European Union Aviation Safety Agency

Explanatory Note to Decision 2022/008/R

Regular update of the Certification Specifications and Acceptable Means of Compliance for Airborne Communications, Navigation and Surveillance (CS-ACNS)

RELATED NPA/CRD: 2021-04 – RMT.0519

EXECUTIVE SUMMARY

The objectives of this Decision are:

— to maintain a high level of safety;

— to ensure interoperability compliance of aircraft with the requirements of Commission Implementing Regulation (EU) No 1207/2011 laying down requirements for the performance and the interoperability of surveillance for the single European sky (the 'Surveillance Performance and Interoperability (SPI) Regulation'); and

— to provide consolidated acceptable means of compliance (AMC) for aircraft-manufacturing industries and aircraft modification industries.

This Decision amends the Certification Specifications and Acceptable Means of Compliance for Airborne Communications, Navigation and Surveillance (CS-ACNS) applicable to all aircraft, to address a number of issues, reported by applicants, in demonstrating compliance with CS-ACNS paragraphs.

The amendments are expected to:

— maintain a high level of safety;

— ensure aircraft interoperability;

— reduce the regulatory burden of compliance with the SPI Regulation; and

— increase efficiency in implementing CS-ACNS.

Domain:	Design and production		
Related rules:	CS-ACNS		
Affected stakeholders:	Aircraft operators, production organisation approval (POA) holders, design organisation approval (DOA) holders (including manufacturers), national competent authorities (NCAs)		
Driver:	Efficiency/proportionality	**Rulemaking group:**	No
Impact assessment:	No	**Rulemaking Procedure:**	Standard

EASA rulemaking procedure milestones

Start Terms of Reference (ToR) Issue 2	**Public Consultation** Notice of Proposed Amendment (NPA) 2021-04	**Decision** Certification Specifications, Acceptable Means of Compliance, Guidance Material
12.9.2016	16.3.2021	5.4.2022

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1. About this Decision

The European Union Aviation Safety Agency (EASA) developed Decision 2022/008/R in line with Regulation (EU) 2018/1139[1] (the 'Basic Regulation') and the Rulemaking Procedure[2].

This Rulemaking Task (RMT).0519 is included in the European Plan for Aviation Safety (EPAS) for 2022-2026. The scope and timescales of the task were defined in the related Terms of Reference (ToR)[3].

EASA developed the *draft* text of this Decision. All the interested parties were consulted through Notice of Proposed Amendment (NPA) 2021-04[4]. Comments were received from interested parties, including industry and national competent authorities (NCAs).

EASA reviewed the comments received during the public consultation. The comments received and EASA's responses to them are presented in Comment-Response Document (CRD) 2021-04[5].

EASA developed the *final* text of this Decision with the certification specifications (CSs), acceptable means of compliance (AMC), and guidance material (GM) based on input from the NPA public consultation, and published the Decision on the Official Publication[6] of EASA.

The major milestones of this RMT are presented on the cover page.

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 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).

3 https://www.easa.europa.eu/document-library/terms-of-reference/tor-rmt0519

4 In accordance with Article 115 of Regulation (EU) 2018/1139 and Articles 6(3) and 7 of the Rulemaking Procedure.

5 https://www.easa.europa.eu/document-library/comment-response-documents

6 https://www.easa.europa.eu/official-publication

2. In summary – why and what

2.1. Why we need to amend the CSs, AMC and GM – issue/rationale

The aviation industry is complex and rapidly evolving; therefore, worldwide aircraft experience, as well as scientific and technical progress, need to be reflected in the CSs and the related AMC and GM.

This Decision (CS-ACNS Issue 4) addresses a number of issues, reported by applicants, in demonstrating compliance with CS-ACNS paragraphs. If those issues were left unaddressed, the applicants would need to request deviations at project level or there might be a risk of non-compliance. In particular, CS-ACNS Issue 4:

(a) harmonises CS-ACNS with Commission Implementing Regulation (EU) No 1207/2011[7] (the 'Surveillance Performance and Interoperability (SPI) Regulation'), as amended by Commission Implementing Regulation (EU) 2020/587[8], introducing an allowable probability of failures for Mode S elementary surveillance (ELS) airborne surveillance systems and for automatic dependent surveillance-broadcast (ADS-B) systems;

(b) introduces a means of compliance for Mode S ELS systems, e.g. when it is impractical to connect the transponder to the altitude source or when the transponder and navigation equipment receive the same data from the global navigation satellite system (GNSS) source;

(c) removes an unutilised, but previously mandated, data link message from the list of messages that should be supported;

(d) improves the definition of field of view[9] to ensure that its assessment is common across domains;

(e) makes several improvements to Subpart C – Navigation (NAV), e.g. it more clearly specifies system integrity for the provision of vertical guidance for Required Navigation Performance Authorisation Required (RNP-AR); and

(f) improves the general specifications applicable to AMC1 ACNS.D.ADSB.080 on ADS-B systems.

This CS-ACNS regular update addresses miscellaneous non-controversial issues to ensure that the CSs are fit for purpose and cost-effective, can be implemented, and are in line with the latest International Civil Aviation Organization (ICAO) Standards and Recommended Practices (SARPs).

2.2. What we want to achieve – objectives

The overall objectives of the EASA system are defined in Article 1 of the Basic Regulation. This Decision will contribute to achieving the overall objectives by addressing the issues described in Section 2.1.

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7 Commission Implementing Regulation (EU) No 1207/2011 of 22 November 2011 laying down requirements for the performance and the interoperability of surveillance for the single European sky (OJ L 305, 23.11.2011, p. 35) (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02011R1207-20200520).

8 Commission Implementing Regulation (EU) 2020/587 of 29 April 2020 amending Implementing Regulation (EU) No 1206/2011 laying down requirements on aircraft identification for surveillance for the single European sky and Implementing Regulation (EU) No 1207/2011 laying down requirements for the performance and the interoperability of surveillance for the single European sky (OJ L 138, 30.4.2020, p. 1) (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R0587&qid=1641564896040).

9 The 'field of view' refers to either the optimum or maximum vertical and horizontal visual fields from the design eye reference point that can be accommodated with eye rotation only.

The specific objectives of this Decision are to ensure compliance of aircraft with the SPI Regulation, reflect the state of the art and industry best practices, and provide consolidated AMC for aircraft-manufacturing industries and aircraft modification industries. The ultimate goal is to maintain a high level of safety, ensure aircraft interoperability, and increase efficiency in implementing CS-ACNS by reducing the regulatory burden of compliance with the SPI Regulation.

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

To achieve the above-mentioned objectives, EASA addressed the following issues as indicated below:

Main issues

(a) Harmonise CS-ACNS with the amended SPI Regulation that introduces an allowable probability of failures for Mode S ELS airborne surveillance systems and ADS-B systems:

- CS ACNS.D.ELS.045 *Continuity* and CS ACNS.D.ADSB.105 *Continuity* are harmonsised with the amended SPI Regulation; and
- AMC1 ACNS.D.ELS.045 *Continuity* and AMC1 ACNS.D.ADSB.105 *Continuity* are introduced, including their references in the respective CSs.

(b) Introduce a means of compliance for Mode S ELS systems, e.g. when it is impractical to connect the transponder to the altitude source or when the transponder and navigation equipment receive the same data from the GNSS source:

- in AMC1 ACNS.D.ELS.025 *Altitude source*, the condition 'if it is impractical to connect the transponder to the altitude source used to fly the aircraft' and related text are introduced and several editorial corrections are made; and
- in AMC1 ACNS.D.ADSB.090(a) *Flight deck interface*, additional information on consistency between the data transmitted by the active ADS-B transmit with the data displayed to the flight crew, as well as on some practical aspects, is introduced under 'Data transmission and display consistency'; this allows the transponder to be connected to a stand-alone satellite-based augmentation system (SBAS) capable GNSS source, and harmonises the EU rule with the related US rule on ADS-B; editorial errors are also corrected.

(c) Remove an unutilised, but previously mandated, data link message (DM89[10]) from the list of messages that should be supported:

- in CS ACNS.B.DLS.B1.075 *CPDLC downlink messages*, the 'DM89 MONITORING' message is removed and the title is corrected;
- in the corrected AMC1 ACNS.B.DLS.B1.070 *CPDLC uplink messages*, a 'DM2 (STANDBY)' response is introduced, the statement 'When UM117 CONTACT is received, no DM89 MONITORING message should be sent.' is removed, and editorial corrections are made;
- as the 'DM89 MONITORING' message is no longer mandatory, AMC2 ACNS.B.DLS.B1.070 *CPDLC uplink messages* is redundant and therefore removed;

[10] The crew should not use the 'DM89 MONITORING' message as previously defined or, alternatively, the avionics should not be programmed to automatically send such a message.

consequently, the reference to AMC2 ACNS.B.DLS.B1.070 is removed from the corrected CS ACNS.B.DLS.B1.070 *CPDLC uplink messages*;

— in the corrected AMC1 ACNS.B.DLS.B1.075 *Downlink messages*, the statement 'When UM117 CONTACT is received, no DM89 MONITORING message should be sent.' is removed and editorial corrections are made; and

— in the corrected GM1 ACNS.B.DLS.B1.075 *Downlink messages*, the 'DM89 MONITORING' message is removed and editorial corrections are made.

(d) Improve the definition of the optimum and the maximum 'field of view' to ensure that the assessment of the field of view is common in all domains, including rotorcraft:

— in CS ACNS.A.GEN.005 *Definitions*, the figures on vertical and horizontal 'field of view' are improved, and two notes are introduced to them; and

— consequently, in AMC1 ACNS.B.DLS.B1.010 *Flight deck interface* (title corrected), AMC1 ACNS.C.PBN.555 *Vertical accuracy when using barometric VNAV*, and AMC1 ACNS.E.TAWS.030 *Terrain information display*, the 'field of view' definitions were amended accordingly.

(e) Make several improvements to Subpart C – Navigation (NAV):

— in CS ACNS.C.PBN.675 *RNP system design – RNP AR integrity* and CS ACNS.C.PBN.680 *RNP system design – RNP AR continuity*, 'lateral' is removed as modifier of guidance for Required Navigation Performance Authorisation Required (RNP-AR), references to the respective GM are introduced, and some editorial corrections made;

— the related GM1 ACNS.C.PBN.675 *RNP system design – RNP AR integrity* and GM1 ACNS.C.PBN.680 *RNP system design – RNP AR continuity* are introduced; and the references to them are introduced in the respective CSs;

— CS ACNS.C.PBN.615 *Autopilot/Flight director* is made consistent with CS ACNS.C.PBN.805 *RF functional requirements* by updating the degrees of the bank angle that the system and the autopilot need to be capable of commanding; and

— in AMC1 ACNS.C.PBN.535 *Resolution and full-scale deflection of the vertical deviation display*, it is clarified that all the methods proposed for compliance with this AMC are not exclusive and those methods are now numdered, a related indication to RTCA DO-229D is introduced, the signs '±' are added to the number of the bounding deviation, and editorial errors are corrected.

(f) Improve the general requirements applicable to AMC1 ACNS.D.ADSB.080 on ADS-B systems:

— in the corrected AMC1 ACNS.D.ADSB.080 *Data sources as defined by Mode S elementary and enhanced surveillance*, various incomplete references (CS ACNS.D.ELS.030(a)(1), CS ACNS.D.ELS.030(a)(2), CS ACNS.D.ELS.030(a)(3), AMC1 ACNS.D.EHS.015(c)(1), and AMC1 ACNS.D.EHS.015(c)(3)) are completed and editorial corrections are made.

Other issues

(a) Simplify the text and remove redundant or misleading information:

— in CS ACNS.A.GEN.001 *Applicability*, references to higher-level regulations are removed and the wording is improved; and

— in AMC1 ACNS.D.ELS.001 *Applicability*, a reference to the corrected Appendix B – Background information on Mode S ELS is included, Notes 2 and 3 are removed following the simplification of CS ACNS.A.GEN.001 *Applicability* that included so far a reference to the SPI Regulation, the reference to 'Book 2' is removed, and editorial corrections are made.

(b) Provide complementary information and clarifications:

— GM1 ACNS.B.DLS.B1.035 *DLS system continuity* is introduced with guidance on the continuity definition, as well as on figures and details that require clarification or complementary information.

(c) Improve some CS-ACNS specifications, AMC, or GM, regarding implementation aspects:

— in CS ACNS.B.VCS.020 *Performance Requirements*, the 'System characteristics of the ground installation' is removed and the title is corrected to read 'Performance requirements';

— in CS ACNS.D.ELS.025 *Altitude source*, the wording of (b) and (c) is corrected to reflect the correct meaning of the CS;

— CS ACNS.E.TAWS.040 *Integrity* and CS ACNS.E.TAWS.045 *Continuity* are amended to be consistent with European Technical Standard Order (ETSO)-C151b and the former Joint Aviation Authorities (JAA) Temporary Guidance Leaflet (TGL)-12, and to be harmonised with the Federal Aviation Administration (FAA);

— AMC1 ACNS.B.DLS.B1.035 *DLS system continuity* is introduced to consider a loss of the data link system function as a minor failure condition); and

— AMC1 ACNS.E.TAWS.040 *Integrity*, AMC1 ACNS.E.TAWS.045 *Continuity* and GM1 ACNS.E.TAWS.045 *Continuity* are introduced to be consistent with ETSO-C151b and the former JAA TGL-12, and harmonised with the FAA.

(d) Correct editorial errors:

— the title of CS ACNS.DLS.B1.035 *Continuity* is corrected to read 'CS ACNS.B.DLS.B1.035 *DLS system continuity*', its content is replaced for improvement, and a reference to the related AMC and GM is added;

— in CS ACNS.DLS.B.B1.060 *DLIC Initiation when in CPDLC Inhibited State (Uplink)*, the title is corrected to read 'CS ACNS.B.DLS.B1.060 *DLIC Initiation when in 'CPDLC inhibited' state (uplink)*', and editorial corrections are made;

— in CS ACNS.B.DLS.B1.115 *Presentation Layer Requirements*, the reference to the related AMC is updated to read 'AMC1 ACNS.B.DLS.B1.115' and an editorial correction is made;

— in CS ACNS.D.AC.040 *Dual/multiple transponder installation*, the reference to the related AMC is corrected to read AMC1 ACNS.D.AC.040;

— in CS ACNS.D.ADSB.025 *Provision of Data*, the reference to the related AMC is corrected to read 'AMC1 ACNS.D.ADSB.025(a) and (c)' and the title is corrected;

— the title of AMC1 ACNSD.D.AC.040 *Dual/multiple transponder installation* is corrected to read 'AMC1 ACNS.D.AC.*040 Dual/multiple transponder installation*';

— in Appendix A, the title (Background information on Mode A/C surveillance systems), the numbering of the listed items, and some editiorial errors are corrected;

— Appendix 3 – Background information for Terrain Awareness and Warning System (TAWS) is corrected to read 'Appendix C – Background information on terrain awareness and warning systems (TAWSs)'and other improvements are made; and

— the double erroneous occurrence of the title of GM1 ACNS.B.DLS.B1.020 is removed, the actual title is corrected to read '*Data link services*', and editorial corrections are made.

(e) Correct and/or complete erroneous and introduce missing references/information:

— in CS ACNS.B.VCS.001 *Applicability*, a reference to the introduced GM1 ACNS.B.VCS.001 *Applicability* is added;

— in CS ACNS.D.AC.001 *Applicability*, a reference to the introduced GM1 ACNS.D.AC.001 *Applicability* is added;

— in CS ACNS.D.EHS.015 *Data transmission*, the reference to CS ACNS.D.ELS. is completed to read 'CS ACNS.D.ELS.015', and text on the availability of downlink aircraft parameters on a digital bus is introduced;

— in CS ACNS.D.ADSB.110 *Horizontal Position and Velocity Data Refresh Rate*, the reference to AMC1 ACNS.D.ADSB.110 is completed and the title is corrected;

— in CS ACNS.E.RVSM.035 *Altimetry system accuracy*, a reference to examples that are provided in the corrected Appendix B – Examples of methods to establish and monitor static-source errors (group aircraft only) is added, and editorial corrections are made;

— in CS ACNS.C.PBN.255 *Magnetic variation*, the reference to the non-extistent GM1 ACNS.C.PBN.255 is removed and editorial corrections are made;

— in CS ACNS.B.DLS.B1.080 *Data Link Initiation Capability (DLIC) Service*, CS ACNS.B.DLS.B1.085 *ATC Communications Management (ACM) Service*, CS ACNS.B.DLS.B1.090 *ACL Service Safety Requirements*, and CS ACNS.B.DLS.B1.095 *ATC Microphone Check (AMC) Service*, the references to the EUROCAE Document (ED)-120 changes are moved to the corrected Appendix B – Background information on data link systems, and the titles are corrected;

— GM1 ACNS.B.VCS.001 *Applicability* is introduced, including a reference to Appendix A – Background information on voice communication systems;

— in GM1.ACNS.B.DLS.B1.001 *Applicability*, the reference of the title is corrected to read 'GM1 ACNS.B.DLS.B1.001', a reference to the corrected Appendix B – Background information on data link systems is included in a note, and editorial corrections are made;

— GM1 ACNS.D.AC.001 *Applicability* is introduced, including a reference to Appendix A – Background information on Mode A/C surveillance systems;

— in AMC1 ACNS.D.ELS.015 *Data transmission*, the reference to AMC1 ACNS.D.EHS.015 is completed, the references to 'Book 2' are removed and replaced by 'Subpart D', and editorial errors are corrected;

— in AMC1 ACNS.D.EHS.001 *Applicability*, references to the corrected Appendix C – Background information on Mode S EHS and Appendix E – Differences between CS ACNS.D.EHS and EASA AMC 20-13 are added, the reference to 'Book 1' is removed, and editorial corrections are made;

— GM1 ACNS.D.ADSB.001 *Applicability*, the reference to 'Book 1' is removed and editorial corrections are made;

— in Appendix D – Differences between CS ACNS.D.ELS and JAA TGL 13 Rev1, the references to CS ACNS.D.ELS are completed and editorial corrections are made;

— in Appendix H, the title is corrected to read 'Guidance on 1090-MHz extended squitter ADS-B Out', the references to CS ACNS.D.ELS, AMC1 ACNS.D.EHS, and AMC1 ACNS.D.ADSB.070 are updated, and editorial corrections are made; and

— in GM1 ACNS.E.TAWS.001 *Applicability*, a reference to the corrected Appendix C – Background information on terrain awareness and warning systems (TAWSs) is added and an editorial error is corrected.

(f) Introduce, complete, or correct references and editorial errors:

— in GM1 ACNS.C.PBN.501 *Applicability*, the incorrect references to CS ACNS.C.PBN.575 and CS ACNS.C.PBN.675 were neither related to precision nor vertical performance, and are therefore replaced by the correct ones, CS ACNS.C.PBN.555 and CS ACNS.C.PBN.670 respectively; an editorial error is also corrected;

— the title of Appendix A is corrected to read 'Background information on voice communication systems';

— in Appendix H – Guidance on 1090-MHz extended squitter ADS-B Out, the following references are corrected or completed:

  — CS ACNS.D.ELS. is replaced by CS ACNS.D.ELS.015(a)(6);

  — AMC1 ACNS.D.EHS.(c) (1) and (c) (3) is replaced by AMC1 ACNS.D.EHS.015(c)(1) and (c)(3);

  — AMC1 ACNS.D.ADSB.070(a).1.2(a) is replaced by AMC1 ACNS.D.ADSB.070(a)(1) and (a)(2)(ii);

  — AMC ACNS.D.ADSB.070(a).1.2(b) and AMC1 ACNS.D.ADSB.070(a).1.2(b) are replaced by AMC1 ACNS.D.ADSB.070(a)(1) and (a)(2)(iii);

  — CS ACNS.D.ADSB.070(a).1.2(c) is replaced by AMC1 ACNS.D.ADSB.070(a)(2)(iii);

  — AMC1 ACNS.D.ADSB.070(a).1.3 is replaced by AMC1 ACNS.D.ADSB.070(a)(1) and (a)(3);

  — AMC ACNS.D.ADSB.070(a).1.2(d) is replaced by AMC1 ACNS.D.ADSB.070(a)(1) and (a)(2)(v);

— AMC1 ACNS.D.ADSB.070(a).1.2(e) is replaced by AMC1 ACNS.D.ADSB.070(a)(1) and (a)(2)(vi);

— AMC1 ACNS.D.ADSB.070(a).1.2(f) is replaced by AMC1 ACNS.D.ADSB.070(a)(1) and (a)(2)(vii));

— AMC ACNS.D.ADSB.085 is replaced by AMC1 ACNS.D.ADSB.085; and

— editorial errors in the title and text are corrected;

— in AMC1 ACNS.E.TAWS.010 *Required functions*, the reference to Appendix 2 is corrected to read 'Appendix B – Example of an acceptable TAWS installation', the reference: 'Guidance on testing a TAWS is provided in Appendix A – TAWS installations testing guidance material' is introduced, and editorial errors are corrected; and

— the titles of Appendix A and Appendix B are corrected to read 'TAWS installations testing guidance material' and 'Example of an acceptable TAWS installation' respectively.

2.4. What are the stakeholders' views – outcome of the consultation

Most commenters were supportive of the amendments to the CSs, AMC, and GM as proposed in the related NPA 2021-04. The comments received during the NPA public consultation ranged from specific technical comments to observations aimed at improving the wording.

Some comments were merely statements not proposing amendments.

The following is a summary of the main comments received and of the responses to them:

(a) CS ACNS.A.GEN.001 *Applicabilty*

A few organisations requested EASA to clarify the applicability of CS-ACNS and the related demonstration of compliance with it.

EASA reminded that CS-ACNS provides certification specifications (CSs), acceptable means of compliance (AMC), and guidance material (GM) to applicants for an airworthiness approval for the installation of communication, navigation, and surveillance equipment and other equipment, as required by airspace or operational rules, and for changes to those installations. CS-ACNS has been developed *inter alia* to support compliance with the European Commission (EC) implementing regulations (IRs) on airspace navigation; however, additional requirements may apply. Therefore, compliance with CS-ACNS does not necessarily constitute full compliance with the EC IRs.

Moreover, CS-ACNS covers functions and applications that are not mandated by the EC IRs, but may be used elsewhere in the world. A 'Statement of Compliance' with CS-ACNS may be used by operators to demonstrate compliance with those airspace and operational rules.

(b) AMC1 ACNS.B.DLS.B1.070 *CPDLC uplink messages*

Some commenters requested to harmonise uplink messages with some standards (i.e. EUROCAE ED-110B/RTCA DO-280B).

After analysing that feedback, EASA amended the related AMC and GM paragraphs accordingly (e.g. the 'DM2 (STANDBY)' message is now considered in the response, whereas 'When UM117 CONTACT is received, no DM89 MONITORING message should be sent' is removed).

(c) AMC1 ACNS.D.ELS.045 *Continuity*

The introduction of AMC1 ACNS.D.ELS.045 *Continuity* was favourably received, not only regarding the probability of failures per flight hours, but also as it 'will help manage agency and industry resources, support the implementation of the SPI mandate, as well as inform any future policy discussions about transponder equipage'. Said AMC clarifies the allowable continuity requirement and supports the implementation of the SPI regulation.

For more details on the outcome of the NPA public consultation, please refer to the related Comment-Response-Document (CRD) 2021-04.

2.5. What are the benefits and drawbacks of the amendments

The main benefits of Decision 2022/008/R are that it will:

— reduce the number of project-specific deviations for demonstrating compliance with existing requirements;

— maintain a high level of safety and improve harmonisation with the SPI regulation;

— increase efficiency in applying CS-ACNS for compliance demonstration; and

— improve the readability and understanding of CS-ACNS.

In addition, given the non-controversial nature of the amendments, the level of harmonisation with the FAA is maintained.

No drawbacks are expected.

3. How we monitor and evaluate the amended CSs, AMC and GM

The amended CSs, AMC, and GM will be monitored and evaluated based on feedback received from stakeholders, as well as during design organisation approval (DOA) audits and the certification of products and changes to them.

4. References

4.1. Related EU regulations

— 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)

— Commission Regulation (EC) No 29/2009 of 16 January 2009 laying down requirements on data link services for the single European sky (OJ L 13, 17.1.2009, p. 3)

— 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)

— Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1)

— Commission Implementing Regulation (EU) No 1206/2011 of 22 November 2011 laying down requirements on aircraft identification for surveillance for the single European sky (OJ L 305, 23.11.2011, p. 23)

— Commission Implementing Regulation (EU) No 1207/2011 of 22 November 2011 laying down requirements for the performance and the interoperability of surveillance for the single European sky (OJ L 305, 23.11.2011, p. 35)

— Commission Implementing Regulation (EU) No 1079/2012 of 16 November 2012 laying down requirements for voice channels spacing for the single European sky (OJ L 320, 17.11.2012, p. 14)

— Commission Implementing Regulation (EU) 2018/1048 of 18 July 2018 laying down airspace usage requirements and operating procedures concerning performance-based navigation (OJ L 189, 26.7.2018, p. 3)

4.2. Related EASA decisions

— Decision 2013/031/R of the Executive Director of the Agency of 17 December 2013 adopting Certification Specifications for Airborne Communications, Navigation and Surveillance (CS-ACNS) 'CS-ACNS Initial Issue'

— Decision No. 2003/12/RM of the Executive Director of the Agency of 5 November 2003 on general acceptable means of compliance for airworthiness of products, parts and appliances ('AMC-20')

4.3. Other reference documents

N/a

5. Related document

Comment-Response Document (CRD) 2021-04, 'Regular update of the Certification Specifications and Acceptable Means of Compliance for Airborne Communications, Navigation and Surveillance (CS-ACNS)'[11]

[11] https://www.easa.europa.eu/document-library/comment-response-documents