING COMMISSION REGULATION (EC) No 1702/2003 of 24 September 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 organisations**

*“Possibility to deviate from airworthiness code in case of design changes”*

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## A. EXPLANATORY NOTE

### I. General

1. The purpose of this Notice of Proposed Amendment (NPA) is to envisage amending Regulation (EC) No 1702/2003<sup>1</sup> to add the same level of flexibility in establishing the certification basis for changes to type certificates (TC) and supplemental type certificates (STC) as it exists already for type certification. The scope of this rulemaking activity is outlined in Terms of Reference (ToR) for task 21.038 and is described in more detail below.
2. The European Aviation Safety Agency (the Agency) is directly involved in the rule-shaping process. It assists the Commission in its executive tasks by preparing draft regulations, and amendments thereof, for the implementation of the Basic Regulation<sup>2</sup> which are adopted as "Opinions" (Article 19(1)). It also adopts Certification Specifications, including Airworthiness Codes and Acceptable Means of Compliance (AMC) and Guidance Material (GM) to be used in the certification process (Article 19(2)).
3. When developing rules, the Agency is bound to following a structured process as required by Article 52(1) of the Basic Regulation. Such process has been adopted by the Agency's Management Board and is referred to as "The Rulemaking Procedure"<sup>3</sup>.
4. This rulemaking activity is included in the Agency's rulemaking programme for 2008. It implements the rulemaking task 21.038 'Possibility for "exemption" from the applicable airworthiness code and "elect to comply" for TCs, STCs and changes to TCs'.
5. The text of this NPA has been developed by the Agency. It is submitted for consultation of all interested parties in accordance with Article 52 of the Basic Regulation and Articles 5(3) and 6 of the Rulemaking Procedure.

### II. Consultation

6. To achieve optimal consultation, the Agency is publishing the draft decision of the Executive Director on its internet site. Comments should be provided within 3 months in accordance with Article 6(4) of the Rulemaking Procedure. Comments on this proposal should be submitted by one of the following methods:

**CRT:** Send your comments using the Comment-Response Tool (CRT) available at <http://hub.easa.europa.eu/crt/>

**E-mail:** Only in case the use of CRT is prevented by technical problems these should be reported to the [CRT webmaster](mailto:CRT_webmaster@easa.europa.eu) and comments sent by email to [NPA@easa.europa.eu](mailto:NPA@easa.europa.eu).

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<sup>1</sup> Commission Regulation (EC) No 1702/2003 of 24 September 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 organisations (*OJ L 243, 27.9.2003, p. 6*). Regulation as last amended by Commission Regulation (EC) No 287/2008 of 28 March 2008. *OJ L 87, 29.3.2008, p. 3*.

<sup>2</sup> Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC. *OJ L 79, 19.03.2008, p. 1*.

<sup>3</sup> Management Board decision concerning the procedure to be applied by the Agency for the issuing of opinions, certification specifications and guidance material ("Rulemaking Procedure"), EASA MB 08-2007, 13.6.2007

**Correspondence:** If you do not have access to internet or e-mail you can send your comment by mail to:  
Process Support  
Rulemaking Directorate  
EASA  
Postfach 10 12 53  
D-50452 Cologne  
Germany

Comments should be received by the Agency **before 07 August 2008**. If received after this deadline they might not be taken into account.

### **III. Comment response document**

7. All comments received in time will be responded to and incorporated in a comment response document (CRD). The CRD will be available on the Agency's website and in the Comment-Response Tool (CRT).

### **IV. Content of the draft opinion**

8. The rules for establishing the type certification basis for applications for TC (21A.17 (a) (1) (i)) contain a possibility to deviate from the applicable airworthiness code without the need to show an equivalent level of safety. The Part-21 requirements for TC changes and STCs in 21A.101 impose the latest available airworthiness code but also allow using older requirements under certain conditions. Deviations from the airworthiness code are not possible except in the case of equivalent safety findings (21A.103 (a) (2) (ii)). Due to the prescriptive nature of certain provisions in the airworthiness code it can be very difficult if not impossible to demonstrate an equivalent level of safety to those provisions.

To the extent considered appropriate for safety, CS-25 standards contain different provisions based on passenger capacity discriminants. These standards do not distinguish between aeroplanes operated in air carrier service and aeroplanes operated for private use. It is true that CS-25 standards are written with air carrier operation in mind, but it can be questioned whether the one level of airworthiness code for large aeroplanes is, in fact, appropriate for all types of operation. Experience has shown that for the majority of deviations from the airworthiness code equivalent safety through design measures can be demonstrated but in a limited number of cases such as special cabin modifications for privately owned large aeroplanes this is impossible or impractical. These issues include firm handholds throughout the aeroplane cabin, passenger injury criteria for side facing seats, flight attendant direct view of the cabin, passenger information signs, emergency exit locations and markings, interior compartment doors, aisle widths, material flammability compliance, fire detection, cook tops and fire extinguishers.

This NPA envisages the introduction of a provision in Part-21 allowing deviations from the applicable airworthiness code in case of modifications by applying alternative detailed certification specifications. In these cases the mitigation of risks can partly be found in the use of the aeroplane. By applying these alternative detailed certification specifications in combination with restrictions regarding the use of the aeroplane, compliance with the essential requirements for airworthiness of Annex 1 to the basic Regulation can be ensured.

9. Another inconsistency between the rules for establishing the certification basis for new TC and those for changes and STCs is the absence of a possibility for the applicant of a change or an STC to elect to comply with a later amendment of the applicable airworthiness code. This NPA envisages restoring consistency by introducing the possibility to elect to comply with later standards also for changes and STCs.
10. Finally the current flexibility provision for new TCs in 21A.17 (a) (1) (i) does not contain the boundaries that are put by article 5 and 20 of the basic Regulation. These provisions

specify how the certification basis of products and changed products are established and that the ultimate goal is ensuring compliance with the essential requirements for airworthiness of Annex 1 to the basic Regulation. For clarity these boundaries are added.

## **V. Regulatory Impact Assessment**

### **11. Purpose and Intended Effect**

- a. Issue which the NPA is intended to address.

Inconsistencies between establishing the certification basis for initial TC and changes, notably the lack of flexibility in establishing the certification basis for changed products.

- b. Scale of the issue (quantified if possible).

The envisaged amendment will be used for a limited number of modifications per year.

- c. Brief statement of the objectives of the NPA.

The objective of this NPA is to remove the inconsistencies as identified under subparagraph a. above.

### **12. Options**

The options identified are:

- Option 1: doing nothing.
- Option 2: amend Part-21 to introduce additional flexibility in establishing the certification basis for changed products.

### **13. Sectors concerned**

In principle all organisations modifying aircraft are potentially affected. However the envisaged amendment will be mainly used for modifications of cabin interiors for privately operated large aeroplanes.

### **14. Impacts**

- a. All identified impacts

- i. Safety

Option 1 is the reference option for comparison with the other option and is considered neutral.

Option 2 will bring more flexibility in establishing the certification basis for changed products, similar to what exists for new TCs. The safety level is nevertheless maintained because compliance with the essential requirements for airworthiness of Annex I of the basic regulation is always assured and non-compliances with inappropriate provisions of the airworthiness code are mitigated through alternative detailed certification specifications and operational restrictions.

- ii. Economic

Option 2 is expected to have a modest positive economic impact because for certain modifications it will no longer be necessary to look for equivalent safety entirely by design measures but also through the operational use of the aircraft.

- iii. Environmental

The requirements for determining the applicable environmental protection rules are not affected so no impact on the environment is expected.

iv. Social

No social impact is expected.

v. Other aviation requirements outside the Agency scope

Other authorities generally have the possibility to grant exemptions in the cases described above in paragraph 8. For example the Federal Aviation Administration (FAA) of the US has done so in the past. Last year on 13 July 2007 the FAA has issued a Notice of Proposed Rulemaking (07-13) 'Special Requirements for Private Use Transport Category Airplanes' which intends to amend Federal Aviation Requirement Part 25 including a set of specific cabin safety requirements in FAR Part 25 for privately owned large aeroplanes. The Agency is considering starting a similar rulemaking activity but in the mean time it is necessary to amend Part-21 as described above.

b. Equity and fairness in terms of distribution of positive and negative impacts among concerned sectors.

No negative impacts are expected to result from this rulemaking initiative so there will be no equity and fairness issues.

15. Summary and Final Assessment

In view of the above the Agency is of the opinion that option 2 is to be preferred.

## B. DRAFT OPINION

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

- deleted text is shown with a strike through: ~~deleted~~
- new text is highlighted with grey shading: **new**
- ....

indicates that remaining text is unchanged in front of or following the reflected amendment.

## I Draft Opinion PART 21

### 21A.17 Type-certification basis

- (a) The type-certification basis to be notified for the issuance of a type-certificate or a restricted type-certificate shall consist of:
1. The applicable airworthiness code established by the Agency that is effective on the date of application for that certificate unless:
    - (i) ~~Otherwise specified by the Agency~~ finds that any of the provisions of the airworthiness code are not appropriate to deal with specific design features of the product in relation to its intended use and alternatively will prescribe other detailed technical specifications and limitations to ensure compliance with the essential requirements for airworthiness of Annex 1 to the basic Regulation; or
    - (ii) Compliance with later effective amendments is elected by the applicant or required under paragraphs (c) and (d).
  2. Any special condition prescribed in accordance with 21A.16B(a).

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### 21A.101 Designation of applicable certification specifications and environmental protection requirements

- (a) An applicant for a change to a type-certificate shall demonstrate that the changed product complies with the airworthiness code that is applicable to the changed product and that is in effect at the date of the application for the change, **unless:**
1. the Agency finds that any of the provisions of the airworthiness code are not appropriate to deal with specific design features of the product in relation to its intended use and alternatively will prescribe other detailed technical specifications and limitations to ensure compliance with the essential requirements for airworthiness of Annex 1 to the basic Regulation; or
  2. Compliance with later effective amendments is elected by the applicant or required under paragraphs (e) and (f),

and with the applicable environmental protection requirements laid down in 21A.18.

- (b) ....
- (c) ....
- (d) ....
- (e) ....
- (f) If an applicant elects to comply with an amendment to the airworthiness codes that is effective after the filing of the application for a change to a type-certificate, the applicant shall also comply with any other amendment that the Agency finds is directly related.