

European Aviation Safety Agency

DECISION 2012/022/R OF THE EXECUTIVE DIRECTOR OF THE EUROPEAN AVIATION SAFETY AGENCY

OF 11 DECEMBER 2012

**amending Decision 2003/16/RM of the Executive Director of the Agency
of 14 November 2003**

on

Certification Specifications for Large Rotorcraft ('CS-29')

THE EXECUTIVE DIRECTOR OF THE EUROPEAN AVIATION SAFETY AGENCY,

Having regard to 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/EC¹ (hereinafter referred to as the 'Basic Regulation'), and in particular Articles 18(c), 38(3)(a) and (e) thereof,

Having regard to 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 organisations², and in particular section 21A.16A of the Annex (Part-21) thereof.

Whereas:

- (1) The Executive Director issued Certification Specifications and Acceptable Means of Compliance, for large rotorcraft ('CS-29') in the Annex to Executive Director Decision 2003/16/RM of 14 November 2003 (Initial Issue)³.
- (2) The Agency shall, pursuant to Article 18 of the Basic Regulation, issue certification specifications and acceptable means of compliance, as well as guidance material for the application of the Basic Regulation and its implementing rules.
- (3) The Agency is obliged, pursuant to Article 19 of the Basic Regulation, to reflect the state of the art and the best practices in the fields concerned and to update certification

¹ OJ L 79, 19.03.2008, p. 1. Regulation as last amended by Regulation (EC) No 1108/2009 of 21.10.2009 of the European Parliament and of the Council (OJ L 309, 24.11.2009, p. 51).

² OJ L 243, 27.9.2003, p. 6. Regulation as last amended by Regulation (EC) No 1194/2009 of 30 November 2009 (OJ L 321, 8.12.2009, p. 5).

³ Executive Director Decision 2003/16/RM of 14 November 2003 as last amended by Executive Director Decision 2008/10/R of 17 November 2008 (CS-29 Amendment 2).

specifications and acceptable means of compliance taking into account worldwide aircraft experience in service, and scientific and technical progress.

- (4) The Agency has determined that enhancements to the certification standard for metallic rotorcraft structures is necessary to improve safety and reduce the number of occurrences of catastrophic fatigue failures. Enhancements to the requirements will require evaluation of fatigue and residual static strength using a damage tolerance evaluation or a fatigue evaluation if the applicant establishes that a damage tolerance evaluation is impractical. The changes provide more objective based requirements and represent internationally harmonised standards.
- (5) The Agency has determined the need to establish a certification specification for composite structures that is harmonised with our international partners. Currently certification specifications for composite structure are based on a broad interpretation of those governing certification of metallic structures. Composites are complex materials with features and characteristics that are significantly different to those of metallic structures. This has resulted in unclear and incomplete requirements, and has led to inconsistent application.
- (6) In recognition that Vibration Health Monitoring systems are now common place on large rotorcraft, the Agency has determined that the safety potential of such systems would benefit from a design and certification standard. The change to CS-29 does not mandate the fitment of VHM systems but sets the minimum design and performance standards for approval of such systems when installed. Furthermore, as some NAAs already mandate the fitment of VHM and as ICAO has recognised the safety benefit of VHM systems and issued recommendations in Annex 6 for its installation for certain applications and for certain categories and types of operations, the CS-29 certification standard will support operational requirements.
- (7) The Agency has determined the need to remove mention to Halon from 'Book 1' of all aircraft-related CSs, since halon is an ozone-depleting substance whose aeronautical use is progressively being banned according to Regulation (EU) No 744/2010⁴. Halon will therefore no longer be recommended for new designs, although CS-29 does not prevent its use. Furthermore, information on the development and use of alternatives to Halon is provided in the AMC material of Book 2, including the 'end dates' contained in EU legislation.
- (8) The Agency, pursuant to Article 52(1)(c) of the Basic Regulation and Articles 5(3), 6 and 7(2) of the Rulemaking Procedure⁵, has widely consulted interested parties on the matters which are the subject of this Decision and has provided thereafter a written response to the comments received.

⁴ Commission Regulation (EU) No 744/2010 of 18 August 2010 amending Regulation (EC) No 1005/2009 of the European Parliament and of the Council on substances that deplete the ozone layer, with regard to the critical uses of halons (OJ L 218, 19.8.2010, p. 2).

⁵ EASA MB Decision 01-2012 of 13 March 2012 amending and replacing MB Decision 08-2007 concerning the procedure to be applied by the Agency for the issuing of opinions, certification specifications and guidance material ('Rulemaking Procedure').

11/12/2012

HAS DECIDED AS FOLLOWS:

Article 1

The Annex to the Executive Director Decision 2003/16/RM of 14 November 2003 containing the Certification Specifications, and Acceptable Means of Compliance, applicable to large rotorcraft ('CS-29') is replaced by the Annex to this Decision.

Article 2

This Decision shall enter into force one week after publication. It shall be published in the Official Publications of the Agency.

Done at Cologne, on 11 December 2012

[signed]

P. GOUDOU