European Aviation Safety Agency

Explanatory Note to Decision 2017/025/R

Regular update of CS-23

Introduction of acceptable means of compliance and guidance material to CS-23 (as reorganised by Amendment 5 into objective specifications)

RMT.0687

EXECUTIVE SUMMARY

CS-23 (Normal Category Aeroplanes) has been reorganised by its Amendment 5 into objective specifications. This Decision introduces the first issue of the acceptable means of compliance (AMC) and guidance material (GM) to the new, reorganised CS-23.

This AMC complements the CS-23 Amendment 5 objective specifications. An AMC is expected to require regular amendments to take specific safety issues into consideration and introduce new technologies and AMC methods, so this AMC to CS-23 is managed as a separate document.

This AMC was established from the existing technical details of the original CS-23 Amendment 4 and CS-VLA (Very Light Aircraft) Amendment 1. In addition to that, a new set of consensus standards from ASTM International is accepted as a means of compliance (with deviations, where necessary, as specified in the decision). These consensus standards were created in close cooperation between industry stakeholders and the aviation authorities. The basis for this first set of accepted consensus standards is the existing CS-23, CS-VLA and the Federal Aviation Administration (FAA) Part-23.

Action area:	Regular updates/review of rules		
Affected rules:	CS-23 — Certification Specifications for Normal-Category Aeroplanes		
Affected stakeholders:	Manufacturers and other design organisations dealing with supplemental type certificates (STCs), repairs or changes to these aeroplanes; Member States are not affected		
Driver:	Efficiency/Proportionality	**Rulemaking group:**	No
Impact assessment:	Light	**Rulemaking Procedure:**	Direct publication

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1. About this Decision

The European Aviation Safety Agency (EASA) developed ED Decision 2017/025/R in line with Regulation (EC) No 216/2008[1] (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure[2].

This rulemaking activity is included in the EASA 5-year Rulemaking Programme[3] under rulemaking task (RMT).0687 Issue 1[4]. RMT.0687 is a standing (open-ended) task that serves to address the introduction of changes to CS-23 and the related AMC/GM. It is anticipated that, in general, most changes will be proposed to the AMC/GM through amendments of referenced consensus standards. The referenced ASTM International consensus standards stem from ASTM Technical Committee F44 on General Aviation Aircraft[5] and its subcommittees. ASTM F44 applies a process for the development of standards that:

— is documented and publicly available[6];

— is built on collaboration and consensus of those affected. Today, over 250 ASTM F44 members from global industry, users and authorities participate in the development of and changes to consensus standards;

— assures a balance between competing interests by balancing a 50/50 voting right for industry and other members;

— provides access to the views and objections of other participants, and a fair and impartial process for resolving conflicting views.

Because of the transparency of the ASTM F44 consensus standard development process, as well as the possibility for stakeholders to participate and comment, public consultation as part of the EASA rulemaking process is reduced to a consultation with the advisory bodies (ABs).

When the preparation of future revisions or new consensus standards, either by ASTM F44 or other standard development bodies, provides the required transparency and possibility for stakeholders' involvement, EASA will use the procedure for a direct publication in accordance with Article 15 of MB Decision No 18-2015.

The introduction of this first issue of the new AMC/GM after the reorganisation of CS-23 into objective specifications is a transposition of existing technically detailed and specific material from the existing CS-23 Amendment 4 and CS-VLA Amendment 1. The ASTM International F44 consensus standards that

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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) (http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1467719701894&uri=CELEX:32008R0216).

2 EASA is bound to follow a structured rulemaking process as required by Article 52(1) of Regulation (EC) No 216/2008. 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).

3 http://easa.europa.eu/rulemaking/annual-programme-and-planning.php

4 https://www.easa.europa.eu/document-library/terms-of-reference-and-group-compositions/tor-rmt0687

5 https://www.astm.org/COMMITTEE/F44.htm

6 https://www.astm.org/ABOUT/faqs.html

are proposed as AMC are also constructed out of the existing EASA CS-23 and CS-VLA and the FAA Federal Aviation Regulations Part-23.

EASA reviewed the comments received during the AB consultation and reflected them in the preparation of the final Decision, as explained in Section 2.4 below.

The major milestones of this rulemaking activity are presented on the title page.

2. In summary — why and what

2.1. Why we need to change the CS/AMC/GM

The principal objective of Article 2 of the Basic Regulation is to establish and maintain a high uniform level of civil aviation safety in Europe. EASA shall, pursuant to Article 18 of the Basic Regulation, issue certification specifications (CS) and AMC, as well as GM, for the application of the Basic Regulation and its implementing rules.

EASA 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 these documents taking into account the worldwide aircraft experience in service, and scientific and technical progress.

The existing rulemaking process and resources have shown that keeping up with technological developments is a challenge. In addition, there is uncertainty for applicants and EASA, for instance in cases of projects that contain design specifics that are not appropriately covered by the certification specifications. This slows down both the certification process and innovation.

In order to better serve the certification process with up-to-date information and to promote innovation, it is necessary to put in place a more agile process that can follow the technical details and the state of the art.

In addition to introducing a more efficient rulemaking process, it is important that the latest technology should become available for use as means of compliance.

2.2. What we want to achieve — objectives

The overall objectives of the EASA system in the field of civil aviation are defined in Article 2 of the Basic Regulation. This proposal will contribute to the achievement of the overall objectives by addressing the issues outlined above.

The specific objectives of this rulemaking proposal are, therefore, to:

— introduce a resilient process for the introduction of means of compliance for new technology and methods of compliance demonstration; and

— allow the adoption of AMC on the basis of consensus standards for state-of-the-art technology and methods.

2.3. How we want to achieve it — overview of the AMC/GM to CS-23 amendments

The introduction of the new AMC/GM referring to ASTM consensus standards has been developed in parallel to the development of the ASTM standard that lists all the standards that are being developed for CS-23. This first listing of standards (ASTM standard F3264-17 ‘Standard Specification for Normal Category Aeroplanes Certification’) was not yet available and was therefore not included in the draft decision that was sent for consultation. The Decision now refers to this published listing. In addition, some issues were identified with that listing, as well as with the referenced standards, that are highlighted through remarks in the published AMC/GM.

In coordination with the FAA, it was also decided to elaborate in the AMC on what can and cannot be expected from the AMC. It is not possible to provide AMC to the objective rules that will cover each and every technical or design feature.

2.4. What are the stakeholders' views

Consultation of the draft decision with the ABs provided a total of 9 comments. There were no adverse coments against the proposed AMC. Most comments were related to the expected changes in the process that come from the introduction of AMC that reference consensus standards. The following main issues were highlighted:

— accessibility and completeness of referenced standards;

— training and understanding of the new concept;

— information on the AMC used that is not visible in the certification basis, but could be of interest for future changes.

The combined tables of AMC information from different sources, which were provided in the draft decision, obviously created confusion. Relations between different AMC were inappropriately considered.

2.5. What are the benefits and drawbacks

The comments received showed that the provided information needs to be more clearly presented. The provided AMC are all a means to show compliance with the indicated objective rules; however, a relationship between different AMC is not intended. The AMC and GM consisting of references to ASTM standards are therefore separated from the other AMC.

In addition, it is clear that for a user-friendly implementation of the flexible building-block system, additional tools and more detailed information is required to support the process of applying the AMC and building a certification plan and compliance checklist. EASA has decided to show only the high-level identification of the AMC to the objective rules, which is not sufficient to support standardisation of the application of this AMC. EASA is planning to develop additional, more detailed information; this is, however, not considered part of the AMC.

2.6. How do we monitor and evaluate the rules

The expected success of the migration in CS-23 from prescriptive rules into the new concept, where technical details are captured in this new AMC, will become noticeable in various ways. The high-level effect will show an increase in innovative design applications. In fact, this has already been noticed from the day that CS-23 Amendment 5 was issued.

The second level of effect is expected when a more up-to-date AMC reduces the need of development of project specific compliance documents. A reduction in special conditions and generic certification review items is expected. This can, however, be negatively affected by more innovation. Therefore, the monitoring of these aspects is not considered from the start.

On the other hand, the agility of the process of developing more up-to-date consensus standards will be monitored through the level of amendments to standards, as well as new standards, in the regular update of the AMC and GM to CS-23.

3. References

3.1. Related regulations

N/a

3.2. Affected decisions

Decision No. 2003/14/RM of the Executive Director of the Agency of 14 November 2003 on certification specifications, including airworthiness codes and acceptable means of compliance for normal, utility, aerobatic and commuter category aeroplanes (« CS-23 »)

3.3. Other reference documents

N/a

4. Appendix

N/a