



Explanatory Note to Decision 2017/013/R

Reorganisation of CS-23

RELATED NPA/CRD 2016-05 — RMT.0498

EXECUTIVE SUMMARY

The objective of this Decision is to improve the efficiency of the certification process by reorganising CS-23 ‘Certification Specifications for Normal-Category Aeroplanes’.

This reorganisation of CS-23 introduces a new concept. The current European Aviation Safety Agency (EASA) CS-23 is replaced by objective requirements that are design-independent. These objective requirements, due to their higher level of abstractness, are also suitable for aeroplanes within the scope of the current CS-VLA ‘Certification Specification for Very Light Aircraft’. Therefore, CS-23 Amendment 5 also replaces CS-VLA.

This amendment will contain only CSs. The related acceptable means of compliance (AMC) will capture the technical details and, when applicable, provide differentiated AMC for the variety of aeroplane designs within the scope of the new CS-23. This AMC will be annexed to a separate decision. The aim is to incorporate consensus standards into the AMC, which will allow for a faster adoption of new technologies and better up-to-date standards. This improved flexibility is intended to encourage the introduction of safety-enhancing features into new designs and reduce the certification costs for the aeroplanes at stake.

The Federal Aviation Administration (FAA) recently published Code of Federal Regulations (CFR) Title 14, Part 23, Amendment 64 that introduces a similar reorganisation of Part 23. EASA is of the opinion, expressly supported by stakeholders in European Union (EU) and the United States (US), that a harmonised reorganisation of the related EU and US rules is vital for a global success.

Consequently, this Decision not only reflects the outcome of the EASA rulemaking and consultation process for rulemaking task RMT.0498 ‘Reorganisation of Part-23 and CS-23’, but also considers at the same time harmonisation with the above-mentioned FAA document.

The amendment is expected to reduce regulatory burden, increase cost-effectiveness and improve global harmonisation.

Action area:	Design of aeroplanes up to 19 passengers and changes to these aeroplanes		
Affected rules:	CS-23, CS-VLA		
Affected stakeholders:	Certification authorities, General Aviation (GA) design approval holders (DAHs)		
Driver:	Efficiency/proportionality	Rulemaking group:	Yes
Impact assessment:	Light	Rulemaking Procedure:	Standard

EASA rulemaking process milestones

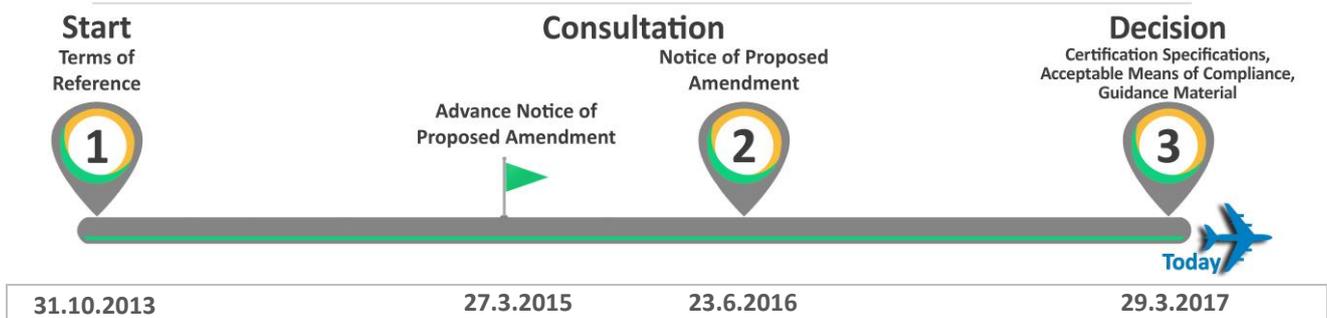


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1. About this Decision

EASA developed ED Decision 2017/013/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 EASA 5-year Rulemaking Programme³ under RMT.0498. The scope and timescales of the task were defined in the related Terms of Reference (ToR)⁴.

The draft text of this Decision has been developed by EASA based on the feedback received on the Advance Notice of Proposed Amendment (A-NPA) 2015-06, the input of Rulemaking Group (RMG) RMT.0498 and in coordination with the FAA in the context of the rulemaking-cooperation pilot project 'CS-23/Part 23 reorganisation'. All interested parties were consulted through NPA 2016-05⁵. 318 comments were received from all interested parties, including industry and national aviation authorities (NAAs).

EASA reviewed the comments received during the consultation with the support of Review Group (RG) RMT.0498. The comments received and the EASA responses thereto are presented in Comment-Response Document (CRD) 2016-05⁶.

The final text of this Decision with the certification specifications (CSs) has been developed by EASA based on the input of RG RMT.0498 and a focused consultation.

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

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 and is referred to as the 'Rulemaking Procedure'. See Management Board Decision No 18-2015 of 15 December 2015 replacing Decision 01/2012 concerning the procedure to be applied by the Agency 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?search=0498&date_filter%5Bvalue%5D%5Byear%5D=&=Apply

⁵ In accordance with Article 52 of Regulation (EC) No 216/2008, and 6(3) and 7) of the Rulemaking Procedure.

⁶ <https://www.easa.europa.eu/document-library/comment-response-documents>



2. In summary — why and what

2.1. Why we need to change the CS

The range of aeroplanes certified under CS-23 is diverse in terms of performance capability, number of passengers, design complexity, technology, and intended use. Currently, each CS-23 aeroplane certification requirement is determined by reference to a combination of factors, including weight, number of passengers, and propulsion type. The resulting divisions (i.e. very light aeroplanes, normal, utility, aerobatic, and commuter categories) were historically appropriate because there was a clear relationship between the propulsion and weight of the aeroplane on the one hand and its associated performance and complexity on the other.

Technological developments have altered the dynamics of that relationship. For example, high-performance and complex aeroplanes now exist also within the weight range that was historically occupied by only light and simple aeroplanes. In addition to these new technological developments, the pace of technological changes has increased as well and is expected to increase even further in the future.

In order to lay down technical requirements for the diversity of designs and able to follow the state of the art at the same pace as technology evolves, a fundamental change in the way that certification requirements are presented is necessary. The new CS-23, as a system for certification specifications, needs to become more open to technological developments and at the same time able to accommodate changes at a higher pace. This needs to be achieved while the established safety level is maintained.

2.2. What we want to achieve — objectives

The overall objectives of the EASA system 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 in Chapter 2.

The specific objective of this proposal is, therefore, to maintain the established safety level, while increasing the ability to follow the state-of-the-art technological developments. Since technological developments are expected to also have safety-enhancing features, increasing the ability of the system to follow technological developments is expected to enhance safety as well.

2.3. How we want to achieve it — overview of the amendments

In order to accommodate a diversity of new designs and technologies, the prescriptive design-specific requirements of the CSs are changed into objective and performance-based requirements. Since the objectives are independent from the way how they are achieved, the CSs become independent from technological changes as well. In addition, the higher level of abstractness of the requirements allows that CS-VLA and CS-23 are merged into one single CS-23 that covers the applicability of both CSs. When the new CS-23 becomes effective, the existing CS-VLA will cease to be an applicable CS (please refer to 21.A.17(a) of Annex I (Part-21) to Regulation (EU) No 748/2012⁷).

⁷ 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) (<http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1489510663591&uri=CELEX:32012R0748>).

In order to still provide the technology-specific details that require regular updates to be in tune with the state of the art, EASA will issue the related AMC as an annex to a separate decision. This AMC will capture the technical details and, when possible, refer to industry standards that reflect the relevant details.

2.4. What are the stakeholders' views

There is in general a strong support for the proposed change that is expected to reduce administrative burden and costs since the CSs will be more up-to-date. However, this conceptual change could have the opposite effect if not implemented at a large scale across the GA certification. Hence, EASA considers that a harmonisation of the concept as well as of its implementation by the competent authorities is a vital element, necessary for the success of this change.

A number of comments received during the development of the new concept also express the concern that the currently available technical details are missing from these new objective requirements. It is true that these details are no longer visible at the level of the objective requirements; however, through the reorganisation of the current CS-VLA and CS-23, the relevant technically-detailed content will be moved to the related AMC to CS-23, as explained above.

2.5. What are the benefits and drawbacks

The benefits of the new concept is that CS-23 will from now on not become technically outdated nor require a frequent update to accommodate new technological developments. Consequently, there will be less need for special conditions at the certification basis level, which are currently necessary whenever the CSs are deemed not technically adequate for a specific design. The current practice shows that this has often been the case in the past, creating a considerable administrative burden for both applicants and authorities.

A 'light RIA' was developed for the related NPA under this RMT. It was based on qualitative statements, which have been derived from the FAA Notice of Proposed Rulemaking (NPRM) 16-01 and adapted to the EU context. Stakeholders were requested in the NPA to react if they expected a dissimilar scale of safety benefits for the EU environment, but no major concerns were raised.

A drawback of the concept could be that its strength might depend on the availability of detailed AMC for most of the current designs. The AMC is expected to be predominantly based on industry standards that require to be approved by EASA through the rulemaking process. The related benefits, therefore, depend on the coordination and cooperation between industry and competent authorities. Generally, it is envisaged that the development of new consensus standards at AMC level will be faster than the current process for amending CSs.

2.6. How do we monitor and evaluate the rules

The reorganisation of CS-23 and CS-VLA is not expected to have a direct and measurable short- or medium-term effect on the airworthiness of aeroplanes.

Specific monitoring and evaluation is not foreseen for 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')
- Decision No. 2003/18/RM of the Executive Director of the Agency of 14 November 2003 on certification specifications, including airworthiness codes and acceptable means of compliance for very light aeroplanes ('CS-VLA')

3.3. Other reference documents

U.S. Department of Transportation, FAA, Code of Federal Regulations (CFR) Title 14, Part 23, Amendment 64, 30 December 2016



4. Appendix

Appendix to Decision 2017/013/R 'CS-23 — Amendment 5, Reorganised CS-23 for normal-category aeroplanes' — CRD 2016-05

