

Executive Director Decision

2021/016/R

of 15 December 2021

issuing the following:

Amendment 9 to the Certification Specifications, Acceptable Means of Compliance and Guidance Material for Small Rotorcraft

'CS-27 — Amendment 9'

Amendment 10 to the Certification Specifications, Acceptable Means of Compliance and Guidance Material for Large Rotorcraft

'CS-29 — Amendment 10'

'Rotorcraft chip detection systems' and

'Rotorcraft occupant safety in the event of a bird strike'

THE EXECUTIVE DIRECTOR OF THE EUROPEAN UNION AVIATION SAFETY AGENCY (EASA),

Having regard to Regulation (EU) 2018/1139¹, and in particular Article 104(3)(a) thereof,

Having regard to Commission Regulation (EU) No 748/2012², and in particular Article 10 thereof and point 21.B.70 of Annex I (Part 21) thereto,

Whereas:

- (1) EASA shall, pursuant to Article 76(3) of Regulation (EU) 2018/1139, issue certification specifications (CSs) and acceptable means of compliance (AMC), as well as guidance material (GM), for the application of Regulation (EU) 2018/1139 and of the delegated and implementing acts adopted on the basis thereof.
- (2) Certification specifications (CSs) are non-binding technical standards issued by EASA, which indicate the means to demonstrate compliance with Regulation (EU) 2018/1139 and the

¹ Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91 (OJ L 212, 22.8.2018, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535612134845&uri=CELEX:32018R1139>).

² 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) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012R0748&qid=1622482141838>).

delegated and implementing acts adopted on the basis thereof, and which are used by persons and organisations for the purpose of certification.

- (3) Acceptable means of compliance (AMC) are non-binding standards issued by EASA, which are used by persons and organisations to show compliance with Regulation (EU) 2018/1139 and the delegated and implementing acts adopted on the basis thereof, or with the certification specifications (CSs).
- (4) Guidance material (GM) is non-binding material issued by EASA, which helps to illustrate the meaning of delegated or implementing acts, certification specifications (CSs) or acceptable means of compliance (AMC), and which is used to support the interpretation of Regulation (EU) 2018/1139, the delegated and implementing acts adopted on the basis thereof, CSs and AMC.
- (5) With Decision No. 2003/15/RM of 14 November 2003, the Executive Director issued certification specifications for small rotorcraft (CS-27 — Initial issue).
- (6) With Decision No. 2003/16/RM of 14 November 2003, the Executive Director issued certification specifications for large rotorcraft (CS-29 — Initial issue).
- (7) EASA shall, pursuant to Article 4(1)(a) of Regulation (EU) 2018/1139, reflect the state of the art and the best practices in the field of aviation and update its Decisions, taking into account worldwide aviation experience and scientific and technical progress in the respective fields.

EASA analysed rotorcraft incidents and accidents that indicate that chip detection systems that are installed in rotorcraft rotor drive systems may not always be capable of detecting the incipient degradation or failure of components of those systems. EASA's review revealed that many catastrophic accidents could have been prevented if more effective chip detection systems had been installed on the affected gearboxes of rotor drive systems. Therefore, EASA identified the need to amend CS-27 and CS-29. This Decision amends the related certification specifications (CSs) and introduces new acceptable means of compliance (AMC) and guidance material (GM) to ensure that the chip detection systems that are installed in rotorcraft rotor drive systems achieve an acceptable minimum level of effectiveness in detecting the incipient degradation or failure of components of the rotor drive system.

- (8) EASA also identified the need to improve rotorcraft occupant safety in the event of a bird strike. To improve the safety of occupants of newly designed small rotorcraft with six or more passenger seats in the event of a bird strike, this Decision introduces a new certification specification in CS-27. This Decision also introduces new acceptable means of compliance to support the application of the bird strike certification specifications in CS-27 and CS-29.
- (7) EASA, pursuant to Article 115(1)(c) of Regulation (EU) 2018/1139 and Articles 6(3), 7, and 8 of the EASA Rulemaking Procedure³, widely consulted the interested parties on the content of this

³ EASA is bound to follow a structured rulemaking process as required by Article 115(1) of Regulation (EU) 2018/1139. Such a process has been adopted by the EASA Management Board (MB) and is referred to as the 'Rulemaking Procedure'. See MB Decision No 18-2015 of 15 December 2015 replacing Decision 01/2012 concerning the procedure to be applied by EASA for the issuing of opinions, certification specifications and guidance material (<http://www.easa.europa.eu/the-agency/management-board/decisions/easa-mb-decision-18-2015-rulemaking-procedure>).

Decision, and provided thereafter a written response to the comments received through the consultation⁴,

HAS DECIDED:

Article 1

Annex I to this Decision is issued as Amendment 9 to the Certification Specifications, Acceptable Means of Compliance and Guidance Material for Small Rotorcraft (CS-27).

Article 2

Annex II to this Decision is issued as Amendment 10 to the Certification Specifications, Acceptable Means of Compliance and Guidance Material for Large Rotorcraft (CS-29).

Article 3

This Decision shall enter into force on the day following that of its publication in the Official Publication of EASA.

Cologne, 15 December 2021

For the European Union Aviation Safety Agency

The Executive Director

Patrick KY

⁴ <http://easa.europa.eu/document-library/comment-response-documents>

