



OPINION No 03/2008

OF THE EUROPEAN AVIATION SAFETY AGENCY

of 1 September 2008

for a Commission Regulation amending Regulation (EC) No 216/2008 of the European Parliament and of the Council 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

"CAEP/7 Implementation"

I. General

1. The purpose of this opinion is to suggest the Commission to amend Article 6 of Commission Regulation (EC) No 216/2008¹ (the Basic Regulation). The reasons for this rulemaking activity are outlined further below.
2. The Opinion has been adopted, following the procedure specified by the European Aviation Safety Agency's (the Agency) Management Board², in accordance with the provisions of Article 19 of the Basic Regulation.

II. Consultation

3. The draft opinion for a Commission Regulation amending the Basic Regulation (Notice of Proposed Amendment - NPA No 2008-02) was published on the Agency website on 20 March 2008.
4. By the closing date of 1 May 2008, the Agency had received 3 comments from 3 national aviation authorities.
5. All comments received have been acknowledged and incorporated into a Comment Response Document (CRD), which was published on the Agency's website on 26 June 2008 for two month consultation. This CRD contains a list of all persons and/or organisations that have provided comments and the answers of the Agency. In response to the CRD only one reaction was received. This reaction supported the CRD, thus no changes were required as a result.
6. All the received comments support the incorporation of ICAO amendments into Community law and related adjustments of Article 6 of the Basic Regulation and of CS-36, as proposed by the Agency.

III. Content of the Opinion of the Agency

7. This opinion is aimed at amending Article 6 of the Basic Regulation, to update the reference to the latest edition of Annex 16. The content of these amendments is explained here below.

Amendment 9 of Annex 16, Volume I to the Chicago Convention

8. Amendment 9 to the International Standards and Recommended Practices, Environmental Protection - Aircraft Noise (Annex 16, Volume I to the Convention on International Civil Aviation) was adopted by the ICAO Council at the fourth meeting of its 183rd Session held on 7 March 2008. The ICAO Council prescribed that the amendment will become effective, except for any part for which a majority of Contracting States would have notified their disapproval before 20 July 2008. To the extent it becomes effective, Amendment 9 will be applicable on 20 November 2008. Concerning these decisions ICAO Contracting States have been notified by ICAO State letter AN 1/61.2-08/20, dated 28 March 2008.

¹ 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, 19.3.2008, p. 1).

² Decision of the Management Board concerning the procedure to be applied by the Agency for the issuing of Opinions, Certifications Specifications and Guidance Material (Rulemaking Procedure). EASA MB 08-2007, 13.06.2007.

9. The purpose of Amendment 9 of Annex 16, Volume I to the Chicago Convention is to clarify administrative and technical issues arising in the application of demonstration schemes and related guidance for aircraft noise certification. In the following paragraphs some major administrative and technical issues introduced by Amendment 9 are described in more detail.

Changes to the applicability language

10. Amendment 8 of Annex 16, Volume I to the Chicago Convention replaced the previously used expression "certificate of airworthiness for the prototype" by the words "Type Certificate" in Volume I, Chapter 1 (Administration). This reflected current usage and aligned Annex 16, Volume I with other ICAO documents. Subsequently Amendment 9 aims to make the same change throughout Annex 16, Volume I to the Chicago Convention. Care had to be taken, however, to retain the notion of originality conveyed by the word "prototype" already used in that document; therefore a small change to paragraph 1.10 of Chapter 1 was introduced in Amendment 9 to restore the applicability rules to their original meaning. This change referred to the application by the State of Design and was thereby consistent with the applicability language used in Annex 8 to the Chicago Convention.
11. To be further aligned with Annex 8 to the Chicago Convention, the applicability language in Amendment 9 of Annex 16, Volume I to the Chicago Convention is now referring to the date of submittal of the application rather than the date of acceptance of the application.

Definitions relating to wind speeds

12. So far the definitions of the various wind speed limits in Annex 16, Volume I to the Chicago Convention were ambiguous and inconsistent. Clarification was particularly important, since exceeding wind speed limits is a common reason for having to suspend very expensive noise certification tests. Differences in technical implementation due to ambiguities and inconsistencies could potentially lead to big differences in costs of noise certification among different applicants and potentially in differences in repeatability and accuracy of the results. Using guidance issued by the World Meteorological Organization (WMO) and with the help of expert advice from the ICAO Meteorology Section, Amendment 9 of Annex 16, Volume I to the Chicago Convention introduces provisions that create a technically sound and well defined set of specifications.

Update of IEC references

13. Annex 16, Volume I to the Chicago Convention contains references to several International Electrotechnical Commission (IEC) standards that establish specifications for equipment used in aircraft noise certification. Over the years, these specifications had been updated by the IEC to reflect advances in electronics, manufacturing and measurement techniques. Reference to the most recent IEC standards has been introduced by Amendment 9 to Annex 16, Volume I to the Chicago Convention.

Amendment 6 of Annex 16, Volume II to the Chicago Convention

14. Amendment 6 to the International Standards and Recommended Practices, Environmental Protection - Aircraft Engine Emissions (Annex 16, Volume II to the Convention on International Civil Aviation) was adopted by the ICAO Council at the fourth meeting of its 183rd Session held on 7 March 2008. The ICAO Council prescribed that the amendment will become effective, except for any part for which a majority of Contracting States would have notified their disapproval before 20 July 2008. To the extent it becomes effective, Amendment 6 will be applicable on 20 November 2008.

Concerning these decisions ICAO Contracting States have been notified by ICAO State letter AN 1/62.2-08/21, dated 2 April 2008.

15. Amendment 6 of Annex 16, Volume II to the Chicago Convention addresses administrative and technical issues, mainly concerning the modernization of the demonstration schemes and guidance for engine certification. In the following paragraphs some major administrative and technical issues introduced by Amendment 6 are described in more detail.

Review of current gaseous emissions corrections to reference day conditions

16. A number of areas of concern were raised by the Committee on Aviation Environmental Protection (CAEP) in the past concerning the fact that:

- 1) in Annex 16, Volume II to the Chicago Convention the terminology related to corrections to reference engine conditions and reference atmospheric conditions are not consistent,
- 2) the terms used for the humidity corrections were not clear, and
- 3) several apparently equivalent terms were used to describe thrust setting.

In order to resolve these inconsistencies Amendment 6 of Annex 16, Volume II to the Chicago Convention

- 1) contains a revised text to specify clearly the applicable corrections to the reference standard engine and to the reference atmospheric conditions,
- 2) introduces a clear distinction between the two different humidity terms used, and
- 3) uses the term "landing and take-off (LTO) operating modes" when referring to the specific LTO cycle points, while using the term "thrust setting" when referring to non-specific operating conditions.

Review of current fuel specification requirements

17. A review of the availability of fuel, meeting the specification, had indicated that generally available fuels frequently failed to meet a number of the specification limits. However, amending the specification to encompass all available fuels would have an effect on stringency. Therefore, Amendment 6 of Annex 16, Volume II to the Chicago Convention permits deviations from the fuel specifications requirements, which are subject to the application of agreed corrections. The changes made in Amendment 6 will reduce certification costs by enabling manufacturers to use fuels available locally, subject to the application of acceptable corrections to eliminate any effect on the test results. Without this change it would be very likely that CAEP would be asked to amend the fuel specification on a regular basis to take account of future variation in fuel supplies.

Amendments to permit the use of alternative sample probe materials to stainless steel

18. Sampling emissions behind modern gas turbine engines require the use of rakes fabricated of materials capable of withstanding the thermal and structural loads imposed during high power operation. Annex 16, Volume II to the Chicago Convention defines the specifications for rake fabrication, and so far the only material specified was stainless steel. Recent certification tests by some manufacturers' latest technology engines using the stainless steel rakes specified in Annex 16, Volume II to the Chicago Convention had resulted in sampling hardware problems, which had led to costly delays

to test schedules. To alleviate this problem, rakes made of materials with stronger strength had been used in lieu of stainless steel after the manufacturers, working together with the certificating authorities, had demonstrated that the accuracy of the emissions measurements had not been compromised. Amendment 6 of Annex 16, Volume II to the Chicago Convention consequently introduces text, which enables manufacturers to make emissions measurement rakes from materials, which have adequate temperature capability, provided they are non-reactive.

Impact on the Agency rules

19. The Basic Regulation defines the essential requirements for environmental protection by referring to Annex 16 to the Chicago Convention. Article 6(2) specifies that when Annex 16 to the Chicago Convention has been amended, adaptation may be carried out in accordance with the procedure laid down in Article 65(3) of the same Regulation, to align as appropriate the essential requirements for environmental protection with the related ICAO Standards.
20. While no explicit recommendations concerning the stringency of noise and emissions standards were made by Amendment 9 of Annex 16, Volume I and Amendment 6 of Annex 16, Volume II to the Chicago Convention, these amendments, as explained here above, close loopholes and help to achieve equal treatment of all applicants. As some of these changes affect the formulation of the requirements themselves there is a need to transpose these improvements of Annex 16 to the Chicago Convention into Community law. This Opinion proposes such adaptation following adoption of Amendment 9 of Annex 16, Volume I and of Amendment 6 of Annex 16, Volume II to the Chicago Convention.
21. The Agency has examined a reference to the latest amendments of Annex 16, Volumes I and II in Article 6(1) of the Basic Regulation and came to the conclusion that the text, as it is given, might raise questions whether only the requirements of the latest amendments or the requirements of the complete chapters of Annex 16 are applicable. Therefore, the Agency is envisaging to propose a new text of Article 6(1) of the Basic Regulation (see Appendix: Proposed change to regulation).

IV. Regulatory Impact Assessment

Safety

22. No safety impacts are expected from these measures.

Economic

23. Economic impacts are expected to be positive. By adhering to standards adopted by ICAO, European products and aircraft registered in the European Union will be more easily accepted in different parts of the world. The associated reduction in administrative burden to the industry brought about by adopting the ICAO amendments unaltered is expected to have a positive economic effect.

Environmental

24. The amendments as agreed in ICAO are expected to have a positive effect on the environment as it is believed that the changes introduced resolve ambiguities and inconsistencies, provide clarification, provide an update to the latest technical developments, and introduce technically sound and well defined specifications.

Social

25. No social impacts are expected from the options other than the indirect effect of the mitigation of negative environmental effects of aviation on the environment.

Global harmonisation

26. Only if the amendments as agreed in ICAO are adopted unaltered it is ensured that Community rules are consistent with the global set of rules adopted by ICAO.

Other aviation requirements outside the Agency's scope

27. It is expected that the amendments will be adopted unaltered by other aviation authorities of the world.

Summary and Final Assessment

28. Based on the above and the decision adopted by ICAO after broad discussions it is recommended to adopt the amendments.

Cologne, 1 September 2008

P. GOUDOU
Executive Director