



Explanatory Note to Decision 2016/001/R

Implementation of CAEP/9 amendments

Update of CS-34

RELATED NPA/CRD 2014-15 — OPINION NO 05/2014 — RMT.0172 (BR.012), RMT.0083 (34.003) & RMT.0086 (36.007)

16.1.2016

EXECUTIVE SUMMARY

This Decision addresses an environmental issue related to aircraft noise and aircraft engine emissions.

The Decision is linked to the ICAO State Letters AN 1/17.14-14/24 and AN 1/17.14-14/25 on the adoption of Amendments 11 and 8 to Annex 16, Volumes I and II respectively.

The specific objective is to provide a high uniform level of environmental protection in the European Union (EU) as well as a level playing field for all actors in the aviation market by aligning European Union legislation with the latest ICAO standards and recommended practices (SARPs) and guidance material (GM) on aircraft noise and aircraft engine emissions. The new amendments to these SARPs and GM were approved by the ICAO Committee on Aviation Environmental Protection at its 9th meeting (CAEP/9) in February 2013 and adopted by the ICAO Council at its 201st meeting in March 2014.

Amendment 11 to ICAO Annex 16, Volume I introduces a new noise standard for subsonic jet and heavy propeller-driven aircraft (Chapter 14), which includes an increase in stringency of 7 effective perceived noise level in decibels (EPNdB) (cumulative) relative to the current Chapter 4 limits. Said Amendment also upgrades the current guidance on the noise certification of tilt-rotors in Annex 16, Volume I, Attachment F to a new noise standard for tilt-rotors (Chapter 13).

Amendment 8 to ICAO Annex 16, Volume II addresses various technical issues arising from the application of the ICAO SARPs and related guidance on aircraft engine emissions certification. There are no changes to the emissions limits. All changes to Volume II are considered to be stringency-neutral.

In addition to the amendments to ICAO Annex 16, revised versions of Volume I and Volume II of ICAO Doc 9501 'Environmental Technical Manual' (ETM) on the use of 'Procedures for the Noise Certification of Aircraft' and 'Procedures for the Emissions Certification of Aircraft Engines', respectively, were approved at CAEP/9.

This Decision incorporates the changes of ICAO Annex 16, Volume II and ICAO ETM, Volume II into the certification specifications (CS) on aircraft engine emissions and fuel venting (CS-34). These changes ensure compliance with the latest ICAO SARPs on aircraft engine emissions.

Applicability		Process map	
Affected regulations and decisions:	ED Decision 2012/020/R (AMC & GM to Part-21); ED Decision 2003/3/RM (CS-34); and ED Decision 2003/4/RM (CS-36)	Concept Paper:	No
Affected stakeholders:	Design and production organisations	Rulemaking group:	No
Driver/origin:	Environment	Terms of Reference:	4.12.2013
Reference:	N/A	RIA type:	Full (by CAEP)
		Technical consultation during NPA drafting:	No
		Publication date of the NPA:	24.6.2014
		Duration of NPA consultation:	2 months
		Review group:	No
		Focused consultation:	No
		Publication date of the Opinion:	17.12.2014



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1. Procedural information

1.1. The rule development procedure

The European Aviation Safety Agency (hereinafter referred to as the 'Agency') developed ED Decision 2016/001/R in line with Regulation (EC) No 216/2008¹ (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure².

This rulemaking activity is included in the Agency's [4-year Rulemaking Programme](#) under RMT.0172 (BR.012), RMT.0083 (34.003) & RMT.0086 (36.007). The scope and timescale of the task were defined in the related [Terms of Reference \(ToR\)](#) (see also process map on the title page).

The draft text of this Decision has been developed by the Agency based on the outcome of the 9th meeting of the ICAO Committee on Aviation Environmental Protection (CAEP/9) and the 201st meeting of the ICAO Council. All interested parties were consulted through [notice of proposed amendment \(NPA\) 2014-15](#)³. 9 comments were received from interested parties, including industry (2 comments) and national aviation authorities (NAAs) (7 comments).

The Agency reviewed the comments received during the consultation. Comments received and the Agency's responses thereto were presented in the [comment-response document \(CRD\) 2014-15](#). Based on the comments received, the Agency published Opinion No 05/2014 on 17 December 2014 which was addressed to the European Commission (EC). The related Regulation (EU) No 2016/4⁴ was adopted on 5 January 2016.

The final text of this Decision with the certification specifications (CS) has been developed by the Agency.

The process map on the title page summarises the major milestones of this rulemaking activity.

1.2. Structure of the related documents

Chapter 1 contains the procedural information related to this task. Chapter 2 explains the core technical content. The amended text of the CS is annexed to the ED Decision.

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 The Agency is bound to follow a structured rulemaking 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'. See 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 Decision No 01-2012 of 13 March 2012.

³ In accordance with Article 52 of the Basic Regulation and Articles 5(3) and 6 of the Rulemaking Procedure.

⁴ Commission Regulation (EU) 2016/4 of 5 January 2016 amending Regulation (EC) No 216/2008 of the European Parliament and of the Council as regards essential requirements for environmental protection (OJ L 3, 6.1.2016, p. 1).



2. Explanatory Note

2.1. Overview of the issues to be addressed

The ICAO Council adopted the amendments to its Annex 16 at its 201st meeting in March 2014 as proposed by the Committee on Aviation Environmental Protection at its 9th meeting in February 2013 (CAEP/9). These amendments include the introduction of a new noise standard for subsonic jet and heavy propeller-driven aircraft (Annex 16, Vol I, Chapter 14) as well as for tilt-rotors (Annex 16, Vol I, Chapter 13). The CAEP also approved various updates of the ICAO 'Environmental Technical Manual' (ETM), Volume II ('Procedures for the Emissions Certification of Aircraft Engines').

Following the Agency's Opinion No 05-2014, the European Commission amended Article 6 of the Basic Regulation and Annex I (Part-21) to Regulation (EU) No 748/2012⁵ to align both regulations with the latest amendments of ICAO Annex 16, Vols I and II, as well as with the respective chapters of these volumes. The CS on aircraft engine emissions and fuel venting (CS-34) now need to be amended to ensure that all EU regulations in the field of aviation environmental protection are aligned with the latest ICAO standards and recommended practices (SARPs).

2.2. Objectives

The overall objectives of the EASA system are defined in Article 2 of the Basic Regulation. This Decision will contribute to the achievement of the overall objectives by addressing the issues outlined in Chapter 2. The specific objective of this proposal is, therefore, to ensure a high uniform level of environmental protection, as well as to provide a level playing field for all actors in the aviation market, by aligning the Agency's rules with the ICAO SARPs (ICAO Annex 16).

2.3. Overview of the amendments to CS-34

The amendments to CS-34 are the same as those initially presented in NPA 2014-15. They essentially consist in referencing in GM to CS-34 the new guidance text of the ICAO ETM, Vol II.

⁵ Commission Regulation (EU) No 748/2012 of 3 August 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).



3. References

3.1. Related regulations

- 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).
- Commission Regulation (EU) No 748/2012 of 3 August 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).

3.2. Affected decisions

- Decision No 2012/020/R of the Executive Director of the Agency of 30th October 2012 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'), Issue 2.
- Decision No 2003/3/RM of the Executive Director of the Agency of 17 October 2003 on certification specifications providing for acceptable means of compliance for aircraft engine emissions and fuel venting ('CS-34'), Initial Issue.
- Decision No 2003/4/RM of the Executive Director of the Agency of 17 October 2003 on certification specifications providing for acceptable means of compliance for aircraft noise ('CS-36'), Initial Issue.

3.3. Reference documents

- ICAO CAEP/9 WP/61 — Report of the 9th meeting of the Committee on Aviation Environmental Protection, February 2013.
- ICAO State Letter AN 1/17.14-14/24 — Adoption of Amendment 11 to Annex 16, Vol I, 10 April 2014.
- ICAO State Letter AN 1/17.14-14/25 — Adoption of Amendment 8 to Annex 16, Vol II, 10 April 2014.
- Annex 16 to the Convention on International Civil Aviation, Volume I, 7th Edition (Amendment 11-B), 2014, and Volume II, 3rd Edition (Amendment 8), 2014.
- ICAO Environmental Technical Manual (Doc 9501), Volume I, 2nd Edition, 2015, and Volume II, 2nd Edition, 2014.

