



Comment-Response Document (CRD) 2023-05

RELATED NPA: 2023-05 — RELATED ED DECISIONS: 2023/015/R, 2023/016/R, 2023/017/R, 2023/018/R,
2024/001/R AND 2024/002/R — RMT.0161 (SUBTASK 3) AND RMT.0524 (SUBTASKS 3 AND 4)

7.2.2025

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1. Summary of the outcome of the consultation

Regulation (EU) 2018/1139¹ (Basic Regulation) lays down interoperability requirements for the EATMN and mandates the development of the related delegated and implementing acts as regards the certification or declaration of ATM/ANS equipment as well as of the organisations involved in their design, production and maintenance.

The interoperability Regulation² (Regulation (EC) No 552/2004) was repealed by the Basic Regulation, whose Article 139 establishes the transitional provisions whereby certain articles of said interoperability Regulation and its Annexes III and IV remain applicable until the date of application of the new framework, and in any case not later than 12 September 2023.

In this context, the new regulatory framework for the ATM/ANS equipment proposed with EASA Opinion No 01/2023³ was adopted by the European Commission. The new framework consists of five regulations:

- Commission Delegated Regulation (EU) 2023/1768⁴ of 14 July 2023 laying down detailed rules for the certification and declaration of air traffic management/air navigation services systems and air traffic management/air navigation services constituents;
- Commission Implementing Regulation (EU) 2023/1769⁵ of 12 September 2023 laying down technical requirements and administrative procedures for the approval of organisations involved in the design or production of air traffic management/air navigation services systems and constituents and amending Implementing Regulation (EU) 2023/203;
- Commission Implementing Regulation (EU) 2023/1770⁶ of 12 September 2023 laying down provisions on aircraft equipment required for the use of the Single European Sky airspace and operating rules related to the use of the Single European Sky airspace and repealing Regulation (EC) No 29/2009 and Implementing Regulations (EU) No 1206/2011, (EU) No 1207/2011 and (EU) No 1079/2012;
- Commission Implementing Regulation (EU) 2023/1771⁷ of 12 September 2023 amending Implementing Regulation (EU) 2017/373 as regards air traffic management and air navigation services systems and constituents and repealing Regulations (EC) No 1032/2006, (EC) No 633/2007 and (EC) No 262/2009; and

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) (<http://data.europa.eu/eli/reg/2018/1139/oj>).

² Regulation (EC) No 552/2004 of the European Parliament and of the Council of 10 March 2004 on the interoperability of the European Air Traffic Management network (the interoperability Regulation) (OJ L 96, 31.3.2004, p. 26) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32004R0552&qid=1674542992703>).

³ [Opinion No 01/2023 - Regulatory framework on the conformity assessment of ATM/ANS systems and ATM/ANS constituents \(ATM/ANS equipment\) for the safe and seamless operation of the European ATM network | EASA](#)

⁴ [OJ L 228, 15.9.2023, p. 1](#)

⁵ [OJ L 228, 15.9.2023, p. 19](#)

⁶ [OJ L 228, 15.9.2023, p. 39](#)

⁷ [OJ L 228, 15.9.2023, p. 39](#)



- Commission Implementing Regulation (EU) 2023/1772⁸ of 12 September 2023 amending Implementing Regulation (EU) No 923/2012 as regards the operating rules related to the use of Air Traffic Management and Air Navigation Services systems and constituents in the Single European Sky airspace and repealing Regulation (EC) No 1033/2006.

To support the application of the new regulatory framework on the conformity assessment of ATM/ANS equipment, EASA issued on 26 October 2023 and 22 March 2024, respectively, the following ED Decisions:

- ED Decision 2023/015/R⁹ addressing:
 - Issue 1 of the Detailed Specifications and Acceptable Means of Compliance & Guidance Material for certification or declaration of design compliance of ATM/ANS ground equipment' ('DS-GE.CER/DEC — Issue 1') and
 - Issue 1 of the Detailed Specifications and Guidance Material for statement of compliance of ATM/ANS ground equipment' ('DS-GE.SoC — Issue 1');
- ED Decision 2023/016/R¹⁰ addressing:
 - Issue 1 of the Acceptable Means of Compliance and Guidance Material to the articles of Commission Delegated Regulation (EU) 2023/1768 ('AMC & GM to the articles of Commission Delegated Regulation (EU) 2023/1768 — Issue 1');
- ED Decision 2023/017/R¹¹ addressing:
 - Issue 1 of the Acceptable Means of Compliance and Guidance Material to Part-AUR.COM and Part-AUR.SUR of Commission Implementing Regulation (EU) 2023/1770 ('AMC & GM to Part-AUR.COM — Issue 1' and 'AMC & GM to Part-AUR.SUR — Issue 1')
- ED Decision 2023/018/R¹² addressing various amendments to AMC & GM to Parts of Commission Implementing Regulation (EU) 2017/373:
 - AMC & GM to Part-ATM/ANS.AR — Issue 1, Amendment 5
 - AMC & GM to Part-ATM/ANS.OR — Issue 1, Amendment 4
 - AMC & GM to Part-ATS — Issue 1, Amendment 5
 - AMC & GM to Part-CNS — Issue 1, Amendment 2 ; and
- ED Decision 2024/001/R¹³ addressing:

⁸ [OJ L 228, 15.9.2023, p. 73](#)

⁹ [ED Decision 2023/015/R - Conformity assessment of ATM/ANS equipment | DS-GE.CER/DEC — Issue 1 and DS-GE.SoC — Issue 1 | EASA](#)

¹⁰ [ED Decision 2023/016/R - Conformity assessment of ATM/ANS equipment | AMC & GM to the Articles of Commission Delegated Regulation \(EU\) 2023/1768 — Issue 1 | EASA](#)

¹¹ [ED Decision 2023/017/R - Conformity assessment of ATM/ANS equipment | AMC & GM to Part-AUR.COM — Issue 1 and AMC & GM to Part-AUR.SUR — Issue 1 | EASA](#)

¹² [ED Decision 2023/018/R - Conformity assessment of ATM/ANS equipment | Amendment to the AMC & GM to the ATM/ANS Regulation | EASA](#)

¹³ [ED Decision 2024/001/R - Conformity assessment of ATM/ANS equipment | EASA](#)



- Amendment 1 to AMC & GM to the Articles of Commission Delegated Regulation (EU) 2023/1768 (AMC & GM to the Articles of Commission Delegated Regulation (EU) 2023/1768 — Issue 1, Amendment 1)
- Issue 1 of the Acceptable Means of Compliance and Guidance Material to Annex I (Part-ATM/ANS.EQMT.AR) to Commission Delegated Regulation (EU) 2023/1768 (AMC & GM to Part-ATM/ANS.EQMT.AR — Issue 1)
- Issue 1 of the Acceptable Means of Compliance and Guidance Material to Annex II (Part-ATM/ANS.EQMT.CERT) to Commission Delegated Regulation (EU) 2023/1768 (AMC & GM to Part-ATM/ANS.EQMT.CERT — Issue 1)
- ED Decision 2024/002/R¹⁴ addressing:
 - Issue 1 of the Acceptable Means of Compliance and Guidance Material to Annex II (Part-DPO.OR) of Commission Implementing Regulation (EU) 2023/1769 (AMC & GM to Part-DPO.OR — Issue 1)

These ED Decisions established:

- the declaration specifications and AMC and GM for ATM/ANS (ground) equipment subject to:
 - certification or declaration of design compliance (DS-GE.CER/DEC);
 - statement of compliance (DS-SoC);
- the technical requirements and administrative procedures for the organisations involved in the design and/or production of ATM/ANS equipment;
- the common requirements on aircraft equipment and the operating procedures related to the use of the single European sky (SES) airspace;
- the requirements for the ATM/ANS providers when introducing changes to their functional system as regards the ATM/ANS equipment.

These ED Decisions are based on NPA 2023-05¹⁵ issued on 14 June 2023, which was consulted both publicly and through a focused consultation workshop held on 4 July 2023. Recognising the importance of the timely implementation, EASA concentrated first on the finalisation of the DSs/AMC/GM with a view to effectively supporting the implementation of the new framework.

Therefore, the comments received and the related EASA responses to them are presented in this CRD now and thus, the rulemaking activities of RMT.0161 and RMT.0524 are completed.

Besides the supporting comments, the feedback received advised EASA to further consider the transposition of the provisions from the SES IOP Regulations repealed with the new ATM/ANS equipment framework. The other subjects of general nature and addressed by several commentators concerned particular topics like the classification of minor/major changes of ATM/ANS equipment, activities before the issue of the SoC and their oversight, as well as the transitional measures.

In addition, a high number of responses were received to the specific questions addressed to stakeholders via the NPA 2023-05 proposal, for which amendments were required and certainly

¹⁴ [ED Decision 2024/002/R - Design or production organisations of ATM/ANS equipment | EASA](#)

¹⁵ [NPA 2023-05 - Acceptable means of compliance, guidance material and detailed specifications supporting the new regulatory framework on the conformity assessment of ATM/ANS systems and ATM/ANS constituents | EASA](#)



assisted in the development of these Decisions. The most significant feedback concerns the DSs for ATM/ANS equipment subject to certification or declaration of design compliance by the DPO as well as the classification of changes which can be introduced without a new product assessment.

The distribution of NPA comments for the main NPA segments is shown below:

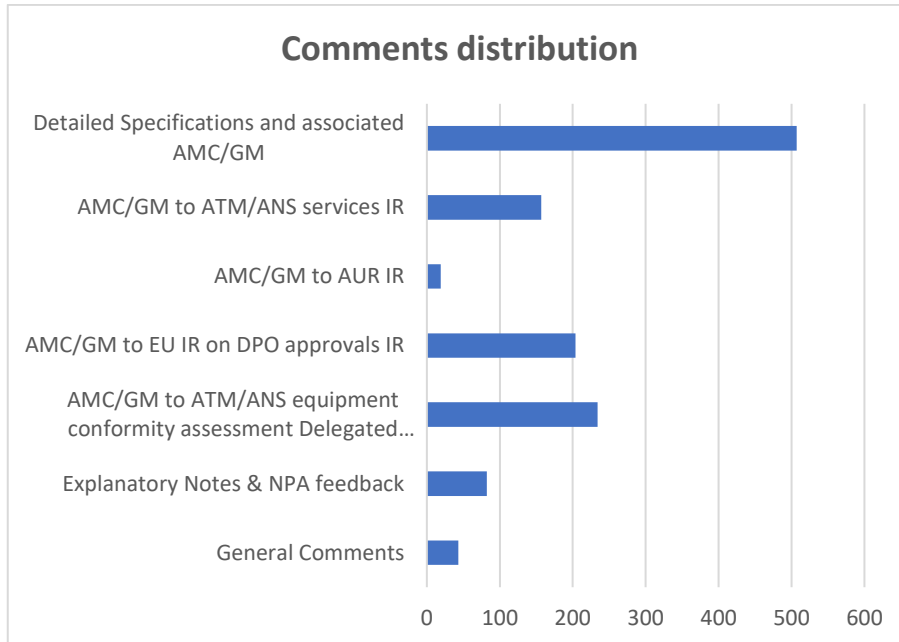


Figure 1 — Comment distribution

The below graphs present how the 1 242 unique comments (out of 1 246 in total) made on 215 segments by 50 users on NPA 2023-05 were addressed by EASA.

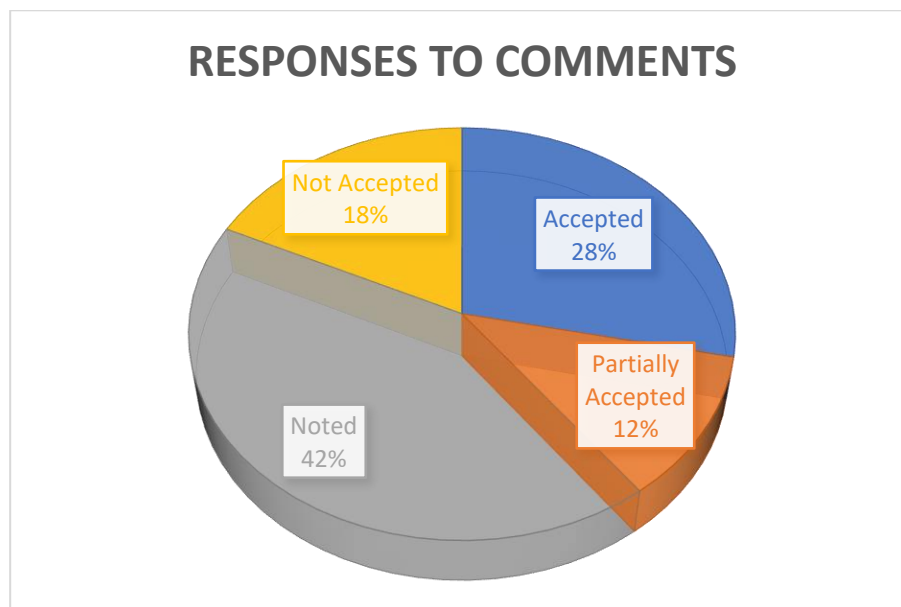


Figure 2 — Categorisation of EASA responses to comments

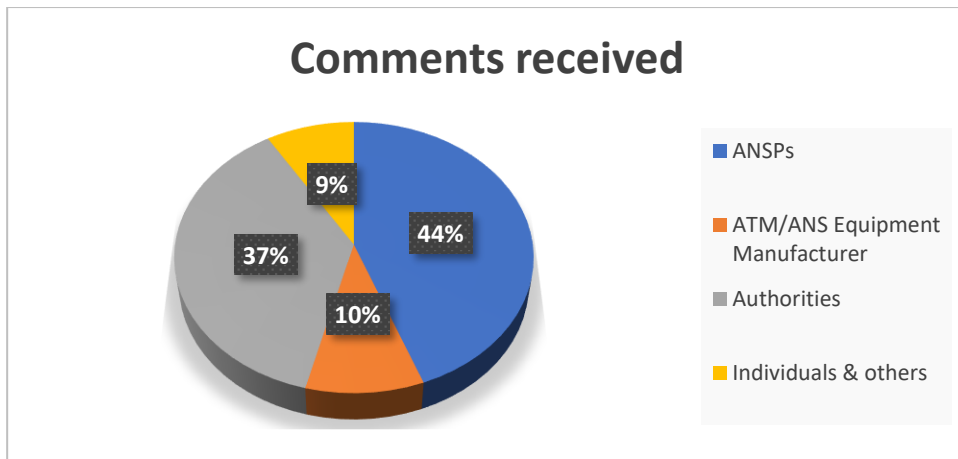


Figure 3 — Stakeholder distribution

2. Individual comments and responses

In responding to the comments, the following terminology is applied to attest EASA's position:

- (a) **Accepted** — EASA agrees with the comment and any proposed change is incorporated into the text.
- (b) **Partially accepted** — EASA either partially agrees with the comment or agrees with it but the proposed change is partially incorporated into the text.
- (c) **Noted** — EASA acknowledges the comment, but no change to the text is considered necessary.
- (d) **Not accepted** — EASA does not agree with the comment or proposed change.



(General Comments)

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comment

105

comment by: *DSNA**(General Comments)*

The new regulatory framework and its supporting Detailed specifications, AMC and GM should be provided with a glossary

Working together and shared GE certification material roadmap

What is the EASA plan to further complete and mature the GE specifications in coordination with the ATM stakeholders

Secure the market and EASA framework benefits

What is the EASA detailed plan to ensure wide communication towards ATM GE providers and common understanding of the regulation framework

EPAS annual update will arrive too late to provide stakeholders with the required visibility .

Transparency and market state

Does EASA plan to publish an EU - open database recording for :

- a. Certified DPO with the details of the certificates (validity, etc.)
- b. Certified GE with the details of the certificates
- c. Issued SoC by ANSP or DPO
- d. Known defects on Certified and declared GE

response

Noted

To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:

- launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period;
- maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary;
- promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website.

These activities are planned in the context of IST.0002.



comment	<p>116</p> <p>comment by: <i>skyguide Compliance Management</i></p> <p>This NPA works on the assumption that there is a pre-defined set of ATM equipment, whose functionality cannot be altered; the consequence of this assumption is that the current wording would prohibit any integration or service decomposition of these "equipment", since their functionality is attributed to the whole, including HMI components.</p> <p>We would rather recommend focusing on defining functionality & interfaces, avoiding any coupling to components or "equipment".</p>
response	<p><i>Noted</i></p> <p>The comment is well considered.</p> <p>Due to the specificities of the ATM domain, including the necessary innovation and emerging technologies, the detailed specifications are based as far as possible on performance needs, address system functionalities, and of a technology agnostic nature. Also, as far as possible, specifications are supported by available industry standards.</p>
comment	<p>133</p> <p>comment by: <i>ASD</i></p> <p>ASD welcomes the opportunity to provide comments on the EASA NPA 2023-05 'Acceptable means of compliance, guidance material and detailed specifications supporting the new regulatory framework on the conformity assessment of ATM/ANS systems and ATM/ANS constituents'.</p> <p>As stated at various occasions, ASD fully supports the approach taken which will ease the reference to the new regulatory framework and will enable the necessary harmonisation of the requirements of interoperability, security, performance and safety. We would like to thank EASA for the efforts delivered to achieve this objective. The AMC & GM and the detailed specifications are of key importance for a smooth implementation of this new regulation. We understand that the current NPA 2023-05 is the result of a compromise and hard work being delivered in a short timeframe. We however see the need to further mature the detailed specifications, which could be done during the transition phase of 5 years starting in September to ensure a smooth implementation of the new requirements. ASD would like to offer his help to define a roadmap that will include the development of a structured process and an adequate representativity and have enough time for the standardization actions.</p> <p>This will:</p> <ul style="list-style-type: none"> <li>Enable the process to take into consideration contractual obligations; <li>Define harmonized safety requirements at ATM/ANS functions level, allowing a top/down approach that derives those requirements on the ATM/ANS equipment; <li>Define Acceptable Means of Compliance in terms of standardized safety methodology and processes; <p>These points are paramount to ensure an effective certificate/declaration recognition process and guarantee an efficient certification/declaration program deployment supporting a level playing field in Europe.</p>

response	<p><i>Accepted</i></p> <p>The Agency welcomes the comment.</p> <p>It should be noted that RMT.RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment' considers the comment in question.</p>
comment	<p>134 comment by: <i>Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)</i></p> <p>General</p> <p>We would appreciate the AMC and GM to be connected to <u>one</u> implementing rule, not several. It will otherwise create problems when presenting in for example EAR and in EMPIC.</p> <p>Example: 'AMC1 <i>Article 3(2) Competent authority; Article 6(1) Statement of Compliance</i>'</p> <p>Suggest split, even though same text will then appear twice.</p> <p>AMC1 <i>Article 3(2) Competent authority;</i></p> <p>AMC1 <i>Article 6(1) Statement of Compliance</i></p>
response	<p><i>Noted</i></p> <p>The comment is well considered.</p> <p>However, as the AMC under discussion address topics that are regulated in various provisions, there need to be a few AMC associated with two articles.</p>
comment	<p>147 comment by: <i>CANSO</i></p> <ul style="list-style-type: none"> • The fact that some of the regulation to which the AMC and GM refers to is not available has impact on the analysis of this NPA. The referenced requirements should be included in the NPA. • The criteria to define as AMC or as GM is not clear. • Referencing particular standards editions will cause problems both for new and older systems. When there are upgrades, to which standard edition will the new version have to comply?
response	<p><i>Noted</i></p> <p>The commentator is kindly invited to note that to support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:</p>

- launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period;
- maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary;
- promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website.

These activities are planned in the context of IST.0002.

In reference to the second comment, the commentator is invited to note that 'acceptable means of compliance (AMC)' means non-binding standards adopted by the Agency to illustrate means to establish compliance with the IR requirements, while 'guidance material' means non-binding material developed by the Agency that helps to illustrate the meaning of a requirement or specification and is used to support the interpretation of the rules and AMC.

In reference to the editions of the various standards, please note that there will be not requirement to retrofit the ATM/ANS equipment to the new standard provided that no unsafe condition exists.

comment 168

comment by: *CANSO*

The new regulatory framework and its supporting Detailed specifications, AMC and GM should be provided with a glossary.

- Working together and shared GE certification material roadmap

What is the EASA plan to further complete and mature the GE specifications in coordination with the ATM stakeholders?

- Secure the market and EASA framework benefits

What is the EASA plan to ensure wide communication towards ATM GE providers and common understanding of the regulation framework?

- Transparency and market state

Does EASA plan to publish an EU - open database recording for:

- a. Certified DPO with the details of the certificates (validity, etc.)
- b. Certified GE with the details of the certificates
- c. Issued SoC by ANSP or DPO
- d. Known defects on Certified and declared GE



response	<p><i>Noted</i></p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’ and RMT.0744 ‘Regular update of detailed specifications for ATM/ANS ground equipment’.</p> <p>In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:</p> <ul style="list-style-type: none"> — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary; — promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated ‘EASA ATM/ANS ground equipment webpage’ on the EASA website. <p>These activities are planned in the context of IST.0002.</p>
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comment	228	comment by: <i>Nils</i>
<p>There is a need to state what “detailed” means in relation to detailed specifications. It is mentioned 79 times. If it can’t be stated what detailed means please remove the word altogether.</p>		

response	<p><i>Noted</i></p> <p>‘Detailed specifications’ (DS) are non-binding standards issued by EASA for the purpose of implementing Regulation (EU) 2018/1139 (the Basic Regulation) and the delegated and implementing acts adopted on the basis thereof, as specified in Article 2 ‘Definitions’ of MB Decision 01-2022 of 2 May 2022 and in recital (1) of ED Decision 2023/015/R of 26 October 2023.</p>
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comment	229	comment by: <i>Nils</i>
<p>There is no proper explanation of the acronym DPO anywhere.</p>		

response	<p><i>Noted</i></p> <p>It should be noted that DS GE.GEN.001 defines the abbreviation ‘DPO’.</p> <p>‘These Detailed Specifications (DSs) and the related acceptable means of compliance (AMC) and guidance material (GM) are applicable to the design, or changes to the design, of ATM/ANS equipment for which certification is to be required in accordance with Regulation (EU) 2023/1768 or a declaration is to be made by an approved organisation involved in the design or production of ATM/ANS equipment (DPOs) in accordance with Regulation (EU) 2023/1769.’</p>
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comment	<p>230 comment by: Nils</p> <p>The document does not consider systems specific for remote tower, e.g. visual presentation and ED-240A/(B). Will that be a part of the regulation in the future?</p>
response	<p><i>Noted</i></p> <p>In recognition of the importance of the timely issuance of the DSs and AMC & GM, EASA has proceeded with a gradual prioritised publication of the associated Decisions with a view to effectively supporting the implementation of the new framework.</p> <p>This approach considers the tight time schedule imposed by the EASA Basic Regulation (i.e. 12 September 2023) and would facilitate the smooth implementation of the new conformity assessment framework.</p> <p>Following the adoption of the new ATM/ANS ground equipment conformity assessment framework with the associated AMC & GM and DSs, a number of RMTs are planned to complement the 1st issue of the DSs, including but not limited to RMT.0744 ‘Regular update of detailed specifications for ATM/ANS ground equipment’.</p>
comment	<p>231 comment by: Nils</p> <p>Opinion 1/2023 listed the following among the arguments in favour of the proposed new conformity framework:</p> <p><i>“..enable increased efficiency and reduced costs as regards the procurement and maintenance of ATM/ANS equipment, as well as improved operational coordination for the attestation process.”</i></p> <p>LFV noted the widespread commentary that this assertion raised in the consultation process, with many stakeholders anticipating that the introduction of the new framework would lead to smaller manufacturers to be forced to exit the market due to the disproportional administrative burden resulting from the DPO status. LFV regrets to inform EASA that this exact development has now been observed in the navigation aids domain; in the tender framework procurement for DME executed in 2017, LFV entertained four bids, three of which had manufacturing located within the then-applicable EU territory. A new tender executed in spring 2023 yielded only one EU-based manufacturer where at least the final assembly was localized to EU territory.</p>
response	<p><i>Noted</i></p> <p>The comment is well noted.</p> <p>The feedback provided has highlighted the crucial importance of ensuring the level playing field and unhindered market access for all relevant industry sectors. While concurring with this view, EASA believes that the proposed solution on the level of the regulatory framework provides the needed opportunities for different industry segments and is already commensurate as regards the regulatory requirements.</p> <p>For further details, please refer to Comment-Response Document (CRD) 2022-09.</p>

comment

289

comment by: NAV Portugal E.P.E

General comments:

- The fact that some of the regulation to which the AMC and GM refers to is not available has an impact on the analysis of this NPA. The referenced requirements should be included in the NPA.
- The criteria chosen to distinguished between an AMC or GM is not clear.
- Referring particular standards editions will cause problems both for new and older systems. When there are upgrades, to which standard edition will the new version have to comply?

Other comments:

- **Page 39, paragraph 3.2.5**

“In fact, that AMC provides EASA’s confidence level that the DPO addresses all the details of the certification basis for the CDI concerned, and that a non-compliance will not occur.”

This text is not clear. What AMC is referenced here?

- **Page 40, paragraph 3.3**

*“a function or system is introduced or affected where the failure of that function or system may contribute to a failure condition that is classified as per **GM3 GE.GEN.007** of the Detailed Specifications and Acceptable Means of Compliance and Guidance Material for ATM/ANS ground equipment (DS-GE);”*

This text is not clear. What is meant by “that is classified as per GM3 GE.GEN.007”?

response

Noted

Following the order of the comment, the following should be considered:

General comments:

The proposed AMC/GM were associated with the provisions which were proposed in NPA 2022-09 — this was clearly explained in the explanatory note.

Furthermore, the commentator is kindly invited to note that to support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment



conformity assessment framework’ and RMT.0744 ‘Regular update of detailed specifications for ATM/ANS ground equipment’.

In reference to the second bullet point, the commentator is invited to note that ‘acceptable means of compliance (AMC)’ means non-binding standards adopted by the Agency to illustrate means to establish compliance with the IR requirements, while ‘guidance material’ means non-binding material developed by the Agency that helps to illustrate the meaning of a requirement or specification and is used to support the interpretation of the rules and AMC.

In reference to the applicable DSs, in accordance with ATM/ANS.EQMT.AR.B.001, the certification basis shall consist of detailed certification specifications that are applicable to the ATM/ANS equipment on the date of submission of the application for that certificate.

The commented AMC and point 3.2.5 is removed from the 1st set of AMC/GM.

The commented AMC and the reference to GM3 GE.GEN.007 is removed from the 1st set of AMC/GM.

comment

377

comment by: *skeyes*

<p>General comment on the maturity of this amended conformity assessment framework</p>	<p>we do understand and support the fact that a more structured conformity assessment framework is needed, especially on manufacturer side. Nevertheless, new conformity assessment framework is not sufficiently mature yet for implementation, which is not an acceptable approach in our domain. The new regulatory package will be published with missing or immature elements (mainly for the DS -- Detailed Specification -- of the equipment’s) and still a lot of fuzzy zones on the criticality of equipment’s, important topic as it determines the required attestation method (article 4, 5 or 6) We understand EASA position when they state that some tuning will be required after entry in force of the new conformity assessment framework, but from a practical point of view, at the moment of implementation, it is impossible for us to tune missing elements in the regulation. A valid conclusion would be that the entry in force should be postponed as long as the package is not completed (and validated)</p>
<p>General : will EASA maintain a database of approved DPO, EASA certificates and DPO declarations?</p>	<p>Such a database is required for efficient application of amended regulations on conformity assessment. Validity of DPO approval and validity of EASA certificates and DPO declaration is needed. It is the only way for an ATM/ANS provider to get verified and accurate information on these element when preparing a system/equipment integration. This is also the only way to build a valid SoC.</p>

response *Noted*

To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:

- launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period;
- maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary;
- promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website.

These activities are planned in the context of IST.0002.

In response to the particular questions, the answer is affirmative.

comment 390

comment by: *EUROCONTROL*

EUROCONTROL would like to thank EASA for providing the opportunity to comment on the proposed AMCs and GMs supporting the new conformity assessment regulation. These AMC/GM are much needed to help ATM stakeholders, in particular industry, to transition into the new EASA framework. EUROCONTROL based its review of the latest version of the regulation made available, as the regulation as voted was not known. Therefore some of the comments may be affected by the changes to the regulation. An other important element is the rescoping of the equipment that falls in the certification category and which took place quite late during the regulatory process, in particular for the ATS equipment. At the time RMT 161 members worked on Task 3, ATS was fully within the scope of the certification. With the rescoping, the material that was developed on this basis requires some adjustments, hence despite EUROCONTROL participation to Task 3 activities, we have provided some comments on the included detailed specs. Moreover the articulation between this new regulatory framework and regulation 373 may still be leading to duplication or inconsistencies that require further adjustments. Finally we would like to stress the need for EASA to urgently propose clear guidance material to ensure a smooth transition period, for equipment that falls into each of the three categories. Some EUROCONTROL detailed comments point to specific issues /



response	<p>questions / specific use cases which would benefit from additional explanations in new GMs.</p> <p><i>Noted</i></p> <p>The comment is well considered during the finalisation of the subject ED Decisions.</p>
comment	<p>391 comment by: EUROCONTROL</p> <p>What is the expected granularity of “ATM equipment”/“ATM constituent”? Can we certify a constellation of constituents as a whole (e.g. the ATS system at an ANSP as a whole) ? The NPA subtitle speaks about “conformity assessment of ATM/ANS systems and ATM/ANS constituents”. This suggests that a system can be certified as a whole.</p> <p>Note that the definition of ATM/ANS system in regulation 2018/1139 is the full aggregation of equipment for all phases of a flight. Even after excluding airborne equipment, it is impossible for any individual DPO or European ANSP to address the full ATM/ANS system, because the equipment of neighbouring ANSPs and of NM would need to be included as well (there is only one overall EATMN system). Ideally we should be able to group equipment, smaller than the overall EATMN system but bigger than individual equipment.</p> <p><u>Proposed change:</u> Please clarify the expected granularity of 'ATM/CNS constituents'. Please clarify what is meant with 'ATM/CNS systems' (plural) in the NPA versus the definition of ATM/CNS system in regulation 2018/1139, after excluding airborne equipment.</p>
response	<p><i>Noted</i></p> <p>According to Article 3(7) of Regulation (EU) 2018/1139, ‘ATM/ANS system’ means the aggregation of airborne and ground-based constituents, as well as space-based equipment, that provides support for air navigation services for all phases of flight. In this context, airborne constituents are excluded from the scope of the proposal, which is covered by the certification of the aircraft (initial airworthiness).</p> <p>In reference to the first question, a constellation of constituents as a whole system integrated at ATM/ANS provider level could be subject to certification.</p> <p>The comment is well considered, but the commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’.</p>
comment	<p>392 comment by: EUROCONTROL</p> <p><u>Equipment that is not necessary for interoperability:</u></p> <p>In the delegated regulation: ‘ATM/ANS equipment’ means “ATM/ANS constituents as defined by Article 3(6) of Regulation (EU) 2018/1139 and ATM/ANS systems as</p>

	<p>defined by Article 3(7) of that Regulation, excluding airborne constituents”. In 2018/1139 Article 3(6): ‘ATM/ANS constituent’ means tangible objects such as hardware and intangible objects such as software <u>upon which the interoperability of the EATMN depends;</u></p> <p>Does this imply that software/hardware that supports ATS but that is not necessary for the interoperability of the EATMN, is excluded from certification/declaration/soc by ANSP or DPO?</p> <p>Note that this would exclude several functions not explicitly listed in the NPA detailed specification (e.g. safety nets – probably not explicitly listed because there are no existing interoperability rules) although the broad phrasing of the delegated regulation suggest that such functions would be in scope.</p> <p><u>Proposed change:</u> Please clarify scope of 'equipment' subject to certification/declaration/SoC</p>
<p>response</p>	<p><i>Noted</i></p> <p>The commentator’s observation about interoperability is correct. These ATM/ANS constituents enable the safe, seamless and efficient operations of the EATMN. This means that the equipment subject to conformity assessment is the equipment used by ATM/ANS providers to deliver services in a safe, seamless, and efficient manner.</p> <p>The ATM/ANS equipment that is subject to any of the three attestation methods has to be understood as the ‘equipment’ component of the functional system of any of the following functions and services, as per point 3.1 of Annex VIII to Regulation (EU) 2018/1139.</p> <p>The Agency will develop additional AMC/GM material through RMT.0743 to clarify this aspect of the ATM/ANS definition.</p>
<p>comment</p>	<p>438 comment by: FOCA Switzerland</p> <p>The Federal Office of Civil Aviation (FOCA) in Switzerland would like to thank EASA for having the opportunity to make comments on this NPA 2023-05.</p> <p>This draft AMC/GM/DS represents an important step in the implementation of the new regulatory framework on the conformity assessment of ATM/ANS constituents. We are well aware of the tremendous work that was necessary to develop this draft and would like to thank the agency for this. After analysis by our experts, it appears that some points still require clarification to ensure that the new framework can be understood and applied correctly. We would like to thank the agency in advance for the answers it will provide to any remaining questions, whether in the context of this NPA or subsequently as part of the practical implementation.</p>
<p>response</p>	<p><i>Noted</i></p> <p>The Agency welcomes the comment.</p>

comment	<p>463 comment by: IFATCA</p> <p>The proposed NPA is introducing a layer of complexity which might result in the following issues:</p> <ul style="list-style-type: none"> - EASA has not enough resources (both in knowledge and or personnel) to cope with the new requests - It seems difficult to understand what is the added benefit of these new proposed AMC and GM. - It will kill innovation and favour the big industrial consortia which have not been able to provide new infrastructure to the satisfaction of the end user. - Smaller and innovative industries will refrain from entering the ATM Market - There is a risk for higher costs and delays for new technology such as Cloud based solutions - Any start-up AI or ML developer can not afford to bare the additional costs. - The know-how needed to be able to capture the new technologies is not available (yet) at EASA and leaves no space for other means of certifying ATM equipment - Live cycles which should be reduced are prolonged <p>Questions: Why have standards beyond the once listed in chapter 6 e.g. CENELEC not be taken onboard?</p> <ul style="list-style-type: none"> - some of the current existing network applications will have to be revisited, without the guarantee that this is for the better. <p>As ATCO representative we are not the primary exposed customer but we will suffer from the delays, uncertainties and standardised (lower performance) industry solutions which have been proven to be overbudget and delayed in the last 3 decades. New development and new technologies which as ATCOs we count upon to make the system more performant will not see the operational theatre because there is an additional business risk being introduced with this NPA for smaller and start-up companies.</p>
response	<p>Noted</p> <p>The comment is duly noted and considered. EASA is working on minimising such risks and has taken actions to mitigate them.</p> <p>In particular, EASA has estimated the resources that will be needed to implement efficiently the framework and is in dialogue with the Commission to allow the growth in staff in order to be ready. In addition, EASA is also signing partnership agreements with NSAs so that staff coming from the NSAs carry out the tasks associated with the approval of DPOs and the certification of equipment.</p> <p>The AMC & GM have been developed to complement the framework (the legal text). It has been recognised by the stakeholders as highly needed. It is acknowledged that they are still incomplete, and additional material will be published as soon as possible (further to the current planning, the next version of the AMC & GM will be developed by the end of 2025 through RMT.0743).</p> <p>Regarding the arguments about killing innovation, this is not shared by EASA, and the framework does not create any barriers to this. Some developments may be slowed down at the beginning of the implementation, but once the framework is in place, it should not create barriers to innovation. Hopefully, the checks introduced by the framework will ensure that the equipment introduced in the market will have a better and uniform performance, reducing the risk of interoperability issues (such as</p>

those in datalink). In any case, EASA will be actively monitoring, in coordination with industry, to identify any detrimental effect of the implementation of the framework.

The majority of aviation-related standards are coming from EUROCAE and EUROCONTROL, but this does not preclude including additional ones from other SDO such as ETSI or CENELEC. In the first version of DSs, the group of experts did not identify relevant standards from CENELEC.

comment

577

comment by: CANSO

CANSO Members support the intention of the new regulatory package for implementing the provisions of EASA Basic Regulation concerning ATM/ANS equipment.

Now, it is crucial to establish a common understanding for the implementation of the new EASA ATM/ANS equipment framework to effectively obtain the expected benefits.

For the initial issue of DS/AMC/GM, we seek further clarity on the following points:

Ambiguity in the applicability of the Detailed Specification(DS)/AMC with regard to the functional system

We need clarity and definitions on how an equipment interrelates with the Functional System and which exactly are those affected equipment.

DS/AMC for equipment should further clarify how they apply to the ATM/ANS constituents as well to the various supporting architectures and infrastructures.

Telecom links, micro-fiber cables, LAN-and WAN-solutions, electrical power infrastructure etc. are used as standard technical equipment (as standard ICT infrastructure). Also, data centers, server farms, cloud-technology are used as IT-infrastructure to carry those applications that are relevant to provide the ATM/ANS services/functions. Standard tools like auxiliary displays (e.g. showing frequency allocation) are used to support the activity of the ATM/ANS provider, e.g. to substitute printed papers at the controller working position. All these “tools” do not necessarily come in combination as an assembled “equipment” by one DPO. The appropriateness of such supplied infrastructure equipment for the intended operational use in combination with the functional software and interfaces is, of course, subject to the (safety and risk) assessment of the ATM/ANS provider before its integration into the functional system.

Is the ICT infrastructure described above, purchased and operated in isolation to the services and applications, that these carry, subject to the equipment Regulation and one of the three attestation methods?

Are auxiliary displays on the controller working position subject to the Functional System, or to the Equipment Regulation or both?

Does EASA consider that every equipment that is used for providing ATM/ANS services is part of the Functional System?

And does this imply that such equipment is systematically subject to the equipment Regulation?

Does the ATM/ANS provider who is operating that infrastructure need to become a DPO in order to be able to integrate the functional software purchased from another DPO to form his functional system?

We deem it necessary to look, at a later stage, at Regulation 2017/373 in the context with this equipment Regulation and its DS/AMC/GM in order to achieve consistency instead of patchwork add-on.

Detailed Specifications



Guidance on the application of the DS would be very helpful. It is not clear whether and how to apply the General Part in absence of both, any functional requirement on equipment and the naming of equipment subject to which DS. The rationale to categorize the attestation method of an equipment or parts thereof should be further developed:

a. The full communication chain (voice and data) is subject to certification, including the air/ground sensors, the surveillance chain equipment, however, has been split between the certification and the declaration DS. Could EASA explain how this fits with the intended approach to categorize according to criticality?

b. Should the data processing part of an surveillance equipment assembly, such as an ADS-B station, be subject to certification and the antenna subject to declaration? Why then has the full ASMGCS been put under the DS related to certification? Why does DS not address a Voice Communication System, and does its G/G COM part needs declaration while its ATS HMI needs certification?

c. With regard to the question raised by EASA in the NPA Chapter 2.8 on AMAN/DMAN: Following the logic of Equipment Regulation Article 4, flight data processing is subject to certification. An AMAN/DMAN equipment is allocated here. However, according to its functional description, the AMAN/DMAN uses already processed data to support ATCOs in calculating arrival/departure sequences and should fall under equipment subject to Article 6.

We believe that only equipment contributing to the harmonized and seamless functioning of the EATMN should come with a functional specification and be listed in the DS. This follows the definition for an ATM/ANS constituent according to EASA BR.

To address the aforementioned ambiguities, we suggest that the DS should contain an exhaustive list of equipment subject to ATM/ANS functional requirements.

Transitional period

Legacy equipment in operation at the date of applicability of the equipment Regulation shall be deemed to continue being compliant through existing DoV of the systems or DSU/DoC of constituents. A major change will trigger the issuance of the first SoC.

We would like to avoid additional efforts and costs to get our current evidence materials compliant with the SoC template. We would appreciate your attention for any query that may arise during transition period and very welcome a commensurate solution at European level, e.g.:

a. We kindly request clarification on the differences between looking at equipment from the perspective of a DoV, DSU/DoC, and a SoC. This is particularly relevant for changes to legacy equipment within a “declared” ATM/ANS system during the transition phase.

b. The standards referenced as AMC in these DS have not necessarily all been mandatory in the IOP-framework; now, we switch from "guidance" to "mandate" for using those standards. When the ATM/ANS provider is to issue a SoC, how can they show evidence that legacy parts of its equipment are still compliant? Manufacturers did not deliver their test documentation with the DSU/DoC. We usually perform regression tests but do not repeat the complete spectrum of a specification.

Way forward

To allow the successful implementation of the new EASA regulatory package on ATM/ANS equipment, we encourage EASA to collaborate and contribute in developing this framework together with CANSO members, authorities, and the other industry stakeholders.

response

CANSO looks forward to fruitful answers and achieving clarity on these matters to allow the successful implementation of the regulatory package. Finally, we would appreciate receiving soon estimated costs for DPO approval by EASA (initial and ongoing) as well as ATM/ANS equipment certification or oversight of declaration.

Accepted

The comment is well received.

To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:

- launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period;
- maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary;
- promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website.

These activities are planned in the context of IST.0002.

comment

581

comment by: *Thales Land and Air Systems*

Thales thanks EASA and the RMT.0161 members for the hard work accomplished to develop the AMC/GM and Detailed Specifications to the Conformity Assessment framework. We also welcome the opportunity to provide comments on the EASA NPA 2023-05.

As stated at various occasions, those AMC/GM and especially the Detailed Specification are the corner stone of this new regulatory framework enabling the achievement of its objective as presented in Opinion 01/2023. We understand that NPA 2023-05 is the result of a compromise and hard work being delivered in a short timeframe.

We however see the need to further mature the detailed specifications to ensure a smooth implementation of the new regulatory framework, as those are deemed incomplete especially on the safety and cybersecurity aspect (recognised methodologies and objectives).

We would like to offer our support and our expertise to continue maturing those detailed specification through the development of a roadmap with the objective to develop a consistent regulatory and standardisation framework driving a smooth top/down conformity approach. This will include:

- the definition of harmonised safety and cybersecurity requirements at ATM/ANS functions level

	<ul style="list-style-type: none"> the definition or recognition as Acceptable Means of Compliance of recognised top down safety and cybersecurity methodologies and processes <p>These points are paramount to enable an effective certificate/declaration recognition process and guarantee an efficient certification/declaration program deployment supporting a level playing field in Europe.</p>
response	<p><i>Noted</i></p> <p>EASA appreciates the comment.</p> <p>As correctly mentioned by the commentator, to support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’ and RMT.0744 ‘Regular update of detailed specifications for ATM/ANS ground equipment’.</p> <p>In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:</p> <ul style="list-style-type: none"> — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary; — promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated ‘EASA ATM/ANS ground equipment webpage’ on the EASA website. <p>These activities are planned in the context of IST.0002.</p>
comment	<p>683 comment by: ENAIRE</p> <p>What will be the method used by EASA to update the Detailed Specifications when a new standard or a new version of an existing standard takes place?</p> <p>Will this method take into account to time needed for the aircraft operators to progressively upgrade their fleet?</p>
response	<p><i>Accepted</i></p> <p>Following the adoption of the conformity assessment framework of certain ATM/ANS equipment (i.e. ATM/ANS systems and ATM/ANS constituents) as well as the approval of organisations involved in its design or production, EASA will launch the monitoring of its implementation. In addition to that, EASA will regularly address the miscellaneous issues of non-controversial nature by dedicated regular-update rulemaking tasks, in order to ensure that the DSs for ATM/ANS equipment are maintained fit for purpose, cost-effective, enable relevant technological evolution, and are in line with the latest ICAO SARPs. In particular, these regular-update rulemaking tasks will incorporate special conditions and other material supporting the application and interpretation of existing detailed specifications as established</p>

by EASA during ongoing certification and declaration projects and will address issues raised by stakeholders.

In this context, RMT.0744 is anticipated to address the comment.

comment

685

comment by: ENAIRE

What will be the method used by EASA to ensure that all the current manufactures clearly understand the exact list of equipment subject to certification and declaration?

The current text does not seem very clear, in general.

response

Noted

To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:

- launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period;
- maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary;
- promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website.

These activities are planned in the context of IST.0002.

comment

686

comment by: EUROCONTROL

No AMC/GM are proposed for part DPO.AR.

Proposed change:

Develop AMC and GM for part DPO.AR

response

Noted

Following the adoption of the conformity assessment framework of certain ATM/ANS equipment (i.e. ATM/ANS systems and ATM/ANS constituents) as well as the approval of organisations involved in its design or production, EASA will launch the monitoring of its implementation. In addition to that, EASA will regularly address the miscellaneous issues of non-controversial nature by dedicated regular-update rulemaking tasks, in order to ensure that the DSs for ATM/ANS equipment are maintained fit for purpose, cost-effective, enable relevant technological evolution, and are in line with the latest ICAO SARPs. In particular, this will incorporate special conditions and other material supporting the application and interpretation of

existing detailed specifications as established by EASA during ongoing certification and declaration projects and will address issues raised by stakeholders.

In this context, RMT.0743 is anticipated to address the comment.

comment **687** comment by: *EUROCONTROL*

Information on how the Agency or any Qualified Entity would demonstrate compliance with these Authority Requirements would be a source of information for any other stakeholder needed to comply Organizations Requirements.

response *Noted*

The comment is well noted.

For further details, please refer to the response to comment # 686.

comment **845** comment by: *Civil Aviation Authority the Netherlands*

Thank you for the opportunity to make comments on this NPA on the acceptable means of compliance, guidance material and detailed specifications supporting the new regulatory framework on the conformity assessment of ATM/ANS systems and ATM/ANS constituents.

Due to the volume of the documents, the short consultation period and the consultation period being in the middle of the summer holidays, we have not been able to collect any comments on this NPA.

The civil aviation authorities of the Netherlands will not provide any comments on this NPA at this time.

response *Noted*

The comment is well noted.

comment **892** comment by: *FR DSAC*

As already indicated by France during the June 2023 EASA Committee and Commission Expert group on aviation safety, and during the various workshops, this first set of AMC/GM/CS/DS will need to be reviewed regularly based on initial feedback from their implementation. The first files processed should make it possible to check for points of improvement, modifications to be made, adjustments, etc. DGAC France recommends their regular update, especially in the transition phase. A plan to further complete and mature the AMC/GM coordination with all stakeholders etc may be needed in

response *Noted*

Following the adoption of the conformity assessment framework of certain ATM/ANS equipment (i.e. ATM/ANS systems and ATM/ANS constituents) as well as the approval of organisations involved in its design or production, EASA will launch

the monitoring of its implementation. In addition to that, EASA will regularly address the miscellaneous issues of non-controversial nature by dedicated regular-update rulemaking tasks, in order to ensure that the DSs for ATM/ANS equipment are maintained fit for purpose, cost-effective, enable relevant technological evolution, and are in line with the latest ICAO SARPs. In particular, this will incorporate special conditions and other material supporting the application and interpretation of existing detailed specifications as established by EASA during ongoing certification and declaration projects and will address issues raised by stakeholders.

In this context, RMT.0743 and RMT.0744 are anticipated to address the comment.

comment

986

comment by: *Boeing*

July 31, 2023

B-H020-REG-23-MT-25

Subject: Comments to EASA NPA 2023-05: Acceptable means of compliance, guidance material and detailed specifications supporting the new regulatory framework on the conformity assessment of ATM/ANS systems and ATM/ANS constituents

To Whom It May Concern:

The Boeing Company appreciates this opportunity to review and provide comments on EASA NPA 2023-05, Acceptable means of compliance, guidance material and detailed specifications supporting the new regulatory framework on the conformity assessment of ATM/ANS systems and ATM/ANS constituents.

The Boeing Company supports plans for DLS equipment to support B2 only aircraft. This is the Boeing position as conveyed to the EASA forum on the CP1 Industrialization Gate that ANSPs be required to implement B2 CPDLC technical interoperability or at least implement the B2 CPDLC message set while continuing to offer B1 CPDLC services.

Acceptance and implementation of these important steps will improve European airspace efficiency and sustainability and promote global interoperability as the industry moves towards the vision outlined in the Future Connectivity for Aviation White Paper.

The enclosed comment contains the details of our suggested revisions.

response

Noted

EASA welcomes Boeing's position.

comment

991

comment by: *ENAIRE*

response	The FMEA performed by DPO shall be deliver to the ANSP together with the certification.
	<i>Noted</i>
comment	<p><i>1006</i> comment by: AESA</p> <p>In the current version of the AUR regulation, the definitions of "channel" and "8.33kHz channel spacing" have disappeared.</p> <p>In addition, other definitions referred to in the new regulatory framework such as "24-bit ICAO aircraft address", 'flight message transfer protocol', 'flight data processing system', 'controlling military unit', 'peer-to-peer communication mechanism', 'service level agreement', 'air-ground point-to-point data communication', 'Continuity', 'Radio' and 'Radio upgrade' are not included in this NPA 2023-05.</p>
response	<p><i>Noted</i></p> <p>The purpose of a definition is to describe a particular term when used in a specific context (AMC, GM, etc.). Therefore, if the term is not used in the context of a rulemaking deliverable (opinion, decision), it is not considered necessary to be 'just transposed'.</p> <p>The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.</p>
comment	<p><i>1011</i> comment by: LEONARDO</p> <p>In all the sections the Scope of the section is related to the Equipment while the requirement are often related to the ATM/ANS System (e.g.: DS GE.GEN.002 Information security requires the System to be appropriate secure while the DS GE.GEN.001 Scope refer to Equipment). This may lead to misunderstanding or ambiguity. It is suggested to check if and where it can be fixed.</p>
response	<p><i>Noted</i></p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.</p>
comment	<p><i>1014</i> comment by: AESA</p>

	<p>Regarding the requirements indicated in Annex II point 2 of Regulation 633/2007, no information has been found regarding sub-points b -g in the NPA 2023-05,</p> <p><i>2. The manufacturer shall manage the verification activities and shall in particular:</i></p> <p><i>(a) determine the appropriate test environment;</i></p> <p><i>(b) verify that the test plan describes the constituents in the test environment;</i></p> <p><i>(c) verify that the test plan provides full coverage of applicable requirements;</i></p> <p><i>(d) ensure the consistency and quality of the technical documentation and the test plan;</i></p> <p><i>(e) plan the test organisation, staff, installation and configuration of the test platform;</i></p> <p><i>(f) perform the inspections and tests as specified in the test plan;</i></p> <p><i>(g) write the report presenting the results of inspections and tests.</i></p>
response	<p><i>Noted</i></p> <p>The comment is well noted.</p> <p>The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.</p>
comment	<p><i>1019</i> <i>comment by: LEONARDO</i></p> <p>WRT Transitional provisions, during the 5 years please clarify if:</p> <ul style="list-style-type: none"> - SoC will be issued only by ANSP or may be issued by DPO once they are certified? - DPOs, once they are certified, could be in the position to issue EASA Release Form in advance (i.e. before the 5 years transition period), or if the "SoC" issued by ATM/ANS provider will be the only means applicable
response	<p><i>Noted</i></p> <p>Following the order of the questions:</p> <ul style="list-style-type: none"> — the answer is affirmative; once the DPO is approved, it will have privileges to design or produce ATM/ANS equipment and the issue of EASA release form is part thereof; — the answer is affirmative. The issuance of SoC is an ATM/ANS responsibility and the approved DPO could be in a position to issue it on an ATM/ANS provider's behalf.
comment	<p><i>1073</i> <i>comment by: Deutscher Wetterdienst</i></p> <p>DWD appreciates the clarification provided by the new interoperability regulation framework and AMC / GM in regard to its applicability to MET service provision.</p> <p>Thus said, EASA is invited to consider additional consultation and guidance material supporting the establishment of the necessary procedures regarding meteorological services in assistance to both affected ANSP and NSA.</p>

	<p>Provision of MET information was considered outside the scope of CA within (EC) No. 552/2004 and no applicable IR and / or CS regarding MET service provision existed prior to the publication of the new regulatory framework and AMC / GM.</p> <p>EASA opinion 03-2021 further confirmed the definition of EATMN within Annex I of the aforementioned regulation to be applicable until adoption of necessary delegated and implementing acts.</p> <p>Therefore, it is expected that few procedures exist for CA regarding (EU) 2018/1139, Annex VIII No. 3.1 (h).</p>
response	<p><i>Noted</i></p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:</p> <ul style="list-style-type: none"> — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary; — promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website. <p>These activities are planned in the context of IST.0002.</p>
comment	<p>1074 comment by: <i>Deutscher Wetterdienst</i></p> <p>EASA is invited to further ensure the harmonisation of new interoperability requirements with existing requirements regarding the management of changes to the Functional System (FS) within (EU) 2017/373, Annex III.</p> <p>The introduced definition of changes and compliance procedures do not appear to be fully in line with existing practices and procedures regarding the management of changes to the FS and may therefore unintentionally result in a significantly increased workload for both affected NSA and ANSP.</p>
response	<p><i>Noted</i></p> <p>EASA welcomes the comment and would like to assure the commentator that this is the intention.</p> <p>Therefore, the commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of</p>

RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.

comment

1084

comment by: EUROCONTROL

The following points refer to the regulation itself vis a avis AMC / GM or to missing requirements. Therefore it was not possible to fit them in a specific part of the NPA:

DPO.AR.A.015:

Proposed change:

This article is not about Ground Equipment and should be move to another regulation (to be identified)

DPO.AR.C.001

Proposed change:

This article is not about Ground Equipment and should be move to another regulation (to be identified).The Agency is responsible to define the process for submission of an application. The concerned application form should be provided in GM;

DPO.AR.C.001(b)

Proposed change

"the Agency may request..." is not a regulatory requirement but a GM: suggest to move to a dedicated GM

DPO.AR.C.005(b)

Proposed change :

"the Agency may decide..." is not a regulatory requirement but a GM: suggest to move to a dedicated GM



response

Noted

The commentator is kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.

In addition, following the order of the comments:

— DPO.AR.C.001 relates to the issue of approvals to organisations involved in the design or production of ATM/ANS equipment and it is laid down in the Implementing Regulation (EU) 2023/1769 on DPO approvals.

— DPO.AR.C.001(b) and DPO.AR.C.005(b) are possibilities to be used by the Agency when acting as a component authority with the aim of empowering EASA when performing approval and continuous oversight activities.

comment

1089

comment by: *Juan L. Diz*

Indra welcomes the opportunity to provide comments on the EASA NPA 2023-05 'Acceptable means of compliance, guidance material and detailed specifications supporting the new regulatory framework on the conformity assessment of ATM/ANS systems and ATM/ANS constituents'

As stated at various occasions, Indra fully supports the approach taken which will help to ease the reference to the new regulatory framework and will enable the necessary harmonisation of the requirements of interoperability, security, performance and safety.

We would like to thank EASA for the efforts delivered to achieve this Objective.

The AMC & GM and the detailed specifications are of key importance for a smooth implementation of this new regulation. We understand this NPA 2023-05 is the result of a compromise and hard work being delivered in a short timeframe.

We however see the need to further mature the detailed specifications, which could be done during the transition phase of 5 years starting in September to ensure a smooth implementation of the new requirements.

Indra, as part of ASD, would like to offer his help to define a roadmap that will include the development of a structured process and an adequate representativity and have enough time for the standardization actions

This will:

- Enable the process to take into consideration contractual obligations;
- Define harmonized safety requirements at ATM/ANS functions level, allowing a top/down approach that derives those requirements on the ATM/ANS equipment;
- Define Acceptable Means of Compliance in terms of standardized safety methodology and processes;



	<p>These points are paramount to ensure an effective certificate/declaration recognition process and guarantee an efficient certification/declaration program deployment supporting a level playing field in Europe</p>
response	<p><i>Noted</i></p> <p>EASA appreciates the comment.</p> <p>As correctly mentioned by the commentator, to support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:</p> <ul style="list-style-type: none"> — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary; — promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website. <p>These activities are planned in the context of IST.0002.</p>
comment	<p>1130 <i>comment by: Roy Posern, Fraport AG / ACI Europe</i></p> <p>- Oversight: How is a recurrent oversight going to happen (if no new system is implemented)? Are there defined cycles within which the SoC for example needs to be reviewed by the competent authorities?</p> <p>- How are requirements treated that result from local implementation or are affecting the operation and maintenance of the ATM/ANS systems? (in the 552/2204 those "operate, implement, maintain" requirements...)</p> <p>- System boundaries: What parts of the stated systems are valid constituents to be certified and what parts not? For example the computer hardware, virtual servers or network switches of a system - are they, if provided by the ANSP, subject to certification?</p> <p>- General: There is a lot of normative reference to old and outdated documents with the effect that the certification requirements may not be applicable or fit for purpose anymore.</p> <p>- General: How is it foreseen to handle updates to reference documents (that are indicated with certain version numbers?) Will automatically the new, succeeding standards become official reference once they are available?</p>

response	<p>- General: Contradiction: A-SMGCS (and its constituents as described in the document) are subject to Certification but ADS-B and Mode S ground station are subject to Declaration.</p> <p><i>Noted</i></p> <p>Following the order of the questions, the following should be highlighted:</p> <ul style="list-style-type: none"> — Oversight cycles will be implemented to oversee the DPOs, rather than the SoC or certificates/declarations. The DPOs have the responsibility to assess any issue with the equipment they design and manufacture and will need to update the design accordingly. — Requirements from local implementation will be dealt with through the integration of the equipment into the functional system of the local service provider. Those requirements will need to be either anticipated in the design or treated outside (but under the safety (support) assessment). — System boundaries are defined by the manufacturer. Some of the elements listed by the commentator may be part of the system certified, but in some cases, the manufacturer may decide to leave them outside the certificate (but additional requirements should be provided to facilitate correct equipment performance and integration). EASA is working on developing additional guidance in this regard and how those elements will be treated. — It would be advisable to identify those old normative documents that the commentator refers to. EASA welcomes such identification. For instance, old or not fit-for-purpose standards will be updated or removed from the DSs. So far, industry raises the opposite view (that many systems and constituents cannot comply with the standards identified). — There are several ways to do so; one could be through the update of DSs. But other alternative ways can be used, as necessary, such as the use of deviations.
comment	<p>1177 comment by: AESA</p> <p>There are several references to Eurocontrol specifications (i.e EUROCONTROL-SPEC-189, Edition 4.0) as DSs and AMCs. These requirements could be too demanding to comply with by the organisations involved. In addition, the fact that it is set as a specific review for all of the mentioned specifications could jeopardize future developments.</p>
response	<p><i>Noted</i></p> <p>The commentator is invited to note that the reference to EUROCONTROL-SPEC-189 is part of the associated AMC to illustrate means to establish compliance with the DS provision. Therefore, if an applicant considers that alternative means of compliance could be proposed to demonstrate DS compliance, a tool called CRI (standing for certification review item — means of compliance) could be used to propose alternative MOC.</p>
comment	<p>1179 comment by: AESA</p>

	<p>Regulation 29/2009 Article 3.1 indicates "ATS providers shall ensure that ATS units providing air traffic services within the airspace referred to in Article 1(3) have the capability to provide and operate the data link services defined in Annex II." However, after reviewing ATS.OR.415, in which EASA indicated that the information in Article 3.1 would be transposed, we consider that the obligations of ATS providers related to ground-to-air communications using the data link need further development. An explicit mention to data link services in point ATS.OR.415 would be appreciated.</p>
response	<p><i>Noted</i></p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>In this context, the comment is welcome and the commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.</p>
comment	<p><i>1184</i> comment by: <i>EUROCONTROL</i></p> <p>Proposed change: Please harmonise way references are mentioned. For example ICAO Doc 9880 references sometimes say "Ed.2", sometimes "Second Edition, 2016"; sometimes the edition number appears after the document title and sometimes before the document title.</p>
response	<p><i>Accepted</i></p> <p>The comment is well considered during the finalisation of the ED Decisions.</p>
comment	<p><i>1246</i> comment by: <i>Tern Systems</i></p> <p>For us as a manufacturer, more guidance and detailed specifications are very welcome improvements that provide more clarity on how to implement the basic regulation and connected regulations. This work is much appreciated and we hope for more details in the future on for example integrity of the SDPS and also for guidelines and training for DPOs.</p>
response	<p><i>Noted</i></p> <p>The Agency welcomes the comment.</p>

comment	<p>97 comment by: <i>Deutsche Lufthansa AG</i></p> <p>A synchronized and coordinated approach towards approval and oversight of new ATM/ANS systems in Europe is well appreciated. However, the transfer to the new process shall not slow down the speed of ATM modernization in Europe and related project activities which are already ongoing. A rapid ATM transformation is crucial for the stability and environmental efficiency of the European air transport system. Investment plans which have been already created by the ANSPs and ATM/ANS providers shall not be disrupted by unnecessary re-certification measures. Early Movers of innovative ATM/ANS technologies shall not be punished.</p>
response	<p><i>Noted</i></p> <p>The comment is well received.</p> <p>The new regulatory framework supports the resolution of the identified shortcomings of the previous Interoperability framework, such as:</p> <p>(a) fragmentation of the ATM/ANS ground equipment market because of the wide variety and the prevalence of the national technical specifications used in the procurement of ATM/ANS equipment;</p> <p>(b) lack of level playing field between the regulated entities along the ATM/ANS equipment life cycle chain (ATM/ANS equipment manufacturers, ATM/ANS providers and their NCAs) across Europe;</p> <p>(c) unnecessary complexity and economic burden for manufacturers as well as for ATM/ANS providers, slowing down the coordinated introduction of new, agreed, and validated concepts of operation and technologies;</p> <p>(d) lack of industry cooperation at European Union level, with a negative impact on the introduction of new operational concepts, such as digital technologies and automation that are required to ensure seamless interoperability and network efficiency for the European ATM system.</p> <p>Moreover, the improved industry cooperation at European Union level would reduce the fragmentation of the ATM/ANS equipment market and ensure introduction of digital technologies and automation in the ATM/ANS sector in a faster pace exploiting internal and external market opportunities.</p> <p>Finally, the establishment of a common, harmonised system requirements framework would result in greater efficiency and lower cost for system procurement and maintenance and in improved operational coordination, thus reducing the fragmentation of the ATM/ANS equipment market and facilitating industry cooperation at European level.</p>

1.2. How to comment on this NPA

p. 10

comment	<p>25 comment by: <i>Finnish Meteorological Institute (FMI) - MET SP</i></p> <p>All items related to MET service provision are described in DS SoC and (EU) 2017/373 Part-ATM/ANS.OR in this NPA 2023-05 and FMI provides comments on those text proposals only.</p>
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response	<i>Noted</i>
	The comment is duly considered.
comment	219 comment by: <i>MeteoSwiss</i>
	The requirements applicable to MET service providers are contained in DS SoC and CIR (EU) 2027/373 Part-ATM/ANS.OR. The feedback of MeteoSwiss therefore only refers to these parts of this NPA except for the potential identification of some typos.
response	<i>Noted</i>
	The comment is duly considered.

2.7. Amendment to ED Decision 2017/001/R as regards ATM/ANS systems and ATM/ANS constituents

p. 15

comment	5 comment by: <i>DAC Luxembourg</i>
	<p>1. Declaration section is missing:</p> <ul style="list-style-type: none"> • a) Navigation systems in general; • b) G/G, A/S and S/A Communications; • c) Safety Nets; • d) Multilateration; • e) Radars (PSR/SSR/ModeS); • f) Surveillance Data Distributions Systems; • g) Direction Finder.
response	<i>Noted</i>
	<p>EASA noted the comment.</p> <p>The commentator is invited to note that the ATM/ANS equipment subject to declaration is defined in Article 5 of the Commission Delegated Regulation that stipulates that the following ATM/ANS equipment when it generates, receives, and transmits data and/or signals in space for the purpose of ensuring safe and interoperable air navigation shall be issued with a declaration of design compliance as set out in Annex III:</p> <p>(a) equipment supporting ground-to-ground communications;</p> <p>(b) equipment supporting navigation or surveillance.</p> <p>In this context, declarations of design compliance shall be issued by approved DPOs. Consequently, the AMC/GM regarding ATM/ANS equipment declaration are associated with COMMISSION DELEGATED REGULATION (EU) 2023/1769 of 14 July 2023 laying down detailed rules for the certification and declaration of air traffic</p>

management/air navigation services systems and air traffic management/air navigation services constituents.

2.8. Declaration specifications and AMC and GM for ATM/ANS equipment, i.e. ground equipment (DS-GE)

p. 15

comment 26 comment by: *Finnish Meteorological Institute (FMI) - MET SP*
Does not concern MET, no comment.

response *Noted*

comment 117 comment by: *skyguide Compliance Management*

During the Transitional provisions (Sep. 2023 - Sep. 2028), SoC will have to be produced for all equipment in case of major change.

Can EASA confirm that:

- For equipment in SoC "category", they will have to apply DS SoC.GEN.xxx (at minimum) + DS SoC.xxx (if any detailed specifications are already available for their category).
- For equipment in CER "category", they will have to apply DS GE.GEN.xxx (at minimum) + DS GE.CER.xxxx.xxx (if any detailed specifications are already available for their category).
- For equipment in DEC "category", they will have to apply DS GE.GEN.xxx (at minimum) + DS GE.DEC.xxxx.xxx (if any detailed specifications are already available for their category).

If this is correct (or wrong), a clear description of what is expected during the Transitional provisions would be more than welcome.

response *Noted*

To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:

- launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period;
- maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary;

- promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated ‘EASA ATM/ANS ground equipment webpage’ on the EASA website.

These activities are planned in the context of IST.0002.

In addition, considering the comment, an additional AMC has been introduced — please refer to AMC1 Article 7(3) Transitional provisions.

comment

232

comment by: *Nils*

Why is SDP listed to be dealt with certification on page 16? It has a different line in current ESASSP, and Blue book handles this differently. SDP should be under declaration only. Same thing with Communication services (C as in CNS). CNS should all be under declaration. The cut should be in line with EU 2017/373 regarding what requires safety assessment and when it is enough with Safety Support Assessment. It is not clear when you look here compared with the picture on next page. Yes, VCS should be dealt with Certification, but radio with declaration. COM should therefore not be listed under the box “Part 2 Detailed Specification for ATM/ANS equipment subject to certification” in figure 1 on page 17.

response

Not accepted

The commentator has not justified why SDP should be subject to declaration. The allocation of attestation method to different equipment was based on the criticality on the provision of services. Annex VIII point 3(1)(a) of the EASA Basic Regulation (Regulation (EU) 2018/1139) identifies, in particular, as part of systems supporting ATC, the FDP systems, the SDP systems and the HMI. These three therefore fall under Article 4 of Delegated Regulation (EU) 2023/1768. In addition, air-ground communications systems were agreed to be covered under Article 4 ‘Certification’ of Delegated Regulation (EU) 2023/1768, and, therefore, it has been included in Part 2 for certification in the DSs, accordingly.

comment

233

comment by: *Nils*

How is SWIM looked at, and how is it to be declared? Is SWIM a system of its own, or is it a methodology or function used by ATS, CNS and MET services that have various requirements on either certification and or declaration? If SWIM is seen as a part of an ATS system, why should it be excluded from certification?

response

Noted

SWIM has been considered as ground-ground communication infrastructure and, hence, is addressed by Article 5 of Delegated Regulation (EU) 2023/1768, which is used by all actors in the provision of ATM/ANS, and thus, by many of the systems and constituents supporting various services.

comment

342

comment by: *FOCA Switzerland*

With regard to the question on page 17, we prefer that E-AMAN and DMAN remain subject to certification.

Indeed these equipments are impacting the provision of ATC services (including separation) during the approach and departure phase. Moreover they are closer in terms of criticality to an A-SMGCS or datalink application than to a Flow Management equipment, which are in the SoC. An inclusion in the Declaration section could have been a possibility but the wording of the regulation does not seem to allow for that.

response *Not accepted*

The comment was duly considered.

However, taking into account the public consultation, the commented equipment will be subject to SoC.

comment 378 comment by: *skeyes*

§2.8: About the classification of ATM/ANS equipment subject to certification, declaration	Why EAMAN and DMAN are classified as article 4 (certification)? These equipment are mainly sequencing tools but, sequencing aircraft is not a guarantee of separation. Here is here a huge confusion between sequencing and separation. Can you reconsider the classification? This question was raised multiple times at the webinar.
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response *Accepted*

The comment is well considered during the finalisation of the DSs.

comment 395 comment by: *EUROCONTROL*

System wide information management (SWIM) is introduced as ATM/ANS equipment.

This is incorrect.

SWIM shall exclusively be defined and specified at the level of interface specifications for the relevant ATM/ANS equipment such as FDP, EAMAN, DMAN, DL, AIM, ASM, ATFM and MET.

Different than proprietary exchange technologies and protocols such as AMHS and FMTP, SWIM is based around common of the shelf IT commodities and therefore not specific to ATM/ANS. Creating a dedicated set of specifications/requirement for 'SWIM ATM/ANS Equipment' will also create an undesired perspective that SWIM is about proprietary technologies and requires investments in dedicated equipment,

	<p>both factually incorrect and counterproductive to the further roll-out of SWIM as mandated by Regulation (EU) 2021/116.</p> <p>Describing the requirements at the level of interface specifications is sufficient to meet the objectives of the Basic Regulation, the new regulatory framework on the conformity assessment of ATM/ANS systems and ATM/ANS constituent, Regulation (EU) 2017/373 and Regulation (EU) 2021/116.</p> <p><u>Proposed change:</u> Remove System wide information management (SWIM) as ATM/ANS equipment. Therefore, removing Section 3 [DS GE.DEC.SWIM.3##] from the proposed (page 105-106 of the pdf-file).</p>
response	<p><i>Not accepted</i></p> <p>SWIM has been considered as ground-ground communication infrastructure and, hence, is addressed by Article 5 of Delegated Regulation (EU) 2023/1768, which is used by all actors in the provision of ATM/ANS, and thus, by many of the systems and constituents supporting various services.</p>
comment	<p>451 comment by: SDM</p> <p>SDM comment: <i>System wide information management (SWIM) is introduced as ATM/ANS equipment. However, SWIM shall exclusively be defined and specified at the level of interface specifications for the relevant ATM/ANS equipment such as FDP, EAMAN, DMAN, DL, AIM, ASM, ATFM and MET.</i></p> <p><i>Different than proprietary exchange technologies and protocols such as AMHS and FMTP, SWIM is based around common of the shelf IT commodities and therefore not specific to ATM/ANS. Creating a dedicated set of specifications/requirement for 'SWIM ATM/ANS Equipment' might create a perspective that SWIM is about proprietary technologies and requires investments in dedicated equipment.</i></p> <p><i>Describing the requirements at the level of interface specifications is sufficient to meet the objectives of the Basic Regulation, the new regulatory framework on the conformity assessment of ATM/ANS systems and ATM/ANS constituent, Regulation (EU) 2017/373 and Regulation (EU) 2021/116.</i></p> <p>SDM propose to remove System wide information management (SWIM) as ATM/ANS equipment.</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment 395.</p>
comment	<p>462 comment by: SDM</p> <p>Original text: '<i>...this proposal includes EAMAN and DMAN within the ATM/ANS equipment that is subject to certification</i>', as well as, '<i>It is recognised that EAMAN and DMAN are ATM/ANS equipment that enables efficient approach and departure sequencing thus improving flow management, and assist in enabling appropriate separation, hence the expert group concluded that these functionalities are within the scope of functionalities subject to certification</i>'.</p>

	<p>SDM comment: From SDM's point of view, AMAN/DMAN integration and E-AMAN are "tools of an ATM Functionality" as stated in the SESAR Deployment Programme and not "equipment".</p> <p>Therefore, both AMAN and E-AMAN should NOT be made equipment subject to certification, and simple SoC would be sufficient (category where initially belonged).</p> <p>SDM propose to Refer to AMAN and E-AMAN as "tools", and delete the reference as "equipment".</p> <p>In addition, remove both tools from the group "equipment subject to certification" as SoC will suffice.</p>
response	<p><i>Partially accepted</i></p> <p>The comment is well considered during the finalisation of the DSs.</p>
comment	<p>547 comment by: <i>Thales Land and Air Systems</i></p> <p>"Declaration specifications" to be replaced by "Detailed Specifications" in the title</p>
response	<p><i>Accepted</i></p>
comment	<p>556 comment by: <i>DCAC NSA Officer</i></p> <p>With regards to your question in the textbox: Cyprus considers that these functionalities should be subject to certification.</p>
response	<p><i>Not accepted</i></p> <p>The comment was duly considered.</p> <p>However, taking into account the public consultation, the commented equipment will be subject to SoC.</p>
comment	<p>584 comment by: <i>CANSO</i></p> <p>Para. 2.8</p> <p>— Certification</p> <ul style="list-style-type: none"> • Flight data processing (FDP) • Extended arrival management (EAMAN) • Departure management (DMAN) • Advanced surface movement guidance and control system (A-SMGCS) • Data link applications • Surveillance data processing (SDP) • Data communications (air ground) • Voice communications (air ground) <p>— Declaration</p> <ul style="list-style-type: none"> • ATS message handling system (AMHS) • System wide information management (SWIM) • Flight message transfer protocol (FTMP)

	<ul style="list-style-type: none"> • Mode S ground station • ADS-B <p>Where are other parts of the ATM system classified? (i.e. PSR, Mode A/C SSR, CWP, AMAN (not EAMAN), A-CDM...)</p>
response	<p><i>Noted</i></p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’ and RMT.0744 ‘Regular update of detailed specifications for ATM/ANS ground equipment’.</p> <p>In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:</p> <ul style="list-style-type: none"> — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary; — promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated ‘EASA ATM/ANS ground equipment webpage’ on the EASA website. <p>These activities are planned in the context of IST.0002.</p>
comment	<p>688 comment by: <i>ENAIRE</i></p> <p>Where are other parts of the ATM system classified? (i.e. PSR, Mode A/C SSR, CWP, AMAN (not EAMAN), A-CDM...)</p>
response	<p><i>Noted</i></p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’ and RMT.0744 ‘Regular update of detailed specifications for ATM/ANS ground equipment’.</p> <p>In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:</p> <ul style="list-style-type: none"> — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary;

— promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website.

These activities are planned in the context of IST.0002.

comment

689

comment by: ENAIRE

According to page 22 of the NPA , human-machine interface systems are under Article 4 prescriptions (certification)

response

Noted

The commented GM is intended to illustrate the meaning of the associated provision. It should be noted that point 3 therein is divided in three subcategories.

comment

691

comment by: ENAIRE

It makes no sense that SDP systems are subject to certification (according to Article 4 of "Commission Delegated regulation of XXX laying down detailed rules for the certification and declaration of air traffic management/air navigation services systems and air traffic management/air navigation services constituents" and page 22 of NPA, because they contribute to the separation of aircraft and the prevention of collisions, and Mode-S ground stations, ADS-B and surveillance systems in general are only subject to declaration, under Article 5.

response

Noted

The allocation of attestation method to different equipment was based on the criticality of the provision of services. Annex VIII point 3.1 of the EASA Basic Regulation (Regulation (EU) 2018/1139) identifies, in particular, as part of systems supporting ATC, the FDP systems, the SDP systems and the HMI. These three, therefore, fall under Article 4 of Delegated Regulation (EU) 2023/1768. In addition, air-ground communications systems were agreed to be covered under Article 4 'Certification' of Delegated Regulation (EU) 2023/1768. However, the receivers and transmitters of surveillance signals fall under Article 5 'Declaration'.

comment

693

comment by: ENAIRE

EASA requests the stakeholders' views as to whether the EAMAN and DMAN ATM/ANS equipment supports the functionalities described in Article 4 of the delegated act and therefore should be subject to certification or, alternatively, it is more appropriate that they are attributed to the statement of compliance (SoC) specifications. EASA looks forward to stakeholders' feedback on the relevant categorisation of these two functionalities.

EAMAN and DMAN equipment are planning tools that enable more efficient operations from the capacity and environment point of views, but do not contribute to the separation of aircraft nor the prevention of collisions.

According to that, they are not under Article 4 prescriptions, and the attestation method should be the SoC.

response	<p>EAMN, AMAN, DMAN should be attributed to SoC.</p> <p><i>Accepted</i></p> <p>The comment is duly considered during the finalisation of the DSs.</p>
comment	<p>792 comment by: IATA</p> <p>On page 16 - there is a list: Such ATM/ANS equipment is:</p> <ul style="list-style-type: none"> — Certification • Flight data processing (FDP) • Extended arrival management (EAMAN) • Departure management (DMAN) • Advanced surface movement guidance and control system (A-SMGCS) • Data link applications • Surveillance data processing (SDP) • Data communications (air ground) • Voice communications (air ground) <p>ref Data Link Applications bullet point - Question to be clarified: what is the distinction between Data Link Applications and Data Link Communications (Air-Ground)? Should the data link communications Ground-Ground also be considered in this list? Definitions should be included</p>
response	<p><i>Noted</i></p> <p>It should be highlighted that ground-ground communication is subject to declaration. Consequently, datalink application is subject to certification only when enabling air-ground communication.</p>
comment	<p>825 comment by: Thales Land and Air Systems</p> <p>EAMAN should be certified as it has a potential safety impact through its contribution to A/C separation. DMAN on the contrary does not directly contribute to A/C separation. Moreover the DMAN with CDM, which is the scope of the current DS requires reliable coordination with several stakeholders. For these reasons, we consider that DMAN with CDM should be subject to Statement of Compliance to remain under the responsibility of the ANSP which has the visibility on the end-to-end function and thus should assess the conformity of the overall function.</p>
response	<p><i>Partially accepted</i></p> <p>The comment is considered during the finalisation of the DSs.</p>
comment	<p>889 comment by: EASA Focal Point for AustroControl ANSP-issues</p> <p>Page 16, potential typo in term "FMTP":</p>

	<p><Quote> - Flight message transfer protocol (FTMP) <\Quote></p>
response	<p><i>Noted</i></p> <p>Noted.</p>
comment	<p>1049 comment by: <i>AESA</i></p> <p>Regarding the question raised by EASA, whether AMAN equipment and DMAN are subject to certification or SoC, from our point of view, we believe it would be better to consider them like a certificate equipment due to they assist in enabling appropriate separation.</p>
response	<p><i>Not accepted</i></p> <p>The comment is considered during the finalisation of the DSs.</p>
comment	<p>1131 comment by: <i>Roy Posern, Fraport AG / ACI Europe</i></p> <p>page 17, article 2.8 [QUESTION]: Yes, EAMAN an DMAN are supporting the functionalities as described in article 4 of the delegated act. If implemented, it is important that the interfaces are designed in an interoperable way and the functionalities required are met. Yet, it must be noted, that every airport is quite differnt and different special operating procedures might apply - so the requirements on operational procedures around EAMAN and DMAN should not be too stringent. Please note, that currently no tangible guidance material or specification for those functionalities are available. Please also consider to distinguish the scope of EAMAN and DMAN with respect to Airport CDM.</p>
response	<p><i>Not accepted</i></p> <p>The comment is well considered during the finalisation of the DSs.</p>
comment	<p>1166 comment by: <i>Belgian Supervisory Authority</i></p> <p>Section 2.8 – questions raised by EASA at page 17</p> <p>The Belgian Supervisory Authority does not consider that EAMAN and DMAN supports the functionality described in article 4 of the delegated act. Those systems are designed to handle runway capacity issues. Since ATFM systems handling airspace capacity issues subject to statement of compliance, it is logical to classify EAMAN and DMAN as systems subject to a statement of compliance. Additionally, EAMAN and DMAN systems are used primarily to sequence aircrafts to runways, not to ensure directly separation between aircrafts. The Belgian Supervisory Authority advises therefore to move the detailed specifications for both systems to DS-SoC.</p>
response	<p><i>Accepted</i></p> <p>The comment is well considered during the finalisation of the DSs.</p>

comment	<p>1233</p> <p style="text-align: right;">comment by: <i>EUROCONTROL</i></p> <p>Page 16 : In which category advanced ATS / separation management functionalities such as Time Based Separation (TBS) for final approach would fit? (CER? DEC? or SoC?)</p> <p>Proposed change Clarify the category of ATS separation management</p>
response	<p><i>Noted</i></p> <p>The Agency is of the opinion that TBS is a system whose main purpose is to support ATCOs in providing separation between aircraft in sequence on the final approach to a runway using time intervals instead of distances. Therefore, this fulfils the conditions in the definition of Article 4(1)(b) of Delegated Regulation (EU) 1768. RMT.0743 is developing additional AMC/GM and will include this explanation in the proposal.</p>
comment	<p>1307</p> <p style="text-align: right;">comment by: <i>Frequentis</i></p> <p>Concerning EASAs' question as regards EAMAN and DMAN ATM/ANS equipment on p. 17:</p> <p>With respect to E-AMAN, we believe that a statement of compliance (SoC) specification would be more appropriate than a certification for the following reasons:</p> <ol style="list-style-type: none"> <li>1. Our E-AMAN software, which we consider as a constituent, provides assistance to ATCOs in the planning of landing <i>times</i>, but not with respect to any "spacing attributes". Its main purpose is to support users, i.e. ACC and APP ATCOs and their supervisors, in creating a consistent flow of traffic to an airport, making best possible use of the runway capacity. Our E-AMAN provides a calculation of an optimized runway sequence at an extended time horizon, e.g. 85 minutes in the case of London Heathrow and Gatwick airports, and factor in the applicable runway separations and further constraints, e.g. landing rates, to avoid building a plan that exceeds the runway capacity anticipated by the users. However, while taking separations into account, E-AMAN does not at all ensure them between aircraft at any stage, nor does its mere operation impact aircraft separations in any way. This task is entirely up to the ATCOs, typically using their air situation displays. If, for example, ATCOs would ignore E-AMAN arrival sequences and the assistance it offers on how to achieve it (i.e. e.g. Time-to-Lose and Time-to-gain indications), E-AMAN would simply repeatedly recalculate sequences when detecting from surveillance data that the real positions of aircraft it processes deviate. <li>2. As a special case, some airports employ "time-based separation" operation, where the aircraft spacing in the final approach varies, depending on wind conditions, and losing runway capacity due to strong headwinds is avoided. Time-based separation, however, uses

special systems and indications to the controllers on their radar screens (air situation displays), both of which are not part of E-AMAN systems. E-AMAN planning data may be provided as supplementary input to a time-based separation system, but that system will always rely on air surveillance data, like radar data, and wind data as its core inputs. (Systems or constituents enabling time-based separation might therefore be subject to certification.)

3. Furthermore, our E-AMAN calculates a delay advice, i.e. the amount of time an arrival needs to absorb in the time between entering the airspace and landing, based on the difference between the optimal landing time calculated by E-AMAN and the earliest possible landing time (if there were no other aircraft) calculated by E-AMAN system's trajectory prediction. E-AMAN may also offer advice on how to absorb the calculated delay, e.g. through speed reduction in a neighbouring airspace ("XMAN" advice) or holding (holding advice). These advices all just serve as a support for the ATCOs who stay in charge and have the freedom to follow the planning, modify it, or simply not follow it.

Considering this rationale, we do not believe E-AMAN belongs into the same category as flight data processing, datalink or A-SMGCS systems, all subject to certification. We would rather see E-AMAN among ATS message handling or ADS-B systems that are subject to declaration.

On this occasion we would like to point at the fact that the draft regulation so far does not take "non-Extended AMAN" into account, i.e. with planning horizons that lie entirely in one single ANS provider's area of responsibility. It is therefore unclear to us whether EASA does not see such "normal" AMAN as subject to EASA's safety approval or, if so, what criteria EASA would apply if we needed your approval.

With respect to **DMAN**, our position is the same as for E-AMAN, i.e. we believe DMAN should be subject to Declaration rather than certification, partly because of the same arguments and partly because of additional specific ones:

1. DMAN provides the planning of an optimal runway sequence that takes constraints such as WTC or SID separation into account. However, it is not the DMAN that ensures the adherence to separations. Typically, the most active user of DMAN is the Tower Supervisor when planning the departure traffic for the near future. Often the ATCOs only see DMAN TSAT and TTOT advice in their electronic flight strips system and follow this advice if feasible.
2. In addition, there is another, maybe slightly formal, aspect. Part of the DMAN functionality can be understood as the outsourcing of A-CDM functions (or function blocks) to an ATC tool. These functions include pre-departure sequencing and may in part include aspects of variable taxi-time calculation or A-CDM under adverse conditions. These A-CDM functions, when implemented by an A-CDM system, however, are apparently not subject to any EASA approval (neither certification nor declaration). Thus we struggle to understand why they should become subject to certification (or even declaration) when implemented inside a separate DMAN product.
3. Additional DMAN functions that go beyond the mentioned A-CDM functions may include better optimisation, as well as features supporting managing outbound flow restrictions such as minimal departure intervals , remote

	<p>holding or using A-SMGCS input data to update the take-off sequence during taxi-out.</p> <p>Thus, all in all and as for E-AMAN, we believe that DMAN would better be placed together with the systems requiring declaration, but not certification.</p>
response	<p><i>Partially accepted</i></p> <p>The comment is well considered during the finalisation of the DSs.</p> <p>DMAN and EMAN have been allocated to Article 6 (Statement of compliance), and the DSs have been allocated to Subpart B of DS-GA.SoC in DS.SoC.005 and DSSoC.006 respectively.</p>

2.9. Detailed specifications for ATM/ANS equipment, i.e. ground equipment subject to statement of compliance (DS-SoC)

p. 17

comment	<p>34</p> <p>comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>Question box: AMAN and DMAN equipment is used as support tool. It does not process flight or position data. It rather uses the already processed data (from other applications of an ATS- or SUR-System) for further calculations or prediction of traffic situation, which always can be overruled by the ATCO's decision. This can advance capacity and service quality but is not directly used for the ATC purpose of safe separation of aircraft. Therefore, we deem it more appropriate to have equipment that does not process data attributed to the SoC specifications and Article 6. This is as well relevant to other equipment used int ATS service provision, e.g. safety-net applications like MSAW, STCA.</p>
response	<p><i>Accepted</i></p> <p>ED Decision 2023/015/R considers the comment.</p>
comment	<p>184</p> <p>comment by: <i>CANSO</i></p> <p>Question box: AMAN and DMAN equipment is used as support tool. It does not process flight or position data. It rather uses the already processed data (from the applications for FDP and SDP of an ATS-System) for further calculations or prediction of traffic situation, which always can be overruled by the ATCO's decision. This can advance capacity and service quality but is not directly used for the ATC purpose of safe separation of aircraft. Therefore, we deem it more appropriate to have equipment that does not process data attributed to the SoC specifications and Article 6. This is as well relevant to other equipment used int ATS service provision, e.g. safety-net applications like MSAW, STCA.</p>
response	<p><i>Accepted</i></p>

ED Decision 2023/015/R considers the comment.

comment	217	comment by: <i>DGAC (French CAA)</i>
	With regard to the question, it is considered that EAMAN and DMAN systems contribute to ATFCM and hence should only be subject to SoC and not to certification.	
response	<i>Accepted</i>	
	ED Decision 2023/015/R considers the comment.	

comment	234	comment by: <i>Nils</i>
	<p>Regarding question on top of page 17. Putting AMAN and DMAN in the Certification category is a step in the wrong direction, and the justifications are not convincing. Firstly, Arrival and Departure Management are ATM functionalities, not equipment. They are achieved or supported through various technical means and the operational community is making good use of the current flexible framework afforded by 2021/116 mandating these functionalities, to customize the implementation to suit the disparate local implementation needs.</p> <p>The argument that EAMAN and DMAN contribute to flow management does not hold as long as ATFCM is not held to the same certification standard. In the NPA, the central flow management function equipment is only subject to the SoC (by NM) whereas EAMAN and DMAN are to be certifiable, why the different levels of treatment? Finally, the link between EAMAN/DMAN and flow management is notoriously tenuous, it is a recurrent point of discussion in the context of CP1 deployment and the minute scheduling adjustments generated by either EAMAN or DMAN are in most cases fully absorbed in the TTOT window. NM has not been able to provide a convincing argument that AMAN data is needed for flow management and so the SESAR Deployment Programme, which is now broadly understood by NSAs to act as the AMC to 2021/116, clearly leaves it up to the implementing operational stakeholders whether or not they want to involve NM in the AMAN data exchange.</p> <p>The argument that EAMAN and DMAN contribute to separation is wrong, and in fact dangerous as it effectively shorts the separation between tactical ATC and tactical ATM on which the safety case for AMAN is often built, with the central argument stating that no matter what comes out of EAMAN, the ATCO shall always give precedence to separation assurance. Therefore the safety criticality of AMAN equipment is far lower than that of the FDPS/SDPS, and it should not be held to the same certification standard.</p> <p>We respectfully suggest to classify EAMAN and DMAN equipment in the SoC category, thus bringing it at the same certification status with the rest of the flow-related functionalities and safeguarding its functional separation from equipment involved in core ATC tasks such as separation assurance and management and conflict avoidance.</p>	
response	<i>Accepted</i>	

	ED Decision 2023/015/R considers the comment.
comment	290 comment by: <i>German NSA (BAF)</i> According to the table on page 22 (3c) EAMAN and DMAN should be classified as equipment falling under SoC.
response	<i>Accepted</i> ED Decision 2023/015/R considers the comment.
comment	396 comment by: <i>EUROCONTROL</i> <u>Figure 1:</u> The ATS box should be limited to GE supporting ATC services when enabling the separation of aircraft or the prevention of collision (cf. Article 4 of the cover <u>Proposed change:</u> Should be corrected in the accompanying text of the forthcoming ED Decision
response	<i>Noted</i> EASA welcomes the comment and will consider it, when necessary, to revise the explanatory note.
comment	397 comment by: <i>EUROCONTROL</i> <u>Figure 2:</u> An ATS box should be added for the GE that are not supporting ATC services enabling the separation of aircraft or the prevention of collision. <u>Proposed change:</u> Should be corrected in the accompanying text of the forthcoming ED Decision
response	<i>Not accepted</i> As Part B addressed the SoC List, the comment is not considered relevant.
comment	464 comment by: <i>IFATCA</i> Question 2.8. statement of compliance
response	<i>Accepted</i> ED Decision 2023/015/R considers the comment.
comment	801 comment by: <i>IATA</i> Aspect to be clarified: why in figure 1 the COM service / function appears both in Part 2 and Part 3?

response *Accepted*

The figure has been amended.

The 1st COM relates to air-ground COM, while the one in Part 3 to ground-ground COM.

comment **891** comment by: *EASA Focal Point for AustroControl ANSP-issues*

On the question of categorization of EAMAN/DMAN subsystems, Austro Control proposes to categorize those subsystems - which are mainly used for planning purposes - under Article 6 - Statement of Compliance.

response *Accepted*

ED Decision 2023/015/R considers the comment.

comment **893** comment by: *FR DSAC*

Page 17
Question

DGAC France considers that EAMAN/DMAN systems do not belong to systems falling under Article 4. (“equipment supporting air traffic control (ATC) services when enabling the separation of aircraft or the prevention of collisions”). According to France, confirming certification of EAMAN/DMAN through an AMC would contradict the delegated act. EAMAN/DMAN do not fall under definition of Article 5 either. Consequently, considering EAMAN/DMAN as systems under Article 6 is the preferred option.

Proposal:
Require SoC.

response *Accepted*

ED Decision 2023/015/R considers the comment.

comment **1217** comment by: *Erik Tambs Andresen*

It is our view that EAMAN and DMAN ATM/ANS equipment should be subject to statement of compliance (SoC) as they are not directly enabling the separation of aircraft or the prevention of collisions.

response *Accepted*

ED Decision 2023/015/R considers the comment.

comment	<p>18 comment by: <i>DAC Luxembourg</i></p> <p>Regarding the repeal of (EU) 1207/2011. It was stated during the meeting on 22 March 2023, that the aim was not to change the nature of the requirements in the currently applicable Implementing Rules, but to distribute these requirements over the future regulatory framework.</p> <p>For ATM/ANS service providers, that would mean (EU) 1207/2011 being transposed into either (EU) 2017/373 or its AMC.</p>
response	<p><i>Noted</i></p> <p>EASA confirms the intent of the proposed rules as presented in Opinion No 01/2023 and NPA 2023-05.</p>
comment	<p>20 comment by: <i>DAC Luxembourg</i></p> <p>The following currently applicable requirements under (EU)1207/2011 will be missing if the content of this NPA remains unchanged:</p> <ul style="list-style-type: none"> • GM2 ATM/ANS.OR.A.045(h) -> Should be at least AMC as this was hard law on (EU) 1207/2011 Article 11(1), 11(2), and Annex VIII (1), (2) and (5).
response	<p><i>Accepted</i></p> <p>Considering the comment, the proposed measure is amended and placed at AMC level.</p>
comment	<p>21 comment by: <i>DAC Luxembourg</i></p> <p>The following currently applicable AMC under (EU)1207/2011 will be missing if the content of this NPA remains unchanged:</p> <ul style="list-style-type: none"> • ATS.OR.446 (c) -> AMC1 Article 4 ((EU) 1207/2011) transposed as GM1 GE.CER.SURS.720. This should be at AMC level as before. It should also be required as an ATM/ANS requirement and not only at DS level, since this is a requirement that must always be ensured (reconfiguration of radars, redefinition of airspaces, SDPS reconfiguration). DS only seems to not be appropriate.
response	<p><i>Noted</i></p> <p>The comment is well noted.</p> <p>Furthermore, the commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and or RMT.0719 'Regular update of the ATM/ANS Regulation'.</p>

comment	<p>22 comment by: <i>DAC Luxembourg</i></p> <p>The following currently applicable requirements under (EU)1207/2011 will be missing if the content of this NPA remains unchanged:</p> <ul style="list-style-type: none"> • (EU) 1207/2011 Articles 4(2), 5(8) and GM5 to Article 5 – Efficient deployment solution. The articles should be reintroduced at least as AMC to ATM/ANS requirements, with the corresponding GM.
response	<p><i>Partially accepted</i></p> <p>Following the order of the referenced provisions, the following should be noted:</p> <ul style="list-style-type: none"> • Article 4(2) of Commission Implementing Regulation (EU) No 1207/2011 requires the ANSPs to ensure that systems (ground-based surveillance systems, their constituents and associated procedures; surveillance data processing systems, their constituents and associated procedures; and ground-to-ground communications systems used for distribution of surveillance data, their constituents and associated procedures) are deployed as necessary to support the minimum requirements for the separation of aircraft applied in accordance with paragraph 1 (already transposed in ATS.OR.446(c)). Considering the comment, an AMC associated with ATM/ANS.OR.A.045(j) is amended by introducing a new point (a). • Considering the comment, the AMC associated with ATM/ANS.OR.A.045(j) is amended by introducing a new point (b) that transposes Article 5(8) of Commission Implementing Regulation (EU) No 1207/2011. • Considering the comment, the former GM5 Article 5 Interoperability requirements of ED Decision 2020/014/R is transposed as GM1 CNS.OR.100(a) Technical and operational competence and capability applicable for SUR providers.
comment	<p>23 comment by: <i>DAC Luxembourg</i></p> <p>The following currently applicable requirement under (EU)1207/2011 will be missing if the content of this NPA remains unchanged:</p> <ul style="list-style-type: none"> • (EU) 1207/2011 Article 4(3). Requiring the verification of the performance of surveillance data at DS level only is not enough as the ANSPs must also ensure this during daily operations within the particular environment the ANSP operates in. Which is lost in the current proposal. It is noted that for the case of exchange between ANSPs, AMC5 ATM/ANS.OR.B.015 exists.
response	<p><i>Noted</i></p> <p>The comment is well noted.</p> <p>Furthermore, the commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment</p>

conformity assessment framework’ and or RMT.0719 ‘Regular update of the ATM/ANS Regulation’.

comment

24

comment by: *DAC Luxembourg*

The following currently applicable requirement under (EU)1207/2011 will be missing if the content of this NPA remains unchanged:

- (EU) 1207/2011 Article 7(1) and Annex V. The following requirements have disappeared:
 - correct definition of volume of airspace;
 - performance validation regime to be agreed with the national supervisory authority;
 - performance verification required after airspace design modifications.

These, and in particular the performance validation regime above must be reintroduced to not jeopardise the effort by NSAs and ANSPs defining, implementing and ensuring such regimes.

response

Partially accepted

Article 7(1) of Commission Implementing Regulation (EU) No 1207/2011 requires the ANSP to assess the level of performance of ground-based surveillance chains before putting them into service as well as regularly during the service. These principles for the ATM/ANS equipment ‘before putting them into service’ are already laid down in points (a)(2) and (b)(2) of ATM/ANS.OR.C.005 that stipulates:

- The non-ATS providers shall provide assurance, with sufficient confidence, via a complete, documented and valid argument that the service will behave and will continue to behave only as specified in the specified context; and
- The non-ATS providers shall ensure that the safety support assessment comprises specification of the monitoring criteria necessary to demonstrate that the service delivered by the changed functional system will continue to behave only as specified in the specified context.

Therefore, taking into account the comment, a new AMC to CNS.OR.100(b) for the regular assessment of the level of performance of the surveillance chains based on the referenced Article 7(1) of and the associated Annex V to Commission Implementing Regulation (EU) No 1207/2011.

comment

32

comment by: *DAC Luxembourg*

It is questioned how the following articles are currently transposed on the implementing/delegated acts or NPA 2023-05:

- (EU) 1206/2011, Performance requirements:
 - Article 4(3) and associated Annex II, points 5, 6 and 7;
 - Article 4(4) and associated Annex III; and
 - Article 4(5).

- (EU) 262/2009, Mode S Operator responsibilities:
 - Article 4;
 - Article 6;
 - Article 7; and
 - Article 9.
- (EC) 633/2007, Interoperability requirements:
 - Article 3(1) and associated Annex I.
- (EC) 1032/2006, Interoperability and performance requirements:
 - Article 3;
 - Article 4 and associated Annex II; and
 - Article 5.
- (EC) 1033/2006, Interoperability and performance requirements:
 - Article 3(7).
- (EC) 29/2009, ATSP obligations:
 - Article 5(4);
 - Article 5(5); and
 - Article 5(6).

response *Noted*

Following the order of the referenced provisions, the following should be noted:

As regards Commission Regulation (EU) No 1206/2011:

- points 5, 6 and 7 of Annex II that are associated with Article 4(3) are transposed as points (f), (g), and (h) respectively of Appendix 1 that is associated with ATS.OR.446(b).
- As stated in Appendix 6 to NPA 2022-107, the provision of Article 4(4) is considered no longer applicable. Therefore, it is considered not required for the transposition, and thus, it is proposed to be repealed.
- As stated in Appendix 6 to NPA 2022-107, the provision of Article 4(5) is considered covered under the new conformity assessment framework taking into account the responsibilities of the ANSPs on the deployment of the referenced system. Therefore, it is considered not required for the transposition, and thus, it is proposed to be repealed.

As regards Commission Regulation (EC) No 262/2009:

- Article 4 is transposed as Article 3e, in particular point (6) thereof and CNS.TR.205 of Regulation (EU) 2017/373;
- Article 6 is transposed as point ATS.OR.446(a) of Regulation (EU) 2017/373;
- Taking into account the comment, Article 7(a) and Article 7(b) are transposed as AMC to point ATM/ANS.OR.A.070 Contingency plans, while Article 7(c) is considered already transposed under point ATM/ANS.OR.A.065 Occurrence reporting;
- Article 9 applied to surveillance providers and the competent authorities overseeing them. Taking into account the concept of safety (support) assessment laid down in Regulation (EU) 2017/373, the provision is considered not applicable, as the surveillance providers are not required to perform a

safety assessment but rather a safety support assessment. Therefore, it is proposed to be repealed.

As regards Commission Regulation (EC) No 633/2007, Article 3(1) requires ANSPs to ensure that the systems apply the flight message transfer protocol in accordance with the interoperability requirements specified in Annex I. This Annex contains system requirements, and its nature is of a detailed specification. Therefore, it is proposed to be repealed at IR level and transposed in detailed specification, please refer to Book 1, PART 3 — ATM/ANS equipment subject to declaration of design compliance, Section 4 - Flight message transfer protocol (FMTP).

As regards Commission Regulation (EC) No 1032/2006

Article 3

- Points (1), (2) and (3): The provision addresses the system requirements between ACCs, between ATC units other than ACCs and between ATC units when implementing pre-departure notification and coordination. The system conformity assessment is addressed under the new conformity assessment framework, while the 'operational' approval is covered under point ATS.OR.205 'Safety assessment and assurance of changes to the functional system' of Annex IV (Part-ATS) to Implementing Regulation (EU) 2017/373. However, it was considered that point ATS.TR.230 'Transfer of responsibility for control' should be amended to stipulate that the coordination of transfer of control between units that provide area control service, or when so agreed with or between other air traffic control units, shall be supported by automated processes. Please refer to the amended ATS.TR.230(c) and Appendix 2 to Part-ATS of Regulation (EU) 2017/373.
- Point (3a) addresses the system requirements between ACCs (G/G communications) when operating DLS. Therefore, it is proposed to be repealed.
- Points (4) and (5) are authority requirements and are addressed in Annex II (Part-ATM/ANS.AR) to Implementing Regulation (EU) 2017/373. Therefore, they are proposed to be repealed.
- Article 4 requires the ANSP to ensure that the systems comply with the requirements concerning quality of service, specified in Annex II. This Annex contains requirements for systems of detailed specifications nature and is considered transposed — please refer to Book 1, PART 2 - ATM/ANS equipment subject to certification, Subpart A (ATS), Section 2 - Flight data processing.
- Article 5 is transposed as amended ATS.TR.230(c) and Appendix 2 to Part-ATS of Regulation (EU) 2017/373, in particular point (A)(b).

As regards Commission Regulation (EC) No 1033/2006, points (7) and (9) of Article 3 are transposed in point SERA.4013(b) 'Acceptance of a flight plan' and point SERA.4001(e) 'Acceptance Submission of a flight plan' respectively.

As regards Commission Regulation (EC) No 29/2009:

- Article 5(4) is considered transposed under the new ATS.OR.415 Aeronautical mobile service (air-ground communications) — area control service of Regulation (EU) 2017/373.

- Article 5(5) contains systems requirements of detailed specifications nature and is considered transposed — please refer to Book 1, PART 2 - ATM/ANS equipment subject to certification, Subpart A (ATS), Section 2 - Flight data processing.
 - In response to the transposition of Article 5(6), it should be noted that points (a)(3) and (d) of point ATM/ANS.OR.B.005 are duly considered; in particular, point (d) which stipulates the following:

(d) A service provider shall monitor the behaviour of its functional system and, where underperformance is identified, it shall establish its causes and eliminate them or, after having determined the implication of the underperformance, mitigate its effects.
- Consequently, the objective of the provision is already covered under the existing EU regulatory framework and is, therefore, repealed.

comment

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comment by: EUROCONTROL

Currently in AMC and GM to (EU) 2017/373 there is the following GM:
"GM2 ATS.TR.155(b)(1) ATS surveillance services
ATS SURVEILLANCE SYSTEM — PERFORMANCE REQUIREMENTS
Performance requirements for ATS surveillance systems and their constituents are specified in Regulation (EU) No 1207/2011."

As (EU) No 1207/2011 is repealed, this GM must be amended.

Proposed change:

It is proposed to amend it to reflect what is currently in ED Decision 2020/014/R 'AMC and GM to Commission Implementing Regulation (EU) No 1207/2011'; AMC1 to Article 4 Performance requirements and GM1 to Article 4 Performance requirements.

Otherwise, with the repeal of the SPI IR and of its AMC and GM, these regulatory provisions will be lost whilst they are used by many ATSP's.

response

Noted

The comment is well noted.

Furthermore, the commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and or RMT.0719 'Regular update of the ATM/ANS Regulation'.

comment

446

comment by: SDM



	<p>SDM comment: For AIM, Local ASM support system and MET data distribution, it seems misleading to categorize it as “equipment”, as we are talking about implementations of solutions that consists of several parts and procedures.</p>
<p>response</p>	<p><i>Noted</i></p> <p>The commentator is kindly invited to consider that ‘functional system’ means a combination of procedures, human resources and equipment, including hardware and software, organised to perform a function within the context of ATM/ANS and other ATM network functions.</p> <p>Consequently, the equipment enabling the provision of AIS, local ASM and MET is subject to SoC in accordance with Article 6 of Regulation (EU) 2023/1768.</p>

3. What are the expected benefits and drawbacks of the proposed regulatory material p. 20

<p>comment</p>	<p>235 comment by: <i>Nils</i></p> <p>A couple of drawbacks should have been identified. For example: developing functional systems successively becomes in practical terms impossible because each change require new certification, and fully functional and safe systems could be taken out of operation. This <u>will</u> increase costs, and not necessarily increase safety. A very expensive ATS equipment prohibits smaller airports to go from uncontrolled to controlled, and they will try to remain uncontrolled as long as possible which is detrimental to safety.</p>
<p>response</p>	<p><i>Noted</i></p> <p>The Agency noted the comment.</p> <p>However, the statement that '(...) because each change require new certification, and fully functional and safe systems could be taken out of operation' is not correct.</p> <p>In this context, please note that a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:</p> <ul style="list-style-type: none"> • maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders as necessary; • promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated ‘EASA ATM/ANS ground equipment webpage’ on the EASA website. <p>These activities are planned in the context of IST.0002.</p>
<p>comment</p>	<p>465 comment by: <i>IFATCA</i></p> <p>IFATCA finds the no drawbacks are expected statement very optimistic. See general comments</p>
<p>response</p>	<p><i>Noted</i></p>



comment	<p>548 comment by: <i>Thales Land and Air Systems</i></p> <p>The Regulatory Impact Assessment to be performed for this regulation has not been finalised as its economical impact assessment does not include the fees and charges applicable to the DPOs.</p> <p>We suggest to replace "no drawbacks are expected" by the launch a task to finalise the Regulatory Impact Assessment assessing the economical impact of this new regulatory framework.</p>
response	<p><i>Noted</i></p> <p>The Agency acknowledges the fact that no details on costs in relation to the DPO approval and oversight were provided in this NPA. This is due to the fact that during the drafting of the rules, no cost details were provided to the Agency despite the call in the Explanatory Note (page 36) of NPA 2022-09.</p> <p>This NPA was developed with the assumption that the cost is expected to be lower especially when ATM/ANS equipment manufacturers that provide a range of products are subject to the EASA certification or declaration detailed specifications since:</p> <ul style="list-style-type: none"> — the upfront cost of achieving organisation approval can be split over a greater range of products, especially if they are intended for long serial production; and — the cost of liaising with EASA acting as the competent authority will be lower due to the promotion of a single authority for approval/certification and oversight.
comment	<p>894 comment by: <i>FR DSAC</i></p> <p>Concerning the statement "No drawbacks are expected", even if DGAC France supports the overall regulatory approach, we assume many systems will have to be retrofitted or even abandoned due to the impossibility to show compliance or due to the absence of a DPO, new systems will probably have to be deployed with a real impact on ANSP budgets and on safety aspects due to a need to urgently adapt personnel to new systems. On the long term it may be beneficial if specifications improve significantly but for the transition period it may increase the level of risks</p>
response	<p><i>Noted</i></p> <p>The Agency well noted the comment.</p> <p>In this context, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to maintaining a high level of awareness through information sharing and various activities and addressing issues raised by stakeholders, as necessary. These activities are planned in the context of IST.0002.</p> <p>This comment will be taken on board.</p>

comment	83	comment by: <i>DFS Deutsche Flugsicherung GmbH</i>
	Since Article 3 is about the entity for oversight, this requirement on an activity should rather go under AR requirements.	
response	<i>Accepted</i>	
	Considering the comment, the AMC is now associated with ATM/ANS.AR.C.005(a)(4) Certification, declaration, and verification of service providers' compliance with the requirements.	
comment	135	comment by: <i>Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)</i>
	<p>AMC2 Article 3(2) Competent authority, page 21 OVERSIGHT <i>Within the scope of point ATM/ANS.AR.B.001(a)(1) of Regulation (EU) 2017/373, the competent authority for the oversight of a SoC should establish a process in order to verify, as part of its continuous oversight, the ATM/ANS provider's compliance with the applicable requirements as regards the compliance of ATM/ANS equipment before the issue of the SoC.</i></p> <p>It is not CA who issue SoC, CA approve or reject an already issued SoC. Suggest new wording to be /..... as regards the compliance of ATM/ANS equipment. before the issue of the SoC. /</p> <p>EASA issue certificates and declarations before equipment is ok to use, but the SoC is issued by the ANSP, and will be approved or rejected by CA after scrutiny in relation to changes to the functional system. CA will have a process to verify the SoC issued by the ANSP, is in accordance with regulation.</p>	
response	<i>Partially accepted</i>	
	Considering the comment, the text is amended to promote clarity. Furthermore, the commented AMC is now associated with ATM/ANS.AR.C.005(a)(4) Certification, declaration, and verification of service providers' compliance with the requirements.	
comment	186	comment by: <i>CANSO</i>
	Since Article 3 is about the entity for oversight, this requirement on an activity should rather go under AR requirements.	
response	<i>Accepted</i>	
	Considering the comment, the AMC is now associated with ATM/ANS.AR.C.005(a)(4) Certification, declaration, and verification of service providers' compliance with the requirements.	
comment	291	comment by: <i>German NSA (BAF)</i>

response	<p>To strengthen the focus on oversight of processes a reference to ATM/ANS.OR.A.045 ((h), (i) and (j) would make sense.</p> <p><i>Partially accepted</i></p> <p>Taking into account the comment, a reference to ATM/ANS.OR.A.045 is introduced.</p>
comment	<p>343 comment by: FOCA Switzerland</p> <p>We suggest to replace the current proposal with the following proposal:</p> <p>"Within the scope of point ATM/ANS.AR.B.001(a)(1) of Regulation (EU) 2017/373, the competent authority for the oversight of a SoC should establish a process in order to verify, as part of its continuous oversight, <u>that the ATM/ANS provider's compliance is compliant</u> with the applicable requirements as regards where it has to check the compliance of ATM/ANS equipment before the issue of the SoC".</p> <p>Furthermore, could you confirm that:</p> <ul style="list-style-type: none"> - the „before issue of the SoC” belongs to the sentence that the ATM/ANS provider has to check compliance of the equipment (before issuing SoC); - the intention is not to submit the SoC to the CA's approval, but only to their oversight; - the NSA has to oversee whether the compliance check process has been applied by, e.g. looking at the technical files with test procedures for that equipment, in the frame of their annual oversight, and not before the SoC is issued.
response	<p><i>Not accepted</i></p>
comment	<p>401 comment by: EUROCONTROL</p> <p>This is a kind reminder of provisions already covered by EU.2017/373 in ATM/ANS.AR.B.001(a)(1).</p> <p><u>Proposed change:</u></p> <p>To avoid confusion and duplication, suggest to turn this proposed AMC into GM.</p>
response	<p><i>Not accepted</i></p> <p>Considering the comment, the AMC is now associated with ATM/ANS.AR.C.005(a)(4) Certification, declaration, and verification of service providers' compliance with the requirements.</p>
comment	<p>694 comment by: ENAIRE</p> <p>Why the first AMC is AMC2 instead of AMC1?</p>
response	<p><i>Accepted</i></p>

Considering the comment, the numbering is corrected.

comment	<p>895 comment by: FR DSAC</p> <p>Page 21</p> <p>This AMC doesn't seem to be in line with the overall philosophy that has been exposed by EASA for SoC oversight. It has been considered that SoC (being issued by ATSP or DPO) would be overseen during the change review process and/or during continuous oversight. Within this context it is not the intent, nor possible, to verify the equipment compliance before the issue of any SoC. It can happen that, for any reason, an equipment which has been changed and for which a SoC has been issued is never put into service. As such, no change of the functional system has to be notified nor approved. This SoC is not of interest for the continuous oversight either. It is really important that lifecycles of changes of the functional system and changes to equipment requiring a SoC are completely separated.</p> <p>Proposal: Within the scope of point ATM/ANS.AR.B.001(a)(1) of Regulation (EU) 2017/373, the competent authority for the oversight of a SoC should establish a process in order to verify, as part of its continuous oversight and as part of its change review process, that the ATM/ANS provider establishes the compliance demonstration with the applicable requirements as regards the compliance of ATM/ANS equipment before it issues the SoC.</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the text is amended to promote clarity. Furthermore, the commented AMC is now associated with ATM/ANS.AR.C.005(a)(4) Certification, declaration, and verification of service providers' compliance with the requirements.</p>

comment	<p>1033 comment by: AESA</p> <p>With regard to the supervision to be carried out by the national authorities, it would be good if this supervision could be developed to a greater level of detail (via AMC or GM) both in the case that applies to Article 7.2 and Article 7.4 (transitional provisions) of the COMMISSION DELEGATED REGULATION (EU) .../...of XXX laying down detailed rules for the certification and declaration of air traffic management/air navigation services systems and air traffic management/air navigation services constituents.</p> <p>Above all, differentiation between the oversight to be carried out by NSAs from 12/9/2023 to 12/9/2028, on systems that during the transitional period will have a SoC and that from 13/9/2028 when they will be certified/declared would be appreciated.</p>
response	<p><i>Noted</i></p> <p>The comment is well considered.</p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while</p>

their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

4.1. Draft acceptable means of compliance and guidance material (draft EASA decision) associated with the detailed rules for the certification and declaration of air traffic management/air navigation services systems and air traffic management/air navigation services constituents

p. 21

comment

87

comment by: *DSNA*

In support of this AMC on Performance of DPO, it would be beneficial to have an estimate of the efforts/costs required to get DPO status, depending on the type (structure, size) of the applicant

response

Noted

To support the implementation of the new regulatory framework, this 1st set of AMC & GM is considered essential for the initial phase of implementation, while the additional ones, including the proposed one in this comment, will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.

comment

169

comment by: *CANSO*

4.1. Draft acceptable means of compliance and guidance material (draft EASA decision) associated with the detailed rules for the certification and declaration of air traffic management/air navigation services systems and air traffic management/air navigation services constituents

In support of this AMC on Performance of DPO, it would be beneficial to have an estimate of the efforts/costs required to get DPO status, depending on the type (structure, size) of the applicant

response

Noted

To support the implementation of the new regulatory framework, this 1st set of AMC & GM is considered essential for the initial phase of implementation, while the additional ones, including the proposed one in this comment, will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.

comment

1047

comment by: *AESA*

No AMC/GM has been developed to ATM/ANS.EQMT.AR.B.015, concerning the information to be contained in the data sheet for continued suitability.

response

Noted

To support the implementation of the new regulatory framework, this 1st set of AMC & GM is considered essential for the initial phase of implementation, while the additional ones, including the proposed one in this comment, will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.

comment 1048

comment by: AESA

With respect to ATM/ANS.EQMT.CERT.015 Application for an ATM/ANS equipment certificate (e) (2) "apply for an extension of the time limit provided for in point (d) and propose a new date for the issue of the certificate;...", information regarding the proposed date for the issuance of the certificate by the applicant has not been developed via AMC/GM.

response *Noted*

To support the implementation of the new regulatory framework, this 1st set of AMC & GM is considered essential for the initial phase of implementation, while the additional ones, including the proposed one in this comment, will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.

comment 1052

comment by: AESA

No AMC/GMs for the Part-ATM/ANS.EQMT.DEC. Will these requirements be established before the application of the new regulation?

response *Noted*

The regulatory requirements for the declaration of ATM/ANS equipment are laid down in Part-ATM/ANS.EQMT.DEC.

To support the implementation of the proposed new regulatory framework, NPA 2023-05 proposes AMC & GM that are considered essential for the initial phase of implementation. In this context, AMC & GM to Part-ATM/ANS.EQMT.DEC was considered to be part of the next package of the associated AMC & GM to the Commission Delegated Regulation on conformity assessment.

comment 1289

comment by: Tern Systems

Typos

AMC1 Article 7(2) Transitional provisions => AMC1 Article 8(2) Transitional provisions
- Applies to the following GM1 and GM2 as well

	GM1 ATM/ANS.EQMT.AR.B.001(a)(1) ATM/ANS equipment certification basis => GM1 ATM/ANS.EQMT.AR.C.001(a)(1) ATM/ANS equipment certification basis - same change is necessary for the last two references on page 34 and the first two on page 35 that start with "point ATM/ANS.EQMT.AR. ...
response	Accepted

AMC1 Article 3(2) Competent authority; Article 6(1) Statement of compliance

p. 21

comment	136 comment by: <i>Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)</i>
	AMC1 Article 3(2) Competent authority; Article 6(1) Statement of compliance, page 21 <i>GENERAL</i> <i>(a) The competent authority for the oversight of a statement of compliance (SoC) issued by an organisation involved in the design and/or production of ATM/ANS equipment (DPO) approved in accordance with Commission Implementing Regulation (EU) .../... should be the competent authority responsible for the certification and oversight of the ATM/ANS provider requesting the issue of the SoC on its behalf.</i>
	Can be interpreted as the ANSP is requesting CA to issue the SoC. Suggested change of text: <i>/.../ ATM/ANS provider requesting the DPO to issue the SoC on its behalf.</i>
response	Accepted Considering the comment, the text is amended accordingly.

comment	137 comment by: <i>Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)</i>
	AMC1 Article 3(2) Competent authority; Article 6(1) Statement of compliance, page 21 <i>(b) The entity subject to oversight as regards the SoC issued by an approved DPO should be considered to be the ATM/ANS provider requesting it.</i>
	Isn't above text already expressed in (a)? <i>(a) The competent authority for the oversight of a statement of compliance (SoC) issued by an organisation involved in the design and/or production of ATM/ANS equipment (DPO) approved in accordance with Commission Implementing Regulation (EU) .../... should be the competent authority responsible for the certification and oversight of the ATM/ANS provider requesting the issue of the SoC on its behalf.</i>
response	Accepted Considering the comment, the text is removed.

comment	<p>292 comment by: <i>German NSA (BAF)</i></p> <p>Current text under (b) could be misunderstood..</p> <p>It is proposed to rephrase it: Subject to oversight regarding SoC issued by the approved DPO on behalf of an ATM/ANS provider is the ATM/ANS provider.</p>
response	<p><i>Partially accepted</i></p> <p>As the intent of point (b) is already addressed in point (a), the text is removed.</p>
comment	<p>403 comment by: <i>EUROCONTROL</i></p> <p>In the current version Art3 only identifies the ATM/ANS provider as the only producer of SoC. The provisions of this AMC extend Art.3 to the opportunity for DPO to produce the SoC.</p> <p><u>Proposed change:</u></p> <p>Suggest to integrate the contend of this AMC as part of Art.3</p>
response	<p><i>Noted</i></p> <p>It should be noted that paragraph 2 of Article 6 stipulates: ‘A statement of compliance for ATM/ANS equipment shall be issued by the ATM/ANS provider that integrates such ATM/ANS equipment in its functional system or, upon request of the ATM/ANS provider, by an organisation involved in the design or production of such ATM/ANS equipment approved in accordance with Implementing Regulation (EU) 2023/1769.’</p> <p>Consequently, the commented AMC correctly reflects the intent of the framework.</p>
comment	<p>406 comment by: <i>EUROCONTROL</i></p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>the second bullet is not required as “the Regulation reference requiring the issue of the SoC” will always be Art.6 of “Commission Delegated Regulation (EU)...”</p> </div> <p><u>Proposed change:</u> Suggest to remove the 2nd bullet.</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the text is removed.</p>

4. Proposed regulatory material

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comment	227	comment by: <i>T.Leitner</i>
	What is the difference when an AMC uses "shall" or "should" ? Is there a definition of the wording somewhere?	
response	<i>Noted</i>	
	AMC are non-binding standards adopted by EASA to illustrate means to establish compliance with the Basic Regulation and its Implementing and Delegated regulations. The AMC issued by EASA cannot impose a requirement; therefore, 'should' is the term used in AMC and 'shall' is reserved for the text of Implementing and Delegated regulations. Considering the comment, the proposed AMC will be adjusted to correct this aspect.	
comment	236	comment by: <i>Nils</i>
	What if a DPO wants a system approved before any ATM/ANS providers are interested in buying it? So then there cannot be any Statement of Compliance without any ATM/ANS provider requesting it? We do want DPOs to try and develop things on their own, and we want those DPOs that doesn't have an immediate customer to have such statement approved.	
response	<i>Noted</i>	
	The answer is affirmative; the DPO will be in a position to develop ATM/ANS equipment subject to SoC. But at the end of its process the document issued would be the EASA release form based on which the future ATM/ANS provider will be able to issue a SoC.	
comment	1258	comment by: <i>Tern Systems</i>
	Mismatch between required specifications/standards between AMC/GM and customer requirements As a DPO, we noticed in several cases that the AMC/GM call for different versions of specifications/standards than our customers. It is mostly the case that customers require older versions. What is a DPO supposed to do in that case? We cannot force customers to use newer versions which likely is not an easy change for them: Not all interfacing equipment is updated at the same time. Other service providers that the systems of our customer communicate with are not updated at the time and will require them to use older versions, possibly even different (older) standards. Implementing both the new and old version where the new version will not be used (yet) increases costs and makes the systems more complex and complexity adds risks.	
response	<i>Noted</i>	

As correctly mentioned by the commentator the AMC & GM refer to various standards issued by standardised bodies. In that case, the applicant/DPO should propose alternative means of compliance to demonstrate compliance with the particular detailed specification.

GM1 Article 3(2) Competent authority; Article 6(1) Statement of compliance

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comment 399 comment by: EUROCONTROL

Could we please have a clarification why and when the ATM/ANS provider can request the presence of a representative of the approved DPO. Furthermore, it will be important to limit the tasks and responsibilities of the representative of the approved DPO. Can this section be updated emphasising these aspects.

response *Noted*

It is up to the ATM/ANS provider as at the end the ultimate responsibility lays within the provider's competence.

The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.

comment 402 comment by: EUROCONTROL

Obligations of ATM/ANS providers are already covered by EU.2017/373.

Proposed change:

To avoid confusion and duplication, suggest to remove this GM.

response *Not accepted*

The commentator is kindly invited to consider that 'guidance material' means non-binding material developed by the Agency that helps to illustrate the meaning of a requirement or specification and is used to support the interpretation of the rules and AMC.

In this case, the commented GM is associated with the requirements laid down in Article 3(2) Competent authority; Article 6(1) Statement of compliance.

comment 405 comment by: EUROCONTROL

The proposed answer to the question: to keep consistency with EU.2017/373; it is expected that the content of this GM REMAINS a GM. Just ensure consistency with the AMC1 Art6(1)



response	<p><u>Proposed change:</u> it is expected that the content of this GM REMAINS a GM</p> <p><i>Accepted</i></p>
comment	<p>896 comment by: FR DSAC</p> <p>Page 21 It is not understood why a specific GM is proposed on the presence of a DPO representative. Shouldn't it be the same if the ATSP is supported by a manufacturer which is not DPO approved? Is there an intention to create 2 levels of SoC?</p> <p>Proposal: Remove as it brings ambiguity on what is feasible or not for Soc designed by DPO or non-DPO.</p>
response	<p><i>Accepted</i></p> <p>It is up to the ATM/ANS provider as at the end the ultimate responsibility lays within the ATM/ANS provider's competence.</p> <p>As regards the first question, the answer is affirmative.</p> <p>As regards the second question, there is no such intention.</p>

<p>GM1 Article 4 Certification of ATM/ANS equipment; Article 5 Declaration of design compliance of the ATM/ANS equipment; Article 6 Statement of compliance</p>	<p>p. 22</p>
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comment	<p>6 comment by: DAC Luxembourg</p> <p>This GM seems to not be in line with section 2.8 above.</p>
response	<p><i>Partially accepted</i></p> <p>Considering the comment, Section 3c of the commented provision is amended.</p> <p>The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible.</p>
comment	<p>27 comment by: Finnish Meteorological Institute (FMI) - MET SP</p> <p>Excellent and very descriptive table, stating that MET services are included in Article 6 Statement of Compliance category.</p>
response	<p><i>Accepted</i></p> <p>The comment is well received.</p>



comment	<p>138 comment by: <i>Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)</i></p> <p>GM1 Article 4 Certification of ATM/ANS equipment; Article 5 Declaration of design compliance of the ATM/ANS equipment; Article 6 Statement of compliance, Page 22</p> <p>Table :</p> <p>There is no marking in means of conformity assessment for <i>3a. controller-pilot communications</i>.</p> <p>And why the need for this GM Table? It is already in Opinion 1/2023, ANNEX I ATM/ANS EQUIPMENT SUBJECT TO CONFORMITY ASSESSMENT.</p>
response	<p><i>Noted</i></p> <p>Taking into account the comment:</p> <ul style="list-style-type: none"> — the marking associated with controller-pilot communication is introduced; it is subject to certification; — it should be highlighted that Opinion No 01/2023 is an explanatory note for the subject proposal addressed to the European Commission. — the referenced table is not taken on board and reflected in Commission Delegated Regulation (EU) 2023/1768.
comment	<p>293 comment by: <i>German NSA (BAF)</i></p> <p>SCOPE</p> <p>General statement:</p> <p>All relevant stakeholder (EASA, NSAs, ATM/ANS-providers DPO) should have the same understanding which equipment falls under conformity assessment.</p> <p>Therefore, there is a need to have a table that lists all equipment with correlation to Articles 4, 5 and 6 and also to the 8 systems (e.g. RMCDE - Declaration - SUR). BAF could provide such a table, based on the manifold DoV it has received in the past years.</p> <p>In addition to that, in AMC/GM should be described that all equipment which falls under the conformity assessment is part of ATM/ANS-provider functional system.</p> <p>Table:</p> <p>For column 3 a) an “x” is missed in the table. Column 3 c) is new. BAF supports the insertion</p>
response	<p><i>Accepted</i></p> <p>The comment is well received.</p> <p>The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible.</p>

comment	<p>393 comment by: EUROCONTROL</p> <p><u>Table with pictorial representation of which means of conformity assessment applies for the various types of ATM/ANS equipment:</u></p> <p>Middleware, time synchronisation, technical monitoring&control, platform services, etc. This layer is typically shared between ATM constituents and heavily relies on COTS IT equipment. Often the layer is specific for an ANSP. What is expected?</p> <p>Since 'ATM/ANS equipment' is often delivered as software, and is integrated with existing networks, hardware and supporting services at each ANSP, it may imply that the majority of ANSPs should be considered DPOs.</p> <p><u>Proposed change:</u> Please clarify scope of 'equipment' subject to certification/declaration/SoC</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the subtitle is amended.</p>
comment	<p>394 comment by: EUROCONTROL</p> <p><u>Table with pictorial representation of which means of conformity assessment applies for the various types of ATM/ANS equipment:</u></p> <p>What is the definition of the wording 'supporting' in the sentence 'equipment supporting air traffic control (ATC) services when enabling the separation of aircraft or the prevention of collisions.' Indirectly there is a huge list of supporting equipment. Even post-operations data analytics, software deployment systems, access control systems to enter operation rooms, cooling systems, reporting systems necessary to execute the safety management system,... could be considered as supporting services.</p> <p><u>Proposed change:</u> Please give a clear definition when equipment is considered 'supporting' ATC services and when not.</p>
response	<p><i>Noted</i></p> <p>The comment is well received.</p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.</p>

comment	<p>408 comment by: EUROCONTROL</p> <p>Line 3a does not include a “x” assigning “controller-pilot communication” to any conformity assessment category.</p> <p><u>Proposed change:</u> Complete the table with “x” as applicable in line 3a</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the marking is introduced; it is subject to certification under Article 4.</p>
comment	<p>409 comment by: EUROCONTROL</p> <p>To avoid confusion of having one GM to multiple article and as those considerations are already discussed in Art1.</p> <p><u>Proposed change:</u> Suggest to move this GM to “GM1 Art1”</p>
response	<p><i>Not accepted</i></p> <p>The proposal for this GM to be associated with Article 1 on subject matter and scope is not considered appropriate.</p>
comment	<p>412 comment by: EUROCONTROL</p> <p>The criteria defined to determine in which row a given equipment will fall are not precise enough.</p> <p>Example Surveillance Data Distribution System (SDDS EUROCONTROL equipment or SDDS-NG Frequentis equipment): the two products have very similar functionalities and are supporting the same purpose, which is to receive data from different ground surveillance sensors and to redistribute this data on specific networks based on criteria).</p> <p>It can be considered as Certifiable (cf. GM1 GE.CER.SURS.701 Scope as this equipment is located in between sensors and controler working position). But it can also be considered Declarable as it is a ground-ground communication equipment (transferring surveillance sensor data to a ground surveillance data processing system).</p> <p>What is the definition of the wording ‘supports’ in the sentence ‘it supports air traffic services, communication, navigation or surveillance services, airspace management, air traffic flow management, aeronautical information services or meteorological services.’ ? Same question for ‘equipment supporting air traffic control (ATC) services when enabling the separation of aircraft or the prevention of collisions.’ and similar sentences. Indirectly there is a huge list of supporting equipment. Even post-operations data analytics, software deployment systems, access control systems to enter operation rooms, cooling systems, reporting systems necessary to execute the safety management system,... could be considered as supporting services.</p>

response	<p><u>Proposed change:</u> Clarify the scope of CERT/DEC and SoC in particular in the case of surveillance data distribution system.</p> <p><i>Accepted</i></p> <p>The comment is well considered.</p> <p>To support the implementation of the new regulatory framework, the 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvements and developments of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>Furthermore, Book 1/ DS-GE.CER/DEC and Book 2/DS-SoC enable clear definition of the methods for conformity assessment of the various types of ATM/ANS ground equipment.</p>
comment	<p>413 comment by: EUROCONTROL</p> <p><u>Table row 3a:</u> Nothing is specified for 3 a, suggest it is the same as 4b. This should be clarified.</p> <p><u>Proposed change:</u> Specify the category for 3a item.</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the marking is introduced; it is subject to certification under Article 4.</p>
comment	<p>414 comment by: EUROCONTROL</p> <p><u>Table row 3b:</u> Taking into account the sentence in the top row of the table, 3b should read as "ATM/ANS equipment supporting air traffic control (ATC) when enabling the separation of aircraft or the prevention of collisions". In the cover regulation Article 4 Certification of ATM/ANS equipment item b states: "equipment supporting air traffic control (ATC) services when enabling the separation of aircraft or the prevention of collisions."</p> <p><u>Proposed change :</u> Amend 3 b as suggested above</p>
response	<p><i>Partially accepted</i></p> <p>It should be noted that in the beginning of the table, an introductory sentence states 'The equipment should include in particular equipment required to support the</p>

following functions and services(...)', which has the same intent as the proposal by the commentator.

comment

415

comment by: EUROCONTROL

Table row 3c:

In the cover regulation Article 4 Certification of ATM/ANS there is no item c, unclear why the AMC does this division?

Proposed change :

It is recommended to make the AMC structure similar to the regulation and clarify equipment classification in that structure.

response

Noted

Article 6(1) stipulates:

Article 6

Statement of compliance

1. The following ATM/ANS equipment shall be issued with a statement of compliance:

(a) equipment that is neither subject to certification in accordance with Article 4 nor to a declaration of compliance in accordance with Article 5; and

(b) it supports air traffic services, communication, navigation or surveillance services, airspace management, air traffic flow management, aeronautical information services or meteorological services.

Point 3c reflects the provisions associated with ATM/ANS equipment that supports ATS and is neither subject to certification nor to declaration of design compliance.

comment

589

comment by: CANSO

GM1 Article 4 SCOPE (table)

The text is not complete.

- EASA should explain in a clear way (here or elsewhere) the actual meaning of ground-ground communications. Communications lines, networks, rings, links etc, which normally are based on COTS products, should not be subject to Declaration or to SoC and should be explicitly stated.
- EASA should establish a clear boundary between equipment needing attestation (articles 4,5,6) and equipment not needing attestation (COTS communications, recorders, direction finders, etc).
- The term (controller-pilot communications) is a very broad term. The systems needed for controller-pilot communications (voice or data) might include equipment which is outside the aeronautical world (telephone lines, communication networks, ATN routers...). It is not realistic to impose a

	<p>certification or even a declaration on an equipment manufactured outside the aeronautical world.</p>
response	<p><i>Noted</i></p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’ and RMT.0744 ‘Regular update of detailed specifications for ATM/ANS ground equipment’.</p> <p>In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:</p> <ul style="list-style-type: none"> — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary; — promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated ‘EASA ATM/ANS ground equipment webpage’ on the EASA website. <p>These activities are planned in the context of IST.0002.</p> <p>The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’.</p>
comment	<p>696 comment by: <i>ENAIRE</i></p> <p>The text is not complete. EASA should explain in a clear way (here or elsewhere) the actual meaning of ground-ground communications. Communications lines, networks, rings, links etc, which normally are based on COTS products, should not be subject to Declaration or to SoC and should be explicitly stated.</p>
response	<p><i>Partially accepted</i></p> <p>The comment is well considered.</p> <p>To support the implementation of the new regulatory framework, the 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvements and developments of new ones will be addressed via RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’ and RMT.0744 ‘Regular update of detailed specifications for ATM/ANS ground equipment’.</p> <p>Furthermore, Book 1/ DS-GE.CER/DEC and Book 2/DS-SoC enable clear definition of the methods for conformity assessment of the various types of ATM/ANS ground equipment.</p>

The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of the referenced RMTs.

comment

697

comment by: ENAIRE

The text is not complete. EASA should establish a clear boundary between equipment needing attestation (articles 4,5,6) and equipment not needing attestation (COTS communications, recorders, direction finders, etc.)

response

Partially accepted

The comment is well considered.

To support the implementation of the new regulatory framework, the 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvements and developments of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

Furthermore, Book 1/ DS-GE.CER/DEC and Book 2/DS-SoC enable clear definition of the methods for conformity assessment of the various types of ATM/ANS ground equipment.

The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of the referenced RMTs.

comment

698

comment by: ENAIRE

The text is not complete. The term (controller-pilot communications) is a very broad term.

The systems needed for controller-pilot communications (voice or data) might include equipment which is outside the aeronautical world (telephone lines, communication networks, ATN routers...)

It is not realistic to impose a certification or even a declaration on an equipment manufactured outside the aeronautical world.

response

Partially accepted

The comment is well considered.

To support the implementation of the new regulatory framework, the 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvements and developments of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

Furthermore, Book 1/ DS-GE.CER/DEC and Book 2/DS-SoC enable clear definition of the methods for conformity assessment of the various types of ATM/ANS ground equipment.



comment	699	comment by: ENAIRE
	Where does "cloud" services fit in this table?	
response	<i>Noted</i>	
	<p>Cloud services are neither part of ATM/ANS services nor part of the limited list of services included in the EATMN as per Annex VIII Article 3 point 1 of Regulation (EU) 2018/1139, therefore, cloud services do not appear on the table.</p> <p>SW applications may run on 'a cloud', as a replacement of a HW platform located at the service provider premises. The way 'the cloud' will be handled requires additional analysis and consensus with the ATM community. EASA intends to create a task force to address this topic.</p>	
comment	702	comment by: ENAIRE
	<p>According to Article 6 of de Delegated Regulation, it is missing some 'X' in article 6 column for CNS files.</p> <p>A clear and exhaustive list is needed detailing those ATS and CNS equipement that need a SoC.</p>	
response	<i>Accepted</i>	
	The comment is well considered and the table amended accordingly.	
comment	703	comment by: ENAIRE
	<p>"Air-ground communications" are associated to certification. Portable radios are basically COTS products and should not be linked to a DPO (thus, no need for certification or Declaration).</p> <p>An extreme interpretation of the written text would lead to the need for Certification even for a light gun.</p>	
response	<i>Noted</i>	
	<p>Portable radios are not used by ATCOs to communicate with pilots and are outside the scope of ATM/ANS equipment subject to conformity assessment. In addition, the use of COTS is covered by the conformity assessment framework.</p> <p>The extreme interpretation of the text will not occur as the Agency will always help interpreting the text, but also the adoption of DSs for certain equipment will guide the DPOs on what is possible to certify and what is not.</p>	
comment	705	comment by: ENAIRE
	Text in table. Lines 3c, 3c and 6:	

	<p>It is difficult to understand that equipment to support ATC services when enabling the separation of aircraft or the prevention of collisions are subject to certification (according to Article 4) (line 3b), whilst “other ATS equipment supporting air traffic control (ATC) services when enabling the separation of aircraft or the prevention of collisions” are subject to SoC (according to Article 6), line 3c in the table, and Surveillance systems (SUR) are subject to Declaration (according to Article 5).</p>
response	<p><i>Noted</i></p> <p>The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’.</p>
comment	<p>706 comment by: ENAIRE</p> <p>Text in table. Lines 3, 3a, 3b, 3c:</p> <p>It is inferred from the table that equipment to support ATS services, apart from those that enable separation of aircraft or prevention of collisions, are not subject to any of the 3 attestation methods.</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the table has been amended.</p>
comment	<p>708 comment by: ENAIRE</p> <p>Text in table. Line 3a:</p> <p>There is no attestation method prescribed for controller-pilot communications.</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the marking is introduced; it is subject to certification under Article 4.</p>
comment	<p>710 comment by: ENAIRE</p> <p>Why have "air-space communications" not been taken into consideration?</p> <p>It is suggested to add "4c.air to space communications".</p>
response	<p><i>Not accepted</i></p> <p>The GM helps to illustrate the meaning of a requirement and in this particular case Article 4, Article 5 and Article 6, where ‘air to air/space communications’ is not addressed.</p>
comment	<p>814 comment by: IATA</p>

response	<p>Question: What is the difference between this entry 3.a (controller-pilot communications) and 4b below? Maybe it comes from the difference Datalink application vs Data communications on which we commented before that clarification/definitions could help Note that none of the three cases Certification/declaration/SoC is assigned</p> <p><i>Noted</i></p> <p>There is no difference. Certification has been selected as the appropriate attestation method.</p>
comment	<p>897 comment by: FR DSAC</p> <p>Page 22 For line 3a controller-pilot communications, there is no indication in the table. Tick Certification column.</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the marking is introduced; it is subject to certification under Article 4.</p>
comment	<p>907 comment by: FR DSAC</p> <p>The link between elements in paragraph 3 of the table is not fully understood, some being certified and other subject to simple SoC. In particular, could you explain the reason why surveillance functional chain is not completely under Article 4 and why Surveillance sensors are only declared where FDPS are certified?</p>
response	<p><i>Noted</i></p> <p>Paragraph 3 of the table includes all equipment that supports ATS. 3a has been included because it appears specifically in Article 4, but it is covered later in 4a. 3b covers equipment subject to certification, which is limited to ATC services and only when the equipment is used to support ATCOs in maintaining separation and avoiding collisions. The rest of the equipment either supporting ATC but not in preventing separation or collisions (e.g. DMAN) or other equipment supporting other ATS services different from ATC (e.g. FIS, Alerting) are covered in 3c.</p> <p>In accordance with Article 4, supporting equipment to provide ATC services in separating aircraft and avoiding collisions must be certified. The essential requirements contained in Article 3.1 Point (c) of Annex VIII to the EASA Basic Regulation (Regulation (EU) 2018/1139) identifies the equipment supporting ATC and specifically FDPS and SDPS as critical. This is the reason why they were allocated to the certification method. Other surveillance (and navigation) sensors were considered to be of less criticality (from a safety and interoperability point of view).</p>
comment	<p>989 comment by: Civil Aviation Authority Czech Republic</p>

	<p>We propose to change this GM to AMC. We are of the opinion, that this part should be more binding to the stakeholders due to alignment within EU countries because this table specifies the way of certification of the EATMN systems, equipment and constituents in accordance with the Reg. (EU) 2018/1139.</p> <p>Otherwise we, as a NSA, could face difficulties with different interpretation of the service provider. In this case, NSA would lose the legal framework towards service providers and it could lead for long and time consuming arrangement with SPs during NSA's oversight activities.</p>
response	<p><i>Not accepted</i></p> <p>The GM helps to illustrate the meaning of a requirement and in this particular case Article 4, Article 5 and Article 6 of Commission Delegated Regulation (EU) 2023/1768, which clearly addresses the various types of ATM/ANS equipment subject to conformity assessment.</p>
comment	<p>1032 comment by: AIRBUS</p> <p>GM1 Article 4 Certification of ATM/ANS equipment; Article 5 Declaration of design compliance of the ATM/ANS equipment; Article 6 Statement of compliance</p> <p><u>Comments:</u></p> <p>Regarding the table, line 3a related to controller-pilot communications, is empty.</p> <p>Could the Agency clarify what is the rationale to have this line empty?</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the marking is introduced; it is subject to certification under Article 4.</p>
comment	<p>1034 comment by: AIRBUS</p> <p>GM1 Article 4 Certification of ATM/ANS equipment; Article 5 Declaration of design compliance of the ATM/ANS equipment; Article 6 Statement of compliance</p> <p><u>Comments:</u></p> <p>Controller-pilot communications is also quoted at line 4b. Air-to-ground communications (i.e. controller pilot communication).</p> <p>Could you please confirm whether the mention of "controller-pilot communication" at 2 different locations in the table is done on purpose? Should we understand that line 3 is for Data whereas line 4 is for Voice?</p>
response	<p><i>Noted</i></p> <p>It is correct that 3a refers to data link ATM/ANS equipment supporting ATS B2 and ATN B1 services, while 4b refers to air-to-ground voice communications.</p>

comment	1035	comment by: AESA
	<p>Would it be possible to indicate in more detail which equipment would fall under point 3.C? For instance, would the systems that monitor navigation, surveillance and communications systems go inside the SoC?</p> <p>Furthermore, it should be noted that the specifications for these systems (point 3.c) have not been included in NPA 2023-05.</p>	
response	<p><i>Partially accepted</i></p> <p>Point 3c is to address ATM/ANS equipment supporting ATS not covered in point 3a and point 3b.</p> <p>NPA 2023-05 includes the initial set of ATM/ANS equipment subject to SoC and covers the proposals for general requirements, while the specific ones will be further developed under the regular-update rulemaking tasks.</p>	
comment	1167	comment by: Belgian Supervisory Authority
	<p>GM1 Article 4 Certification of ATM/ANS equipment – Article 5 – Article 6 at page 22</p> <p>The Belgian Supervisory Authority advises to remove item 3a controller-pilot communications because it is already covered in item 4b air-to-ground communication.</p> <p>The Belgian Supervisory Authority advises to replace “3c” by “other ATS equipment not covered in item 3b” for clarity. The current formulation is unclear.</p>	
response	<p><i>Partially accepted</i></p> <p>Considering the comment, the text is amended.</p>	
comment	1178	comment by: Indra Navia
	<p>Although I am aware of it having been mentioned in workshops that VCSes fall in the "declaration" category, this does not seem to be clear from the regulation. Also, I am not able to find a DS for VCSes. Are VCSes outside the scope of the regulation? Otherwise, it would be helpful with some guidance as to how to address VCSes from a Means-of-Compliance point of view.</p>	
response	<p><i>Noted</i></p> <p>Voice communication systems (VCSes) are classified as communications and are normally intended to support controller – pilot communications and thus should be subject to certification. The initial issue of the detailed specification had a reduced scope and will be further revised. The requirements for VCSes will be included in further revisions.</p>	
comment	1220	comment by: Irish Aviation Authority (IAA)
	<p><i>“3a. controller-pilot communications”</i></p>	

response	<p>There is no indication in the table as to what means of conformity assessment applies to the above category (e.g. datalink, etc).</p> <p><i>Accepted</i></p> <p>Considering the comment, the marking is introduced; it is subject to certification under Article 4.</p>
comment	<p>1287 comment by: <i>Tern Systems</i></p> <p>Mistakes in the table assigning attestation methods</p> <p>The table assigning attestation methods to functionalities is</p> <ul style="list-style-type: none"> • incomplete (3a. Has no method assigned) and • confusing (the description of 3c “supporting ...” seems to address the same functionalities as 3b).
response	<p><i>Accepted</i></p> <p>Considering the comment,</p> <ul style="list-style-type: none"> — the marking is introduced as regards 3a; it is subject to certification under Article 4. — the text in 3c is amended to promote clarity.

GM2 Article 4 Certification of ATM/ANS equipment; Article 5 Declaration of design compliance of the ATM/ANS equipment; Article 6 Statement of compliance

p. 23

comment	<p>1 comment by: <i>Erik Tambs Andresen</i></p> <p>Article 6 Scenario 1</p> <ul style="list-style-type: none"> • Refers to AMC to ATM/ANS.OR.A.045 (g) (3) but no such AMC could be found in chapter 4.4 Subpart A of NPA 2023-05
response	<p><i>Accepted</i></p> <p>The comment is correct. Reference has been amended pointing to requirements to issue an SoC when the ATM/ANS equipment complies with DSs. The figure is updated with Article 6(1) & ATM/ANS.OR.A.045(g)(3). To fulfil such requirement, the ATM/ANS service provider, or the DPO on its behalf, must perform testing and build supporting evidence that backs claims of compliance with DSs.</p>
comment	<p>2 comment by: <i>Erik Tambs Andresen</i></p> <p>Article 6 Scenario 2</p> <ul style="list-style-type: none"> • What is the rationale for DPO to issue an EASA release form along with the SoC?

	<ul style="list-style-type: none"> The requirements applicable for the ATM/ANS equipment subject to Statement of Compliance according to Article 6 is covered by the SoC itself.
<p>response</p>	<p><i>Noted</i></p> <p>The EASA release form is a declaration of the DPO to the ANSP that the equipment has been manufactured in conformance with the design data. It is at the end of the production chain that the ATM/ANS equipment is produced/manufactured in accordance with the working methods and operational procedure of the DPO and is in compliance with the design data. This will provide additional assurance to the ANSP (and also to NSAs). The SoC is a declaration of design compliance with the DSs. If the DSs does not contain any production requirements, then it will not reflect any compliance with them. After the consultation and following further reflection, the Agency has concluded that the EASA release form is not mandatory in the case of an SoC (because in the first place the SoC is an obligation for the ATM/ANS provider), but it is recommended that when the DPO issues the SoC, it should also be based on the issue of the EASA release form. There is the expectation that DPOs will apply the same procedures to manufacture equipment subject to CER/DEC/SoC.</p>
<p>comment</p>	<p>36 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>Just a remark: Figure 4 (SoC Scenario 2) It is hard to imagine a situation where a manufacturer sees advantage in becoming an approved DPO (and being supervised by EASA) in order to issue a SoC on request by its customer and then also has to support the local CA activities.</p>
<p>response</p>	<p><i>Noted</i></p> <p>There is no motivation to become a DPO only to issue SoCs. There is no obligation either. The flexibility is provided for those cases where an already approved DPO manufactures equipment subject to SoC. Then the rule allows this DPO to issue the required SoC, on behalf of the ANSP. In general, the responsibility is on the ATM/ANS provider's shoulders.</p>
<p>comment</p>	<p>75 comment by: <i>Indra Navia</i></p> <p>Figure 2: Please review the wording in the note.</p>
<p>response</p>	<p><i>Accepted</i></p> <p>The wording has been reviewed and amended.</p>
<p>comment</p>	<p>118 comment by: <i>skyguide Compliance Management</i></p> <p>in 3a: Missing reference to which means of conformity assessment applies (CER/DEC/SoC).</p>
<p>response</p>	<p><i>Accepted</i></p> <p>The matrix has been reviewed and amended to be complete.</p>

comment	<p>119 comment by: skyguide Compliance Management</p> <p>Still in 3a: Not clear why CPDLC is under 3 and not under 4. Not clear either what is needed (no cross on any column).</p>
response	<p><i>Noted</i></p> <p>CPDLC belongs to digital controller-pilot communication. Lines 3a and 4b are basically being duplicated, but they represent the same type of equipment. The final version of GM contains 'x' in both lines under the 'certification' category.</p>
comment	<p>294 comment by: German NSA (BAF)</p> <p>Page 24, Figure 1</p> <p>Concerned text: "Publish the certification basis, including the DSs (ATM/ANS.EQMT.AR.C.001) (ATM/ANS.EQMT.AR.A.035)". It is assumed, that instead of ATM/ANS.EQMT.AR.C.001, the requirement ATM/ANS.EQMT.AR.B.001 is meant.</p> <p>Concerned text: "Issue certificate (ATM.ANS.EQMT.AR.A.015)". The requirement ATM.ANS.EQMT.AR.A.015 could not be found in the draft regulation.</p> <p>Concerned text: "Produce ATM/ANS GE". Please use the same wording throughout the AMC/GM. Therefore, it is proposed to use "ATM/ANS equipment" instead of "ATM/ANS GE".</p> <p>Concerned text: "Management of functional change". To be be compliant with the wording in ATM/ANS.OR.A.045 it should be rephrased as "Management of canges to functional system".</p>
response	<p><i>Accepted</i></p> <p>The comment is correct. The references have been amended, and the acronym 'GE' has been removed and replaced by the term 'ATM/ANS equipment'.</p>
comment	<p>295 comment by: German NSA (BAF)</p> <p>Page 25, Figure 2</p> <p>Concerned text: "Produce ATM/ANS GE". Please use the same wording throughout the AMC/GM. Therefore, it is proposed to use "ATM/ANS equipment" instead of "ATM/ANS GE".</p> <p>Concerned text: "Management of functional change". To be be compliant with the wording in ATM/ANS.OR.A.045 it should be rephrased as "Management of canges to functional system".</p>
response	<p><i>Accepted</i></p>

The acronym 'GE' has been removed and replaced by the term 'ATM/ANS equipment'. The wording has also been revised to read 'Management of changes to functional systems'.

comment

296

comment by: German NSA (BAF)

Page 26, Figure 3

Concerned text "Statement of compliance of ATM/ANS GE Scenario 1". Please use the same wording throughout the AMC/GM. Therefore, it is proposed to use "ATM/ANS equipment" instead of "ATM/ANS GE".

Concerned text: "Inspect and test the product against the DSs (ATM/ANS.OR.A.045 (g)(3)". It is assumed that the wrong reference is used. ATM/ANS.OR.A.045 (h) (i) and (j) would be the right reference.

Concerned text: "Management of functional change". To be be compliant with the wording in ATM/ANS.OR.A.045 it should be rephrased as "Management of changes to functional system".

(d)

Please rephrase to be compliant with DPO.OR.C.001. There is stipulated that a DPO has to be approved by EASA for issuing a statement of compliance.

Proposal for new text:

An EASA approved DPO is privileged to issue a SoC on behalf of an ATM/ANS provider [...]

response

Partially accepted

The editorials are accepted and the text is amended as proposed. However, with regard to the reference to ATM/ANS.OR.A.045 (h):

(i) and (j) are not considered appropriate, because the test and inspections are intended to support the compliance with the DSs before any integration.

(i) and (j) requirements are intended to ensure that the equipment is integrated according to the manufacturer's instructions.

comment

297

comment by: German NSA (BAF)

Page 27, Figure 4

Concerned text "Statement of compliance of ATM/ANS GE Scenario 2". Please use the same wording throughout the AMC/GM. Therefore, it is proposed to use "ATM/ANS equipment" instead of "ATM/ANS GE".

Concerned text: "Issue a statement of compliance [Art. 6 ATM/ANS.OR.A.045 (g) (3)] & issue EASA release form [DPO.OR.C.001 (d) and (e)] and provide it to the ATM/ANS provider.



	<p>It is proposed to use the same wording as in Figure 3 on page 26 “Inspect and test the product against the DSs (ATM/ANS.OR.A.045 (h) (i) and (j))” as the tasks in figure 3 and 4 are the same. The only difference is the actor. ATM/ANS-provider in figure 3 and DPO in figure 4.</p> <p>Concerned text: “Management of functional change”. To be be compliant with the wording in ATM/ANS.OR.A.045 it should be rephrased as "Management of canges to functional system".</p>
response	<p><i>Accepted</i></p> <p>The changes proposed have been introduced in the figures.</p>
comment	<p>344 comment by: FOCA Switzerland</p> <p>As regards the Figure 1 on page 24, the involvement of the CA/NSA in the Management of the 'funtional change' should be mentioned.</p>
response	<p><i>Accepted</i></p> <p>The figure has been updated including the NSA role in the change to the functional system.</p>
comment	<p>345 comment by: FOCA Switzerland</p> <p>On Figure 1 on page 24, as regards the element "EASA" "publish the certification basis, including the DSs", we have the following questions:</p> <ol style="list-style-type: none"> 1) What could be in the certification basis beyond the DSs ? 2) Does this mean that there is no possibility to have deviations or limitiations versus the certification basis ? 3) Is it intended that an equipment is covering an entire section of the DSs or is it possible to cover only a part of a section (for example could we have a certified product which covers only a part of the "surveillance data processing" as described in part 2 - section 7 of the DS (e.g. ARTAS))?
response	<p><i>Noted</i></p> <p>Please note that ATM/ANS.EQMT.AR.B.001 describes what is possible to include in the certification basis: DSs, alternatives with compensating factors (i.e. deviations), and special conditions.</p> <p>It is possible to certify ATM/ANS equipment for which the compliance demonstration could cover partially DSs, provided that ‘other equipment’ enabling the complete functionality covers the rest of DSs.</p> <p>In the end, the boundaries of a type of equipment are determined by the DPO; for this reason, EASA does not impose what these boundaries must be.</p>
comment	<p>346 comment by: FOCA Switzerland</p>

response	<p>On Figure 2 on page 25, the involvement of the CA/NSA in the Management of the 'functional change' should be mentioned.</p> <p><i>Accepted</i></p> <p>The figure has been updated including the NSA role in the change to the functional system.</p>
comment	<p>347 comment by: FOCA Switzerland</p> <p>On Figure 2 on page 25, as regards the "Note: The DPO stabilised the declaration basis line [...]", we have the following questions:</p> <ol style="list-style-type: none"> 1) What level of flexibility does the DPO have as regards the declaration baseline versus the applicable DSs? 2) Is this declaration baseline intended to be in the registry and visible to ANSPs and CA/NSA ?
response	<p><i>Noted</i></p> <p>The DPO may select special conditions (which need to be agreed with EASA as per ATM/ANS.EQMT.AR.B.005) and limitations, as indicated in ATM/ANS.EQMT.DEC.010 (c) and (g) respectively. This 'declaration baseline' must be recorded in the declaration, and thus in the registry.</p>
comment	<p>348 comment by: FOCA Switzerland</p> <p>As regards the Figure 3 on page 26, we have the following remarks/questions:</p> <ol style="list-style-type: none"> 1) There is no mention of the role of the NSA whereas it should be at least mentioned in the Management of the 'functional change'. 2) As regards the SoC, the role of the ANSP in delegating its issuance to the DPO should be mentioned. 3) As regards the SoC, do you confirm that there is no envisaged intervention of the CA/NSA there, except receiving the SoC once signed by the ANSP or the DPO on its behalf?
response	<p><i>Accepted</i></p> <p>NSA role and ANSP request to DPO have been added to the Figure. With regard to question No 3), the NSA/CA involvement is not mandated, but of course it is not proscribed. In fact, the NSA/CA may request involvement in the tests performed and this is guaranteed by ATM/ANS.OR.A.050. Note that the DPO will need to guarantee such involvement as it is acting on behalf of the ANSP, and cannot refuse NSA involvement.</p>
comment	<p>349 comment by: FOCA Switzerland</p> <p>As regards the Figure 4 on page 27, we have the following remarks/questions:</p> <ol style="list-style-type: none"> 1) There is no mention of the role of the NSA whereas it should be at least mentioned in the Management of the 'functional change'.

2) As regards the SoC, the role of the ANSP in delegating its issuance to the DPO should be mentioned.
 3) As regards the SoC, do you confirm that there is no envisaged intervention of the CA/NSA there except receiving the SoC once signed by the ANSP or the DPO on its behalf?

response *Accepted*

NSA role and ANSP request to DPO have been added to the Figure. With regard to question No 3), the NSA/CA involvement is not mandated, but of course it is not proscribed. In fact, the NSA/CA may request involvement in the tests performed and this is guaranteed by ATM/ANS.OR.A.050. Note that the DPO will need to guarantee such involvement as it is acting on behalf of the ANSP, and cannot refuse NSA involvement.

comment 379 comment by: *skeyes*

26	(d) DPO privileged to issue a SoC	A SoC b essence is also covering the integration in operational chain, which is a prerogative of the ANSP in terms of responsibility. It should not be allowed for a DPO to issue a SoC on behalf of an ATM/ANS provider.
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response *Not accepted*

The SoC should not contain any verification post integration, but before any integration (it is a statement that the equipment complies with the DSs). Requirements of integration are covered by ATM/ANS.OR.A.045 (h), (i) and (j), and are under ANSP responsibility. Those can be outsourced to any other organisation if the ANSP decides to do so, but it will be always under its responsibility.

comment 410 comment by: *EUROCONTROL*

Suggest to create a GM to Art4 with point (a); a GM to Art5 with point (b) and, a GM to Art6 with point (c) and (d)

response *Accepted*

GM has been split in three paragraphs of GM, as suggested.

comment 411 comment by: *EUROCONTROL*

Same comment for fig 1, 2, 3 and 4: at the bottom a reference is made to “Management of ‘functional change’ [ATM/ANS.OR.A.045]: to avoid confusion, suggest to use the terms from EU.2017/373: “ATM/ANS.OR.A.045 Changes to a functional system”

response	<p><u>Proposed change:</u> Suggest to use the terms from EU.2017/373: “ATM/ANS.OR.A.045 Changes to a functional system”</p> <p><i>Noted</i></p> <p>The figure has been updated accordingly.</p>
comment	<p>416 comment by: EUROCONTROL</p> <p>P25 figure 2: The meaning/language and intent with the note in Fig 2 stating: "Note: The DPO stabilised the declaration basis..." should be clarified.</p> <p><u>Proposed change:</u> Clarify the meaning of the Note</p>
response	<p><i>Accepted</i></p> <p>The text has been redrafted for clarity. The intent is to provide insights to the privileges of the DPO as regard decisions to add limitations and special conditions that deviate from the DSs published by EASA.</p>
comment	<p>417 comment by: EUROCONTROL</p> <p>P.25 item c: The term "SoC" is ambiguous as it is either the document that the ATM/ANS provider (or a DPO on its behalf) is providing to its CA and a document published by EASA (see § 4.6 of this NPA).</p> <p>Proposed change:</p> <p>Ensure the term SoC is defined unambiguously</p>
response	<p><i>Noted</i></p> <p>It is unclear why the commentator finds the term SoC ambiguous. The SoC is not published by EASA, the intended addressee is the CA. There is no indication in the paragraph that the intended recipient is EASA.</p>
comment	<p>418 comment by: EUROCONTROL</p> <p>P.26 Figure 3: GM1 Art 6(1) seems to indicate that a contract with non-DPO can delegate the "Inspect and test against DS" to the supplier based on contract, this should be clarified in figure similar to a DPO (per "d"/figure 4 below). It should also clarify the transfer of responsibility and any formal conditions for this to be acceptable.</p>

response	<p>This requires a DS published by EASA, will EASA publish DS for all type of applications and systems? If no DS exist will compliance with the general part only be sufficient?</p> <p><i>Not accepted</i></p> <p>The ATM/ANS provider may decide to subcontract the task to ‘inspect and test against DSs’ to any organisation, but the ultimate responsibility lays with the ATM/ANS provider. However, the regulation allows an approved DPO to issue the SoC. Figure 4 intends to illustrate the latter approach, but not the former one. And it is not intended to show that possibility (which is regulated by ATM/ANS.OR.B.015 ‘Contracted activities’ in Regulation (EU) 2017/373).</p>
comment	<p>592 comment by: <i>CANSO</i></p> <p>All diagrams</p> <p>DPOs and ATM/ANS providers have a shared responsibility concerning the detection of user needs, according e.g. to figure 4 in EASA NPA 2022-09. This need detection phase has been suppressed in NPA 2023-05.</p> <p>It is suggested that this early involvement of ATM/ANS providers is reflected in the diagrams.</p> <p>Note as well that the user need detection phase appears in other NPA sections, as e.g. AMC1 Article 6 Statement of compliance: “Having identified the need for a change to ATM/ANS equipment, the ATM/ANS provider or an approved DPO acting on its behalf should...”</p>
response	<p><i>Accepted</i></p> <p>The comment is correct in the sense that the need to change certain equipment or to design certain new equipment (and also the requirements to be imposed) may come from the ATM/ANS provider. The graph does not intend to be comprehensive with all steps, and does not aim to cover all processes. It is modified to show the comment with a general link to the management system of the ATM/ANS provider, where those needs should be identified (originated either because of business or operational needs). Note that the need for certain new equipment/change to certain existing equipment may be triggered exclusively by the manufacturer’s initiative in order to open a business opportunity with certain equipment not yet on the market. The interactions described here do not intend to cover all aspects.</p>
comment	<p>712 comment by: <i>ENAIRE</i></p> <p>DPOs and ATM/ANS providers have a shared responsibility concerning the detection of user needs, according e.g. to figure 4 in EASA NPA 2022-09. This need detection phase has been suppressed in NPA 2023-05.</p> <p>It is suggested that this early involvement of ATM/ANS providers is reflected in the diagrams.</p>

response	<p>Note as well that the user need detection phase appears in other NPA sections, as e.g. AMC1 Article 6 Statement of compliance: “Having identified the need for a change to ATM/ANS equipment, the ATM/ANS provider or an approved DPO acting on its behalf should...”</p> <p><i>Accepted</i></p> <p>The comment is correct in the sense that the need to change certain equipment or to design certain new equipment (and also the requirements to be imposed) may come from the ATM/ANS provider. The graph does not intend to be comprehensive with all steps, and does not aim to cover all processes. It is modified to show the comment with a general link to the management system of the ATM/ANS provider, where those needs should be identified (originated either because of business or operational needs). Note that the need for certain new equipment/change to certain existing equipment may be triggered exclusively by the manufacturer’s initiative in order to open a business opportunity with certain equipment not yet on the market. The interactions described here do not intend to cover all aspects.</p>
comment	<p>714 comment by: ENAIRE</p> <p>Figure 2 - Possible editorial error: "establishes the".</p>
response	<p><i>Accepted</i></p> <p>The word has been changed to ‘identify’.</p>
comment	<p>898 comment by: FR DSAC</p> <p>Page 24 Figure 1 - Art. 4 How come that the certification basis, that should be adapted to the equipment and linked to certain applicant choices and proposals (elect to comply, etc.), are published before the DPO applies for the certificate? We think that the first 2 lines of the diagram must be inverted.</p>
response	<p><i>Accepted</i></p> <p>The diagram is not intended to show how the certification basis is established in detail. It may be established in very different ways and we are not trying to depict all of them here. Figure has been amended to account for the triggering event initiated by the DPO.</p>
comment	<p>899 comment by: FR DSAC</p> <p>Page 24 Figure 1 - Art. 4 As the Competent Authority/National Supervisory Authority (CA/NSA) appears on the figure, it should be completed at the end to mention the review of the change of the functional system (compliance to OR.A.045 g,h,i,j + ATM/ANS.OR.C.005 or ATS.OR.205) to show that CA/NSA has an activity to perform in case of a decision to</p>

	<p>review or during the continuous oversight. Here it could be interpreted as nothing has to be done by the CA if the equipment is certified.</p> <p>Proposal: Complete the figure.</p>
response	<p><i>Partially accepted</i></p> <p>The involvement of NSA is mentioned at high level based on the requirement in ATM/ANS.AR.C.025. It is not intended to cover in detail here all processes linked to the management of changes to the functional system.</p>
comment	<p>900 comment by: FR DSAC</p> <p>Page 25 Figure 2 - Art. 5 Same comment as the previous one on Figure 1</p> <p>Proposal: Complete the figure.</p>
response	<p><i>Partially accepted</i></p> <p>The involvement of NSA is mentioned at high level based on the requirement in ATM/ANS.AR.C.025. It is not intended to cover in detail here all processes linked to the management of changes to the functional system.</p>
comment	<p>901 comment by: FR DSAC</p> <p>Page 26 Figure 3 - Art 6 Same comment as for the previous 2 ones on Figure 1 and 2, reinforced by the fact that the verification of existence and the validity of the SoC relies completely on CA/NSA. This verification can be done either during a change review or during continuous oversight. Considering Article 3, oversight by NSA can occur at any point in time.</p> <p>Proposal: Complete the figure.</p>
response	<p><i>Partially accepted</i></p> <p>The involvement of NSA is mentioned at high level based on the requirement in ATM/ANS.AR.C.025. It is not intended to cover in detail here all processes linked to the management of changes to the functional system.</p>
comment	<p>902 comment by: FR DSAC</p> <p>Page 27 Figure 4 - Art 6</p>

	<p>It is not understood why an EASA release form would have to be issued by a DPO (nor ATM/ANS provider). The question was asked during July workshop and the answer was the opposite</p> <p><u>Proposal:</u> <u>Remove the reference to issuance of an EASA release form.</u></p>
<p>response</p>	<p><i>Accepted</i></p> <p>The EASA release form is a declaration of the DPO to the ANSP that the equipment has been manufactured in conformity with the design data. It is at the end of the production chain that the ATM/ANS equipment is produced/manufactured in accordance with the working methods and operational procedure of the DPO and is in compliance with the design data. This will provide assurance to the ANSP (and also to NSAs). The SoC is a declaration of design compliance with the DSs. If the DSs does not contain any production requirements, then it will not reflect any compliance with them. After consultation it has been concluded that the EASA release form should not be required if the DPO issues the SoC, but it is recommended.</p>
<p>comment</p>	<p>903 comment by: FR DSAC</p> <p>Page 27 Figure 4 - Art 6</p> <p>Same comment as for the previous ones on Figures 1, 2 and 3 but reinforced by the fact that the verification of existence and the validity of the SoC relies completely on CA/NSA. This verification can be done either during a change review or during continuous oversight. Considering Article 3, oversight by NSA can occur at any point in time.</p> <p><u>Proposal:</u> Complete the figure.</p>
<p>response</p>	<p><i>Accepted</i></p> <p>The figures have been updated accordingly.</p>
<p>comment</p>	<p>993 comment by: Romanian CAA</p> <p>At d) is stated: A DPO can be privileged in accordance with the terms of the EASA approval to issue a SoC on behalf of an ATM/ANS provider...</p> <p><i>We express concern for the transitional period of 5 years following 13.09.2023; While the ATM/ANS providers issues SoC for all types of equipment, it is not clear how these providers can rely on manufacturers' support at this time, while these are not yet attested as DPOs and therefore cannot issue SoC on behalf of ATM/ANS providers.</i></p>
<p>response</p>	<p><i>Noted</i></p> <p>Note that to allow a manufacturer to issue an SoC, such organisation must be approved as a DPO. Otherwise, the SoC can only be issued by the ATM/ANS provider.</p>

It is an option (not mandatory), but the approval as a DPO is required. Please refer to Article 6 (2) of the Regulation.

comment 1090 comment by: Alex Milns/EUROCAE

Page 25 Figure 2: The Note: in the figure is written in the past tense, whereas remaining text is in the present tense.
Proposed text: The DPO stabilises the declaration baseline (it is part of the privileges and is not communicated to EASA)

response *Accepted*

The verb tenses are aligned.

comment 1114 comment by: Juan L. Diz

1. Figure 1. When the certification basis (including the DSs) will b available for the DPOs?
2. Figure 1. Is there any expected date for receiving the application certificate from the DPOs? Would it be possible to provide them as soon as the regulation is published?

response *Noted*

The certification basis is established after certification application is submitted to EASA. The first version of DSs are issued in advance and are the basis for the certification basis, which cannot be established until an application is received.

comment 1116 comment by: Juan L. Diz

Figures 1, 2 and 3. Why is the green box for CA/NSA present if it does not itract in the figures? Is this box equivalent to EASA one in case EASA delegate thi dutis to another NSA?

response *Accepted*

Figures have been amended and completed with NSA involvement in the management of changes to functional system.

comment 1221 comment by: Irish Aviation Authority (IAA)

*“For ATM/ANS equipment subject to certification in accordance with Article 4 of this Regulation,
the approved DPO shall [...]”*

Suggest replacement of the word 'shall', which indicates a mandatory requirement and is not appropriate in GM.

response *Accepted*



The word replaced by 'must'. Present tense is used, as a descriptive way to illustrate the diagram.

comment 1224 comment by: Irish Aviation Authority (IAA)

Figure 2 - **Note:** The DPO stabilised the declaration basis line (it is part of the privileges and not communicated to EASA).

It is unclear what is meant by the DPO "stabilised" the declaration basis line. Suggest clarification is provided regarding the term "stabilised".

response *Noted*

The verb 'stabilised' been replaced by 'identified' the applicable specifications (including DSs, special conditions, and deviations).

comment 1225 comment by: Irish Aviation Authority (IAA)

It is noted in figure 3 and figure 4 that the 'CA/NSA' is not depicted as having any interaction in the flowchart.

As both figure 3 and figure 4 are intended to provide guidance to the applicable stakeholders, suggest that they are updated to depict 'CA/NSA' interaction in the flowchart.

response *Accepted*

The figure has been updated accordingly. Nevertheless, please note that the figure is not intended to be comprehensive to cover in full the management of changes to the functional system.

comment 1226 comment by: Irish Aviation Authority (IAA)

It is noted that Figure 4 addresses SoC and identifies that a DPO issued SoC should be accompanied by an 'EASA release form' and provided to the ATM/ANS provider.

It is further noted that DPO.OR.C.001(e)(5) requires that "a reference to the certificate or declaration of design compliance" information shall be contained in the 'EASA release form'.

It is unclear how the mandatory reference to "the certificate or declaration of design compliance" can be included in the EASA release form when none would exist as a result of the ATM/ANS equipment falling under the Statement of Compliance category in the first instance.
Comment also applicable to AMC4 Article 6(1) (b)

response *Accepted*

The comment is correct and the reference to certificate or declaration of design compliance cannot be done in the case of SoC. The EASA release form is not mandatory in the case of equipment subject to SoC, but recommended. In the case of issuing an EASA release form, the field linked to certification/declaration will be left blank within the form.

comment 1248 comment by: Tern Systems

Timeline for the certification process in relation to the design and production process

Considering the duration of the certification process compared to the duration of our development process for major system updates, it is obvious that the certification process needs to start as early as possible. To determine how to interleave the certification and development process, DPOs need better understanding which information/documents are required at which step (this is related to our other comment regarding templates/forms). It would also be helpful to know how EASA sees this - in which development phase EASA expects the development at the DPO to be when executing which step say of the process in Figure 1.

response *Noted*

Many of the processes the comment is referring to will be developed during the period of approval of DPOs. The overall application, design and production, will then be streamlined.

comment 1252 comment by: Tern Systems

Will it be possible to start the processes for approval as a DPO and for product certification at the same time?

response *Noted*

Yes, this is theoretically possible (see ATM/ANS.EQMT.CERT.005). However, note that before the certification of any equipment is completed and a certificate is issued, the organisation must have been approved (see ATM/ANS.EQMT.CERT.005).

comment 1255 comment by: Tern Systems

Templates/forms for certification applications

While the processes clearly outline which stakeholders interact how and when, more details on the expected documents (outlines, templates, forms) would be helpful to understand the expectations better and ensure efficiency and prevent every DPO re-inventing the wheel.

response *Noted*

Many of the processes the comment is referring to will be developed during period of approval of DPOs, and they will be common.

AMC1 Article 6 Statement of compliance

p. 27

comment	<p>15 comment by: <i>DAC Luxembourg</i></p> <p>In d) reference should be made to the change management procedures for ATM/ANS provider i.e. ATM/ANS.OR.B.010 of (EU) 2017/373; In (e) reference to ATM/ANS.AR.A.025 and ATM/ANS.AR.A.030 of (EU) 2017/373</p>
response	<p><i>Partially accepted</i></p> <p>Considering the comment, a reference to ATM/ANS.OR.A.040 of Regulation (EU) 2017/373 is introduced.</p> <p>As regards point (e), the proposed references address authority requirements; thus, not applicable.</p>
comment	<p>28 comment by: <i>Finnish Meteorological Institute (FMI) - MET SP</i></p> <p>FMI supports the described change management classification between 'minor' and 'major' changes. However table provided in d) is not fully in line with change management practises in (EU) 2017/373 Part-ATM/ANS.OR. FMI proposes that EASA looks into updating the current Part-ATM/ANS.OR accordingly.</p>
response	<p><i>Accepted</i></p> <p>The comment is welcome and considering it, the affected provisions are amended accordingly.</p>
comment	<p>37 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>At the workshop (4.7.) we understood that EASA is of the opinion that a minor change is no change to the functional system, i.e. a functional system change as meant by ATM/ANS.OR.A.40 (a)(1). The table in point d) implies that all minor changes follow a collective notification procedure. Which could be the meaning as suggested by GM1 OR.A.045(a) point (i).</p> <p>In the current framework, minor changes like software updates (without changing the SoC subject and compliance) are subject to notification, because they are subject to the functional system. Is this principle now changed? We believe that the purpose of this AMC is to show that the notification of major changes shall highlight to the competent authority that there will be a new SoC. Minor changes are simply handled in the frame of the agreed change procedure (which may be that it is to be notified or, if negligible, collectively informed). So, it may make sense to rather anchor this need for information of the change class with the principal need to notify functional system changes according to OR.A.040 resp. OR.A.045.</p>

	<p>But for the time being, the simple deletion of points c) and d) would erase the above mentioned unclarity about the need or not to notify minor changes.</p> <p>We also see no necessity to put all that as AMC under the equipment regulation Articles. It is partly a duplicaton to what is also put in the 373 Regulation AMC.</p> <p>We welcome and suggest that further "cleaning" of all AMC/GM to the change processes can be made in the course of the "regular update RMT.0161".</p>
<p>response</p>	<p><i>Partially accepted</i></p> <p>Considering the comment, the referenced provisions are amended.</p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.</p>
<p>comment</p>	<p>76 comment by: <i>Indra Navia</i></p> <p>"The change introduces a new means of compliance with unselected requirements of the previously approved compliance demonstration basis". We have two remarks to this sentence:</p> <p>1: Cmt 212 discusses the definition of the term "means of compliance". In our understanding, the "means of compliance" is typically the standards that may be used. In this context, it seems that the sentence should be something like "The change introduces new compliance demonstration material to unselected requirements of the previously approved compliance demonstration basis".</p> <p>2: Assuming the above interpretation is correct, and assuming that test reports will always be part of the compliance demonstration material: Any change to hardware or software will require some (re-)testing, meaning that at least one new test report will be issued. If this understanding is correct, ANY change to hardware or software will be defined as a Major change, which may not be the intention. What is the misunderstanding here?</p>
<p>response</p>	<p><i>Noted</i></p> <p>Duly considering the comment and to promote clarity, the commented provision is amended.</p>
<p>comment</p>	<p>187 comment by: <i>CANSO</i></p>

At the workshop (4.7.) we understood that EASA is of the opinion that a minor change is no change to the functional system, i.e. a functional system change as meant by ATM/ANS.OR.A.40 (a)(1).

The table in point d) implies that all minor changes follow a collective notification procedure. Which could be the meaning as suggested by GM1 OR.A.045(a) point (i).

In the current framework, minor changes like software updates (without changing the SoC subject and compliance) are subject to notification, because they are subject to the functional system. Is this principle now changed?

We believe that the only purpose of this AMC is to show that only the notification of major changes shall highlight to the competent authority that there will be a new SoC. Minor changes are simply handled in the frame of the agreed change procedure (which may be that it is to be notified or, if negligible, collectively informed). So, it may make sense to rather anchor this need for information of the change class with the principal need to notify functional system changes according to OR.A.040 resp. OR.A.045.

But for the time being, the simple deletion of points c) and d) would erase the above mentioned unclarity about the need or not to notify minor changes.

We also see no necessity to put all that as AMC under the equipment regulation Articles. It is partly a duplication to what is also put in the 373 Regulation AMC.

We welcome and suggest that further "cleaning" of all AMC/GM to the change processes can be made in the course of the "regular update RMT.0161".

response *Partially accepted*

Considering the comment, the referenced provisions are amended.

To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.

comment 220

comment by: *MeteoSwiss*

In general, the differentiation of 'minor' and 'major' changes is supported. However this differentiation seems not yet to be properly reflected in the current change management requirements as described in CIR (EU) 2017/373 Part-ATM/ANS.OR. EASA is therefore invited to consider to align the parlance in order to provide consistent requirements.



response	<p><i>Partially accepted</i></p> <p>Considering the comment, the referenced provisions are amended.</p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.</p>
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comment	<p>237 comment by: <i>Nils</i></p> <p>There is actually no need for making a classification of major and minor changes in order to decide which changes should be notified. To improve this AMC it could be rewritten to just state which changes in compliance evidence that needs to be notified to the competent authority. The classification in minor and major types is actually redundant information.</p>
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response	<p><i>Noted</i></p> <p>Considering the comments received, the commented provision is removed.</p>
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comment	<p>238 comment by: <i>Nils</i></p> <p>Bullet (a). The text is unclear and does not explain very well the difference between minor and major changes. What is for instance "unselected requirements" and "selected means of compliance"?</p>
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response	<p><i>Noted</i></p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:</p> <ul style="list-style-type: none"> — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary;
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— promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website.
These activities are planned in the context of IST.0002.

comment

298

comment by: *German NSA (BAF)*

(a)

"Having identified the need for a change to ATM/ANS equipment [...]"

To avoid confusion with the wording we propose to use "modification" instead of "change" (As used in updated ATM/ANS.OR.A.045 (g)).

response

Accepted

Considering the comment, the provision is amended.

comment

299

comment by: *German NSA (BAF)*

(a) (1)

"The change introduces a new means of compliance with unselected requirements of the previously approved compliance demonstration basis;"

To avoid confusion with the wording it is proposed to use "modification" instead of "change".

Furthermore, it is unclear what is meant. Maybe this wording would be clearer:
"The modification introduces a function covered by the requirements stated in Ds that was not realised so far."

response

Accepted

Considering the comment, the provision is amended to promote clarity.

comment

300

comment by: *German NSA (BAF)*

There seems to be the need to add a new (a) (3).

Proposal for the additional text:

"If new/updated Ds contain new requirements ATM/ANS equipment is updated accordingly"

response

Accepted

Considering the comment, the provision is amended.



comment	<p>301 comment by: <i>German NSA (BAF)</i></p> <p>AMC1 Article 6 Statement of compliance</p> <p>a) (a)(3) "The change introduces a new selected means of compliance" The text is unclear. Means of compliance is the method how compliance is demonstrated/verified. If a new method is introduced to show compliance we assume that this is not classified as a major modification. Therefore, (a)(3) could be deleted.</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the provision is amended.</p>
comment	<p>303 comment by: <i>German NSA (BAF)</i></p> <p>(b) Text: "Minor changes should be [...]"</p> <p>To avoid confusion with the wording it is proposed to use "modification" instead of "change"</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the provision is amended.</p>
comment	<p>304 comment by: <i>German NSA (BAF)</i></p> <p>a) (c) "Major changes should be [...]"</p> <p>To avoid confusion with the wording it is proposed to use "modification" instead of "change".</p>
response	<p><i>Noted</i></p> <p>Considering the comment, the text reads now 'change (modification)'.</p>
comment	<p>305 comment by: <i>German NSA (BAF)</i></p> <p>(d) "The table below [...] minor and major changes."</p> <p>To avoid confusion with the wording it is proposed to use "modification" instead of "change".</p> <p>But even when "change" is replaced by "modification", it is assumed that the procedure for notifications will be part of the change management procedure (ATM/ANS.OR.045 and ATM/ANS.AR.C030).</p>

response	<p>In the table, there is depicted that a notification of major changes prior the implementation and after completion is foreseen. It is not sure if notification is necessary twice.</p> <p><i>Noted</i></p> <p>Considering the comments received, the commented provision in point (d) is removed.</p>						
comment	<p>306 comment by: German NSA (BAF)</p> <p>(e) "The procedure may also include the process for the reaction by the ATM/ANS provider to an unplanned (major) change [...]"</p> <p>To avoid confusion with the wording it is proposed to use "modification" instead of "change".</p>						
response	<p><i>Partially accepted</i></p> <p>Considering the comment, the text reads now 'change (modification)'.</p>						
comment	<p>307 comment by: German NSA (BAF)</p> <p>Page 28 modified according to the proposals in comments 301-306:</p> <p>(3) The change introduces a new selected means of compliance.</p> <p>(b) Minor changes <u>modifications</u> should be processed according to the approved change management procedure ensuring that the change <u>modification</u> does not adversely affect the compliance with the detailed specifications. For minor changes <u>modification</u>, the ATM/ANS provider should:</p> <p>(1) record the change <u>modification</u> description and the justification for the change <u>modification</u> classification;</p> <p>(2) update all related technical documents including the user manual;</p> <p>(3) record continued compliance with the ATM/ANS equipment SoC.</p> <p>(c) Major changes <u>modifications</u> should be notified to the competent authority upon identification by the ATM/ANS provider. For major changes <u>modifications</u>, the ATM/ANS provider should apply Article 6 of this Regulation and reissue a SoC.</p> <p>(d) The table below presents an overview of the management of minor and major changes.</p> <table border="1"> <thead> <tr> <th></th> <th>Minor change</th> <th>Major change</th> </tr> </thead> <tbody> <tr> <td>Notification by the ATM/ANS provider of a change <u>modification</u> to the competent authority prior to the</td> <td>No</td> <td>Yes</td> </tr> </tbody> </table>		Minor change	Major change	Notification by the ATM/ANS provider of a change <u>modification</u> to the competent authority prior to the	No	Yes
	Minor change	Major change					
Notification by the ATM/ANS provider of a change <u>modification</u> to the competent authority prior to the	No	Yes					

	<p>implementation</p> <p>Notification by the ATM/ANS provider of a <u>change modification</u> to the competent authority after completion</p> <p>Yes, in accordance with the approved change management procedure(*)</p> <p>Yes</p> <p>Reissue SoC</p> <p>N/A</p> <p>ATM/ANS provider or an approved DPO</p> <p>(*) The frequency of the notification will be defined in the change management procedure.</p> <p>(e) The procedure may also include the process for the reaction by the ATM/ANS provider to an unplanned (major) <u>change modification</u> that may arise with the need for urgent action. This is the case in which the ATM/ANS provider responds immediately to a safety, security or interoperability problem or when an emergency situation arises in which the ATM/ANS provider has to take immediate action (e.g. security patches) to ensure the safety, security or interoperability of its equipment in operation.</p>
response	<p><i>Partially accepted</i></p> <p>Considering the comment, the text reads now 'change (modification)'.</p>

comment	<p>350</p> <p>comment by: FOCA Switzerland</p> <p>As regards (a)(3), we suggest to replace the current proposal with the following one:</p> <p>"The change introduces a new selected means of compliance, <u>not previously investigated by EASA</u>."</p> <p>Indeed, AMC1 DPO.OR.B.005(b) Change management, point (3) precises ", not previously investigated by EASA." This seems to be more appropriate as a criterium to classify the change as major.</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the provision is amended.</p>

comment	<p>351</p> <p>comment by: FOCA Switzerland</p> <p>As regards (a)(1) and (a)(2), could you precise what a "previously approved compliance demonstration basis" is? Is it referring to the applicable section of the DS ? If not, what it is and by whom is it approved ?</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the provision is amended.</p>

comment	<p>352 comment by: FOCA Switzerland</p> <p>We suggest to have specific AMC and GM related to the transition period with the conditions under which an equipment today subject to DSU/DoC/DoV might be considered to have a major change and a SoC has then to be issued. The similarities and differences between the current DSU/DoC/DoV and the SoC should be explained at least in a GM.</p> <p>This request applies specifically to all the processes that apply to the ANSP during the transition period in place of the DPO.</p>
response	<p><i>Noted</i></p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’ and RMT.0744 ‘Regular update of detailed specifications for ATM/ANS ground equipment’.</p> <p>The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’.</p>

comment	<p>380 comment by: skeyes</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center; vertical-align: middle;">27/28</td> <td style="width: 30%; padding: 5px;">Need clear definition of major and minor changes +clarify otification conditions</td> <td style="padding: 5px;">What is described here interferes with change management as described in regulation 2017/373 at least in terms of notification to the competent authority. How do we have to understand the meaning of a change, in other words, is a change as per 373 or a change as seen from a technical point of view only? The important point here is to identify changes that impact the conformity assessment or not, not the scale of the change.</td> </tr> </table>	27/28	Need clear definition of major and minor changes +clarify otification conditions	What is described here interferes with change management as described in regulation 2017/373 at least in terms of notification to the competent authority. How do we have to understand the meaning of a change, in other words, is a change as per 373 or a change as seen from a technical point of view only? The important point here is to identify changes that impact the conformity assessment or not, not the scale of the change.
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response	<p><i>Partially accepted</i></p> <p>Considering the comment, the commented provision is amended to promote clarity. Furthermore, to support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 ‘Regular update of AMC/GM associated with</p>			

ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

comment

419

comment by: EUROCONTROL

This AMC should be renumbered and moved after AMC3 below to match the structure of Article 6.

There is nowhere a process describing the re-issue of the EASA release form for a declared GE in case of a major change (assuming that for a minor change there is no such need).

Proposed change:

Introduce the process for the re issuance of the EASA release form for a Declared GE

response

Noted

To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

Furthermore, the commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' as at this stage, it is not seen a reason for the reissue of EASA release form at the end of the production phase, while the SoC is a declaration at design phase.

comment

420

comment by: EUROCONTROL

Reissue item (a) (1):

It is not clear what is meant by "unselected requirements". Does it mean that the body issuing a SoC may select and deselect requirements and on which basis? Is it linked to the deviations (see AMC1 Article 6 Statement of compliance ISSUE below)? Does it imply compliance/certification could have been approved previously with some requirements missing?

Proposed change:

clarify the meaning and scope of unselected requirement

What is the compliance demonstration basis? What is the certification basis? Is it the set of requirements needed for conformance of the ATM equipment, or is it the full set of requirements/characteristics of the ATM equipment?

	<p><u>Proposed change:</u> Clarify the compliance demonstration basis.</p> <p>When a change to a SoC ATM/ANS equipment is classified minor or major does it mean that the change of the Functional System where this equipment is integrated is minor, respectively major?</p> <p><u>Proposed change:</u> Clarify the link between ATM/ANS equipment minor and major changes versus the functional system minor/major change</p> <p>There is nowhere a process describing how and who may grant a deviation to a DS and under which condition a deviation can be accepted or not. Such a process already exists for airborne equipment's (e.g. deviation to an ETSO). It is assumed that for CS it will be addressed by Special Conditions (to be clarified).</p> <p><u>Proposed change:</u> Clarify how a deviation to a DS is to be handled in each cases (CERT/DEC and SoC)</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the provision is amended.</p>
comment	<p>421 comment by: EUROCONTROL</p> <p><u>Points b), c), d)</u></p> <p>According to EU.2017/373, all planned change to the Functional System shall be notified and addressed in accordance with the approved procedure (as per ATM/ANS.OR.B.010).</p> <p>The considerations covered by these points are contradicting EU.2017/373, the table under point (d) even suggests that a “minor change” would not be subject to notification.</p>
response	<p><u>Proposed change:</u></p> <p>Points (b), (c) and (d) should be removed</p> <p><i>Partially accepted</i></p> <p>Considering the comment, the text is amended accordingly.</p>
comment	<p>422 comment by: EUROCONTROL</p> <p>Point (e) is a suggestion or an example.</p>

	Proposed change :	
	It should be moved to GM.	
response	<i>Not accepted</i>	
comment	423	comment by: <i>EUROCONTROL</i>
	<u>P. 28 table:</u> <u>Proposed change:</u> Last row should include "No" and "Yes,..."	
response	<i>Noted</i>	
	Considering the NPA 2023-05 consultation, the commented table is removed.	
comment	466	comment by: <i>IFATCA</i>
	The figures 1,2 ,3, 4 do not clarify the role of the CA/NSA versus the Approved DPO, the supplier. This is confusing. In particular if the DPO is outside of Aviation (e.g. Microsoft, Amazon, Tata or Open AI)	
response	<i>Noted</i>	
	Considering the comment, the commented figures have been removed from the final 1 st set of AMC/GM/DSs considered as essential for the initial phase of implementation, while their improvements and developments of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.	
comment	467	comment by: <i>IFATCA</i>
	page 28 little e) This triggers following questions: if a breakdown of a ATM cloud happens, the emergency procedures are put in place and possible mitigation actions are taken. As with new technologies the emerging properties are not necessarily known ahead of operations. Would that mean that EASA would stop the traffic until the procedure would follow the EASA decision? Whereas for preventive maintenance it is fully understood, there remains the question for urgent actions due to malfunction or failure which has to be solved immediately?	
	Proposal work with an example that it becomes clearer.	
response	<i>Noted</i>	
	To support the implementation of the new regulatory framework, this 1 st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.	

The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’.

On the other hand, ensuring the continuity of services is Member States’ responsibility and there is a variety of mitigation measures to address the short-term resolution.

comment	<p>557 comment by: DCAC NSA Officer</p> <p>With regards to point (a): Cyprus does not agree with associating the reissuance of the SoC with the “Major/Minor” classification because many States (including Cyprus) use this classification in their internal “decision to review” processes.</p> <p>So, associating “major” and “minor” with the notification provisions will cause confusion to many stakeholders. Alternatively, if the Agency thinks that a “minor” change to the SoC is not a change in the context of EU.2017/373, then OK, pls note it clearly in the AMCs and we can accept it.</p> <p>With regards to point (a) (1): Cyprus requests that the Agency provides (with reference to commonly used ATM/ANS equipment) some examples of what could be “unselected requirements”</p> <p>Also we would like some clarifications regarding what is the difference between point (1) & (3)?</p>
response	<p><i>Partially accepted</i></p> <p>Considering the comment, the provision is amended to promote clarity.</p>

comment	<p>558 comment by: DCAC NSA Officer</p> <p>With regards to point (c): Cyprus considers that the proposed AMC contradicts EU.2017/373 since, the table under point (d) suggests that a “minor change” does not need to be notified (recall that, according to EU.2017/373, all planned change to the Functional System shall be notified and addressed in accordance with the approved procedure (as per ATM/ANS.OR.B.010)).</p> <p>This proposals will add even more complexity and confusion to the current change management regulatory requirements: change affecting the FS, NOT affecting the FS, change not affecting the SoC but affecting the FS and change affecting the SoC but not the FS.</p> <p>In view of the above, we suggest that points (b), (c) and (d) should be removed entirely.</p> <p>With regards to point (e): Since point (e) contains optional provisions (“may”) Cyprus suggests to move it in the GM parts</p>
response	<p><i>Partially accepted</i></p>

Considering the comments, the text is amended accordingly:

- point (c) is amended;
- point (d) is removed;
- point (e) is amended and 'may' is replaced by 'should'.

comment	593	comment by: <i>CANSO</i>
	<p>Not sure what "continued compliance" means in this context. I.e. record of the evidences (such as test results, etc.) that ATM/ANS eq. is compliant once the minor check is implemented of or continuous compliance check?</p> <p>Update the SoC when a minor change occur or update technical test?</p>	
response	<p><i>Noted</i></p> <p>As the provision is associated with a minor change, there is no need for SoC reissue.</p>	

comment	627	comment by: <i>CANSO</i>
	<p>As a result of Article 7, DoVs will remain valid when this comes into force, but presumably some level of change will invalidate the DoV requiring a new SoC, which must be issued against the new DSs (in accordance with new processes). Two issues with this: a) it is not clear what level of change (major/minor etc.) will trigger this situation and b) this will apply immediately on applicability of the new framework, i.e. 12 September 2023, creating a risk of delay to deployment for ANSPs planning to deploy changes in the next months as there is no transition period to allow processes to be updated and compliance arguments to be created against the DS to enable the SoC to be signed.</p>	
response	<p><i>Noted</i></p> <p>The comment is duly considered.</p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:</p> <ul style="list-style-type: none"> — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary; 	

— promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website.

These activities are planned in the context of IST.0002.

comment **681** comment by: *Thales Land and Air Systems*

Procedure mentioned in e) should not be part of this regulation.
ANSPs management system is not approved nor overseen through this regulation but through EU 2017/373. The procedure mentioned in e) should be part of the ANSP Management System and then assessed and overseen by its local NSA.

response *Partially accepted*

Considering the comment and to promote clarity, the commented provision is amended.

comment **717** comment by: *ENAIRE*

Regarding (b)(3) "record continued compliance with the ATM/ANS equipment SoC", we are not sure what "continued compliance" means in this context. I.e. record of the evidences (such as test results, etc.) that ATM/ANS eq. is compliant once the minor check is implemented or continuous compliance check?

Update the SoC when a minor change occur or update technical test?

response *Noted*

As the provision is associated with a minor change, there is no need for SoC reissue.

comment **719** comment by: *ENAIRE*

Regarding AMC1 Article 6 (e), the proposed amended text is "The procedure should also include the process for the reaction by the ATM/ANS provider".

Situations dealt with in this para. are important and the ANSP should be aware of how to proceed in this circumstances (e.g. no notification before implementation, notification after implementation and reissuance of a SoC, when needed, xx days after at the most).

The ANSP should be aware of how to proceed in circumstances of unplanned events.

response *Accepted*

Considering the comment, the text is amended accordingly.

comment **904** comment by: *FR DSAC*

Pages 27-28

It is not understood in which process this AMC can fit. It seems it's mixing up change management processes for equipment and for the functional system which must be kept separated. ATSPs only notify changes of their functional system. Lifecycles of equipment changes are completely independent from the one of changes to the functional system. There is no need to have dedicated oversight activities of changes of equipment requiring a SoC. Availability and validity of SoC will be verified during change reviews and during audits performed for continuous oversight. Moreover, considering the pace of the introduction of new technologies and the complexity of ATM/ANS equipment, it is more than probable that future equipment will have drastic changes in their architectures and thus in their performances and safety features. This AMC doesn't consider the case where a significant change occurs in the architecture, technology, or performances. This kind of change should be considered major as it will lead to reconsider most of compliance evidences.

Proposal:
Keep this AMC to specify which activities are to be performed depending on the nature of the change of the equipment (minor/major) but remove all mentions to notification to CA and be explicit on which change management process is considered here (equipment only probably). Add architectural and technological considerations for classifying a change as major.

response *Accepted*

Considering the comment, the text is amended accordingly.

comment *1053* comment by: AESA

Point c) could go against the concept of routine changes covered by Regulation (EU) 2017/373 and the agreements reached between authorities and ANSPs in relation to these routine changes which can even be notified post-implementation.

response *Partially accepted*

Considering the comment, point (c) is amended and point (d) is removed.

comment *1076* comment by: Deutscher Wetterdienst

EASA is invited to further harmonise AMC1 Article 6 Statement of compliance with AMC3 ATM/ANS.OR.B.005(b) Management system.

response *Noted*



To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

These activities are planned in the context of IST.0002.

The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.

comment 1123 comment by: *Météo-France*

Table (d) does not appear to be fully consistent with the requirements of the corresponding change management procedure of (EU) 2017/373 Part ATM/ANS.OR.

response *Partially accepted*

Considering the comment, point (d) is removed.

comment 1168 comment by: *Belgian Supervisory Authority*

GM2 Article 4 Certification of ATM/ANS equipment; Article 5 Declaration of design compliance of the ATM/ANS equipment; Article 6 Statement of compliance at pages 26 and 27

Figure 3 and figure 4 : oversight activities of the CA/NSA should be captured in the figures.

response *Noted*

Considering the consultation, the commented figures have been removed from the final 1st set of AMC/GM/DSs considered as essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

comment 1227 comment by: *Irish Aviation Authority (IAA)*

AMC1 Article 6 (d) –

It is noted that the table identifies that a 'Minor change' does not need to be notified to the CA prior to implementation.

It should be recognised in the table that in some MS, it may be the case that ATM/ANS providers under their approved set of change management procedures, are required to notify the CA in advance of all changes if not agreed with the CA, or identify a specific subset that may be notified post-implementation.

	As such, this AMC should reflect that the decision as to when the ATM/ANS provider should notify their CA, should be undertaken in consultation with their national CA and as per their approved change management procedures under Regulation (EU); ATM/ANS.OR.B.010 requirement.
response	<i>Noted</i> Considering the comment and to avoid confusions, point (d) is removed.
comment	1293 comment by: Tern Systems Minor changes to software equipment are usually executed by the DPO, but for SoC equipment necessary responsibilities are placed onto the ATM/ANS provider Regarding minor changes to equipment requiring a SoC the NPA states under (b) “the ATM/ANS provider should: (1) record the change description and the justification for the change classification; (2) update all related technical documents including the user manual; ...” Many (if not most) minor changes to the equipment (if the equipment is software) are executed by the DPO. Examples are bug fixes and small adaptations to interfaces. In that case, the DPO is responsible for (1) and (2).
response	<i>Accepted</i> Considering the comment, the provision is amended.

GM1 Article 6 Statement of compliance

p. 29

comment	16 comment by: DAC Luxembourg 1. AMC preferred for standardisation purposes.
response	<i>Not accepted</i> Taking into account the feedback received, the commented provision is retained as GM.
comment	38 comment by: DFS Deutsche Flugsicherung GmbH Due to its local nature, the standard form can remain at GM level. However, the standard form should reflect all elements, which are required by the AMC1 to Article 6 (1), which seems to be not the case.
response	<i>Accepted</i>

Taking into account the feedback received, the commented provision is retained as GM and the GM is amended to align it with the associated AMC.

comment 104 comment by: *DSNA*
 DSNA view is to keep it as GM as the current proposal
 response *Accepted*
 Taking into account the feedback received, the commented provision is retained as GM.

comment 139 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*
GM1 Article 6 Statement of compliance, page 29
 Question ? Answer
 Retain as a separate dedicated GM paragraph.
 response *Accepted*
 Taking into account the feedback received, the commented provision is retained as GM.

comment 170 comment by: *CANSO*
 CANSO view is to keep it as GM as the current proposal
 response *Accepted*
 Taking into account the feedback received, the commented provision is retained as GM.

comment 221 comment by: *MeteoSwiss*
 It is supported to retain the subject GM on the level of GM in order to maintain a certain level of flexibility and not to raise the 'standard form' to an AMC.
 response *Accepted*
 Taking into account the feedback received, the commented provision is retained as GM.

comment 261 comment by: *NAV Portugal E.P.E*
 In accordance with EASA's request on the stakeholders' views as to whether the subject GM should be retained as a separate dedicated GM paragraph (as in the current proposal) or it should be integrated into AMC1 Article 6(1), NAV Portugal opinion is that it should be retained in a separate paragraph.

response	<p><i>Accepted</i></p> <p>Taking into account the feedback received, the commented provision is retained as GM.</p>
comment	<p>309 comment by: <i>German NSA (BAF)</i></p> <p>2. "Description, identification and scope of the ATM/ANS equipment(*)"</p> <p>For the asterisk (*) no explanation / footnote could be found.</p>
response	<p><i>Noted</i></p> <p>Considering the comment, (*) is removed.</p>
comment	<p>310 comment by: <i>German NSA (BAF)</i></p> <p>2. "Note: It should include e.g. type, SW/HW version number and master drawing record, as applicable"</p> <p>AMC on the term what a master drawing record is should be created and added.</p>
response	<p><i>Noted</i></p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>In this context, the commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.</p>
comment	<p>311 comment by: <i>German NSA (BAF)</i></p> <p>"4. Reference to the qualification test report."</p> <p>In order to use the same wording as in AMC1 Article 6(1) it is proposed to rephrase No. 4 as follows:</p> <p><i>Reference to the test report to show</i></p> <ul style="list-style-type: none"> - <i>compliance with the detailed specifications and</i> - <i>procedure followed in order to be compliant.</i>
response	<p><i>Accepted</i></p>

Considering the comment, the text is amended accordingly.

comment	<p>312 comment by: <i>German NSA (BAF)</i></p> <p>“6. SoC with the applicable EASA detailed specification, as far as applicable for the intended use, and any deviations therefrom.”</p> <p>Please add (as in AMC1 Article 6 (1)): limitations, conditions. So the new text could be: 6. SoC with the applicable EASA detailed specification, as far as applicable for the intended use, and any deviations limitations and conditions therefrom.”</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the text is amended accordingly.</p>

comment	<p>313 comment by: <i>German NSA (BAF)</i></p> <p>7. The declaration in this document is made under the authority of _____ (Name of ATM/ANS provider or approved DPO). (ATM/ANS provider’s or approved DPO’s name) cannot accept responsibility for equipment used outside the limiting conditions stated above without their agreement</p> <p>The second sentence only makes sense in case of DPO elaborates the SoC (or ATM/ANS provider that act as DPO, but then they have to be treated as DPO). Therefore, it is proposed to delete “ATM/ANS provider’s”.</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the text is amended accordingly.</p>

comment	<p>314 comment by: <i>German NSA (BAF)</i></p> <p>Answer to EASA's question: The standard form should be retained as a separate dedicated GM paragraph (as in the current proposal).</p>
response	<p><i>Accepted</i></p> <p>Taking into account the feedback received, the commented provision is retained as GM.</p>

comment	<p>353 comment by: <i>FOCA Switzerland</i></p> <p>As regards the question, we suggest to keep it as GM as proposed (no need to ‘upgrade’ to AMC)</p>
response	<p><i>Accepted</i></p>

Taking into account the feedback received, the commented provision is retained as GM.

comment

381

comment by: *skeyes*

29	GM1 Article 6 Statement of compliance. Keeping or not the SoC description as GM or move to an AMC?	As this is a general description of the content of the SoC, skeyes would keep this as guidance material. Final format of the SoC should be agreed with competent authority
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response

Accepted

Taking into account the feedback received, the commented provision is retained as GM.

comment

624

comment by: *CANSO*

Unlike the annexes for certification and declaration, Article 6 makes no provision for deviations from the EASA DSs. Either the GM is inconsistent with the Regulation or the Regulation has omitted an important provision for deviation.

response

Accepted

Considering the comment, AMC2 Article 6(1) Statement of compliance and GM1 Article 6(1) Statement of compliance have been amended to address 'deviations'.

comment

721

comment by: *ENAIRE*

Question - Issue-Standard form: Separate GM or integrated into AMC1 ISSUE / STANDARD FORM.

The subject GM should be retained as a separate dedicated GM paragraph.

response

Accepted

Taking into account the feedback received, the commented provision is retained as GM.

comment

722

comment by: *ENAIRE*

EASA should clearly define the meaning of "authorised representative".

response

Noted

To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the frame of RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.

comment 723 comment by: ENAIRE

GM1 or AMC1 Article 6 (1) should state that SoCs will be issued per model/part number (not for each individual equipment or "serial number").

response *Noted*

The comment is well received and will be considered through RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.

comment 725 comment by: ENAIRE

2. Description, identification and scope of the ATM/ANS equipment(*)

In this point its written an (*) without its correspondence note/text.

response *Noted*

Considering the comment, (*) is removed.

comment 908 comment by: FR DSAC

Question

DGAC France estimates that, should a Form exist, it should be included at least in an AMC. In Part 21 (regulation (EU) n°748/2012) the template are in an IR appendix.

response *Not accepted*

Taking into account the feedback received, the commented provision is retained as GM.

comment 990 comment by: Civil Aviation Authority Czech Republic

We agree this GM to incorporate into the AMC1 Article 6(1) Statement of Compliance to become more binding for the SPs.

response *Not accepted*



		Taking into account the feedback received, the commented provision is retained as GM.
comment	1018	comment by: <i>LEONARDO</i>
		The SoC template is the same for DPO and ANSP? If yes, some fields should be modified and adapted (e.g. 1.)
response		<i>Accepted</i>
		Considering the comment, the commented template is amended.
comment	1036	comment by: <i>AESA</i>
		Regarding the issue raised by EASA in this point, in our view, it would be better if this "standard form" were included in AMC1 Article 6(1).
response		<i>Not accepted</i>
		Taking into account the feedback received, the commented provision is retained as GM.
comment	1077	comment by: <i>Deutscher Wetterdienst</i>
		EASA is invited to consider addressing this provision as GM1 Article 6(1) as it is directly related to AMC1 Article 6(1).
response		<i>Accepted</i>
		Taking into account the feedback received, the commented provision is retained as GM.
comment	1125	comment by: <i>Météo-France</i>
		Météo-France supports the EASA proposal to have a dedicated GM paragraph.
response		<i>Accepted</i>
		Taking into account the feedback received, the commented provision is retained as GM.
comment	1169	comment by: <i>Belgian Supervisory Authority</i>
		GM1 Article 6 Statement of Compliance – question raised by EASA page 29 The Belgian Supervisory Authority advises to keep “GM1 Article 6” as a separate Guidance Material distinct from “AMC1 Article 6(1)”, because the concept “qualification test report” is not defined.
response		<i>Accepted</i>

Taking into account the feedback received, the commented provision is retained as GM.

comment 1228 comment by: *Irish Aviation Authority (IAA)*

In response to EASA question -

Suggest that the subject GM is retained to provide flexibility on presentation of information as set out in AMC1 Article 6(1).

response *Accepted*

Taking into account the feedback received, the commented provision is retained as GM.

AMC1 Article 6(1) Statement of compliance

p. 29

comment 29 comment by: *Finnish Meteorological Institute (FMI) - MET SP*

FMI supports the current proposal to have it as dedicated GM paragraph.

response *Accepted*

Taking into account the comment, the commented GM is retained at GM level.

comment 148 comment by: *CANSO*

Comment Page 29, AMC1 Article 6(1) Statement of compliance

What shall be indicated in the field "the Regulation reference requiring the issue of the SoC"? The GM should clarify this point.

response *Accepted*

Taking into account the comment, the AMC is amended and clarifications in the footnote are added.

comment 218 comment by: *DFS Deutsche Flugsicherung GmbH*

The content of AMC and GM should be correlated.
The Regulation reference is missing in GM.

Secondly, I suggest deletion of the bullet "reference to the procedure followed in order to declare compliance".

Justification: In the previous IOP-framework, there was a choice of procedures and so it was needed to indicate.

Here, it would mean to be the procedure as required by AMC to ATM/ANS.OR.A.045 ..? That's superfluous since the authority would know anyway.



response	<i>Partially accepted</i> Considering the comment, the text is amended.
comment	263 comment by: NAV Portugal E.P.E in the AMC1 Article 6(1) Statement of compliance it is stated the SoC shall contain the following information <ul style="list-style-type: none"> • "the Regulation reference requiring the issue of the SoC;" <p>GM should clarify this point.</p>
response	<i>Accepted</i> Taking into account the comment, the AMC is amended and clarifications in the footnote are added.
comment	315 comment by: German NSA (BAF) Concerning the bulletpoints "remarks", "limitations", "conditions" it is proposed to add a bulletpoint "deviation".
response	<i>Accepted</i>
comment	424 comment by: EUROCONTROL <u>4th bullet:</u> There is nowhere a process describing who may grant a deviation to a SoC and under which condition a deviation can be accepted or not. <u>Proposed change</u> To avoid any confusion, replace detailed specifications by SoCs and clarify the process in case of a deviation to a SoC
response	<i>Partially accepted</i> The proposal for replacement is accepted. As regards the additional GM, the commentator is kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible via stakeholders' forums, e.g. ATM/ANS TEB and in particular via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.
comment	425 comment by: EUROCONTROL 5th bullet:

response	<p>Proposed change: To avoid any confusion, replace detailed specifications by SoCs.</p> <p><i>Accepted</i></p>
comment	<p>559 comment by: DCAC NSA Officer</p> <p>Cyprus will appreciate it very much if EASA could provide the MS with at least 3 FULL “real-world” examples of Statements of Compliance (including references to fictional tests and other verification checks) for all three categories of ATM/ANS equipment and share them with the Community either in the GM herein or as separate guidance.</p> <p>This is very important since we have a transition period of five years where everything needs to be covered by a SoC.</p> <p>The three examples should cover all three categories (certificate/declaration/SoC). This could be done against fictional/draft specifications in order to enable MS to “visualize” the required contents of the SoCs.</p>
response	<p><i>Partially accepted</i></p> <p>EASA takes note of the proposal for additional GM.</p> <p>Furthermore, the commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible via stakeholders' forums, e.g. ATM/ANS TEB and in particular via the consultation of RM programme addressing RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’.</p>
comment	<p>560 comment by: DCAC NSA Officer</p> <p>The “as far as applicable” provision implies that organisations can choose and pick what is and what is not applicable for them from an EASA detailed specification. We find this very ambiguous and subjective and we believe it will cause problems between ANSPs and CAAs.</p> <p>We suggest to remove the “as far as applicable” part.</p> <p>Also, EASA BR allows exemptions/ deviations under strict conditions. Cyprus requests the Agency to provide some examples of what could these deviations be (with reference to commonly used ATM/ANS equipment).</p>
response	<p><i>Not accepted</i></p> <p>Compliance needs to be demonstrated for a complete product. However, not all detailed specifications requirements contained in Book 1 (DS-GE.CER/DEC) or Book 2 (DS-GE.SoC) will form the certification/declaration/SoC basis. Therefore, it is deemed necessary ‘as far as applicable’ to be retained.</p> <p>EASA takes note of the proposal for additional GM.</p>

Furthermore, the commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible via stakeholders' forums, e.g. ATM/ANS TEB and in particular via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.

comment 682

comment by: *Thales Land and Air Systems*

' or on its behalf, the trade name and full address of the DPO approved...'
In the scenario where the ANSP requires an approved DPO to issue a SoC, the SoC needs to contain the ANSP's name and address too. The ANSP's name and full address on those SoC seem necessary to ensure an appropriate oversight of the ANSP by the CA.

response *Noted*

The comment is duly considered.

Please refer to GM1 Article 6(1) Statement of compliance, where point 1 and point 8 address the issue in question.

The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible via stakeholders' forums, e.g. ATM/ANS TEB and in particular via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework'.

comment 1078

comment by: *Deutscher Wetterdienst*

EASA is invited to clarify the meaning of bulletpoint 4: the reference to the detailed specifications... 'as far as applicable for the intended use, and any deviations therefrom;'

It is understood that the purpose of a SoC is to declare full compliance with EASA DS, otherwise the equipment must not be put into service.

response *Noted*

Compliance needs to be demonstrated for a complete product, i.e. ATM/ANS equipment. However, not all detailed specifications requirements contained in Book 1 (DS-GE.CER/DEC) or Book 2 (DS-GE.SoC) will form the certification/declaration/SoC basis. Therefore, it is deemed necessary 'as far as applicable' to be retained.

Based on the comment, EASA takes note for possible additional GM.

comment 1218

comment by: *Erik Tambs Andresen*

- Until 12 September 2023 ATM/ANS equipment put into service will state compliance with Essential Requirements in Annex II of (EC) No 552/2004 (and later Annex VIII of (EU) 2018/1139) as well as implementing rules adopted on the basis of (EC) No 552/2004.



	<ul style="list-style-type: none"> • The new regulatory framework for conformity assessment repeals these implementing rules taking the requirements from the implementing rules into new or existing regulations • ATM/ANS equipment subject to certification or declaration of design compliance may be put into operation subject to a statement of compliance until 12 September 2028 (ref. Article 7(3)) • There will be a time period starting 13 September 2023 until approved DPOs are ready to provide certifications or declarations of design compliance in which Certified ATM/ANS Service Providers will issue SoCs for COM, SUR, NAV and ATS equipment. • The SoC shall state compliance with detailed specifications as proposed in NPA 2023-05. • Requirements from the implementing rules are not necessarily part of the detailed specifications (e.g. (EU) No 1079/2012 - [VCS], and (EC) No 633/2007 [FMTP]) • Where should compliance with such requirements be documented?
response	<p><i>Noted</i></p> <p>It should be noted that the referenced Regulations are repealed with the adoption of the new ATM/ANS equipment framework, and the new ATM/ANS equipment framework requires only compliance with the EASA detailed specifications.</p> <p>Consequently, there is no need for compliance with the former referenced interoperability regulations and requirements to be demonstrated and documented.</p>

AMC2 Article 6(1) Statement of compliance
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comment	<p>3 comment by: <i>Erik Tambs Andresen</i></p> <ul style="list-style-type: none"> ▪ Article 6(1): "The statement of compliance shall confirm that the ATM/ANS equipment complies with the detailed specifications" ▪ Article 6(3)(a): "A statement of compliance shall remain valid unless the ATM/ANS equipment no longer complies with the essential requirements set out in Annex VIII and, if applicable, in Annex VII to Regulation (EU) 2018/1139;" ▪ Where is compliance with the essential requirements documented in the first place?
response	<p><i>Noted</i></p> <p>It should be noted that the essential requirements for ATM/ANS equipment are laid down in Annex VIII and, if applicable, in Annex VII to Regulation (EU) 2018/1139, and they are further cascaded in the EASA detailed specifications.</p> <p>In this context, if the ATM/ANS equipment no longer complies with EASA detailed specifications, the SoC is not valid any longer.</p>
comment	<p>316 comment by: <i>German NSA (BAF)</i></p>

response	<p>AMC2 Article 6(1) Statement of compliance</p> <p>In AMC/GM a description is missed that all equipment which falls under the conformity assessment is part of ATM/ANS-provider's functional system.</p> <p><i>Noted</i></p> <p>The comment is welcome.</p> <p>However, as the subject relates to the ATM/ANS functional system, it will be considered via RMT.0719 'Regular updates to ATM/ANS Regulation (EU) 2017/373'.</p> <p>The commentator is also kindly invited to consider whether a more detailed rulemaking proposal on the issue would be possible within the referenced RMT.0719.</p>
comment	<p>426 comment by: <i>EUROCONTROL</i></p> <p><u>Activities:</u> Should the verification be limited to the functionalities or also the performances of the ATM/ANS equipment? The word "purchased" may be limitative in the case when the ATM/ANS equipment is "manufactured(HW/developed(SW))" by the ATM/ANS provider itself.</p> <p>Proposed change: Replace purchased by a broader term to cover in house developments</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the text is amended to promote clarity.</p>
comment	<p>427 comment by: <i>EUROCONTROL</i></p> <p>The considerations covered by this proposed AMC are already covered in EU.2017/373 in ATM/ANS.OR.C.005(b)(1) and ATS.OR.205(b)(5).</p> <p>Proposed change: Suggest to remove the AMC</p>
response	<p><i>Not accepted</i></p> <p>Considering the NPA 2023-05 consultation, the proposal is not accepted.</p>
comment	<p>428 comment by: <i>EUROCONTROL</i></p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>The considerations covered by this proposed AMC are already covered in EU.2017/373 in ATM/ANS.OR.C.005(b)(1) and ATS.OR.205(b)(5).</p> </div> <p>The link created with the updated article ATM/ANS.OR.A.045 is sufficient to ensure that the new/modified GE would be verified against its requirements.</p> <p>Proposed change :</p>

	Suggest to remove this AMC
response	<p><i>Not accepted</i></p> <p>Considering the NPA 2023-05 consultation, the proposal is not accepted.</p>

comment	<p>468 comment by: IFATCA</p> <p>Activities:</p> <p>What does it mean? e.g. the supplier sets the specifications and EASA approves them. The ATM ANS provider want different specs, because the approved specs do not work (this is the major issue with the big industry players for the last 3 decades). Will the supplier then have to get the new specs approved or can the ATM ANS provider get an approval for the new specs, which will then increase the costs exponentially due to the fact that the supplier is not able to provide them. Meaning that the ATM ANS provider will have to remain with the purchased unfit for purpose specs which have been approved by EASA? If one looks at the latest introduction of new systems provided by the suppliers in Europe, one will always see that the delays are due to the specifications which are not matching the reality.</p>
response	<p><i>Noted</i></p> <p>In the context of the safety (support) assessment and assurance of changes to the functional system, the ATM/ANS provider shall provide assurance, with sufficient confidence, via a complete, documented and valid argument that the service will behave and will continue to behave only as specified in the specified context.</p> <p>In this context, as the equipment is one of the elements of the functional system that will enable safe provision of services, the ATM/ANS provider should verify the functionalities of the ATM/ANS equipment to ensure that it will operate as intended within the functional system.</p>

AMC3 Article 6(1) Statement of compliance

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comment	<p>9 comment by: DAC Luxembourg</p> <p>This AMC should include a time period after decommissioning of the system in order to account for potential investigations that might take place afterwards.</p>
response	<p><i>Accepted</i></p> <p>Taking into account the comment, a new point is added that states:</p>



'(b) The ATM/ANS provider should keep the records for a period of at least 3 years after the end of the service life of the ATM/ANS equipment unless otherwise specified by other applicable requirements.'

comment

429

comment by: EUROCONTROL

Record-keeping:

The SoC is issued by the service provider to the competent authority, Why would the competent authority request it later on? in case of loss?

Proposed change:

Remove this requirement or clarify further the rationale for it

response

Not accepted

The commentator is invited to note that the SoC is not required to be submitted to the competent authority.

The SoC is part of the dossier when a change to a functional system takes place and, therefore, it should be submitted upon request.

comment

495

comment by: EUROCONTROL

The link kindly available in the proposed text demonstrates that the AMC is redundant to already existing regulatory requirements.

Proposed change:

Suggest to remove the AMC

response

Not accepted

The commentator is kindly invited to consider that AMC means non-binding material developed by the Agency that helps to illustrate means to establish compliance with a particular requirement.

comment

905

comment by: FR DSAC

It is not understood why this AMC refer to Article 6(1) as it deals with Service providers' responsibilities within the scope of their 2017/373 certification. This AMC should just be linked to 2017/373 ATM/ANS.OR.B.030 as ATM/ANS.OR.B.005 has been modified to consider Article 6 (ATM/ANS.OR.B.005 (8)).

Proposal:

Keep this AMC but for 2017/373 ATM/ANS.OR.B.030

response

Noted

The commentator is kindly invited to consider that AMC means non-binding material developed by the Agency that helps to illustrate means to establish compliance with a particular requirement.



AMC4 Article 6(1) Statement of compliance

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comment	149	comment by: <i>CANSO</i>
	<p>Page 30: AMC4 Article 6(1) Statement of compliance ISSUE BY APPROVED ORGANISATIONS INVOLVED IN THE DESIGN AND/OR PRODUCTION OF ATM/ANS EQUIPMENT (DPOs)</p> <p>The approved DPO issuing a SoC shall know what documentation supports the SOC and should provide all the documents that form the basis of it to the ATM/ANS service provider. How can an ATM/ANS ensure that the documentation is complete? There should be a requirement for the SoC to be issued with all the documents that form the basis of it.</p>	
response	<p><i>Accepted</i></p> <p>Considering the comment, the provision is removed and point (b) to AMC1 Article 6(1) is introduced.</p>	
comment	264	comment by: <i>NAV Portugal E.P.E</i>
	<p>AMC4 Article 6(1) Statement of compliance ISSUE BY APPROVED ORGANISATIONS INVOLVED IN THE DESIGN AND/OR PRODUCTION OF ATM/ANS EQUIPMENT (DPOs)</p> <p>The approved DPO issuing a SoC shall know what documentation supports the SOC and should provide all the documents that form the basis of it to the ATM/ANS service provider. How can an ATM/ANS ensure that the documentation is complete? There should be a requirement for the SoC to be issued with all the documents that form the basis of it.</p>	
response	<p><i>Accepted</i></p> <p>Considering the comment, the provision is removed and point (b) to AMC1 Article 6(1) is introduced.</p>	
comment	317	comment by: <i>German NSA (BAF)</i>
	<p>(b) The SoC issued by an approved DPO should be accompanied by an EASA release form by the same DPO.</p> <p>It is proposed to add a reference to DPO.OR.C001 (d).</p>	
response	<p><i>Accepted</i></p>	
comment	318	comment by: <i>German NSA (BAF)</i>

	<p>8c) During oversight activities on a SoC issued by an approved DPO, that DPO should support the ATM/ANS provider to the extent required.</p> <p>It is not clear what is meant by "oversight activities". For clarification it is proposed to rephrase as follows: "During oversight activities performed by an ATM/ANS provider on a SoC issued by an approved DPO, that DPO should support the ATM/ANS provider to the required extent."</p> <p>If "oversight activities" should be related to NSA, then it is proposed to rephrase as follows: "During oversight activities performed by the competent authority on a SoC issued by an approved DPO, that DPO should support the ATM/ANS provider to the required extent."</p>
response	<p><i>Accepted</i></p> <p>The proposal is well received.</p>

comment	<p>469 comment by: IFATCA</p> <p>This article is not clear. Use an example to explain better.</p>
response	<p><i>Partially accepted</i></p> <p>Duly considering the comment, the text is amended.</p>

comment	<p>496 comment by: EUROCONTROL</p> <p>Point (a): obligations of ATM/ANS Providers for what concerns contracts are described in EU.2017/373. suggest to remove this point</p> <p><u>Proposed change:</u> Suggest to remove this point (a)</p>
response	<p><i>Accepted</i></p>

comment	<p>497 comment by: EUROCONTROL</p> <p>Point (b): <u>Proposed change :</u> Please provide a definition for "EASA release form". Explain what is the role of EASA in this context where SoC will be subject to National CA oversight.</p>
response	<p><i>Partially accepted</i></p> <p>Duly considering the comment, a reference to the EASA release form is provided. The referenced form declares that the ATM/ANS equipment has been produced in accordance with the applicable requirements and with the applicable design data.</p>

comment	498	comment by: EUROCONTROL
	Point (c): same comment as for GM1 Art3(2); Obligations of ATM/ANS providers are already covered by EU.2017/373.	
	<u>Proposed change:</u> To avoid confusion and duplication, suggest to remove this GM	
response	<i>Accepted</i>	
comment	561	comment by: DCAC NSA Officer
	Please provide a definition for “EASA release form”. Pls clarify whether EASA will have any active role in the scenario covered by this AMC.	
response	<i>Partially accepted</i> Duly considering the comment, a reference to the EASA release form is provided. The referenced form declares that the ATM/ANS equipment has been produced in accordance with the applicable requirements and with the applicable design data.	
comment	625	comment by: CANSO
	The procedure to be followed in order to declare compliance with the detailed specification will need to be developed prior to the new framework being implemented as equipment changes may need to be deployed by ANSPs soon after 12 September 2023. These changes could invalidate the existing DoV, necessitating an SoC.	
response	<i>Noted</i> The answer is affirmative. In this context, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to: <ul style="list-style-type: none"> — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary; — promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated ‘EASA ATM/ANS ground equipment webpage’ on the EASA website. These activities are planned in the context of IST.0002.	
comment	909	comment by: FR DSAC
	It is not understood why this is specific to SoC issued by DPOs. Most of what is required in this AMC should be applicable to non DPO SoC as well (except the EASA Form to be released which was said not to be required during the WS held on the 4th	

response	<p>of July).</p> <p>Proposal: AMC to be made generic to encompass DPO and non-DPO.</p> <p><i>Accepted</i></p> <p>Considering the comment, the commented provision is moved as point (b) to AMC1 Article 6(1) Statement of compliance.</p>
comment	<p>995 comment by: <i>Romanian CAA</i></p> <p>At b) is stated: The SoC issued by an approved DPO should be accompanied by an EASA release form by the same DPO, but at pag 64, GM1 ATM/ANS.OR.A.045(g) is stated: The ATM/ANS provider should ensure that an EASA release form or a statement of compliance, as appropriate, exists for each ATM/ANS equipment affected by the change prior to putting the changed functional system into service.</p> <p><i>There is an inconsistency in between the above mentioned AMC and GM related to the release form and it is not clear if there is a requirement to have both or only one.</i></p>
response	<p><i>Noted</i></p> <p>It should be noted that the SoC is the ATM/ANS provider’s declaration and responsibility. It could be issued based on the EASA release form issued by the DPO or based on other declaration(s) and evidence issued by manufacturers not approved. Therefore, the commented GM addresses those both cases.</p>
comment	<p>1050 comment by: <i>AESA</i></p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>In the case of equipment subject to SoC, AMC4 Art. 6(1) (b) states that the DPO has to issue both a SoC and an EASA release form but why does the DPO have to issue the EASA release form? And why is it not sufficient to issue the SoC?</p> </div>
response	<p><i>Noted</i></p> <p>It should be noted that the SoC is the ATM/ANS provider’s declaration and responsibility. When the DPO issues the SoC on behalf of the ATM/ANS provider, it should be substantiated upfront by verification activities.</p>



comment	<p>77</p> <p style="text-align: right;">comment by: <i>Indra Navia</i></p> <p>It is understood that this refers to equipment that has been "put in operation by an ATM/ANS provider before the date of entry into force of this Regulation", and applies in the transition phase: It cannot be assumed that the company is an approved DPO, and it was certainly not an approved DPO at the time a DoV/DSU was issued, as indicated in the text. Also, the reference to DSUs and DoCs should be revisited. DSUs and DoCs cannot be issued in the transition period (this was made clear in the CRTs to NPA 2002/09).</p>
response	<p><i>Partially accepted</i></p> <p>The comment is well received.</p> <p>The word 'approved' has been removed.</p> <p>The commented AMC is intended to illustrate the information to be provided by the competent authorities to EASA upon request in the context of the evaluation referred to in Article 7(2) for ATM/ANS equipment deployed before the entry into force of the new conformity assessment framework; Thus, reference to the Declaration of Compliance (DoC) or the Declaration for Suitability for Use (DSU) should be retained.</p>
comment	<p>86</p> <p style="text-align: right;">comment by: <i>DSNA</i></p> <p>During the transitional period, in the SoC, the company Name makes reference to the responsible approved DPO that has issued the Declaration of Compliance (DoC) or the Declaration for Suitability for Use (DSU). EASA should clarify whether in this AMC1 the reference to an 'approved DPO' is relevant. Actually, in the transitional period there seems to be no sense to make reference to an approved DPO</p>
response	<p><i>Accepted</i></p> <p>The comment is well received.</p> <p>The word 'approved' has been removed from the provision and referenced in a footnote.</p>
comment	<p>142</p> <p style="text-align: right;">comment by: <i>Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)</i></p> <p>AMC1 Article 7(2) Transitional provisions, page 31 /... Company Name: the name of the responsible approved DPO that has issued the Declaration of Compliance (DoC) or the Declaration for Suitability for Use (DSU)/</p> <p>During the transitional period, not sure the company is yet approved DPO?</p>
response	<p><i>Accepted</i></p> <p>The comment is well received.</p> <p>The word 'approved' has been removed from the text and referenced in a footnote.</p>

comment	171	comment by: <i>CANSO</i>
	During the transitional period, in the SoC, the company Name refers to the responsible approved DPO that has issued the Declaration of Compliance (DoC) or the Declaration for Suitability for Use (DSU)? EASA should clarify whether in this AMC1 the reference to an 'approved DPO' is relevant. Actually, in the transitional period there seems to be no sense to make reference to an approved DPO	
response	<i>Accepted</i>	
	The comment is well received. The word 'approved' has been removed from the text and referenced in a footnote.	

comment	319	comment by: <i>German NSA (BAF)</i>
	AMC1 Article 7(2) Transitional provisions In addition to AMC1 Article 7(2) an AMC Article 7 (4) seems to be necessary.	
response	<i>Noted</i>	
	The comment is welcome. To support the implementation of the new regulatory framework, this 1 st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'. In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to: <ul style="list-style-type: none"> — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary; — promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website. These activities are planned in the context of IST.0002.	

comment	354	comment by: <i>FOCA Switzerland</i>
	As regards the "company Name" we suggest to replace the current proposal with the following one: "Company Name: the name of the responsible approved -DPO(s) that has issued the Declaration(s) of Compliance (DoC) or the Declaration(s) for Suitability for Use (DSU)."	

response	<p>Indeed: 1) There isn't any approved DPO yet. 2) There may be several DPO and DSU/DoC for a specific equipment.</p> <p><i>Accepted</i></p> <p>The comment is well received. The word 'approved' has been removed from the text and referenced in a footnote. Furthermore, considering the comment, the provision is amended.</p>
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comment	<p>383 comment by: <i>skeyes</i></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 20%; vertical-align: top;">31</td> <td style="width: 30%; vertical-align: top;">AMC1 Article 2) transitional provisions</td> <td style="vertical-align: top;">During the transition period, ATM/ANS provider will face the issue of DPO not yet approved by EASA. It can make sense to reference the DPO for the considered equipment, but the reference to an 'approved' DPO is not yet relevant and confusing</td> </tr> </table>	31	AMC1 Article 2) transitional provisions	During the transition period, ATM/ANS provider will face the issue of DPO not yet approved by EASA. It can make sense to reference the DPO for the considered equipment, but the reference to an 'approved' DPO is not yet relevant and confusing
31	AMC1 Article 2) transitional provisions	During the transition period, ATM/ANS provider will face the issue of DPO not yet approved by EASA. It can make sense to reference the DPO for the considered equipment, but the reference to an 'approved' DPO is not yet relevant and confusing		
response	<p><i>Accepted</i></p> <p>The comment is well received. The word 'approved' has been removed from the text and referenced in a footnote.</p>			

comment	<p>384 comment by: <i>skeyes</i></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 20%; vertical-align: top;">32</td> <td style="width: 30%; vertical-align: top;">Limitations/remarks Uncorrect reference to duration validity of DoV</td> <td style="vertical-align: top;">It should be duration validity of SoC as the Dov is a concept from 552/2004</td> </tr> </table>	32	Limitations/remarks Uncorrect reference to duration validity of DoV	It should be duration validity of SoC as the Dov is a concept from 552/2004
32	Limitations/remarks Uncorrect reference to duration validity of DoV	It should be duration validity of SoC as the Dov is a concept from 552/2004		
response	<p><i>Not accepted</i></p> <p>The commented provision is intened to support the evaluation referred to in Article 7(2).</p>			

comment	<p>471 comment by: <i>IFATCA</i></p>
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	<p>ATM world is always in transition. it seems to IFATCA that the systems in place seem not to evolve. Each new regulations, specifications for aircraft performance etc. has an impact on the ATM Systems. They are constantly adapted (e.g. 90 days for NOTAM cycles), therefore this AMC and the GM are not usable and seem of only of compliance nature without any operational reality in mind. This article is immature and should be adapted to the real world. We can not ground a working system versus aircraft. Our reality is one of changes every week.</p> <p>The GM 1 ,2, and the GM1 ATM ANS etc. are not understandable. If an ATM ANS is not complying with it, does it mean we have to recall and stop the current operations? What about other standards e.g. CENELEC etc. What if the current Radar does not fall under the transitional provisions? Do we stop providing ATM?</p> <p>IFATCA hopes that we have misunderstood this proposal, otherwise it is simply shutting down the current system. The approach seems to not to take into account the ATM operational environment. It is immature and lacks clarity.</p>
response	<p><i>Noted</i></p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:</p> <ul style="list-style-type: none"> — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary; — promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website. <p>These activities are planned in the context of IST.0002.</p>
comment	<p>499 comment by: EUROCONTROL</p> <p>Relevant Information: The former DCO or DSU were not signed by "responsible approved DPO" (at the time when the declarations were issued the concept of DPO did not exist) , so it is suggested to replace "responsible approved DPO" by "entity/body". "Company" is not appropriate as EUROCONTROL has issued DSU for ARTAS, SDDS, EAD, ... in the frame of 552 CA. Soc (by ANSP) as placeholder for certificate (by DPO) : against which criteria should the statement be made? How to handle existing equipment that falls in the new scheme for which no DSU exists because the new framework has a larger scope than the previous?</p>

		To be confirmed that “ATM/ANS equipment holding EC declarations issued in accordance with Articles 5 or 6 of Regulation (EC) No 552/2004” is equivalent to DSU Old declarations can be used as placeholder during the transition period. EASA will evaluate within those 5 years, but failed evaluation has to be resolved within those same 5y irrespective of the date when the outcome of EASA evaluation is known?
response	<i>Accepted</i>	Considering the comment, the text is amended to promote clarity.
comment	500	comment by: <i>EUROCONTROL</i> There is no AMC or GM regarding Article 7(3), whilst the issuing of a SoC on an equipment that is subject to CS/DS is very unclear during the transition period. It is not clear in particular if a SoC should be issued in case of minor change and during the transition period. Please clarify in a GM. <u>Proposed change:</u> Add guidance material and/or AMC on article 7(3) to explain the transitional solution: the issuance of a SoC by the SP on the basis of the requirements of the published corresponding certification specification. Moreover if no corresponding certification specification published, the SoC is limited to the GEN part of the CS/DSs. This should include the case of a minor change to an equipment in each of the three categories.
response	<i>Accepted</i>	In response to the comment, AMC1 Article 7(3) Transitional provisions is introduced.
comment	684	comment by: <i>Thales Land and Air Systems</i> 'Company name' : DSU and DoC were issued before this regulation enters into force. As a result, DSU and DoC have been issued by manufacturers that were not approved DPO at the time they issued those DSU and those DoC. ==> remove mention of approved DPO in AMC1 Article 7(2)
response	<i>Accepted</i>	The comment is well received. The word 'approved' has been removed from the text and referenced in a footnote.
comment	729	comment by: <i>ENAIRE</i> There are no approved DPO yet. During the transitional period, is it relevant if the company is an approved DPO? Could EASA clarify this point?
response	<i>Accepted</i>	The comment is well received.

The word 'approved' has been removed from the text and referenced in a footnote.

comment

914

comment by: FR DSAC

Page 31

This AMC requires to mention the "approved DPO" that has issued the DoC or DSU. But during the transition period, this is not applicable as most of future DPO are neither approved nor even declared as willing to apply. Moreover, DoC and DSU were sometimes delivered by the Service Provider itself.

Proposal:

Replace "approved DPO" by "approved DPO or manufacturer or service provider"?

response

Partially accepted

The comment is well received.

The word 'approved' has been removed.

The commented AMC is purposed to illustrate the information to be provided by the competent authorities to EASA upon request in the context of the evaluation referred to in Article 7(2) for ATM/ANS equipment deployed before the entry into force of the new conformity assessment framework.

comment

915

comment by: FR DSAC

Page 31

Please confirm that "Authorised signature: identification of the signatory empowered to enter into commitments on behalf of the manufacturer or of the manufacturer's authorised representative, where available" is the "authorised signature" of the manufacturer or the service provider and not the Competent Authority's one.

response

Noted

If the question is correctly understood, the answer is affirmative as it refers to the identification of the signatory empowered to enter into commitments on behalf of the manufacturer or of the manufacturer's authorised representative, where available.

comment

996

comment by: Romanian CAA

There is guidance foreseen only for para (2) of article 7, namely for equipment put into service before 12.09.2023. There is no AMC/GM, however, for the equipment put into service during the 5 years transitional period. While NSAs are competent authorities and oversee SoCs issued on a provisional basis, it is not clear if the same relevant information AMC/GM is to be considered.

response

Accepted

In response to the comment, AMC1 Article 7(3) Transitional provisions is introduced.



comment	<p>1061 comment by: AESA</p> <p>As the competent authorities should provide the following information to EASA upon request, further development on this coordination task is required. ie. when EASA will request the information, deadlines, means, etc....</p>
response	<p><i>Noted</i></p> <p>Article 7 of the DA stipulates the following:</p> <ul style="list-style-type: none"> • A 5-year transitional period; • Equipment already in service before the new framework applies and holding an EC Declaration of Verification (DoV) is to be considered compliant with the requirements subject to an evaluation by EASA in the latest part of the transitional period. To facilitate this evaluation, the commented AMC is provided as it is considered essential for the initial phase of implementation. • Equipment (in the ‘certification’ and ‘declaration’ categories) put into operation during the transitional period might also be attested by the ATM/ANS providers using the equipment. Once the transitional period is over, EASA will be required to assess whether the equipment in such circumstance ensures a level of safety, security, performance and interoperability equivalent to that resulting from the full application of the delegated act. The necessary associated AMC/GM for this (second) assessment of certifiable/declarable equipment will be proposed with the consequent proposal of AMC/GM set under the future rulemaking activity on ‘Regular update of AMC & GM associated with ATM/ANS ground equipment conformity assessment framework’. • As from the end of the transitional period, the attestation evidence for all ATM/ANS equipment to be introduced into service, either new equipment or changes/evolution to already deployed equipment, will need to be fully compliant with the delegated act.
comment	<p>1176 comment by: AESA</p> <p>Part of the information that the CAs should provide is the Company Name: the name of the responsible approved DPO that has issued the Declaration of Compliance (DoC) or the Declaration for Suitability for Use (DSU). There is no possibility to know in advance who are the DPO before they are approved during the transitional period and before the evaluation of the ATM/ANS equipment afterwards.</p>
response	<p><i>Accepted</i></p> <p>The comment is well received.</p> <p>The word ‘approved’ has been removed from the text and referenced in a footnote.</p> <p>Furthermore, considering the comment, the provision is amended.</p> <p>The commented AMC is intended to illustrate the information to be provided by the competent authorities to EASA upon request in the context of the evaluation</p>

referred to in Article 7(2) for ATM/ANS equipment deployed before the entry into force of the new conformity assessment framework.

GM2 Article 6(1) Statement of compliance

p. 31

comment

141

comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)***GM2 Article 6(1) Statement of compliance, page 31****DOCUMENTS**

The documents that form the basis for the issuance of the SoC by an approved DPO should encompass, but not *be* limited to:

Add a '*be*' for the sentence to be complete.

response

Accepted

comment

382

comment by: *skeyes*

31

GM2 Article 6(1) Statement of compliance documents issued by a DPO on behalf of ATM/ANS provider

Guidance material does not cover end to end conformity assessment when the SoC is issued by a DPO. This is a regression compared to 552/2004

response

Noted

The comment is noted and EASA does agree that there is still a need for additional AMC/GM.

Therefore, to support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:

- launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period;

- maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary;
 - promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated ‘EASA ATM/ANS ground equipment webpage’ on the EASA website.
- These activities are planned in the context of IST.0002.

comment

504

comment by: EUROCONTROL

Although it is understood that this GM is ‘not limited to’; its content is not bringing clarity and does not propose considerations like test traceability, test coverage, test session success criteria ... (and many more).

Proposed change:

Suggest to remove the GM

response

Not accepted

To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’ and RMT.0744 ‘Regular update of detailed specifications for ATM/ANS ground equipment’.

In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:

- launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period;
- maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary;
- promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated ‘EASA ATM/ANS ground equipment webpage’ on the EASA website.

These activities are planned in the context of IST.0002.

comment

735

comment by: ENAIRE

It is proposed to merge GM2 with GM1 as follows:

For the purpose of the evaluation referred to in Article 7(2), the competent authorities responsible for the certification and oversight of the ATM/ANS providers referred to in Article 4(1) of Implementing Regulation (EU) 2017/373 may provide EASA with any



certificate, approval, licence, authorisation, attestation, technical file or other document issued as a result of a process attesting compliance of the ATM/ANS equipment with the applicable essential requirements laid down in Regulation (EC) No 552/2004.

In particular, this information may be provided in a form of the DoV for the ATM/ANS system(s), including its technical file, issued by the ATM/ANS provider under the oversight of the competent authority.

The proposed text seems redundant as the GM1 above (Submission of information) states that the relevant information may be provided in a form of DoV.

All the information mentioned in GM2 is already clustered in the DoV format.

response *Not accepted*

comment

912

comment by: FR DSAC

Evidence of compliance to detailed specifications will rely on much more than tests even for equipment under SoC. This view is really a simplification of what is expected of sound and efficient system engineering processes. This GM should be removed as it gives the false idea that some tests can provide sufficient evidence. Depending on the complexity of the equipment, much more may be necessary including but not limited to: architecture, components requirements, software requirements, verification, analysis and tests for each item, etc.

Proposal:

Remove as it will depend anyway on system engineering processes.

At least, complete by: equipment/components/sw specifications, requirements validation results, design documents.

response *Not accepted*

The comment is well received.

To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:

- launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period;
- maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary;

— promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website. These activities are planned in the context of IST.0002.

comment

913

comment by: FR DSAC

It is not understood why this AMC is specific to DPO. It should be applicable for DPO and non-DPO.

response

Accepted

Considering the comment, the provision is amended by removing 'by an approved DPO' to apply to all regulated parties.

comment

1135

comment by: Juan L. Diz

There are is not any reference to any design evidence to show that it has been designed in accordance with the applicable EASA detailed specification. Only verification evidence are recommended.

response

Noted

The comment is duly noted and will be considered under the future rulemaking activity on 'Regular update of AMC & GM associated with ATM/ANS ground equipment conformity assessment framework'.

GM1 Article 6(1) Statement of compliance

p. 31

comment

470

comment by: IFATCA

little b) designed in accordance with the applicable EASA detailed specification

Where can we find the detailed specification of a Conflict Resolution advisory tool based on AI and ML from EASA?

Where can we find the Remote Tower Human Factor limitations in a Multiple Remote Tower environment?

Where can we find the minimum fiberoptic bandwidth for a remote tower centre ?
What about VR in Tower operations etc.?

etc.

If IFATCA has understood correctly EASA will create specifications for all the new technology. E.g. the integrity of Emergency tools, The redundancy of AI Based clouds etc.?

So EASA will impose e.g. Forflight as a standard ? any other FDPS will not be made available because EASA has only written specifications for ForFlight?



response

IFATCA hopes that we have misunderstood this article. In case we have not, this article creates fragmentation, discriminates small ANSPs, small and innovative new solutions and stops any possible modernisation projects which relies on new technology

Further when talking about new technologies there is a need to decide how these specifications will be created in order to have only joint cognitive systems made available.

Noted

It should be noted that the current edition of DSs is incomplete and will be complemented with additional standards in the future. Currently, RMT.0744 is updating current DSs with the aim of issuing the next version in early 2026, but this does not prevent its certification. Part 1 GENERAL will be applicable and, in addition, the applicant may propose additional requirements such as those contained in the standards for a conflict resolution advisory tool to set up the certification basis. Once the first tool of this type is certified, EASA may update the DSs with the set of requirements used in the certification by future applicants.

EASA will not recognise specifications in the DSs that are developed by manufactures (e.g. 4-FLIGHT specs) and, on the contrary, it will use industry standards that have been consulted with and agreed upon by the aviation community. Only in exceptional cases, and always after consultation with stakeholders, EASA may adopt specifications that are not captured in a standard.

comment

501

comment by: EUROCONTROL

2. Point (b)(1): according to this new regulatory framework, no GE could be purchased if not compliant with the Conformity Assessment obligations; in that context subpoint (1) is redundant and could be bringing confusion (“As a ATM/ANS provider could I buy a GE that is subject to Conformity Assessment but not compliant with Detailed Specifications”?)

3. Point (b)(2): “... and the ATM/ANS functions thereof were tested for intended use.” is misleading and could lead to ATM/ANS Provider to believe that it is enough that the manufacturer does that. This is inconsistent with obligations covered by EU.2017/373 in ATM/ANS.OR.C.005(b)(1) and ATS.OR.205(b)(5)

Proposed change :

Suggest to remove this Point (b) of this GM

response

Partially accepted

Duly considering the comment, the commented provision is revised to avoid ambiguities.

comment	502	comment by: EUROCONTROL
	<p>Point (b)(1): according to this new regulatory framework, no GE could be purchased if not compliant with the Conformity Assessment obligations; in that context subpoint (1) is redundant and could be bringing confusion (“As a ATM/ANS provider could I buy a GE that is subject to Conformity Assessment but not compliant with Detailed Specifications”?)</p> <p><u>Proposed change:</u></p> <p>Suggest to remove Point (b) (1)</p>	
response	Accepted	

comment	503	comment by: EUROCONTROL
	<p>Point (b)(2): “... and the ATM/ANS functions thereof were tested for intended use.” is misleading and could lead to ATM/ANS Provider to believe that it is enough that the manufacturer does that. This is inconsistent with obligations covered by EU.2017/373 in ATM/ANS.OR.C.005(b)(1) and ATS.OR.205(b)(5)</p> <p><u>Proposed change:</u></p> <p>Clarify , possibly in a GM, the extend of the DPO testing/verification tasks and the remaining testing / verification still required by 373.</p>	
response	<p>Noted</p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 ‘Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework’ and RMT.0744 ‘Regular update of detailed specifications for ATM/ANS ground equipment’.</p> <p>in this context, the comment is welcome.</p>	

comment	562	comment by: DCAC NSA Officer
	<p>The linguistic expression is not correct. We propose the following wording: “...The procurement contract between the ATM/ANS provider and the manufacturer(s) should clearly define...”</p>	
response	Accepted	

comment	727	comment by: ENAIRE
	Add "issued by an approved DPO". Under our understanding that GM1 article 6(1) is linked to AMC4 Article 6(1).	
response	<i>Not accepted</i>	
comment	731	comment by: ENAIRE
	Proposed amended text for (b)(2): "manufactured and verified and the equipment complies with the technical specification given. Besides the ATM/ANS functions thereof were tested for the intended use". It can be important that the manufacturer compromises to complies with all the necessary functions required by the ATM/ANS not only through test, but also by signed contract.	
response	<i>Not accepted</i> The comment is well received; however, the proposed wording is not considered appropriate.	
comment	732	comment by: ENAIRE
	Please clarify: - Whether all SoC system types will have a EASA DS in September 2023, when CA regulations enter into force; - If September arrives and some DSs are still missing, how will ATM/ANS be able to manage the acquisitions of such equipment?	
response	<i>Noted</i> To support the implementation of the new regulatory framework, this 1 st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'. In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to: — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary;	

— promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated ‘EASA ATM/ANS ground equipment webpage’ on the EASA website. These activities are planned in the context of IST.0002.

comment

910

comment by: FR DSAC

The content of this GM is not actually related to Article 6(1) and refers to Service providers' responsibilities within the scope of their 2017/373 certification. This AMC should be linked to ATM/ANS.OR.A.045 (h)

Proposal:

Keep this AMC but for new 2017/373 ATM/ANS.OR.A.045 (h)

response

Partially accepted

comment

911

comment by: FR DSAC

Editorial : In (b)(1) add an s to “specifications”

response

Accepted

comment

1037

comment by: AESA

What is the reason why the information contained in this item is listed as GM and not AMC? In our view it should be an AMC.

response

Noted

The purpose of this GM is to illustrate the meaning of a requirement and is used to support the interpretation of the rules laid down in the Regulation. The provision is not considered to be of AMC nature.

comment

1133

comment by: Roy Posern, Fraport AG / ACI Europe

please retain the subject GM in a dedicated GM paragraph as proposed.

response

Accepted

Taking into account the feedback received, the commented provision is retained as GM.

GM1 ATM/ANS.EQMT.AR.A.030 ATM/ANS equipment directives

p. 32

comment

78

comment by: Indra Navia



	<p>On a more detailed level: If a an approved DPO does not include in its application support and maintenance of older versions of equipment types that the DPO is approved for, i.e. equipment versions deployed 10-15 years prior to entry into force of this regulation, will the ATM/ANS providers still operating those older versions of the equipment at the end of the transition period need to execute the required acts: "However, the directive will require ATM/ANS providers to consider how the absence of the DPO impacts the suitability for use of the equipment...", taking into account that there is no DPO taking responsibility for support and maintenance of the equipment? An answer to this question is required in order to determine:</p> <ul style="list-style-type: none"> - Which equipment versions and types to include in DPO applications - How to notify ATM/ANS providers that their equipment is EOL <p>If this is not the case, if the clauses in the "transitional provisions" takes precedence over this GM, then it should be considered to state in "GM1 ATM/ANS.EQMT.AR.A.030 ATM/ANS equipment directives" that this GM only applies to equipment attested under the new regulation.</p>
response	<p><i>Noted</i></p> <p>The scope of application for DPO approval is generic enough to include the type of equipment to be designed and produced, but it does not describe details such as the versions of equipment developed in the past. The case described is unlikely (i.e. a DPO application not covering equipment developed in the past), but certainly it is not impossible. The situation will be the same as for current legacy systems developed in the past by manufacturers that decide not to apply as DPO. As indicated in the GM, this does not pose an immediate problem the service provider if they continue using the equipment, but any changes to the equipment will require a DPO to take care of them, and the service provider will need to consider how such equipment will need to be evolved to maintain the suitability of it. This situation will need to be resolved at the end of the transitional period.</p>
comment	<p>240 comment by: Nils</p> <p>Regarding the text "<i>In the above situation, EASA would: (a) issue an ATM/ANS equipment directive, as an unsafe condition is likely to develop in the absence of an DPO with appropriate privileges...</i>"</p> <p>What evidence is there that the probability of unsafe conditions is "likely" due to the absence or discontinuation of an approval?</p>
response	<p><i>Noted</i></p> <p>The text has been amended to indicate that the case of a developing unsafe, insecure, under-performing or non-interoperability condition is not automatically concluded because of the absence of approved DPO. It needs to be assessed and determined by the service provider, and only in case of such conclusion, an equipment directive will be issued.</p>
comment	<p>241 comment by: Nils</p>

	<p>Regarding the text “this requires another DPO with appropriate privileges taking responsibility for the compliance of the equipment with the applicable technical specifications” on page 33.</p> <p>What does taking responsibility mean? Assurance? How shall that be shared between ANSP and DPO and why can’t an ANSP take that responsibility as an ANSP and not as a DPO?</p>
response	<p><i>Noted</i></p> <p>The ANSPs can take the responsibility to change the design of equipment, but only when it has been approved as DPO. When an organisation is approved as DPO, it obtains privileges to change the design of the ATM/ANS equipment that is subject to certification/declaration. According to ATM/ANS.EQMT.CERT.010, the applicant for a certificate must be approved as DPO (similarly for declarations as per ATM/ANS.EQMT.DEC.005). Only those organisations approved as DPO can make changes to the equipment design (as per DPO.OR.A.025).</p>
comment	<p>472 comment by: IFATCA</p> <p>Part of a) is not understandable Market conditions seem more important than operational reality. e.g. in order to be able to continue operating the normal world of ATM, the ATM ANS will have to declare each change to the current system as an exception of the regulation. This should not be the intend.</p> <p>IFATCA hopes that we have misunderstood the proposal in the GM.</p>
response	<p><i>Noted</i></p> <p>The GM has been amended to enhance clarity. The intent of this GM is to illustrate that changes declared as exceptions to the Regulation may only occur in cases where there is no DPO approved to handle changes to legacy systems. This case should be only an exception, rather than the norm.</p>
comment	<p>505 comment by: EUROCONTROL</p> <p>ATM/ANS Providers are responsible of their operations; the fact that a DPO loses its “Approval” would not instantaneously translate into a service not meeting the terms of the Safety Criteria or of the Service Specifications.</p> <p><u>Proposed change:</u> Suggest to clarify and move as a regulatory requirement into the Act.</p>
response	<p><i>Partially accepted</i></p> <p>The text has been amended in line with the comment. The loss of DPO approval does automatically imply an unsafe condition, which requires the equipment directive. The amendment of the IR is not possible at this moment, and it has been considered enough for the proper application with the adoption of explanatory material.</p>

comment	<p>626 comment by: <i>CANSO</i></p> <p>Obsolescence issues are currently the responsibility of the ANSP, and can be as a result of a product no longer being supported even if the manufacturer is still operating. Clarification is requested regarding the loss validity of certificates as to how this would be managed. It seems unavoidable that this would result in an ANSP having to become a DPO themselves and take responsibility for the affected equipment.</p>
response	<p><i>Noted</i></p> <div style="border: 1px solid black; padding: 5px;"> <p>The GM has been redrafted to enhance clarity in this regard. The regulatory acts do not impose how to resolve the issue of validity loss of certificates (due to loss of DPO approval), but they require an organisation to become responsible for the changes to the design of such equipment. There may be other solutions for ATM/ANS providers to become DPOs.</p> </div>
comment	<p>630 comment by: <i>CANSO</i></p> <p>page 33</p> <p>In reference to the point “In accordance with ATM/ANS.OR.A.045 (g)(1) and (g)(2) ...’</p> <p>This could present issues as there is an assumption that it will be possible or practical to get another DPO to take responsibility. There is a risk that ANSPs may need to pre-emptively certify as DPOs to mitigate the risk of unanticipated obsolescence. A replacement with an alternative product may be a time and resource heavy process. The subsequent paragraph does provide some relief but is a cumbersome solution and ultimately limited to 8 months.</p>
response	<p><i>Noted</i></p> <p>This GM provides interpretative material with regard to possibilities to face the situation of losing the DPO approval. It is neither prescriptive nor exhaustive as regards the solutions to be adopted in each case. The actual resolution may well require an ad hoc discussion when it arises in due time. For the time being, it seems that it provides (only some) answers to the questions raised by stakeholders in such cases. RMT.0743 may review and update the text if necessary in the future.</p>
comment	<p>737 comment by: <i>ENAIRE</i></p> <p>Regarding (b) "Take any other necessary further enforcement measures which are necessary to mitigate the consequences of the discontinuation of a DPO approval", it is proposed to add a list of possible measures, or any specific example of them (to be decided by EASA).</p> <p>The DPO organization should have all the relevant information regarding the extension or the revocation of the DPO approval. Adding the suggested list and/or examples would help the DPO organization to confront each situation.</p>
response	<p><i>Noted</i></p>

This GM provides interpretative material with regard to possibilities to face the situation of losing the DPO approval. It is neither prescriptive nor exhaustive as regards the solutions to be adopted in each case. The actual resolution may well require an ad hoc discussion when it arises in due time. For the time being, it seems that it provides (only some) answers to the questions raised by stakeholders in such cases. RMT.0743 may review and update the text if necessary in the future.

comment

916

comment by: FR DSAC

Page 32

We would have preferred a general GM on directives (indeed, certain points apply to any directive) and a GM specific to the particular case where a directive is required when a DPO is no longer compliant with the regulation

response

Noted

RMT.0743 may propose changes to the way GM is presented following experience gained and feedback provided from stakeholders during the implementation of the regulatory framework.

comment

917

comment by: FR DSAC

Page 33

As concerns the exemptions for urgent operational needs, unless mistaken, this is the first time we are faced in the European regulations with a GM that specifies what to put in a BR article 71 exemption established by the MS. This comes down to having a GM for the BR in this regulation, which is why we are cautious on the possibility to maintain it.

Should the GM be maintained, the term “shall” should be deleted “the Member State shall provide adequate justification”

response

Partially accepted

The possibility to apply flexibility provisions is just a reminder in very exceptional cases, and under a set of conditions that need to be respected. The word ‘shall’ has been removed as suggested by the commentator.

comment

1000

comment by: Romanian CAA

The term „safety directive” is used with different meaning and inconsistent with the provisions contained in the Regulation 373/2017; ATM/ANS.AR.A.030 Safety directives and ATM/ANS.OR.A.060 Immediate reaction to a safety problem, letter (a).

*Firstly, there is a contradiction between the requirements for the NSA **imposing** action and the requirements for an ATM/ANS provider that **proposes actions** to the NSA for approval. Imposing action seems to be in line with newly inserted definition (88) of the Regulation 373/2017, where action is mandated, not proposed.*



But, there is still an inconsistency with the idea of „ATM/ANS equipment directive”, as defined in the Delegated Act. This definition foresees that only the Agency issues such directives, therefore differently than the „safety directives” in definition 88, as amended, which can be issued by any competent authority, either national or the Agency.

We need clarifications for the entire process related to the issuance of safety directives related to ATM/ANS equipment because there are different definitions and different requirements for the Agency, national competent authorities and ATM/ANS providers.

response

Noted

ATM safety directives are issued by EASA as regards equipment that is certified/declared. In the case of actions related to equipment subject to SoC, NSAs can and should issue safety directives, but not equipment directives.

comment

1039

comment by: AESA

How will national authorities have access to information on the list of equipment that is certified/declared and on approved DPOs?

response

Noted

EASA will make this information available. The repository of Article 74 is likely to be the tool used for this purpose, which is under development at the moment.

comment

1062

comment by: AESA

REGARDING ATM/ANS EQUIPMENT DIRECTIVE IN CASES WHERE THE ATM/ANS EQUIPMENT CERTIFICATE OR DECLARATION LOSES ITS VALIDITY AS A CONSEQUENCE OF THE DISCONTINUATION OF THE APPROVAL OF THE ORGANISATION INVOLVED IN THE DESIGN AND/OR PRODUCTION (DPO) OF THAT ATM/ANS EQUIPMENT

The directive will require ATM/ANS providers to consider how the absence of the DPO impacts the suitability for use of the equipment, the defined conditions of use, and any prescribed limitations. In case of determined unsafe conditions, adequate mitigations will be necessary;

How will this procedure be conducted? Through a Safety Assessment? Safety Support Assessment? Any other means?

response

Noted

This has not been prescribed, and it is up to the ANPS to assess and decide on a case-by-case basis. If in the context of the activities of RMT.0743 the need to have additional material is identified, this will be developed and consulted in due time.

GM1 Article 7(2) Transitional provisions

p. 32

comment

239

comment by: Nils

It is welcome that the transitional regime is defined more precisely and we agree with the approach taken by EASA in making efficient use of the vestiges of the legacy framework to ease the transition, notably the use of Declaration of Verification and Technical File as a vehicle to submit the requisite information. It was expected that the NPA would also go into more depth in defining the “legacy equipment” and particularly what pertains to equipment introduced into operations throughout the transitional period. Case in point, a quote from Opinion 1/2023, note the emphasis: *“Equipment (in the ‘certification’ and ‘declaration’ categories) put into operation during the transitional period [5 years from the entry into force of the regulation, i.e. 2028] might also be attested by the ATM/ANS providers using the equipment. Once the transition period is over EASA will be required to assess if the equipment in such circumstance ensures a level of safety, security, performance, and interoperability equivalent to that resulting from the full application of the delegated act.”*

We respectfully request that EASA clarify, as soon as possible, whether GM1 applies to the case of new equipment introduced during the transitional phase, and what recourse will be made available to ANSPs who employ such equipment during the transitional phase and before EASA assesses it not compliant on any of the assessment criteria listed.

response

Noted

The commented GM applies for ATM/ANS equipment referred to in points (a) and (b) of paragraph 1 of Article 7 of that Regulation, i.e. ATM/ANS equipment holding EC declarations issued in accordance with Articles 5 or 6 of Regulation (EC) No 552/2004 of the European Parliament and of the Council and that has been put into operation before the date of entry into force of this Regulation.

GM associated with Article 7(3) will be duly considered during the ‘Regular updates of the relevant AMC/GM’ RMT activities.

comment

997

comment by: Romanian CAA

There is guidance foreseen only for para (2) of article 7, namely for equipment put into service before 12.09.2023. There is no AMC/GM, however, for the equipment put into service during the 5 years transitional period. While NSAs are competent authorities and oversee SoCs issued on a provisional basis, it is not clear if the same relevant information AMC/GM is to be considered.

response

Noted

The comment is well received and will be duly considered during the ‘Regular updates of the relevant AMC/GM’ RMT activities.



GM2 Article 7(2) Transitional provisions

p. 32

comment	998	comment by: <i>Romanian CAA</i>
	<i>There is guidance foreseen only for para (2) of article 7, namely for equipment put into service before 12.09.2023. There is no AMC/GM, however, for the equipment put into service during the 5 years transitional period. While NSAs are competent authorities and oversee SoCs issued on a provisional basis, it is not clear if the same relevant information AMC/GM is to be considered.</i>	
response	<i>Noted</i>	
	Considering the comment, the new AMC1 Article 7(3) Transitional provisions is introduced.	
comment	1038	comment by: <i>AESA</i>
	Regarding the information to be provided by the national authority to EASA, taking into account Article 7.4 (transitional provisions) of the COMMISSION DELEGATED REGULATION (EU) .../...of XXX laying down detailed rules for the certification and declaration of air traffic management/air navigation services systems and air traffic management/air navigation services constituents, is it similar to what is indicated in NPA 2023-05 for the case of Article 7.2? It should be indicated what is the relevant information to be provided by NSAs to EASA in the case of Article 7.4.	
response	<i>Noted</i>	
	Such information will be described in due time and communicated to the NSAs, and it may not necessarily be described in AMC & GM. At this moment, the Agency has not conducted the analysis of what information will be required.	

GM1 ATM/ANS.EQMT.AR.B.001(a)(1) ATM/ANS equipment certification basis

p. 34

comment	143	comment by: <i>Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)</i>
	GM1 ATM/ANS.EQMT.AR.B.001(a)(1) ATM/ANS equipment certification basis, page 34 ALTERNATIVE MEANS OF COMPLIANCE (see point ATM/ANS.EQMT.AR.B.001(a)(1)(ii)) <i>If the intent of the detailed specifications defined in point ATM/ANS.EQMT.AR.B.001(a)) cannot be met, EASA may accept mitigating factors to not meeting the intent of the detailed specifications, provided that the safety objective is met.</i> Note: 'Alternative means of compliance' should not be confused with 'AMC'.	



response	<p>If not to confuse, why use the same concept? AltMoC</p> <p><i>Accepted</i></p> <p>The note has been deleted. It is considered not useful and may be misleading.</p>
comment	<p>400 comment by: <i>SDM</i></p> <p>Original Text in the document: <i>EASA may accept mitigating factors to not meeting the intent of the detailed specifications, provided that the safety objective is met.</i></p> <p>SDM comment: <i>The statement on Alternative Means of Compliance would mean that the key performance areas of capacity, operational efficiency, cost efficiency, and environmental intents of CP1 could be bypassed provided that safety objectives are met.</i></p> <p>SDM proposed new text: <i>EASA may accept mitigating factors to not meeting the intent of the detailed specifications, provided that the safety objective as well as key performance areas of CP1 (capacity, operational efficiency, cost efficiency, and environment) are met.</i></p>
response	<p><i>Noted</i></p> <p>The GM has been deleted, as its wording may be misleading. However, the wording proposed cannot be accepted as it is. The demonstration of equivalence of alternative means of compliance will need to be detailed (and more importantly consulted) before final text is published. This will be addressed during RMT.0743</p>
comment	<p>473 comment by: <i>IFATCA</i></p> <p>EASA is being provided extensive competencies on paper. But where will EASA get these knowledge and intelligence from? in particular if we talk about AI and ML based systems?</p>
response	<p><i>Noted</i></p> <p>The comment is not related to the GM in question. In any case, EASA will take the necessary decisions and actions in due time to have its staff well ready for this challenge in terms of additional staff and developing competence, among others.</p>
comment	<p>506 comment by: <i>EUROCONTROL</i></p> <p>Detailed specifications: In the case of software equipment the specification of the equipment may evolve during its development and it is anticipated that the certification process will overlap the development. If the evolution of the specification of the equipment impacts the certification basis, how is it possible to amend it (special conditions, deviations, ...)?</p> <p><u>Proposed change:</u> Please clarify this case in the GM.</p>

response *Accepted*

Most sections have been deleted and they will be reassessed at a later stage, based on experience with the application of the framework and feedback received from industry. This activity will be addressed by the Agency through the the new RMT.0743.

comment 507 comment by: EUROCONTROL

1st § “the validity ...” is paraphrasing the obligations already stated in ATM/ANS.EQMT.CERT.015(e)(2): suggest to remove as it is a repetition (difficult to keep updated and aligned in case of modification and potential for confusion)

Propsoed change:
Suggest to remove as it is a repetition.

response *Accepted*

The text paraphrasing the rule has been deleted.

comment 508 comment by: EUROCONTROL

2nd § “Elect to comply...” refers to a specific subpoint: suggest to move to a dedicated GM to ATM/ANS.EQMT.AR.B.001(a)(1)(i)

Proposed change:
suggest to move to a dedicated GM to ATM/ANS.EQMT.AR.B.001(a)(1)(i)

response *Accepted*

Most sections have been deleted and they will be reassessed at a later stage, based on experience with the aplication of the framework and feedback received from industry.

comment 509 comment by: EUROCONTROL

3rd§ “Equivalent...” refers to a specific subpoint

Proposed change:
Suggest to move to a dedicated GM to ATM/ANS.EQMT.AR.B.001(a)(1)(ii)

response *Accepted*

Most sections have been deleted and they will be reassessed at a later stage, based on experience with the application of the framework and feedback received from industry.

comment 510 comment by: EUROCONTROL

4th § “Alternative...” refers to a specific subpoint

Proposed change:

Suggest to move to a dedicated GM to ATM/ANS.EQMT.AR.B.001(a)(1)(ii)

response *Partially accepted*

This GM will be developed separately, but it will be developed within the future RMT.0743. The proposed text within the NPA has been deleted.

comment 511 comment by: EUROCONTROL

5th § “Special Conditions...” is duplicating what is already covered by refers to a specific subpoint:

Proposed change :

suggest to move to a dedicated GM to ATM/ANS.EQMT.AR.B.005: suggest to remove

response *Accepted*

The text has been removed as suggested by the commentator.

comment 512 comment by: EUROCONTROL

Detailed specification : please explain that there is a special case for the transitional period notably when there is no detailed spec published.

Proposed change:

Add the transitional period specific case

response *Accepted*

The case of transitional period has been added to the final GM text.

comment 513 comment by: EUROCONTROL

Suggest to further clarify that the certification basis can include one or more detailed specifications that are underpinning the equipment submitted to certification. Would be good also to clarify what happens in case the equipment calls for detailed spec of different categories for example cert , Dec or SoC.

Proposed change:

	<p>Please complement the GM to clarify how detailed specs of different categories are considered in the certification basis and insert "one of more relevant" before detailed specs in the first sentence.</p>
<p>response</p>	<p><i>Accepted</i></p> <p>The commentator's suggestion is positively received; however, the Agency considers that this aspect is preferable to be addressed and consulted under RMT.0743.</p>
<p>comment</p>	<p>607 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>Alternative Means of Compliance "... should not be confused with "AMC". Does this mean that there is no way to deviate from the AMC in a Detailed Specification through AltMoC. The demonstration of an equivalent level of safety and that the safety objective is met is not an AltMoC?</p> <p>How does this separate to special conditions as regulated by EQMT.AR.B.005? Is in that case only the Agency allowed to determine non/diverging-application of detailed specifications? And why is this for an appropriate level of performance while the above is about safety?</p> <p>It is not clear what the DPO activity is to trigger EASA to react according to EQMT.AR.B.005.</p> <p>Secondly, what exactly is the safety objective in a Detailed Specification (Chapter, Number...)? An equipment can be safe by simply omitting features. Is that not allowed? So far we understand that any non-compliance to Detailed Specifications will form a part of the limitations and deviations that may exist, and still the certificate is issued (with naming those limitations). See also EQMT.DEC.010 point (g) "list of deviations, as applicable".</p>
<p>response</p>	<p><i>Noted</i></p> <p>The current GM has been deleted. The issues related to deviations from AMC are not well defined in the proposed text, and it is of utmost importance that the AMC/GM addressing this aspect are carefully reflected, drafted and consulted. The Agency will address it during the development of new AMC/GM under RMT.0743. It is worth noting that alternative means of compliance can be used instead of AMC, but the process to handle them needs to be specified.</p>
<p>comment</p>	<p>631 comment by: <i>CANSO</i></p> <p>Clarification is needed as it is unclear what would happen if EASA did not accept a deviation which an ANSP deemed necessary for integration into their system. The new framework seems to lose some of the flexibility contained in the Community Specifications under 552. Therefore, including a more definitive criteria under which a deviation from the DS will be accepted would be beneficial. The DSs will inevitably contain some prescriptive elements so it is important that there is a robust mechanism to deviate from these.</p>

response	<p><i>Noted</i></p> <p>The Agency concurs with the commentator. The issues related to deviations from AMC are not well defined in the proposed text, and it is of upmost importance that the AMC/GM addressing this aspect are carefully reflected, drafted and consulted. The Agency will address it during the development of new AMC/GM under RMT.0743.</p>
comment	<p><i>690</i> comment by: <i>Thales Land and Air Systems</i></p> <p>'Equivalent level of safety'</p> <p>The use of equivalent level of safety is agreed in principles, but the current regulatory framework does not allow the use of an equivalent level of safety argument. Indeed, to use such principle DPOs need to know the level of safety to be achieved by the equipment; but the Detailed Specifications proposed in NPA 2023-05 do not define the levels of safety to be achieved by the ATM.ANS functions.</p> <p>This entire regulatory framework relies on the definition of safety, security ,performance objectives per ATM/ANS function. But the current Detailed Specifications do not define those safety objectives, this lack of definition of the required levels of safety impairs the ability of the manufacturers to demonstrate that an equipment achieves an equivalent level of safety by using an alternative.</p> <p>==> It is proposed to define levels of safety in the Detailed Specification to allow the use of equivalent level of safety argument.</p>
response	<p><i>Noted</i></p> <p>The Agency concurs with the commentator. The current DSs do not address the level of safety well enough, and additional material needs to be developed to handle deviations and how this equivalent level of safety will be evaluated, based on specific and concrete criteria. DSs will need to evolve too to better reflect levels of safety. GM requires further elaboration and will be developed during RMT.0743</p>
comment	<p><i>918</i> comment by: <i>FR DSAC</i></p> <p>Equivalent level of safety: Safety criteria and mitigation strategies are defined by Service providers which, considering this new compliance framework, will be based on approved Detailed Specifications. It appears quite difficult for EASA to assess that an alternative set of detailed specifications will grant an "equivalent level of safety" from its unique point of view. If alternative DS are used, it will be equivalent to having manufacturers specific equipment and it is more than probable that each equipment change will require high integration costs and will not allow to reach the objective of the new framework.</p> <p>Proposal: Please elaborate on what is understood as an "equivalent level of safety". On which objective criteria could it be deemed equivalent?</p>
response	<p><i>Noted</i></p>

The Agency concurs with the commentator. Equivalent level of safety is not well addressed in the proposal, and additional material needs to be developed to handle deviations and how this equivalent level of safety will be evaluated, based on specific and concrete criteria. Additional AMC/GM will be developed during RMT.0743.

comment 919

comment by: FR DSAC

The wording “The ATM/ANS equipment certification basis consists of the detailed specifications that were effective on the date of application and were applicable for that certificate.” Is not exact. The certification basis are also based on special conditions, equivalent level of safety, elect to comply and alternative means of compliance.

Proposal “The ATM/ANS equipment certification basis **is established on the basis of** the detailed specifications that were effective on the date of application and were applicable for that certificate

response *Accepted*

The text has been amended as suggested by the commentator.

comment 1222

comment by: DFS Deutsche Flugsicherung GmbH

ATM/ANS.EQMT.AR.B.001(b) extends EASA's involvement to "*any client functionality*", i.e. to minor changes, by requiring that "*any additional function not initially included in the certification basis to be agreed by the Agency*".

This overrules the DPO privilege to self authorize minor changes that do not affect the EASA certification basis without prior notification to EASA.

response *Not accepted*

Any new functionality not covered by the certification basis agreed by the Agency cannot be considered a minor change.

AMC1 ATM/ANS.EQMT.CERT.015(b)(2) Application for an ATM/ANS equipment certificate

p. 35

comment 103

comment by: DSNA

at § 3.2.3 p 38 : It is unclear in the end if certification is made at “equipment” level or at “CDI level” (Consistent data activities”, the link between equipment and CDI is unclear, definitions and example of link between equipment and CDIs would be helpful.

at § .3.2.3 p39.. The compliance demonstration activities and data that EASA retains for verification during the certification process, as well as the depth of the verification defines the 'EASA's level of involvement (LoI)'.



	<p>Request : EASA's Lol depends of the DPO performance assessment results and status. The EASA's Lol in each equipment and CDI certification and leading criteria should be communicated to all ANSP.</p> <p>at § 3.2.4.. p39 - -Assessment of DPO performance should not be detrimental to a level-playing field for all DPOs. This applies in particular to the extent of work and efforts required for new entities to apply for DPO status compared to established DPOs mantaining their status based on their experience"</p>
<p>response</p>	<p><i>Partially accepted</i></p> <p>Certification will be done at the level of ‘equipment’; however, CDIs are useful to split certification activities in chunks that can be independently evaluated, and used for the purpose of identifying EASA’s Lol. Further links between equipment and CDI will be considered within RMT.0743. It is not well justified why the ANSPs need to be informed about EASA’s Lol. In principle, this is not relevant for the ANSPs.</p> <p>Regarding the last point stating that DPO performance should not penalise level playing field for all DPOs, the Agency concurs with it; however, DPO performance may have an impact on the likelihood of an unidentified non-compliance, which is essentially the reason why it should be considered to determine the Lol. Different Lols among DPOs do not interfere with level playing field.</p>
<p>comment</p>	<p>150 comment by: CANSO</p> <p>Page 39, paragraph 3.2.5 “In fact, that AMC provides EASA’s confidence level that the DPO addresses all the details of the certification basis for the CDI concerned, and that a non-compliance will not occur.”</p> <p>This text is not clear. What AMC is referenced here?</p>
<p>response</p>	<p><i>Noted</i></p> <p>To avoid misinterpretation, the text has been removed.</p>
<p>comment</p>	<p>151 comment by: CANSO</p> <p>Page 40, paragraph 3.3 “a function or system is introduced or affected where the failure of that function or system may contribute to a failure condition that is classified as per GM3 GE.GEN.007 of the Detailed Specifications and Acceptable Means of Compliance and Guidance Material for ATM/ANS ground equipment (DS-GE);”</p> <p>This text is not clear. What is meant by “that is classified as per GM3 GE.GEN.007”?</p>
<p>response</p>	<p><i>Noted</i></p> <p>The text has been amended to include the full reference. In GM3 GE.GEN.007, FMEA is used to identify failures.</p>

comment	<p>172</p> <p>comment by: <i>CANSO</i></p> <p>at § 3.2.3 p 38: It is unclear in the end if certification is made at “equipment” level or at “CDI level” (Consistent data activities”, the link between equipment and CDI is unclear, definitions and example of link between equipment and CDIs would be helpful.</p> <p>at § .3.2.3 p39.. The compliance demonstration activities and data that EASA retains for verification during the certification process, as well as the depth of the verification defines the 'EASA’s level of involvement (LoI)'. Request: EASA's LoI depends of the DPO performance assessment results and status. The EASA's LoI in each equipment and CDI certification and leading criteria should be communicated to all ANSP.</p> <p>at § 3.2.4. p39 - -Assessment of DPO performance should not be detrimental to a level-playing field for all DPOs. This applies to the extent of work and efforts required for new entities to apply for DPO status compared to established DPOs maintaining their status based on their experience"</p>
response	<p><i>Partially accepted</i></p> <p>Certification will be done at the level of ‘equipment’; however, CDIs are useful to split certification activities in chunks that can be independently evaluated, and used for the purpose of identifying EASA’s LoI. Further links between equipment and CDI will be considered in RMT0743. It is not well justified why the ANSPs need to be informed about the EASA’s LoI. In principle, this is not relevant for the ANSPs.</p> <p>Regarding the last point stating that DPO performance should not penalise level playing field for all DPOs, the Agency concurs with it; however, DPO performance may have an impact on the likelihood of an unidentified non-compliance, which is essentially the reason why it should be considered to determine the LoI. Different Lols among DPOs do not interfere with level playing field.</p>
comment	<p>242</p> <p>comment by: <i>Nils</i></p> <p>This AMC is extremely long (about 8 pages), and it seems to mix responsibilities between DPOs and EASA. Some parts deal with what DPOs should submit as part of the application, and some parts deal with for instance EASA’s level of involvement and EASA's assessment of DPO performance. It is maybe not clear who is responsible for each part in this AMC.</p> <p>Also, the part in section "3.5. Determination of EASA’s LoI" that states that DPOs should propose the level of involvement by EASA seems wrong. It should be an activity just for EASA to determine their level of involvement, based only on submitted facts by DPOs.</p>
response	<p><i>Partially accepted</i></p> <p>The LoI is initially proposed by the DPO, but finally accepted by EASA. Anyway, it has been decided to remove the AMC, and reconsider it in the next phases to develop material, when experience has been gained with the implementation of the framework.</p>

comment	<p>243 comment by: <i>Nils</i></p> <p>Regarding the text “Likelihood: a prediction of how likely an occurrence of non-compliance with part of the certification basis is, based on a combination of the novelty and complexity of the proposed design and its related compliance demonstration activities, as well as on the performance of the approved DPO.”, and section 3.2 of this AMC</p> <p>This doesn’t give all DPOs the same process. How can a new DPO enter efficiently?</p>
response	<p><i>Not accepted</i></p> <p>The Agency believes it does. It provides objective criteria to determine the EASA LoI, common to all DPOs. Ensuring a level playing field does not mean that the Agency engages with the same actions, but that it does it in a fair manner. The effort required by the DPO should not change, but the EASA involvement in the certification activities will vary depending on the verification during the certification process, as well as the depth of the verification.</p>

comment	<p>320 comment by: <i>German NSA (BAF)</i></p> <p>3.2.3. Complexity</p> <p>Last paragraph “For major changes, the complexity of the change should be taken into account, rather than the complexity of the original system.”</p> <p>To avoid confusion with the wording it is proposed to use "modification" instead of "change".</p> <p>The new text would be: “For major changes <u>modifications</u>, the complexity of the change <u>modification</u> should be taken into account, rather than the complexity of the original system.”</p>
response	<p><i>Noted</i></p> <p>The AMC has been removed.</p>

comment	<p>385 comment by: <i>skeyes</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: center; vertical-align: middle;">36 to 40</td> <td style="width: 30%; vertical-align: top;"> Semantic of the text leading to confusion </td> <td style="width: 60%; vertical-align: top;"> On page 36, there's a sentence construction leading to misunderstanding: le: “. Step 1: identification of the likelihood of an unidentified non-compliance. If a non-compliance is unidentified, you may not reasonably measure anything related to this non-compliance. This is very confusing and should be re-written in a non-ambiguous way. </td> </tr> </table>	36 to 40	Semantic of the text leading to confusion	On page 36, there's a sentence construction leading to misunderstanding: le: “. Step 1: identification of the likelihood of an unidentified non-compliance. If a non-compliance is unidentified, you may not reasonably measure anything related to this non-compliance. This is very confusing and should be re-written in a non-ambiguous way.
36 to 40	Semantic of the text leading to confusion	On page 36, there's a sentence construction leading to misunderstanding: le: “. Step 1: identification of the likelihood of an unidentified non-compliance. If a non-compliance is unidentified, you may not reasonably measure anything related to this non-compliance. This is very confusing and should be re-written in a non-ambiguous way.		

response *Partially accepted*

Additional explanations have been added to the GM, but the term has been kept unchanged.

comment 476

comment by: IFATCA

or to the applicant, including their subcontractors, or from an EASA perspective. So eg. the applicant says it is novel, the subcontractor says it is not as it is running on a ticketing system already and EASA will play the umpire? If IFATCA has understood this correctly, then how will EASA justify its role of arbitrator in such situation. Where does EASA get the knowledge from a ticketing system to be applied to ATM?

response *Noted*

The comment is not well understood to provide a meaningful response.

comment 477

comment by: IFATCA

page 37 -

Where are the guidelines from EASA for the use of VR in a classical tower?

response *Noted*

The comment is not well understood to provide a meaningful response.

comment 478

comment by: IFATCA

3.2.3. Where can we find a definition of complex and non complex nature in EU regulations? Will EASA define this? Based on which standards?

subjective nature - what does this mean?

response *Noted*

The term 'complex' used in this AMC refers to several factors, such as the design, technology, associated manufacturing process, difficulty of compliance demonstration test, interpretation of the results of the compliance demonstration, etc. The term is not defined anywhere, and it is used in its common English meaning.

In any case, the details of the AMC has been removed to be developed at a later stage, when more experience has been gained with the implementation of the framework.

comment	<p>479 comment by: IFATCA</p> <p>3.3. criticality</p> <p>last paragraph</p> <p>Is this covering emerging properties with new technologies? It is very difficult to understand this paragraph without an example. It is a black box currently.</p>
response	<p><i>Noted</i></p> <p>The text has been removed until additional experience has been gained with the implementation of the framework and the allocation of Lol. Material will be developed and consulted in due time.</p>
comment	<p>480 comment by: IFATCA</p> <p>3.4. page 41 ... in which EASA retains the verification. So it means for a complicated system 6 month of verification and for a complex system 2-4 years of verification by EASA. This will delay innovation tremendously.</p> <p>Again IFATCA hopes that we have misunderstood this article.</p>
response	<p><i>Noted</i></p> <p>The comment is not well understood. The verification to be done (and thus the Lol of the Agency) will need to be proportionate to the level of risk and criticality of the equipment.</p>
comment	<p>514 comment by: EUROCONTROL</p> <p>“Definitions”: very useful but not providing subject for compliance, this is information.</p> <p><u>Proposed change:</u> Suggest to move to a dedicated GM</p>
response	<p><i>Accepted</i></p> <p>The definitions have been moved to GM, followed by a rearrangement of GM paragraphs order to provide a more logical structure. In any case, this AMC has been removed.</p>
comment	<p>515 comment by: EUROCONTROL</p> <p>All other chapters in this AMC are mixing activities and actions for applicant and for the Agency: suggest to clarify and create separated GM as the similar considerations are addressed by GM in Reg 373. Those GMs should unambiguously identify and describe activities and actions for the Agency and another one for the applicant.</p> <p><u>Proposed change:</u></p>

response	<p>Suggest to clarify and create separated AMC unambiguously identifying activities and actions for the Agency and another one for the applicant</p> <p><i>Noted</i></p> <p>Addressing separately the Agency and applicants' obligations is not that critical within GM. When dealing with AMC, the commentator is right and the means should address separately each entity. This AMC has been finally removed until experience with the implementation of the framework has been gained.</p>
comment	<p>516 comment by: EUROCONTROL</p> <p>"2. Background... The applicant should submit a certification programme for their compliance demonstrations in accordance with point ATM/ANS.EQMT.CERT.015(b)(2)." Is duplicating text already addressed in a regulatory requirement.</p> <p><u>Proposed change:</u> Suggest to remove the sentence</p>
response	<p><i>Accepted</i></p> <p>It is agreed that that AMC should not repeat legal text, thus the text paraphrasing the rule has been removed.</p>
comment	<p>517 comment by: EUROCONTROL</p> <p>Likelihood : the definition is unclear. Please remove the coma after the certification basis; moreover in the interpretation of "the likelihood of the argument being complex or unfamiliar", the minutes of the ATM/ANS TeB meeting 2-2019 suggest to remove the notion of the likelihood of the argument and focus on the complexity or unfamiliarity with the change itself.</p> <p>Proposed changes :</p> <p>1) We suggest to align the present AMC, to be transformed as GM, to the same consideration.</p> <p><u>2) Suggest</u> to remove the notion of the likelihood of the argument and focus on the complexity or unfamiliarity with the change itself.</p>
response	<p><i>Partially accepted</i></p> <p>The AMC text has been removed for the moment.</p>
comment	<p>518 comment by: EUROCONTROL</p> <p><u>CDI:</u> In the DPO regulation there is a description of the EASA oversight programme of a DPO but there is no description of the EASA Certification programme for ATM/ANS Ground Equipment. Without such information it is impossible for a DPO to predict and allocate appropriate resources to support the certification process.</p>

	<p><u>EASA Lol</u>: There might be a problem with demonstration data, for instance when testing ARTAS we are using recorded operational data (e.g. sensor data and/or ARTAS configuration data that is not our property and that we cannot share (NDA). Depending on the depth of the verification, the use of specialised tools and devices may be needed, is EASA prepared to be trained on these specialised tools and devices?</p> <p><u>3. Principles and generic criteria for the Lol determination</u>: For ATM/ANS equipment that have long last history, the Lol could also be based on existing evidences (number of failures in the last years...). 4. <u>Novelty</u> : The notion of novelty is already addressed by existing GM to EU.2017/373 and already used in CA risked oversight approach. Therefore definitions should be aligned</p>
response	<p><u>Proposed change</u>: Change to GM for novelty and align with 373 considerations</p> <p><i>Noted</i></p> <p>The certification programme is a document proposed and handled by DPOs, rather than a document that is under the managerial control of EASA. EASA is prepared to deal with confidential information/documentation, so this should not pose an unsurmountable problem. Lol for equipment with long-last history would consider that novelty is low, thus the Lol will take into that account as a criterion (low novelty). It is agreed that the concept of 'novelty' should be aligned with Regulation (EU) 2017/373, but the detailed criteria will be defined when the full AMC/GM are developed in due time.</p>
comment	<p>633 comment by: <i>CANSO</i></p> <p>Under General, Section 1. Definitions – “Criticality” Clarification is needed on how EASA plans to measure criticality in the absence of any agreed set of ATM Hazards or recognising the varying existing architectures and operational environments amongst ANSPs.</p>
response	<p><i>Noted</i></p> <p>This AMC has been removed until experience has been gained with the implementation of the framework. Additional GM may be required to provide more clarity, which may be developed within RMT.0743.</p>
comment	<p>692 comment by: <i>Thales Land and Air Systems</i></p> <p>"failure condition that is classified as per GM3 GE.GEN.007", the GM3 GE.GEN.007 does not at all provide any guidance with regard to risks classification. How can we consider that the Lol which must be determined at the earliest stage of the DPO application may be dependent from a "criticality" which is defined through an FMEA method (see GMx. GE.GEN.007) which need design details? ==> GE.GEN.007 DS, AMC and GM must be revisited to satisfy the need of AMC1 ATM/ANS.EQMT.CERT.015(b)(2) §3.3</p>

response *Partially accepted*

Material will be revisited within RMT.0743. Meanwhile, the AMC has been removed until more experience is gained with the implementation of the framework.

comment 741 comment by: ENAIRE

Para. 3.2.2 "a new type of human-machine interface (HMI)":

What is considered to be a new type of human-machine interface (HMI)?, an HMI system that replaces the previous one?, an evolution of the previous one?, changes in the data displayed in the already existing HMI?

response *Noted*

A new type of HMI is considered an HMI that is materially different to an existing one in its design, either because it evolves an existing one or because it integrates additional functionalities and information.

comment 744 comment by: ENAIRE

Para. 3.2.2:

Concepts like "unusual" or "little" are difficult to measure and are subject to interpretation.

response *Noted*

The characteristics of equipment under evaluation should be as objective as possible. However, not always, they can be defined in quantitative terms. Subjectivity should be removed as much as possible, and objective and specific terms are preferably used. Nevertheless, this AMC has been removed.

comment 745 comment by: ENAIRE

Para. 3.2.2 " the use of new or adapted industry standards or in-house methods, as well as EASA's familiarity with these standards and methods":

CDI novelty should be only base don the applicat's knowledge and experience. EASA's familiarity shoul not be a critérium to determine CDI novelty. Otherwise EASE could impose an unjustified overload/delay in the design and production certification process.

response *Noted*

This element is to define the EASA level of involvement, thus EASA familiarity with it is one aspect to take into account. Nevertheless, the AMC has been removed for now.

comment 746 comment by: ENAIRE

	<p>Para 3.2.2 "a change in methodology (compared with those previously applied by the applicant), including changes in software tools/programmes":</p> <p>This sentence should not be that general. Most system changes are software changes. This sentence means that all software changes imply a change in methodology and are novelty, irrespective of their nature.</p>
<p>response</p>	<p><i>Noted</i></p> <p>The sentence is not meant that any SW change is a novelty. Nevertheless, the AMC has been removed for now.</p>
	<p>747 comment by: ENAIRE</p> <p>Para 3.2.3 "For major changes, the complexity of the change should be taken into account, rather than the complexity of the original system":</p> <p>The distinction between +major and minor changes has so far been made for systems that require SoC (Article 6) not for systems that require certification (Article 4).</p>
<p>response</p>	<p><i>Noted</i></p> <p>The distinction of minor v major changes are applicable to all changes in equipment design, regardless of the attestation methods. The criteria for minor/major changes for equipment subject to certification/declaration are currently specified in AMC1 DPO.OR.B.005(b) Change management.</p>
	<p>748 comment by: ENAIRE</p> <p>3.2.3 Complexity:</p> <p>According to point 3.2.3, Lol is based on CDI, which can be complex or not depending on whether the system is highly integrated or not. Does that mean that the Lol depends on the complexity of the system and not on the activities (CDI) determined for its certification? Is the Lol assigned per CDI or per complete system? Could EASA clarify this?</p>
<p>response</p>	<p><i>Noted</i></p> <p>Complexity may depend on both elements: the degree of complexity of integrated system and demonstration activities.</p>
	<p>921 comment by: FR DSAC</p> <p>This AMC also concerns ATM/ANS.EQMT.AR.B.010 (Level of Involvement - Lol). It must therefore be referenced in the title of the AMC.</p>
<p>response</p>	<p><i>Noted</i></p>

This AMC has been removed until experience is gained with the implementation of the framework. Additional GM may be required to provide more clarity, which may be developed within RMT.0743.

comment 922 comment by: FR DSAC

Definition of "Risk": the notion of risk is already used in multiple places and strongly connotes "safety risk".

Proposal:
Be explicit: "certification risk"

response *Accepted*

'Certification risk' has been explicitly added to the text. Note that the AMC has been removed for now.

comment 923 comment by: FR DSAC

Page 36
Point 3.1 of AMC1 ATM/ANS.EQMT.CERT.015(b)(2)
Does the Agency consider the issuance of an equivalent document to the Certification Memorandum 'Criteria for the determination of the EASA level of involvement in product certification'?

response *Noted*

It is not absolutely necessary to issue a Certification Memorandum. As interpretative material, the criteria may also be laid down in AMC/GM. This will be evaluated in the light of additional material developed within RMT.0743.

comment 1219 comment by: Juan L. Diz

Comments to sections:
3.2.5 Likelihood of an unidentified non-compliance
3.3 Criticality
3.4. Method for the determination of risk classes

We consider that this AMC provides directives to perform a bottom-up safety approach. With this method, it is up to the DPO to declare the equipment safety capability. Since the new regulation seeks to provide for long-term benefits in terms of specifications harmonisation, we consider that the safety objectives to be achieved by the equipment should be defined as part of the detailed specification.

We consider that an effort should be put in place to identify common safety objectives that can be included in the detailed specifications as they interface or performance requirements are.

response *Noted*

The comment's intent is shared. This section was intended to evaluate EASA involvement based on certification risks. RMT.0743 (and RMT.0744 dealing with the update of DSs) will need to assess these aspects.

comment

1267

comment by: Tern Systems

Missing definition for “compliance document”

For completeness, a definition of the term compliance document should be added or referred to. The term is used several times without definition, for example, in

- section 3.5 of AMC1 ATM/ANS.EQMT.CERT.015(b)(2) Application for an ATM/ANS equipment certificate,
- GM1 ATM/ANS.EQMT.CERT.015(b)(2) Application for an ATM/ANS equipment certificate
- Appendix 1 to GM1 ATM/ANS.EQMT.CERT.015(b)(2) Application for an ATM/ANS equipment certificate

AMC1 ATM/ANS.EQMT.CERT.015(b)(2) Application for an ATM/ANS equipment certificate GENERAL 1. Definitions would be the place to add this definition.

response

Not accepted

In the Appendix to GM1, the list of compliance documents is given. A definition is not considered needed as the term is used with the common English meaning: any document that contains data relevant to demonstrate compliance against requirements of any kind.

comment

1268

comment by: Tern Systems

Certification Programme and Level of Involvement (LoI) definition requires more guidance/templates/definition of expected content

Considering that this level of regulation is new to many DPOs, more guidance on the expectations for the LoI and the certification programme are necessary.

As detailed in other comments from Tern, the guidelines for determining the LoI leave a lot of room for subjectivity and, hence, inconsistent interpretation.

response

Accepted

GM for the certification programme has been developed further. With regard to the LoI, EASA considers that additional experience is required to propose a robust approach, which led to the removal of the AMC; RMT.0473 will develop this aspect further.

comment

1271

comment by: Tern Systems

3.2.3 Complexity should be more specific



	<p>The guidelines on how to distinguish between a complex and non-complex compliance demonstration item (CDI) are very vague and leave a lot of room for interpretation. As a comparison, the guidance for novelty vs non-novelty are way more specific. This should be fixed since it is, amongst other reasons, necessary for transparency and planning certification effort for the DPOs to understand how they are classified. Also to ensure equality between different certification process executions.</p>
response	<p><i>Noted</i></p> <p>This AMC has been removed until experience is gained with the implementation of the framework. Additional GM may be required to provide more clarity, which may be developed within RMT.0743.</p>
comment	<p>1276 comment by: <i>Tern Systems</i></p> <p>3.2.4 Performance of the DPO should be more specific No criteria are given for classifying a DPO as high or medium performance. Only unknown performance is clearly defined. This should be fixed since it is, amongst other reasons, necessary for transparency and planning certification effort for the DPOs to understand how they are classified. Also to ensure equality between different certification process executions. The current version leaves a lot of room for interpretation.</p>
response	<p><i>Noted</i></p> <p>This AMC has been removed until experience is gained with the implementation of the framework. Additional GM may be required to provide more clarity, which may be developed within RMT.0743.</p>
comment	<p>1281 comment by: <i>Tern Systems</i></p> <p>3.3 Criticality should be more specific On page 40, the first item in the bullet list “that is classified as per GM3.GE.GEN.007 ...” Classified as what? That question is not answered and hard to answer because the definition of the classification scheme for GM3.GE.GEN.007 is understandably left open to the DPO. This gives the DPO a lot of freedom in how to define criticality of failures.</p>
response	<p><i>Noted</i></p> <p>This AMC has been removed until experience is gained with the implementation of the framework. Additional GM may be required to provide more clarity, which may be developed within RMT.0743.</p>
comment	<p>1284 comment by: <i>Tern Systems</i></p> <p>Unclear phrasing On page 39: “The following list includes some examples ...” It is unclear to the reader for what those examples are examples.</p>

response

Noted

These are examples of situations to be considered as 'novel'. Nevertheless, the AMC has been removed and it will be covered in the future RMT.0473

AMC1 ATM/ANS.EQMT.AR.C.001(b) ATM/ANS equipment certification basis

p. 35

comment

355

comment by: *FOCA Switzerland*

Shouldn't the title read "AR.B" instead of "AR.C"?

response

Accepted

Agreed. The typo has been corrected.

comment

474

comment by: *IFATCA*

What does this mean in particular in a digitalised environment. Anything which is microsoft or amazon or tata based will have to be demonstrated? how?

response

Noted

The comment is not well understood within the context of this AMC. However, as a general reply, the Agency believes that when using commercial infrastructure (such as those mentioned by the commentator), there should be some ways to ensure that their performance complies with the specified performance detailed in the DSs. This aspect will need to be addressed with RMT.0743.

comment

475

comment by: *IFATCA*

Mutual trust?

The relation between an supplier and a ATM ANS provider are of contractual nature. Mutual Trust will not work. Will EASA pay the fines in case they are not providing the adequate answers to either of the parties?

response

Noted

The comment seems to be misplaced and correspond to another part of the proposal; however, it has been impossible to link it and understand properly to provide a meaningful answer.

comment

739

comment by: *ENAIRE*

Req. ATM/ANS.EQMT.AR.C.001 not found in the "COMMISSION DELEGATED REGULATION (EU) .../... of XXX laying down detailed rules for the certification and declaration of air traffic management/air navigation services systems and air traffic management/air navigation services constituents".

Should it be ATM/ANS.EQMT.AR.B.001(b) instead?



response *Accepted*

The comment is correct. The reference has been amended.

comment *920* comment by: *FR DSAC*

There is a mistake in the reference which should be "AMC1 ATM/ANS.EQMT.AR.B.001(b)"

Moreover, it is not understood why this AMC refers to a CA requirement as it is a demonstration objective for the applicant. It should be referring to ATM/ANS.EQMT.CERT.025. There should be an equivalent AMC for Declared equipment, but, unfortunately, no ATM/ANS.EQMT.DEC requirement addresses this fundamental point for safety.

Proposal:
Change the reference for this AMC and add an equivalent AMC for declared equipment.

response *Partially accepted*

The AMC reference has been corrected. There is no 'declaration basis' agreed ex ante. That is a privilege of the DPO to determine it; EASA will assess the declaration afterwards. Additional GM will be developed under RMT.0473 to suggest the most efficient way for EASA involvement and oversight in the compliance demonstration with the DSs by the DPO in the case of ATM/ANS equipment subject to declarations, and to avoid the situation where the Agency disagrees with the 'declaration basis' selected by the DPO.

comment *1051* comment by: *AESA*

The NPA establishes an AMC for the requirement ATM/ANS.EQMT.AR.C.001(b), this point is not included in the ANNEXES to the COMMISSION DELEGATED REGULATION laying down detailed rules for the certification and declaration of air traffic management/air navigation services systems and air traffic management/air navigation services constituents.
Should it be AMC1 ATM/ANS.EQMT.AR.B.001(b)?

response *Accepted*

The comment is correct. The reference has been amended.

comment *1091* comment by: *Alex Milns/EUROCAE*

AMC1 ATM/ANS.EQMT>AR>C001(b)

	<p>From: Additional features, characteristics or functions not specified into the applicable detailed specifications should be addressed.....</p> <p>To: Additional features, characteristics or functions not specified into the applicable detailed specifications should be addressed.....</p> <p>OR Additional features, characteristics or functions not specified incorporated into the applicable detailed specifications should be addressed.....</p>
response	<p><i>Partially accepted</i></p> <p>The intent of the comment is captured in the final adopted text, although in a different manner.</p>
comment	<p>1095 comment by: <i>DSNA</i></p> <p>The expected content and form of this declaration should be clarified for equipment subject to Certification and Declaration</p>
response	<p><i>Noted</i></p> <p>This will be taken into consideration within RMT.0743.</p>
comment	<p>1237 comment by: <i>Irish Aviation Authority (IAA)</i></p> <p>Cannot locate 'ATM.ANS.EQMT.AR.C.001' in the draft CDR text.</p> <p>Suggest that this header should be updated to state 'AMC1 ATM/ANS.EQMT.AR.B.001(b) ATM/ANS equipment certification basis'</p>
response	<p><i>Accepted</i></p> <p>The comment is correct. The reference has been amended.</p>

AMC2 ATM/ANS.EQMT.CERT.015(b)(2) Application for an ATM/ANS equipment certificate	p. 42
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comment	<p>1163 comment by: <i>Juan L. Diz</i></p> <p>Regarding the sentence: "The certification programme may be based on modules/sections that may be updated independently.": Does it mean that a DPOR can certificate a module first and the add, in the future, a new module in the certification programme?</p>
response	<p><i>Noted</i></p> <p>It means that the compliance demonstration can be done in independent chunks, but the certification will be given based on the complete demonstration. The</p>

certification programme will need to specify all modules of the system from the beginning. This does not preclude the possibility to update the certification programme.

comment 1268 ❖ comment by: Tern Systems

Certification Programme and Level of Involvement (LoI) definition requires more guidance/templates/definition of expected content
 Considering that this level of regulation is new to many DPOs, more guidance on the expectations for the LoI and the certification programme are necessary.

As detailed in other comments from Tern, the guidelines for determining the LoI leave a lot of room for subjectivity and, hence, inconsistent interpretation.

response *Noted*

The Agency concurs with the comment. The AMC has been removed as proposed, and EASA considers that additional experience is required to further propose a robust approach. RMT.0473 will develop this aspect in more detail.

resulting text GM for the certification programme has been developed further. With regard to the LoI, EASA considers that additional experience is required to propose a robust approach, which led the removal of the AMC; RMT.0473 will develop this aspect further.

GM1 ATM/ANS.EQMT.CERT.015(b)(2) Application for an ATM/ANS equipment certificate p. 43

comment 481 comment by: IFATCA

Certification programme
 - identification of industry standards and ff

 There are systems (e.g. P1) which have per unit a different standard and they differ from other suppliers standards. Who at EASA will have the competence to identify where these standards are, how they could benefit anybody else (e.g. simply to have in one ANSP or one supplier the same version of the system etc.)

response *Noted*

Industry standards will be identified by EASA in collaboration with industry. Within RMT.0744, an expert group will be set up with representatives of manufacturers and ANSPs, but also experts from national authorities, to identify current practices and standards used.

comment 519 comment by: EUROCONTROL



	<p>Paragraph on “ATM/ANS.EQMT.CERT.015(b)(2)(iv)”: this paragraph concerns a sub point of the requirement.</p> <p><u>Proposed change:</u></p> <p>suggest to move to a dedicated GM.</p>
response	<p><i>Accepted</i></p> <p>GM is numbered accordingly.</p>
comment	<p>695 comment by: <i>Thales Land and Air Systems</i></p> <p>Need to define 'safety findings'</p>
response	<p><i>Noted</i></p> <p>Equivalent safety findings are equivalent to the concept of Equivalent Level of Safety (ELoS), but when they are recorded in a written form. This aspect will be detailed in greater extent within RMT.0743.</p>
comment	<p>1262 comment by: <i>Tern Systems</i></p> <p>Missing definition of “specification requirement”</p> <p>When defining the certification programme provided to EASA, the document refers to specification requirement(s) (second half of page 43). What is a specification requirement? A definition and possibly examples are missing.</p>
response	<p><i>Partially accepted</i></p> <p>The term was intended to mean each ‘requirement of the specification’. Nevertheless, the text has been simplified to avoid misunderstandings.</p>

Appendix 1 to GM1 ATM/ANS.EQMT.CERT.015(b)(2) Application for an ATM/ANS equipment certificate	p. 44
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comment	<p>1164 comment by: <i>Juan L. Diz</i></p> <p>Would it be possible to provide the all evidence to certificate a specific CDI in the certification programme and then in the future extend the certification programme with evidence for more CDIs?</p>
response	<p><i>Noted</i></p> <p>The use case described seems to reflect a major change, where some additional requirements are added to the certification programme to be demonstrated with additional CDIs. Such case would require a new certificate.</p>



AMC1 DPO.OR.A.045(a)(1) Failures, malfunctions and defects

p. 46

comment	<p>152</p> <p>comment by: <i>CANSO</i></p> <p>Page 46, AMC1 DPO.OR.A.010(a) Application for a design and/or production organisation approval and demonstration of capability</p> <p>“In the context of the following AMC and GM, the word ‘event’ refers to any failure, malfunction, defect, error, near miss, hazard identification, incident, accident or other occurrence that will be subject to the system.”</p> <p>Text is not clear. Are these occurrences failures of the systems produced by the DPO that lead to incidents? Are they problem reports from the users? Are they failures of the DPO processes?</p>
response	<p><i>Noted</i></p> <p>These reports may be reported internally, but also from ATM/ANS providers users. The reports will cover occurrences related to production activities with deviations from applicable design data, and to design associated with failure, malfunction or defects, which may lead to adverse effects in the provision of services. The material will need to be developed and completed within RMT.0743.</p>
comment	<p>483</p> <p>comment by: <i>IFATCA</i></p> <p>This article needs to be in line with ICAO Annex 13, 19 and EU IR 996/2010 and 376/2014 - amend accordingly.</p>
response	<p><i>Noted</i></p> <p>Additional details need to be developed and consulted with stakeholders within RMT.0743, in line with the regulatory material indicated by the commentator.</p>
comment	<p>701</p> <p>comment by: <i>Thales Land and Air Systems</i></p> <p>As DPOs are not operating the equipment, they cannot report operational events such as: near miss, hazards occurring in operations, incidents of accidents.</p> <p>As mentioned in DPO.OR.A.045, DPOs shall report failures, malfunctions, defects or other occurrences which caused or might cause adverse effects on the continuing compliance of the ATM/ANS equipment with the applicable requirements, when those occurrences are reported to the DPO internally or by the organisation operating the equipment.</p> <p>As failure, malfunctions and defects to be reported are already defined in other AMC1 DPO.OR.A.045(b);(c), it is proposed to reword AMC1 DPO.OR.A.045(a)(1) as follow:</p> <p>The ‘collection’, ‘investigation’ and ‘analysis’ functions of the system should include means to:</p> <ul style="list-style-type: none"> — analyse events, and related available information;

	<ul style="list-style-type: none"> — identify adverse trends; — investigate associated root cause(s); and — establish any necessary corrective action(s).
response	<p><i>Accepted</i></p> <p>The text has been amended as proposed by the commentator.</p>
comment	<p>1165 comment by: <i>Juan L. Diz</i></p> <p>Can we obtained the EASA form now or we sloud wait just after the publication of the new regulation? Is it already available from the EASA Website?</p>
response	<p><i>Noted</i></p> <p>It is available at the EASA website: https://www.easa.europa.eu/en/document-library/application-forms/foaoa00085 (Form FO.AOA.00085).</p> <p>The link has been added to the GM.</p>

AMC1 DPO.OR.A.010(a) Application for a design and/or production organisation approval and demonstration of capability

p. 46

comment	<p>265 comment by: <i>NAV Portugal E.P.E</i></p> <p>AMC1 DPO.OR.A.010(a) Application for a design and/or production organisation approval and demonstration of capability</p> <p><i>“In the context of the following AMC and GM, the word ‘event’ refers to any failure, malfunction, defect, error, near miss, hazard identification, incident, accident or other occurrence that will be subject to the system.”</i></p> <p>This text needs clarity otherwise several question arise:</p> <ul style="list-style-type: none"> • Are these occurrences failures of the systems produced by the DPO that lead to incidents? • Are they problem reports from the users? • Are they failures of the DPO processes?
response	<p><i>Noted</i></p> <p>These reports may be presented internally, but they could also be presented to the end users, i.e. ATM/ANS providers as they may need to implement certain actions. The reports will cover occurrences related to production activities, with deviations from applicable design data, and related to design associated with failure, malfunction or defects, which may lead to adverse effects in the provision of services (not necessarily materialised as operational incidents).</p>

The material will need to be developed and completed within RMT.0743.

comment

484

comment by: IFATCA

This article needs to be in line with ICAO Annex 13, 19 and EU IR 996/2010 and 376/2014 - amend accordingly.

response

Partially accepted

Additional details need to be developed and consulted with stakeholders in the context of RMT.0743, in line with the regulatory material indicated by the commentator.

comment

522

comment by: EUROCONTROL

Proposed change:

Suggest to make this concerned application form available as part of a dedicated GM to DPO.AR.C.001

response

Partially accepted

It is agreed that more than a vague reference to the application form would be appropriate. Instead of including the form as GM, which may require updates following the rulemaking process at EASA for every change to the form, it was decided to add a link to the EASA website where the form is available.

comment

924

comment by: FR DSAC

Editorial: add “application” in “The dedicated EASA **Application** Form should...”

response

Accepted

The word ‘application’ has been added.

GM1 DPO.OR.A.045(a)(1) Failures, malfunctions and defects

p. 46

comment

266

comment by: NAV Portugal E.P.E

GM1 DPO.OR.A.045(a)(1) Failures, malfunctions and defects

“— the early rejection of parts from service; and”

Clarification needed. What is meant by service here? What is rejected and by whom?

response

Noted

	The text has been reviewed and, when necessary, confusing terms such as ‘parts of service’ have been removed.	
comment	482	comment by: <i>IFATCA</i>
	This article needs to be in line with ICAO Annex 13, 19 and EU IR 996/2010 and 376/2014 - amend accordingly.	
response	<i>Noted</i>	
	Additional details need to be developed and consulted with stakeholders in the context of RMT.0743, in line with the regulatory material indicated by the commentator.	
comment	523	comment by: <i>EUROCONTROL</i>
	“The word ‘collection’ refers to the setting up of <u>systems</u> and procedures...”; the word “systems” is inadequate and should be replaced by “processes”	
	<u>Proposed change:</u> Suggest to update the 1 st sentence by: “the word ‘collection’ refers to the setting up of <u>processes</u> and procedures...”	
	P:ropsoed	
response	<i>Accepted</i>	
	The text has been amended as proposed by the commentator.	
comment	524	comment by: <i>EUROCONTROL</i>
	3 rd §: “the collection system should...” refers to “near misses and hazards”: a DPO cannot refer to those events that are at ATS level only.	
	<u>Proposed change:</u> Suggest to rephrase.	
response	<i>Accepted</i>	
	These terms were removed from the final published version.	
comment	704	comment by: <i>Thales Land and Air Systems</i>
	Comment to GM1 DPO.OR.A.045(a)(1): As DPOs are not operating the equipment, they cannot report operational events such as: nea miss, hazards occurring in operations, incidents of accidents. As mentioned in DPO.OR.A.045, DPOs shall report failures, malfunctions, defects or other occurrences which caused or might cause adverse effects on the continuing compliance of the ATM/ANS equipment with the applicable requirements, when	

	<p>those occurrences are reported to the DPO internally or by the organisation operating the equipment.</p> <p>As failure, malfunctions and defects to be reported are defined in other AMCs, it is proposed to remove the following paragraph from GM1 DPO.OR.A.045(a)(1) :</p> <p>The collection system should also ensure the collection, through an internal reporting scheme, of internal errors, near misses and hazards that are perceived by the reporter as an actual or potential aviation safety risk.</p>
response	<p><i>Accepted.</i></p> <p>The text has been amended as proposed by the commentator.</p>

4.2. Draft acceptable means of compliance and guidance material (draft EASA decision) associated with the technical requirements and administrative procedures for the organisations involved in the design and/or production of air traffic management/air navigation services systems and air traffic management/air navigation services constituents

p. 46

comment	<p>521</p> <p>comment by: <i>EUROCONTROL</i></p> <p>§ 4.2</p> <p>Proposed change:</p> <p>1) We would like to suggest the following AMC/GM for CNS.TR.205 Allocation and use of Mode S interrogator codes: The process for the allocation of Mode S interrogator codes is described in EUROCONTROL Specification for the Mode S IC Code Allocation Coordination and IC Conflict Management (MICA) Ed 2.0</p> <p>2) The same AMC/GM may be provided for Article 3e, and for NM.TR.105 Allocation and use of Mode S interrogator codes</p> <p>3) We would like to suggest the transposition of GM1 and GM2 Article 6 Spectrum protection provided in Acceptable Means of Compliance and Guidance Material to Commission Implementing Regulation (EU) No 1207/2011 as GMs for Article 3f point 1.</p>
response	<p><i>Partially accepted</i></p> <p>The Agency appreciates the proposal. It is suggested to address the proposal, potentially together with additional amendments, to be developed and consulted again with stakeholders at the next update of Regulation (EU) 2017/373.</p>
comment	<p>700</p> <p>comment by: <i>Thales Land and Air Systems</i></p> <p>An AMC is missing on the definition of an "unsafe condition", it must detail the risk severity level(s) which must be reported to the EASA, the level of details request must be equivalent to the unsafe condition definition.</p> <p>Example could be taken from AMC1 & GM1 21.A.3B(b) applicable to the aeronautical embedded domain.</p>

response	<p>The occurrence reporting process has to rely on defined risk severity definitions that must be provided in DS GE.GEN.007.</p> <p><i>Noted</i></p> <p>It is recognised that a description and criteria of unsafe conditions are missing and must be provided. It has been considered appropriate to dedicate additional time to reflect upon this material and develop it with stakeholder input and full consultation, and thus, it is proposed to address it within RMT.0743.</p>
comment	<p>1041 comment by: AESA</p> <p>In NPA 2023-05, no AMC/GM has been developed for DPO.OR.A.015 Organisation exposition (a)(5), as indicated in the CRD to the comment made thereon.</p>
response	<p><i>Noted</i></p> <p>The Agency appreciates the proposal. It is suggested that this material be evaluated and developed together with stakeholder involvement and consultation within RMT.0743.</p>
comment	<p>1042 comment by: AESA</p> <p>With respect to the "exceptional circumstances" mentioned in DPO.OR.A.040 (d), no AMC/GM has been developed.</p>
response	<p><i>Noted</i></p> <p>The Agency appreciates the proposal. It is suggested that this material be evaluated and developed together with stakeholder involvement and consultation within RMT.0743.</p>
comment	<p>1043 comment by: AESA</p> <p>DPO.OR.B.010 Facility requirements as indicated in the response to comments on NPA 2022-09 have not been developed in AMC/GM.</p>
response	<p><i>Noted</i></p>

The Agency appreciates the proposal. It is suggested that this material be evaluated and developed together with stakeholder involvement and consultation within RMT.0743.

comment **1044** comment by: *AESA*

No AMC/GM has been developed to DPO.OR.B.025 Record-keeping (b), related to the retention period of the information of each ATM/ANS equipment, as indicated in the response to the comments of NPA 2022-09.

response *Noted*

EASA has a period of 5 years as per DPO.AR.B.015 (c). It is suggested to assess and develop the material further together with stakeholder involvement and consultation within RMT.0743.

comment **1045** comment by: *AESA*

No AMC/GM has been developed to DPO.OR.B.025 Record-keeping (b), related to the backup of the information of each ATM/ANS equipment, as indicated in the response to the comments of NPA 2022-09.

response *Noted*

The Agency appreciates the proposal. It is suggested that this material be evaluated and developed together with stakeholder involvement and consultation within RMT.0743.

comment **1058** comment by: *AESA*

Related with comment 919 of CRD 2022-09, about coordination in case of upgrades of equipment as a result of new requirements arising from the safety (support) case performed by ANSP, no specific considerations have been identified in the new AMC/GM developed. No clear AMCs/GMs have been

developed to define the co-ordination between ANSP and DPO, in relation to system improvements to be installed. For example, the consideration that the ANSP is subject to what the DPO indicates on the basis of its change procedure, mentioned in the topic "Roles and responsibilities of the different actors" of CRD 2022-09 part I (pages 9 and 10), is not stated anywhere.

response *Noted*

The lack of additional material that links the safety (support) assessments with the attestation methods is recognised. Nevertheless, this aspect requires additional effort and proper consultation with stakeholders, thus it is proposed to address it within RMT.0743.

comment 1075

comment by: *EUROCONTROL*

No AMC/GM are proposed for part DPO.AR. Information on how the Agency or any Qualified Entity would demonstrate compliance with these Authority Requirements would be a source of information for any other stakeholder needed to comply Organizations Requirements.

Proposed change:

Develop AMC and GM for part DPO.AR

response *Noted*

The Agency appreciates the proposal. It is suggested that this material be evaluated and developed together with stakeholder involvement and consultation within RMT.0743.

GM1 DPO.OR.A.045(b);(c);(d) Failures, malfunctions and defects

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comment 146

comment by: *Indra Navia*

It is a concern that the requirement to report potentially unsafe conditions to EASA within 72 hours may be counterproductive to safety, as it may, due to the strict deadline, be necessary to prioritize reporting to EASA over notification to the users.



response	<p>Providing users with information and mitigation seems to be more urgent in case of unsafe conditions being discovered.</p> <p><i>Not accepted</i></p> <p>Sending information to EASA at the same time when the DPO informs users does not seem to pose unsurmountable problems for the organisation, and will not delay the communication to users at all. This is a common practice in all aviation domains. Both are important reporting requirements to fulfil.</p>
comment	<p>153 comment by: <i>CANSO</i></p> <p>Page 47, GM1 DPO.OR.A.045(a)(1) Failures, malfunctions and defects</p> <p>“— the early rejection of parts from service; and”</p> <p>Clarification needed. What is meant by service here? What is rejected and by whom?</p>
response	<p><i>Noted</i></p> <p>The text has been reviewed and, when necessary, confusing terms such as ‘parts of service’ have been removed.</p>
comment	<p>486 comment by: <i>IFATCA</i></p> <p>This article needs to be in line with ICAO Annex 13, 19 and EU IR 996/2010 and 376/2014 - amend accordingly.</p>
response	<p><i>Noted</i></p> <p>Additional details need to be developed and consulted with stakeholders within RMT.0743, in line with the regulatory material indicated by the commentator.</p>
comment	<p>526 comment by: <i>EUROCONTROL</i></p> <p>General: The regulation is clear that the DPO has the obligation to report ‘failures, malfunctions and defects’ to the Agency. Such a process is thus indeed required but not necessarily included in the “The system established for the collection, investigation and analysis of events”.</p> <p><u>Proposed change:</u> Remove this GM.</p>
response	<p><i>Not accepted</i></p> <p>Occurrence reporting will have associated several processes to collect, investigate, analyse and report occurrences to the Agency. The fact that they are under the same ‘system’ is not relevant, and this does not invalidate the GM.</p>

comment	707	comment by: <i>Thales Land and Air Systems</i>
	REPORTING TO EASA - GENERAL 'unsafe condition' is not defined in this regulation see comment about missing AMC on DPO.OR.A.045 (c) to define "unsafe condition".	
response	<i>Noted</i>	
	It is recognised that a description and criteria of unsafe conditions are missing and must be provided. It has been considered appropriate to dedicate additional time to reflect upon this material and develop it with stakeholder input and full consultation, and thus, it is proposed to address it within RMT.0743.	
comment	925	comment by: <i>FR DSAC</i>
	Editorial : To be consistent with Part 21 (GM1 21.A.3A(a)(3), 21.A.3A(b)(3) and 21.A.3A(d)), replace “The reference to ‘is aware’ of an occurrence implies...” by “The reference to ‘is aware of an occurrence’ implies...”	
response	<i>Noted</i>	
	The term ‘aware of an occurrence’ does not appear explicitly in the GM.	

AMC1 DPO.OR.A.045(b);(c) Failures, malfunctions and defects	p. 47
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comment	485	comment by: <i>IFATCA</i>
response	<i>Noted</i>	
comment	525	comment by: <i>EUROCONTROL</i>
	Please verify the referencing to point (b) and (c) as (b) is about “principal place of business”.	
	<u>Proposed change:</u> EASA to verify the references to point b and c.	
response	<i>Accepted</i>	
	The reference has been reviewed and linked only to point (c).	
comment	1238	comment by: <i>Irish Aviation Authority (IAA)</i>
	This AMC wording does not fully align with requirements set out in DPO.OR.A.045(c) which requires the approval holder to report to EASA - " <i>any failure, malfunction, defect or other occurrence of which it is aware, and which has resulted or may result in an unsafe, insecure, or under-performing condition</i> ".	

response

Suggest this AMC is updated to align with full extent of DPO.OR.A.045(c) reporting requirement.

Accepted

After careful consideration, the AMC has been removed. Potentially, additional material will be evaluated and developed together with stakeholder involvement and consultation within RMT.0743.

GM1 DPO.OR.A.045(b);(c) Failures, malfunctions and defects

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comment

487

comment by: *IFATCA*

response

Noted

AMC1 DPO.OR.A.045(e) Failures, malfunctions and defects

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comment

488

comment by: *IFATCA*

This article needs to be in line with ICAO Annex 13, 19 and EU IR 996/2010 and 376/2014 - amend accordingly.

response

Noted

Additional details need to be developed and consulted with stakeholders within RMT.0743, in line with the regulatory material indicated by the commentator.

comment

527

comment by: *EUROCONTROL*

Point (3) provides a list of measures or reports. This list is non exhaustive and not necessarily applying to all events.

Proposed change:

Suggest to move "point 3" to a dedicated GM

response

Partially accepted

Containment measures are removed (as they are only one kind of measures, as suggested), but the assessment that the system can be operated safely until measures are taken, is always needed.

comment

709

comment by: *Thales Land and Air Systems*

'unsafe condition' is not defined in this regulation
see comment about missing AMC on DPO.OR.A.045 (c) to define "unsafe condition".



response	<p><i>Noted</i></p> <p>It is recognised that a description of unsafe conditions must be provided. It has been considered appropriate to develop it with stakeholder input, and thus, it is proposed to address them within RMT.0743.</p>
comment	<p>750 comment by: ENAIRE</p> <p>It is proposed to create a new (b) section addressing independently the reporting of the final (close-out) report. This should have an extended reporting period to submit the information to EASA, as follows:</p> <p><i>(b) The final (close-out) report should be transmitted within 3 months from the date of notification of the occurrence to EASA. It should include:</i></p> <p style="padding-left: 40px;"><i>— the final position of the organisation involved in the design as to whether a (possible) unsafe condition exists; — the results of the occurrence/incident analysis and of the final investigation — including the cause(s) of the occurrence and missing information; — any corrective and preventive action by the reporting organisation; and — in the case of reports made by the organisation responsible for the design, an assessment supporting that these corrective and preventive measures allow the product to be operated as intended.</i></p> <p>Rationale: 30 days seems a short period to make a thorough analysis. ENAIRE's proposal is meant to be consistent with Regulation (EU) 2017/373 AMC1 ATM/ANS.OR.A.065(e), where two different reporting stages are defined – 30 days for the initial one, and a 3 months one for delivering the final analysis report.</p>
response	<p><i>Noted</i></p> <p>A 3-month period has been added, as suggested by the commentator.</p>
comment	<p>1240 comment by: Irish Aviation Authority (IAA)</p> <p><i>“(1) the latest position of the organisation responsible for design as to whether an unsafe condition is confirmed; “</i></p> <p>It is noted that DPO.OR.A.045(c) requires the approval holder to report to EASA <i>“any failure, malfunction, defect or other occurrence of which it is aware, and which has resulted or may result in an unsafe, insecure, or under-performing condition.”</i></p> <p>Suggest that AMC1 DPO.OR.A.045(e) (a) & (b) be updated accordingly, to also include in the final (close-out) report, the latest position of the design organisation as to whether an insecure or under-performing condition is confirmed.</p>
response	<p><i>Accepted</i></p> <p>The text has been updated accordingly, including a final report.</p>
comment	<p>1295 comment by: Tern Systems</p>

DPOs cannot judge if a condition is safe or unsafe

For occurrence reporting, DPOs are required to judge if a condition is safe or unsafe, for example by stating if the equipment can be operated safely until corrective action has been taken. Whether an equipment can be operated safely depends on how the equipment is used and the operational context. These are not controlled by the DPO but the service provider. Only the service provider using the equipment can judge if certain conditions and/or workarounds have an impact on safety of the overall operational system or not. DPOs can specify the condition, describe the impact the condition has and propose workarounds. This information allows service providers to judge if they can safely operate the equipment. Otherwise, equipment providers will have to increase and maintain their existing operational knowledge considerably, duplicating knowledge maintained by service providers. This seems insufficient and will increase costs.

response *Partially accepted*

It is acknowledged that the DPO may not judge an unsafe condition, and that the service provider using the equipment is better placed to provide this judgement. However, the occurrences are not only linked to unsafe conditions, but also insecure or under-performance conditions. The text has been amended accordingly.

GM1 DPO.OR.B.001(a) Management system

p. 49

comment

321

comment by: *German NSA (BAF)*

GM1 DPO.OR.B.001(a) Management system
GENERAL

To avoid confusion with the wording it is proposed to use "modification" instead of "change"

The new text would be:

The term 'management system' of DPO in the context of this Regulation refers to those elements of ATM/ANS equipment development and certification and/or declaration that ensure the control and supervision of the initial design, of ~~changes~~ modification to the design, and its continued fitness and adequacy with respect to the applicable ATM/ANS equipment certification basis requirements. Therefore, elements to be considered as part of the DPO management system are:

response *Not accepted*

The use of a different term is not well justified. Changes made by the DPO are changes to the design of equipment, and they are certainly made before any implementation of the actual change to the already integrated equipment in the service provider's functional system.

comment

529

comment by: *EUROCONTROL*

The definition of what is a Management System for DPO is already covered by DPO.OR.B.001. This GM does not provide any clarification .



response	<p><u>Proposed change:</u> Suggest to remove this GM</p> <p><i>Accepted</i></p> <p>The GM has been removed as suggested by the commentator.</p>
comment	<p>754 comment by: ENAIRE</p> <p>No proposed content under DPO.OR.B.001 reflects any type of interaction with ATM/ANS providers. This does not seem realistic, particularly in the need detection phase.</p> <p>Note, for instance, that the user need detection phase appears in other NPA sections, as e.g. AMC1 Article 6 Statement of compliance: “Having identified the need for a change to ATM/ANS equipment, the ATM/ANS provider or an approved DPO acting on its behalf should...”</p>
response	<p><i>Noted</i></p> <p>The comment seems to be not fully correct. Under point (9) of DPO.OR.B.001, ‘procedures for the design of ATM/ANS equipment and changes to its design’, the DPO needs to have procedures to design and decide changes to equipment they design and manufacture. These procedures will need to gather user needs. It is recognised that there is lack of AMC or GM, and it is suggested that this will be developed as part of RMT.0743.</p>

AMC1 DPO.OR.B.001 Management system	p. 49
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comment	<p>489 comment by: IFATCA</p> <p>This article needs to be in line with ICAO Annex 13, 19 and EU IR 996/2010 and 376/2014 - amend accordingly.</p>
response	<p><i>Noted</i></p> <p>The comment seems to be misplaced. The same comment has been placed in the reporting requirements and it has been answered there.</p>
comment	<p>528 comment by: EUROCONTROL</p> <p>The wording used “design and/or production of ATM/ANS equipment” is inconsistent with the wording of the regulatory requirements “design or production of ATM/ANS equipment”</p> <p><u>Proposed change:</u> Suggest to replace “design <u>and/or</u> production of ATM/ANS equipment” by “design <u>or</u> production of ATM/ANS equipment”</p>



response	<p>NB: there are other GM or AMC where this correction would apply</p> <p><i>Accepted</i></p> <p>A review of all instances where the term ‘and/or’ appears has been performed and all occurrences been replaced by ‘or’.</p>
comment	<p>926 comment by: FR DSAC</p> <p>ISO9001 certificate only grants that the principles of ISO9001 are implemented in procedures and followed on sampled projects. ISO9001 only deals with generic process management principles and doesn't address system engineering and safety processes fundamentals that are required to comply with the new framework, with the highly demanding aviation standards and to be able to ensure an adequate level of safety. ISO9001 certification has proven its inability to ensure that an organisation has set up the adequate and sufficient processes for a given industrial task. If it can be necessary/useful, it is not sufficient.</p> <p>For a POA for instance, in AMC1 21.A.139(d)(2), some elements relevant to the domain were added in addition to ISO 9001.</p> <p>Proposal: Remove this AMC as GM1 is sufficient and greatly reduces its scope or complete it with additional specific technical/aviation domain standards</p>
response	<p><i>Noted</i></p> <p>The AMC requiring ISO9001 has been removed. Holding an ISO 9001 certificate is useful and provides assurance about the quality of procedures in place within the DPO, but it is not sufficient as a means to comply with all management requirements. The GM explains this approach.</p>

GM1 DPO.OR.B.001 Management system	p. 49
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comment	<p>530 comment by: EUROCONTROL</p> <p>This GM is contradicting AMC1 DPO.OR.B.001 Management system which states that ISO 9001 certificate is an AMC, whereas this GM is asking for more than just ISO 9001 certificate and without specifying what is required in addition of ISO 9001 certificate.</p> <p><u>Proposed change:</u> Please remove any contradiction with AMC1 DPO.OR.B.001.</p>
response	<p><i>Accepted</i></p> <p>The AMC requiring ISO9001 has been removed. Holding an ISO 9001 certificate is useful and provides assurance about the quality of procedures in place within the</p>



DPO, but it is not sufficient as a means to comply with all management requirements. The GM explains this approach.

comment

754 ❖

comment by: ENAIRE

No proposed content under DPO.OR.B.001 reflects any type of interaction with ATM/ANS providers. This does not seem realistic, particularly in the need detection phase.

Note, for instance, that the user need detection phase appears in other NPA sections, as e.g. AMC1 Article 6 Statement of compliance: "Having identified the need for a change to ATM/ANS equipment, the ATM/ANS provider or an approved DPO acting on its behalf should..."

response

Noted

The comment seems to be not fully correct. Under point (9) of DPO.OR.B.001, 'procedures for the design of ATM/ANS equipment and changes to its design', the DPO needs to have procedures to design and decide changes to equipment they design and manufacture. These procedures will need to gather user needs. It is recognised that there is lack of AMC or GM, and it is suggested that this will be developed as part of RMT.0743.

comment

927

comment by: FR DSAC

This GM seems to be in contradiction with the AMC1 DPO.OR.B.001 Management system as it reduces reduces the applicability of the AMC1 DPO.OR.B.001.

Proposal:

AMC and GM should be revised to be consistent and merged. See comment above

response

Accepted

The AMC requiring ISO9001 has been removed. Holding a ISO 9001 certificate is useful and provides assurance about the quality of procedures in place within the DPO, but it is not sufficient as a means to comply with all management requirements. The GM explains this approach.

GM2 DPO.OR.B.001(a) Management system

p. 50

comment

322

comment by: German NSA (BAF)

GM2 DPO.OR.B.001(a) Management system (b)

To avoid confusion with the wording we propose to use "modification" instead of "change". The new text would be:



	(b) procedures and responsibilities associated with the functions listed above, taking due account of the requirements applicable to design and approval of <u>changes modifications</u> to ATM/ANS equipment design.
response	<p><i>Not accepted</i></p> <p>The use of a different term is not well justified. Changes made by the DPO are changes to the design of equipment, and they are certainly made before any implementation of the actual change to the already integrated equipment in the service providers' functional system.</p>
comment	<p>490 comment by: <i>IFATCA</i></p> <p>(3) on page 51 seem not to be logic</p>
response	<p><i>Accepted</i></p> <p>The AMC on page 51 has been completely redrafted, avoiding unclarity and being more precise with a delineation of minor versus major changes.</p>
comment	<p>535 comment by: <i>EUROCONTROL</i></p> <p>Item a) 6 In the case of using Open Source software, how would it be possible control the contracted activities?</p> <p>Proposed change: Please add a GM clarifying the case of open source software contracted activities control</p>
response	<p><i>Noted</i></p> <p>It is not justified why contracted activities dealing with open-source SW must be managed differently. It is proposed that this aspect is addressed within RMT.0743, with additional industry input and consultation.</p>
comment	<p>711 comment by: <i>Thales Land and Air Systems</i></p> <p>'Control the design' and 'independently check the demonstrations of compliance' seems redundant. It is suggested to remove one of the two.</p>
response	<p><i>Partially accepted</i></p> <p>Control of design goes beyond compliance activities, but includes the latter. The text has been adapted. The item related to 'independent checking' emphasises that the compliance checking must be done with a certain degree of independence from the designers.</p>
comment	<p>754 ❖ comment by: <i>ENAIRE</i></p>

response

No proposed content under DPO.OR.B.001 reflects any type of interaction with ATM/ANS providers. This does not seem realistic, particularly in the need detection phase.

Note, for instance, that the user need detection phase appears in other NPA sections, as e.g. AMC1 Article 6 Statement of compliance: "Having identified the need for a change to ATM/ANS equipment, the ATM/ANS provider or an approved DPO acting on its behalf should..."

Noted

The comment seems to be not fully correct. Under point (9) of DPO.OR.B.001, 'procedures for the design of ATM/ANS equipment and changes to its design', the DPO needs to have procedures to design and decide changes to equipment they design and manufacture. These procedures will need to gather user needs. It is recognised that there is lack of AMC or GM, and it is suggested that this will be developed as part of RMT.0743.

AMC1 DPO.OR.B.005(b) Change management

p. 50

comment

323

comment by: *German NSA (BAF)*

AMC1 DPO.OR.B.005(b) Change management

To avoid confusion with the wording we propose to use "modification" instead of "change". The new text would be:

(a) Having identified the need for a change modification to ATM/ANS equipment, the approved design and/or production organisation should classify the change modification as minor unless one or more of the following apply, in which case the change modification is classified as major:

(1) The change modification introduces a new compliance with unselected requirements of the previously approved certification basis;

(2) The change modification introduces a new limitation to or a new deviation from the approved certification basis;

(3) The change introduces a new selected means of compliance by the DPO, not previously investigated by EASA.

(b) Minor changes modifications should be processed according to the privileges of the approved design organisation ensuring that the change does not adversely affect the compliance with the detailed specifications. For minor changes modifications, the approved design organisation should:

(1) record the change modification description and the justification for the change modification classification;

(2) update all related technical documents including the user manual;



(3) record continued compliance with the ATM/ANS equipment certificate or ATM/ANS equipment declaration.
 (c) Major changes modification should be notified to EASA upon identification by the approved design organisation. For major changes modifications, the approved design organisation should follow:
 (1) ATM/ANS.EQMT.CERT.020 for ATM/ANS equipment subject to Article 4 of [Regulation 2023/xxx]
 (2) ATM/ANS.EQMT.DEC.020 (b) for ATM/ANS equipment subject to Article 5 of [Regulation 2023/xxx].
 (d) The table below presents an overview of the management of minor and major changes.

	Minor change modification to 'certified' functionality or any change to client functionality	Major change modification to 'certified' functionality
Notification of a change to EASA prior to implementation	No	Yes
Authorisation to proceed	No — DPO privilege	Yes
Notification of a change to EASA after completion	Yes, in accordance with the approved change management procedure(*)	Yes
Reissue Certificate/Declaration	n/a	EASA

response *Not accepted*

The use of a different term is not well justified. Changes made by the DPO are changes to the design of equipment, and they are certainly made before any implementation of the actual change to the already integrated equipment in the service providers' functional system.

comment

356

comment by: *FOCA Switzerland*

As regards (a) (1), the term "unselected requirements of the previously approved certification basis" seems to mean that the certification baseline can be different from 100% of the DS for that equipment. Are we correct in our understanding and how does this work in reality ?

response

Noted



The term 'unselected requirements' has been removed to avoid misunderstandings. The intention of the paragraph is to describe major changes when adding/removing requirements to the agreed certification basis upon which the certificate was originally issued.

comment 531 comment by: EUROCONTROL

Point (a) uses the term "approved design and/or production organization", please see comment on AMC1 DPO.OR.B.001 (comment 528)

Proposed change:

Suggest to replace "design and/or production of ATM/ANS equipment" by "design or production of ATM/ANS equipment"

response *Accepted*

The term has been replaced as suggested.

comment 532 comment by: EUROCONTROL

Point (a)(1) suggest to rephrase as: "The change introduces the need for ~~a new~~ compliance with previously unselected requirements of the ~~previously~~ approved certification basis.

response *Partially accepted*

Having acknowledged the unclarity of the point, the text has been redrafted, removing the term 'unselected requirements' and making clearer that major changes are when adding/removing requirements to the agreed certification basis upon which the certificate was originally issued.

comment 533 comment by: EUROCONTROL

Point (a) refers to "approved design or production organization" and points (b) and (c) to "approved design organization": please verify that this is correct.

Proposed change:

Please verify that Points b and c only apply to the design organisation

response *Accepted*

The text has been amended to clearly refer to design activities of the 'design or production organisation'.

comment 534 comment by: EUROCONTROL

Point (d): the table introduces "Authorization to proceed" and associates it with "No – DPO privilege": this is confusing, the intention is welcome but please clarify.

	<p>Proposed change</p> <p>Please clarify point (d).</p>
response	<p><i>Noted</i></p> <p>The final paragraph has been redrafted to more clearly address the criteria to classify major changes, and the table has been removed.</p>
comment	<p>536 comment by: EUROCONTROL</p> <p>General:</p> <p>"The change introduces a new means of compliance with unselected requirements of the previously approved compliance demonstration basis"</p> <p>What is an unselected requirement? Does it imply compliance/certification could have been approved previously with some requirements missing?</p> <p>What is the compliance demonstration basis? What is the certification basis? Is it the set of requirements needed for conformance of the ATM equipment, or is it the full set of requirements/characteristics of the ATM equipment?</p> <p>"The change introduces a new selected means of compliance by the DPO, not previously investigated by EASA"</p> <p>It is not clear what is considered a new means of compliance. E.g. AMC for information security is a.o. authentication. Suppose the technical solution underpinning authentication is modified, or one COTS product is swapped by another, or we move from password based authentication to certificate based authentication, but on a conceptual level authentication is still performed, would this be considered a new means of compliance or is the old one still valid?</p> <p>More in general: what is the granularity of the wording 'new' in a means of compliance?</p> <p><u>Proposed change:</u></p> <p>Add a definition of an unselected requirement, clarify the granularity of the wording new in the means of compliance</p>
response	<p><i>Accepted</i></p> <p>Having acknowledged the unclarity of the point, the text has been redrafted, removing the term 'unselected requirements' and making clearer that major changes are when adding/removing requirements to the agreed certification basis upon which the certificate was originally issued.</p>
comment	<p>537 comment by: EUROCONTROL</p> <p>General:</p> <p>The criteria defined in (a):</p> <p>(1) The change introduces a new compliance with unselected requirements of the previously approved certification basis;</p> <p>(2) The change introduces a new limitation to or a new deviation from the previously approved certification basis;</p>

	<p>(3) The change introduces a new selected means of compliance by the DPO, not previously investigated by EASA. Are not clear enough taking into account that the current set of DS-CS for certified ATM/ANS GE's do not cover all their functionalities. What about a new functionality introduced in the ATM/ANS GE is it a major or a minor change?</p> <p>Proposed change: Provide more precise criteria for major vs. minor changes</p>
response	<p><i>Accepted</i></p> <p>In response to the question, the addition of a new functionality is considered as a major change to the design equipment. The entire AMC has been redrafted to improve clarity.</p>
comment	<p>587 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>AMC1 DPO.OR.B.005(b) -> (c)(1) refers to ATM/ANS.EQMT.CERT.020 only for major changes, subject to certification.</p> <p>If ATM/ANS.EQMT.CERT.020 will also be applied to changes that do not affect the EASA certification basis (minor change) of ATM/ANS equipment subject to certification but therefore not to be recertified, the DPO privilege to publish a new version of the product under the same certificate would be overruled.</p> <p>It should be confirmed that ATM/ANS.EQMT.CERT.020 is only applied major changes, subject to certification.</p>
response	<p><i>Noted</i></p> <p>The Agency confirms that only major changes require to re-issue a certificate. The entire AMC has been redrafted to improve clarity.</p>
comment	<p>591 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>In case that a new declaration has to be issued for a <u>major change</u>, it should be the DPO's privilege to treat the changes (even the major ones) following their approved processes. This especially includes the self authorization of the changes. Finally, it is the approved DPO, not EASA, to reissue the declaration.</p> <p>Otherwise, if EASA has to be asked for permission prior to implementation and EASA approves (or disapproves as per ATM/ANS.EQMT.AR.B.020 (c)) the declaration on completion, there would be no difference between certificate and declaration and no benefit for the approved DPO to be allowed to issue declarations.</p>
response	<p><i>Noted</i></p> <p>The commentator's rationale is correct in general terms. DPOs will issue declarations for major changes. However, the commentator should notice that the Agency has obligations with regard to oversight of these declarations according to ATM/ANS.EQMT.AR.B.020 and ATM/ANS.EQMT.AR.B.025.</p>

comment	<p>755</p> <p>comment by: ENAIRE</p> <p>It is proposed to add the following text:</p> <p><i>(a) Once the need for a change to ATM/ANS equipment has been identified by the approved design and/or production organisation and/or the ATM/ANS provider(s), the approved design and/or production organisation should classify the change...</i></p> <p>Rationale: DPOs and ATM/ANS providers have a shared responsibility concerning the detection of user needs, according e.g. to figure 4 in EASA NPA 2022-09. This need detection phase has been suppressed in NPA 2023-05.</p>
response	<p><i>Noted</i></p> <p>The Agency concurs with the commentator that the identification of the need to change ATM/ANS equipment can be triggered by the ATM/ANS provider or the DPO. This AMC is related to point (b), specifically about the classification of changes as major and minor. It is not intended to provide details on the drivers of the need for changes, or the coordination. Under point (9) of DPO.OR.B.001, 'procedures for the design of ATM/ANS equipment and changes to its design', the DPO needs to have procedures to design and decide changes to equipment they design and manufacture. These procedures will need to gather user needs. It is recognised that there is lack of AMC or GM on this regard, and it is suggested that this will be developed as part of RMT.0743.</p>
comment	<p>928</p> <p>comment by: FR DSAC</p> <p>Pages 50-51</p> <p>As there is no provision for minor modifications to be approved by no entity else than a DPO, will they all automatically have the privilege of approving all minor changes by themselves?</p>
response	<p><i>Noted</i></p> <p>Yes, indeed. The implementation of minor changes without prior approval of the Agency is among the DPO privileges.</p>
comment	<p>929</p> <p>comment by: FR DSAC</p> <p>Pages 50-51</p> <p>Furthermore, This AMC does not seem fully realistic. Considering the pace of the introduction of new technologies and the complexity of ATM/ANS equipment, it is more than probable that future equipment will have drastic changes in their architectures and thus in their performances and safety features. This AMC doesn't consider the case where a significant change occurs in the architecture, technology, or performances. This kind of change should be considered major as it will lead to reconsider most of compliance evidence. Moreover, considering only changes to "certified" features for major changes does not take into account the potential impact of these additional features on "certified" ones. Any significant change on non-certified features with architecture refactoring</p>

	<p>should lead to wider assessment and re-work of evidences.</p> <p>Proposal: Add considerations on architecture, technology and performances to decide whether it is a major or minor change.</p>
response	<p><i>Accepted</i></p> <p>The AMC has been redrafted to cover changes in architecture and technological novelties as part of ‘major changes’ examples. Additional material may be developed in the context of RMT.0743 to refine the criteria.</p>
comment	<p>1190 comment by: <i>Juan L. Diz</i></p> <p>The sentence "The change introduces a new compliance with unselected requirements of the previously approved certification basis;" indicates that the change implies that some unselected requirements from the detailed specification were not applicable at the previous certification but they are now applicable and hence the change is considered major. Are we right?</p>
response	<p><i>Noted</i></p> <p>The text has been updated to provide more clarity. New requirements to comply with by the equipment imply a change on the DSs, which in turn is classified as a major change.</p>
comment	<p>1223 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>According to ATM/ANS.EQMT.AR.B.020 a)(3), the agency must verify that there are <u>no non-conformities</u> in declarations and they can disapprove the declaration as per ATM/ANS.EQMT.AR.B.020 (c). Similar for certifications, in ATM/ANS.EQMT.CERT.040 (b) the DPO has to list all <u>non-conformities</u> and justify that they are not affecting the test result (which is "non-compliant").</p> <p>Is there any feasible way intended how Changes introducing new limitations or deviations will be successfully approved by the agency or is it an unrealistic scenario?</p>
response	<p><i>Noted</i></p> <p>The commentator correctly indicates the way these changes introducing new limitations or deviations (classified as major) will be introduced. They will require to reissue the certificate / declaration after the Agency has checked the validity of the statements.</p>

GM1 DPO.OR.B.005(b) Change management	p. 51
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comment	324	comment by: <i>German NSA (BAF)</i>
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	<p>GM1 DPO.OR.B.005(b) Change management GENERAL</p> <p>To avoid confusion with the wording it is proposed to use "modification" instead of "change". The new text would be:</p> <p>Major changes <u>modification</u> to certified ATM/ANS equipment are always communicated to EASA prior to their implementation, indicating:</p> <p>(a) Description of the change <u>modification</u>;</p> <p>(b) Impact on the demonstration of compliance with the EASA detailed specifications and certification basis, in particular:</p> <p>(1) Identification of compliance demonstration with a new detailed specification, not subject to the initial certificate or declaration;</p> <p>(2) Identification of new limitation;</p> <p>(3) Identification of new deviation;</p> <p>(4) Identification of changes <u>modification</u> in the means of compliance with the applicable detailed specification; and</p> <p>(c) the proposed EASA level of involvement.</p>
response	<p><i>Not accepted</i></p> <p>The use of a different term is not well justified. Changes made by the DPO are changes to the design of equipment, and they are certainly made before any implementation of the actual change to the already integrated equipment in the service providers' functional system.</p>

AMC2 DPO.OR.B.005(b) Change management

p. 52

comment	<p>325 comment by: <i>German NSA (BAF)</i></p> <p>To avoid confusion with the wording it is proposed to use "modification" instead of "change". The new text would be:</p> <p>The procedure may also include the process for the reaction by the DPO to an unplanned (major) change <u>modification</u> that may arise with the need for urgent action that would normally require prior approval by the Agency.</p>
response	<p><i>Noted</i></p> <p>The use of a different term is not well justified. Changes made by the DPO are changes to the design of equipment, and they are certainly made before any implementation of the actual change to the already integrated equipment in the service providers' functional system.</p>
comment	<p>539 comment by: <i>EUROCONTROL</i></p> <p>The text uses the term "may also"; this is subject to GM not AMC.</p>

	<u>Proposed change:</u> Please move to GM.
response	<i>Accepted</i> The content has been reassigned as GM, due to its explanatory nature of text.
comment	<i>930</i> comment by: <i>FR DSAC</i> In the case of the need of a reaction by the DPO to an unplanned (major) change, the wording might let think that there should be a prior approval by the Agency. If so, how the Agency may handle these specific issues should also be indicated (somewhere else?)
response	<i>Noted</i> The procedure to handle unplanned changes will need to detail how they will be implemented without Agency prior approval. Additional material may be developed to guide this procedure within RMT.0743.

GM1 DPO.OR.B.005(b) Change Management

p. 52

comment	<i>326</i> comment by: <i>German NSA (BAF)</i> GM1 DPO.OR.B.005(b) Change Management To avoid confusion with the wording it is proposed to use "modification" instead of "change".The new text would be: The cases in which the DPO reacts to an unplanned (major) change <u>modification</u> usually are when the DPO respondsimmediately to a safety, security or interoperability problem or when an emergency situation arises in which the DPO has to take immediate action (e.g. security patches) to ensure the safety, security or interoperability of its equipment in operation.
response	<i>Not accepted</i> The use of a different term is not well justified. Changes made by the DPO are changes to the design of equipment, and they are certainly made before any implementation of the actual change to the already integrated equipment in the service providers' functional system.
comment	<i>357</i> comment by: <i>FOCA Switzerland</i> Shouldn't the title read "GM12 DPO.OR.B.005(b) Change Management" ?
response	<i>Accepted</i> The reference in the title has been corrected.

AMC1 DPO.OR.B.015 Contracted activities

p. 52

comment	538	comment by: EUROCONTROL
	<p>The contracted activities may not be limited to certification ones but also declaration . Hence proposed text:</p> <p>(a) The organisation is responsible for ensuring that the design of the ATM/ANS equipment complies with the applicable <u>certification/declaration</u> basis requirements. This includes the determination that components designed by, or tasks performed by, external parties are acceptable. To discharge this responsibility, the DPO has to implement documented methods that ensure the compliance of the final ATM/ANS equipment, and that make use of these components or task results, prior to making the final EASA release form.</p> <p><u>Proposed change:</u> Include declaration as part of item a).</p>	
response	<i>Partially accepted</i>	
	<p>The comment is agreed, but the final text has been drafted differently because the term 'declaration basis' is not used in the regulation.</p>	
comment	540	comment by: EUROCONTROL
	<p>Point (a):</p> <p><u>Proposed change:</u> Suggest to provide a GM with a template of the "EASA release form".</p>	
response	<i>Noted</i>	
	<p>GM seems appropriate for now. This GM proposes the items to be included in the EASA release form. Future material may detail a more standard template within RMT.0743.</p>	
comment	541	comment by: EUROCONTROL
	<p>Point (c): "... then the same requirements..."</p> <p>Proposed change :</p> <p>to avoid any misunderstanding, please provide a reference to the concerned requirements.</p>	
response	<i>Accepted</i>	

References have been provided.

comment

542

comment by: EUROCONTROL

Point (d): suggest to replace “compliance verification engineer” by “person in charge/responsible for compliance verification” (it is not always an engineer)

response

Accepted

The term has been replaced as suggested.

comment

757

comment by: ENAIRE

Please specify to which level of depth, within the contracting chain (from the top-level DPO to, potentially, e.g. the manufacturer of bolts), should reach the DPO acceptability analyses under this AMC.

It seems necessary to detail to which level of depth should DPOs guarantee the acceptability of components.

response

Noted

These details will be developed within RMT.0743 when the material is reviewed, and widely consulted.

AMC1 DPO.OR.C.001(b) Organisations involved in the design and/or production of ATM/ANS equipment

p. 53

comment

40

comment by: DFS Deutsche Flugsicherung GmbH

When EASA inserted the "scenario 2" in the implementing rules, a new point (3) was added, which entitles the (approved) DPO to issue the SoC upon request of the ATM/ANS provider.

The given GM and Figure 1 about design and production activities do not show what this SoC equals with - the acceptance test of design compliance, or the compliance of the equipment (EASA release form)?

If it was the ATM/ANS provider to issue the SoC, he would definitely not regard the design but the delivered product, e.g. during factory acceptance test.

Should we give clarity to the DPO when to issue that SoC (if so contracted)?

response

Noted

Even if the ATM/ANS provider gives regard to the delivered product, the SoC gives credit about the compliance with DSs, which are usually focused on the design. Article 6 of Regulation (EU) 2023/1768 clearly indicates the scope of the SoC. When the SoC is issued by the DPO, it should also cover the same scope to declare compliance with DSs. The EASA release form is not mandatory in this case, but it is recommended.



comment	<p>101 comment by: <i>DSNA</i></p> <p>To be clarified whether the term ‘third party components’ makes reference to: ‘contracted sub-part (CDI: Compliance demonstration item) equipment’ as well to CFI (Customer Furnished Item)</p>
response	<p><i>Noted</i></p> <p>When the text refers to third-party components, it means components designed by contracted organisations that are later integrated in the ATM/ANS equipment by the DPO that holds the responsibility of integration of such component into the final system. The text has been redrafted to provide additional clarity.</p>
comment	<p>175 comment by: <i>CANSO</i></p> <p>To be clarified whether the term ‘third party components’ refers to: ‘contracted sub-part (CDI: Compliance demonstration item) equipment’ as well to CFI (Customer Furnished Item)</p>
response	<p><i>Noted</i></p> <p>When the text refers to third-party components, it means components designed by contracted organisations that are later integrated in the ATM/ANS equipment by the DPO that holds the responsibility of integration of such component into the final system. The text has been redrafted to provide additional clarity.</p>
comment	<p>545 comment by: <i>EUROCONTROL</i></p> <p>b) what is third party? is that the contracted party? If yes would be better to stick to the same terminology in the entire document.</p> <p><u>Proposed change:</u> Change third party by contracted activities</p>
response	<p><i>Accepted</i></p> <p>When the text refers to third-party components, it means components designed by contracted organisations that are later integrated in the ATM/ANS equipment by the DPO that holds the responsibility of integration of such component into the final system. The text has been redrafted to provide additional clarity.</p>
comment	<p>546 comment by: <i>EUROCONTROL</i></p> <p>Text should refer to activities in the design. It is quite strange to see the implementation and the verification activities as being part of the design activities of the DPO.</p> <p>Proposed text for the design activities: (a) <u>Design activities should be considered as specifying, developing and testing the ATM/ANS equipment before production.</u></p>

response	<p><i>Accepted</i></p> <p>The Agency concurs with the commentator. The text has been amended in line with the comment.</p>
comment	<p>762 comment by: <i>ENAIRE</i></p> <p>What does 'third party' components mean? Could EASA clarify this point?</p>
response	<p><i>Noted</i></p> <p>When the text refers to third-party components, it means components designed by contracted organisations that are later integrated in the ATM/ANS equipment by the DPO that holds the responsibility of integration of such component into the final system. The text has been redrafted to provide additional clarity.</p>
comment	<p>764 comment by: <i>ENAIRE</i></p> <p>The verb “implement” has been used in the past by EASA and/or the CE to describe different activities within the domain of ATM/ANS provision. See e.g. Regulations (UE) 2018/1048 or 2021/116.</p> <p>Note as well that neither the EASA Basic Regulation nor Regulation (UE) 748/2012 seem to use the term “implement” as being related to design activities.</p> <p>A different wording would be welcome. Alternatively, a definition of “implement” in the scope of RMT.0161 could be added.</p>
response	<p><i>Accepted</i></p> <p>The term ‘implement’ has been used in its common English meaning: ‘to put (a decision, plan, agreement, etc.) into effect’. Depending on the context, it may mean different things, e.g. ‘implement a Regulation’ is to take actions to comply with the requirements, ‘implement a corrective action’ is to make all changes necessary (in processes or equipment design and production) to correct a deficiency, etc. Unless there is a specific issue with the term, we have not found issues with its use so far. Anyway, the text has been amended, without using ‘implement’ in the current version of the AMC.</p>
comment	<p>932 comment by: <i>FR DSAC</i></p> <p>§ (a) : "Design should be considered as specifying, implementing and verifying": this definition is really too restrictive and is not representative of an actual system engineering process which can involve multiple engineering tiers and multiple iterations.</p> <p>Proposal: Replace "specifying, implementing and verifying" with "all system and software engineering processes involved in the development lifecycle of an equipment from its specification to its implementation and integration".</p>

response	<p><i>Partially accepted</i></p> <p>The text has been amended, but differently from as the proposed in order to limit the activities to design activities (without integration into the functional system)</p>
comment	<p>933 comment by: FR DSAC</p> <p>§ (b): "Design activities should also specify the requirements for the 'third-party' components" is not sufficiently explicit.</p> <p>Proposal: Replace with "When 'third-party' components are integrated in the equipment, design activities should also include the requirements specification (functional, performance, interfaces, adaptation, ...) of these 'third-party' components at the level of their integration and corresponding verifications to ensure the overall compliance."</p>
response	<p><i>Partially accepted</i></p> <p>The text has been amended in line with what was proposed by the commentator, but slightly changed to avoid the word 'third-party'.</p>
comment	<p>934 comment by: FR DSAC</p> <p>Whether the term 'third party components' refers to 'contracted sub-part (CDI: Compliance demonstration item) equipment' as well to CFI (Customer Furnished Item) should be clarified</p>
response	<p><i>Noted</i></p> <p>When the text refers to third-party components, it means components designed by contracted organisations that are later integrated in the ATM/ANS equipment by the DPO that holds the responsibility of integration of such component into the final system. The text has been redrafted to provide additional clarity.</p>
comment	<p>935 comment by: FR DSAC</p> <p>With this definition, it is not clear whether a software integration/installation on a specific hardware shall be considered as "design" and thus requires a DPO for the integrator or if the integration/installation could be considered in a different way not necessitating a DPO.</p>
response	<p><i>Noted</i></p> <p>Integrating SW into the component/system that is subject to the certificate/declaration/SoC and that is under DPO responsibility necessitates it to be included in the design. If the integration means within the functional system and it is executed by the ATM/ANS provider, then that is not part of the design, but instructions should be provided by the DPO.</p>

AMC1 DPO.OR.C.001(c) Organisations involved in the design and/or production of ATM/ANS equipment

p. 53

comment

85

comment by: *DSNA*

cloud question for software subject to certification : If the cloud is owned by the ANSP - does the ANSP have to get approved DPO and certify the cloud, which is used for this software ?
Same question for a third party cloud service provider contracted by the ANSP

response

Noted

It is not the ownership of the infrastructure supporting the cloud services what determines whether the ANSP must be approved as DPO. The obligation to become a DPO is for the organisation that designs and manufactures such platforms (HW & SW).

Boundaries of the system / constituent are defined by the DPO. As such, COTS IT equipment can be well outside of the system subject to certification. Such system can be composed of SW only, but the DPO will take responsibility of the well-functioning of the SW on the COTS platform chosen.

When a certain equipment requires underlying/supporting infrastructure (e.g. IT, network, cloud), the characteristics and requirements for this infrastructure are to be defined by the DPO and provided to the ANSP with the installation and operation instructions and any other integration requirements. Also the test on that platform must be done to prove proper performance and compliance with the specifications of the integrated function. The underlying infrastructure is not necessary to be part of the equipment design and therefore does not necessarily form part of the certification envelope.

comment

174

comment by: *CANSO*

Cloud question for software subject to certification: If the cloud is owned by the ANSP - does the ANSP have to get approved DPO and certify the cloud, which is used for this software?
Same question for a third-party cloud service provider contracted by the ANSP

response

Noted

It is not the ownership of the infrastructure supporting the cloud services what determines whether the ANSP must be approved as DPO. The obligation to become a DPO is for the organisation that designs and manufactures such platforms (HW & SW).

Boundaries of the system / constituent are defined by the DPO. As such, COTS IT equipment can be well outside of the system subject to certification. Such system can be composed of SW only, but the DPO will take responsibility of the well-functioning of the SW on the COTS platform chosen.

When a certain equipment requires underlying/supporting infrastructure (e.g. IT, network, cloud), the characteristics and requirements for this infrastructure are to



be defined by the DPO and provided to the ANSP with the installation and operation instructions and any other integration requirements. Also the test on that platform must be done to prove proper performance and compliance with the specifications of the integrated function. The underlying infrastructure is not necessary to be part of the equipment design and therefore does not necessarily form part of the certification envelope.

comment

936

comment by: FR DSAC

This AMC doesn't seem to be applicable to software as "coding or implementing" can be considered as "Conformance to design data" and the "release process" can have a different meaning. Can you confirm that this AMC is more "physical and hardware equipment" oriented? If not (considering the GM1 DPO.OR.C.001(c)), it shall be more explicit as regards what is considered as production for software (master copy and delivery?).

Proposal:
AMC to be reworded

response

Noted

Theoretically, the AMC applies to both SW and HW. However, it is recognised that the production elements of only SW will be much simpler and potentially only limited to the instructions for SW download when it is delivered. There is a need to develop additional material, both AMC and GM, within RMT.0743.

comment

937

comment by: FR DSAC

Does an ATM/ANS provider have to be an approved DPO and certify a cloud he owns if the cloud is used for a software subject to certification ?
Same question for a third-party cloud service provider contracted by the ANSP

response

Noted

It is not the ownership of the infrastructure supporting the cloud services what determines whether the ANSP must be approved as DPO. The obligation to become a DPO is for the organisation that designs and manufactures such platforms (HW & SW).

Boundaries of the system / constituent are defined by the DPO. As such, COTS IT equipment can be well outside of the system subject to certification. Such system can be composed of SW only, but the DPO will take responsibility of the well-functioning of the SW on the COTS platform chosen.

When a certain equipment requires underlying/supporting infrastructure (e.g. IT, network, cloud), the characteristics and requirements for this infrastructure are to be defined by the DPO and provided to the ANSP with the installation and operation instructions and any other integration requirements. Also the test on that platform must be done to prove proper performance and compliance with the specifications of the integrated function. The underlying infrastructure is not necessary to be part

of the equipment design and therefore does not necessarily form part of the certification envelope.

AMC2 DPO.OR.B.015 Contracted activities

p. 53

comment 102 comment by: DSNA
 To be clarified: what is the necessary authorization, declaration or approval when contracted activities are under the DPO’s oversight process ?

response *Noted*
 These non-approved DPOs may be bound by other regulations and subject to other authorisations not specifically detailed under Regulation (EU) 2023/1769 (e.g. if the organisation is regulated in a third country outside the EU).

comment 173 comment by: CANSO
 To be clarified: what is the necessary authorization, declaration or approval when contracted activities are under the DPO’s oversight process?

response *Noted*
 These non-approved DPOs may be bound by other regulations and subject to other authorisations not specifically detailed under Regulation (EU) 2023/1769 (e.g. if the organisation is regulated in a third country outside the EU).

comment 386 comment by: skeyes

53	Contracted activities AMC2.DPO.OR.B015	This AMC will be nearly impossible to achieve, because some specific activities as cloud base storage, network infrastructures between different sites of an ANSP are often contracted activities. The owners of those activities are not subject to apply our conformity assessment framework.
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response *Noted*
 The DPO organisation should then proposed another means to ensure that the integrated solution (system or constituent) complies with the detailed

specifications. They can acquire COTS on the market, and integrate in it equipment certified/declared, but the DPO takes the responsibility for the final product.

comment 543

comment by: EUROCONTROL

Currently in the AMC & GM to Part-ATS there are references to the following repealed regulations:

- (EU) No 1206/2011
- (EU) No 1207/2011

Respectively in:

- AMC1 ATS.TR.155(c)(1) ATS surveillance services (b) (1)
- GM2 ATS.TR.155(b)(1) ATS surveillance services

Proposed change:

Suggest to remove in these two items the reference to amended regulations. For GM2 comment on page 18 is proposing a solution.

In AMC & GM to SERA for which there is no proposal in this NPA there is also a reference to (EU) No 1206/2011 in GM1 SERA.13020(b) SSR transponder failure when the carriage of a functioning transponder is mandatory.

Proposed change:

It is proposed to make a reference to COMMISSION IMPLEMENTING REGULATION (EU) .../...

of XXX laying down provisions on aircraft equipment required for the use of the Single European Sky airspace and operating rules related to the use of the Single European Sky airspace and repealing Regulation (EC) No 29/2009 and Implementing Regulations (EU) No 1206/2011, (EU) No 1207/2011 and (EU) No 1079/2012 Annex II Part-SUR.

response

Noted

The Agency appreciates the comment and suggestion to improve Regulation (EU) 2017/373 as regards consistency and correction of links. This NPA is about AMC/GM/DS material, and due to the time pressure to complete the IR package published in September 2023, the proposed clean-up was not feasible at this stage, so the exercise to clean and update links in the regulatory text will be done at the earliest possible occasion that Regulation (EU) 2017/373 is updated and amended.

comment

759

comment by: ENAIRE

1.-Would it be possible to obtain a general approval as DPO for any type of CNS/AMT system or the approval must be limited to some specifically stated type of systems? For example: general approval vs approval for air-ground radios or approval for ILS systems.



2.-Would it be possible for an ANSP to reach an agreement with a manufacturer (that does not want to/cannot become approved as DPS) so that the ANSP is approved as DPO and actually issues a Declaration or submit the product to a certification process with EASA, even though the equipment is “produced” by the manufacturer?
(according to DPO.OR.B.015 Contracted activities this should be possible)

3.-In an extreme case...Would it be possible for an ANSP to:

- procure a system from a manufacturer outside Europe, not approved as DPO, and
- obtaining the proper documentation from the manufacturer, issue a Declaration or obtain a certification from EASA?

response *Noted*

Q1: No, it would not be possible. The approval will be issued linked to the type of systems and constituents that the organisation designs and produces, rather than to the services these systems support.

Q2: This is possible. In such a case the ANSP takes responsibility for the procedures and processes of an organisation of design and production, and it will make sure the requirements of regulation are respected, by the ANSP itself but also by the contracted organisation.

Q3: In this case, the ANSP should demonstrate that the contracted organisation works under its supervision and that the contracted organisation complies with the applicable requirements of this Regulation.

comment 760 comment by: ENAIRE

Regarding (b), What does it mean? E.g. could a non-approved organization install an equipment of another approved organization?

response *Noted*

It means that the subcontracted non-approved organisation is under the supervision of the DPO, and that the DPO should ensure the non-approved organisation complies with the applicable requirements of this Regulation.

comment 931 comment by: FR DSAC

It is indicated that “(c) A DPO should ensure that the contracted organisation has the necessary authorisation, declaration or approval when required.
Could EASA specify what these authorization, declaration or approval could be, considering that the contracted organization is not necessarily a DPO?

response *Noted*

These non-approved DPOs may be bound by other regulations and subject to other authorisations not specifically detailed under Regulation (EU) 2023/1769 (e.g. if the organisation is regulated in a third country outside the EU)



comment	<p>154 comment by: <i>CANSO</i></p> <p>Page 53, GM1 DPO.OR.B.015 Contracted activities</p> <p>“Regardless of the approval status of the contracted organisation, the DPO is responsible for ensuring that all contracted activities are subject to compliance monitoring.”</p> <p>This is a requirement, not guidance. The level should be reviewed.</p>
response	<p><i>Not accepted</i></p> <p>The requirement is laid down in DPO.OR.B.015(b), and establishes the obligation to oversee the subcontractors. This GM just clarifies that the responsibility to ensure there is some kind of compliance monitoring of the subcontractor lies with the DPO.</p>
comment	<p>267 comment by: <i>NAV Portugal E.P.E</i></p> <p>GM1 DPO.OR.B.015 Contracted activities</p> <p>“Regardless of the approval status of the contracted organisation, the DPO is responsible for ensuring that all contracted activities are subject to compliance monitoring.”</p> <p>This is a requirement, not guidance. The level should be reviewed.</p>
response	<p><i>Not accepted</i></p> <p>The requirement is laid down in DPO.OR.B.015(b), and establishes the obligation to oversee the subcontractors. This GM just clarifies that the responsibility to ensure there is some kind of compliance monitoring of the subcontractor lies with the DPO.</p>
comment	<p>544 comment by: <i>EUROCONTROL</i></p> <p>This is a very important statement that is already addressed by AMC2 DPO.OR.B.015 (b);</p> <p>Proposed change:</p> <p>to avoid repetition and misinterpretation, suggest to remove this GM</p>
response	<p><i>Not accepted</i></p> <p>This GM clarifies that the DPO needs to ensure that the subcontracted organisation has compliance monitoring in place, regardless of the situation of such organisation. The compliance monitoring can be embedded within the subcontracted organisation or executed by the DPO, for instance.</p> <p>This is slightly different to the AMC content, which is limited to non-approved organisations and the obligation to be under the oversight of the DPO.</p>

AMC1 DPO.OR.C.001(e) Organisations involved in the design and/or production of ATM/ANS equipment

p. 54

comment

579

comment by: EUROCONTROL

Currently in the AMC & GM to Part-ATS there are references to the following repealed regulations:

- (EU) No 1206/2011
- (EU) No 1207/2011

Respectively in:

- AMC1 ATS.TR.155(c)(1) ATS surveillance services (b) (1)
- GM2 ATS.TR.155(b)(1) ATS surveillance services

Proposed change:

In the two items above it is suggested to remove the reference to amended regulations. For GM2 comment on page 18 is proposing a solution.

In AMC & GM to SERA for which there is no proposal in this NPA there is also a reference to (EU) No 1206/2011 in GM1 SERA.13020(b) SSR transponder failure when the carriage of a functioning transponder is mandatory.

Proposed change :

It is proposed to make a reference to COMMISSION IMPLEMENTING REGULATION (EU) .../...

of XXX laying down provisions on aircraft equipment required for the use of the Single European Sky airspace and operating rules related to the use of the Single European Sky airspace and repealing Regulation (EC) No 29/2009 and Implementing Regulations (EU) No 1206/2011, (EU) No 1207/2011 and (EU) No 1079/2012 Annex II Part-SUR.

response

Partially accepted

The Agency appreciates the comment and suggestion to improve Regulation (EU) 2017/373 and Regulation (EU) 923/2012 as regards consistency and correction of links. This NPA is about AMC/GM/DS material, and due to the time pressure to complete the IR package published in September 2023, the proposed clean-up was not feasible at this stage, so the exercise to clean and update links in the regulatory text will be done at the earliest possible occasion when these regulations updated and amended.

comment

580

comment by: EUROCONTROL

EASA release form XX (see Appendix XX). There is no Appendix XX in the NPA. Reference should be made to AMC2 DPO.OR.C.001(e), There should be a template for the EASA release form, it is not clear if there is a template for declaration of design compliance which is another document that



	<p>should be provided by the DPO. Are the two documents (ERF and DDC) complementary?</p> <p><u>Proposed change:</u> Please remove XX and replace as appropriate. Clarify the two documents ERF and DDC complementarity and DPO potential requirement</p>
response	<p><i>Noted</i></p> <p>Indeed there was a typo. The intent was to state that the EASA release form is provided in AMC1 DPO.OR.C.001(e) (new reference).</p> <p>For declaration there is no form provided yet, but this may potentially be developed within RMT.0743.</p>
comment	<p>713 comment by: <i>Thales Land and Air Systems</i></p> <p>in ' Each organisation involved in the production of ATM/ANS equipment subject to conformity assessment under this Regulation should issue a statement of conformity, an EASA release form XX (see Appendix XX).'</p> <p>remove 'statement of conformity ' to keep only 'EASA release form'</p>
response	<p><i>Partially accepted</i></p> <p>The word is not deleted, as the statement of conformity is part of the EASA release form, but the sentence has been amended to provide clarity.</p>
comment	<p>1195 comment by: <i>Juan L. Diz</i></p> <p>point (b) includes the following text that should be cmleted. "Each organisation involved in the production of ATM/ANS equipment subject to conformity assessment under this Regulation should issue a statement of conformity, an EASA release form <u>XX</u> (see Appendix <u>XX</u>)"</p> <p>Bullet (c) as well.</p>
response	<p><i>Noted</i></p> <p>The word is not deleted, as the statement of conformity is part of the EASA release form, but the sentence has been amended to provide clarity.</p>

GM1 DPO.OR.C.001(c) Organisations involved in the design and/or production of ATM/ANS equipment	p. 54
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comment	<p>938 comment by: <i>FR DSAC</i></p> <p>Does the GM mean that a DPO will have to deliver as many master copies as the number of instances that will have to be installed on site? Is it necessary to hold a DPO to perform additional copies?</p>
response	<p><i>Noted</i></p>



The answer to first question is negative. The master copy is intended to demonstrate conformity with the design.

The answer to the second question is affirmative. Copies to be delivered to final customers will need to be done by the DPO. The GM will be completed within RMT.0743 to provide additional clarity.

GM1 DPO.OR.C.001(e) Organisations involved in the design and/or production of ATM/ANS equipment

p. 55

comment 155 comment by: *CANSO*

Page 55, GM1 DPO.OR.C.001(e) Organisations involved in the design and/or production of ATM/ANS equipment

“The term ‘produced’ should be considered as ‘released’ for ATM/ANS software equipment.”

Suggestion: replace software equipment by software.

response *Accepted*

The term has been amended as suggested.

comment 268 comment by: *NAV Portugal E.P.E*

GM1 DPO.OR.C.001(e) Organisations involved in the design and/or production of ATM/ANS equipment

“The term ‘produced’ should be considered as ‘released’ for ATM/ANS software equipment.”

Suggestion: Replace software equipment by software.

response *Accepted*

The term has been amended as suggested.

comment 939 comment by: *FR DSAC*

Wrong reference. It should be GM1 DPO.OR.C.001(d)

Proposal:
Change to GM1 DPO.OR.C.001(d)

response *Accepted*

The reference has been corrected as indicated by the commentator.

AMC2 DPO.OR.C.001(e) Organisations involved in the design and/or production of ATM/ANS equipment	p. 55
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comment	<p>327 comment by: <i>German NSA (BAF)</i></p> <p>“9 Exemptions, waivers or derogations”</p> <p>It would be helpful to define the expressions exemptions, waivers, derogations.</p>
response	<p><i>Noted</i></p> <p>The terms have been used with their common English meaning. There may be a need for additional clarifications that will be addressed within RMT.0743.</p>
comment	<p>1046 comment by: <i>AESA</i></p> <p>Regarding AMC2 DPO.OR.C.001(e), why does the SW/HW version not appear as one of the fields to be filled in the EASA release form?</p>
response	<p><i>Partially accepted</i></p> <p>This is contained in Block 3, ATM/ANS equipment Identification No. It has been complemented in the final description of the field.</p>
comment	<p>1241 comment by: <i>Irish Aviation Authority (IAA)</i></p> <p>The 'EASA release form' template included does not appear to contain a block to address '<i>a description of the ATM/ANS equipment</i>' information which is a requirement under DPO.OR.C.001(e)(1).</p>
response	<p><i>Accepted</i></p> <p>The final form has been amended to include the description in Block 6.</p>

AMC1 AUR.COM.2010 Requirements on aircraft equipment	p. 57
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comment	<p>214 comment by: <i>DGAC (French CAA)</i></p> <p>It is stated that : "Third-country operator (TCO) aircraft that operate within the single European sky (SES) airspace should comply with national requirements equivalent to the requirements of CS-ACNS, Subpart B, Section 2"</p> <p>Can it be confirmed that those national requirements are those stemming from the State of origin of the concerned aircraft operator ? Present wording can be misunderstood as "national requirements from Member states". There is no reason MS would be more entitled than EASA to set on board CNS equipment specifications for TCO aircraft.</p>
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response	<p>Rewording is proposed : Third-country operator (TCO) aircraft that operate within the single European sky (SES) airspace should comply with national requirements set by the third country competent authorities equivalent to the requirements of CS-ACNS, Subpart B, Section 2"</p> <p><i>Noted</i></p> <p>The comment is well received and will be further considered with the next amendment of the commented AMC.</p> <p>The intent of the AMC is to highlight that the requirement is applicable for both European operators and TCOs, and to provide design acceptable means of compliance. The wording 'national requirements' was intended to refer to the design requirements applicable for that product, which for European products and those operated by European operators are established by EASA. As CS-ACNS represents the certification 'requirements', equivalent to CS-ACNS could be airworthiness/certification specifications issued by another design authority (e.g. the FAA).</p>
comment	<p>886 comment by: EASA Focal Point for AustroControl ANSP-issues</p> <p>Potenbtial mismatch headline terms:</p> <p>Headline terms in the draft regulation, as proposed by Opinio 01/2023, states the term "equipage", meanwhile AUR requirements inside the AMC/GM NPA use the term "equipment". Potential mismatching of terms?</p>
response	<p><i>Noted</i></p> <p>The comment is noted; however, the commented term is considered more reasonable.</p>
comment	<p>940 comment by: FR DSAC</p> <p>"Certification Specifications for Airborne Communications, Navigation and Surveillance (CS-ACNS), SUBPART B — COMMUNICATIONS (COM) — SECTION 2 – DATA LINK SERVICES (DLS)."</p> <p>CS-ACNS will not be the only acceptable certification guidance material in support of the certification of the discussed functionalities. A less-centric wording would be more appropriate: "... ensure that their aircraft comply with the expected performance requirements such as EASA Certification Specifications for Airborne Communications, Navigation and Surveillance (CS-ACNS), SUBPART B — COMMUNICATIONS (COM) — SECTION 2 – DATA LINK SERVICES (DLS). "</p>
response	<p><i>Noted</i></p> <p>It should be noted that the commented certification specifications provide standards for the certification and approval of designs, or changes to designs of aircraft,</p>

allowing aircraft operators to comply with the applicable airspace requirements or mandatory equipage requirements in the areas of: — Communication, Navigation and Surveillance (CNS); — Terrain Awareness and Warning Systems (TAWS); — Reduced Vertical Separation Minima (RVSM); and — Location of an Aircraft in Distress (LAD / GADSS). These CSs do not address the ATM/ANS GE requirements.

comment

941

comment by: FR DSAC

Third-country operator (TCO) aircraft that operate within the single European sky (SES) airspace should comply with national requirements equivalent to the requirements of CS-ACNS, Subpart B, Section 2.

It would be added value to clarify this statement as follows:

"Third-country operator (TCO) aircraft that operate within the SES airspace should comply with national requirements dealing with DataLink Services"

Generally speaking this whole statement is deemed as confusing since it would introduce a discrepancy between SES requirements applicable to EU operators only and national requirements applicable to TCO. It should be clear that requirements are the same and do not depend on operators' flag.

response

Noted

See the response to comment #214.

AMC2 AUR.COM.2010 Requirements on aircraft equipment

p. 57

comment

884

comment by: EASA Focal Point for AustroControl ANSP-issues

Potential Error in numbering of requirements AUR.COMM.xxxx:

The draft regulation document, as proposed by Opinion 01/2023, names AUR.COMM.2001 and AUR.COMM.2005 only.

Could AUR.COMM.2010 probably be a typo?

response

Accepted

The comment is considered.

comment

1185

comment by: EUROCONTROL

The information about when to use the letter 'Z' is confusing. This is only required when a/c is not datalink capable (exempt). Propose to move to 2nd paragraph.

Also need to indicate that the flight plan should include 'CODE/' followed by the ICAO 24-bit aircraft address in hexadecimal form in item 18.



	Propose to organise the section covering first the FPL requirements for the case of a/c equipped for datalink (J1 in F10 and CODE/ in F18) and then separately for a/c exempted (Z in F10 and DAT/CPDLCX in F18)
response	<p><i>Partially accepted</i></p> <p>The AMC text has been reorganised. GM1 AUR.COM.2005 has been added to provide guidance on the use of letter 'Z' as well as the use of CODE followed by the ICAO 24-bit aircraft address.</p>

AMC1 AUR.COM.3005 Requirements on aircraft equipment

p. 58

comment	<p>215 comment by: DGAC (French CAA)</p> <p>It is stated that : "Third-country operator (TCO) aircraft that operate within the single European sky (SES) airspace should comply with national requirements equivalent to the requirements of CS-ACNS, Subpart B, Section 1"</p> <p>Can it be confirmed that those national requirements are those stemming from the State of origin of the concerned aircraft operator ? Present wording can be misunderstood as "national requirements from Member states". There is no reason MS would be more entitled than EASA to set on board CNS equipment specifications for TCO aircraft.</p> <p>Rewording is proposed : Third-country operator (TCO) aircraft that operate within the single European sky (SES) airspace should comply with national requirements set by the third country competent authorities equivalent to the requirements of CS-ACNS, Subpart B, Section 1"</p>
response	<p><i>Noted</i></p> <p>See the response to comment #214.</p>

comment	<p>944 comment by: FR DSAC</p> <p>"(CS-ACNS), SUBPART B — COMMUNICATIONS (COM) — SECTION 1 – VOICE CHANNEL SPACING (VCS) "</p> <p>CS-ACNS will not be the only acceptable certification guidance material in support of the certification of the discussed functionalities. A less-centric wording would be more appropriate:</p> <p>"... ensure that their aircraft comply with the expected performance requirements such as EASA Certification Specifications for Airborne Communications, Navigation and Surveillance (CS-ACNS), SUBPART B — COMMUNICATIONS (COM) — SECTION 1 – VOICE CHANNEL SPACING (VCS). "</p>
response	<p><i>Noted</i></p>

It should be noted that the commented certification specifications provide standards for the certification and approval of designs, or changes to designs of aircraft, allowing aircraft operators to comply with the applicable airspace requirements or mandatory equipage requirements in the areas of: — Communication, Navigation and Surveillance (CNS); — Terrain Awareness and Warning Systems (TAWS); — Reduced Vertical Separation Minima (RVSM); and — Location of an Aircraft in Distress (LAD / GADSS). These CSs do not address the ATM/ANS GE requirements.

comment	945	comment by: FR DSAC
	“that comply with CS-STAN, CS-SC001b (or later versions), are considered to be an acceptable alternative to compliance with CS-ACNS”	
	Is this also applicable to TCO aircraft ? If not, could EASA's reasoning be provided?	
response	<i>Noted</i>	
	AMC1 AUR.COM.3005 is not specific only to European operators. It provides acceptable means of compliance for both European operators and TCOs with reference to both CS-ACNS and CS-STAN.	

comment	946	comment by: FR DSAC
	“equivalent to the requirements of CS-ACNS, Subpart B, Section 1.”	
	It would be added-value to clarify this statement as follows: "Third-country operator (TCO) aircraft that operate within the SES airspace should comply with national requirements dealing with voice channel spacing"	
	Generally speaking this whole statement is deemed as confusing since it would introduce a discrepancy between SES requirements applicable to EU operators only and national requirements applicable to TCO. It should be clear that requirements are the same and do not depend on operators' flag.	
response	<i>Noted</i>	
	See the response to comment #214.	

GM1 AUR.COM.2010 Requirements on aircraft equipment

p. 58

comment	942	comment by: FR DSAC
	Shouldn't this statement be an AMC instead of a GM ? : “Operators may operate their aircraft within the SES airspace without datalink capacity.... Permit-to-fly”	
response	<i>Not accepted</i>	
comment	943	comment by: FR DSAC

response	<p>“Applicable aircraft datalink....(ACARS)”</p> <p>Is the intent to specify that aircraft without datalink capability should still be compliant with ED100 or ED100A? This statement is not clear since ED100/ED100A encompass datalink capability.</p> <p><i>Noted</i></p> <p>GM means non-binding material developed by the Agency that helps to illustrate the meaning of a requirement or specification and is used to support the interpretation of the rules.</p> <p>This means that ED100/ED100A may be used to demonstrate compliance with point (b) of AUR.COM.2005 (2), but it is not obligatory.</p>
comment	<p>1186 comment by: EUROCONTROL</p> <p>The requirement to comply with ED-100/100A implies that ACARS support is mandatory. However, “ATS applications over ACARS” are not specified.</p> <p>Proposed change :</p> <p>Suggest to delete this paragraph.</p>
response	<p><i>Not accepted</i></p> <p>GM means non-binding material developed by the Agency that helps to illustrate the meaning of a requirement or specification and is used to support the interpretation of the rules. Furthermore, the rules are defined at Commission Regulations level and GM could not impose rule requirements.</p>

AMC1 AUR.SUR.2005 Requirements on aircraft equipment

p. 59

comment	<p>216 comment by: DGAC (French CAA)</p> <p>It is stated that : "Third-country operator (TCO) aircraft that operate within the single European sky (SES) airspace should comply with national requirements equivalent to the requirements of CS-ACNS, Subpart D, Sections 2, 3 and 4, as applicable"</p> <p>Can it be confirmed that those national requirements are those stemming from the State of origin of the concerned aircraft operator ? Present wording can be misunderstood as "national requirements from Member states". There is no reason MS would be more entitled than EASA to set on board CNS equipment specifications for TCO aircraft.</p> <p>Rewording is proposed :</p> <p>Third-country operator (TCO) aircraft that operate within the single European sky (SES) airspace should comply with national requirements set by the third country</p>
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response	<p>competent authorities equivalent to the requirements of CS-ACNS, Subpart D, Sections 2, 3 and 4, as applicable"</p> <p><i>Noted</i></p> <p>See the response to comment #214.</p>
comment	<p>947 comment by: FR DSAC</p> <p>“their aircraft comply with the EASA Certification Specifications for Airborne Communications, Navigation and Surveillance (CS-ACNS), SUBPART D — SURVEILLANCE (SUR), and particularly:”</p> <p>CS-ACNS will not be the only acceptable certification guidance material in support of the certification of the discussed functionalities. A less-centric wording would be more appropriate:</p> <p>"... ensure that their aircraft comply with the expected performance requirements such as EASA Certification Specifications for Airborne Communications, Navigation and Surveillance (CS-ACNS), SUBPART D — SURVEILLANCE (SUR)"</p>
response	<p><i>Noted</i></p> <p>It should be noted that the commented certification specifications provide standards for the certification and approval of designs, or changes to designs of aircraft, allowing aircraft operators to comply with the applicable airspace requirements or mandatory equipage requirements in the areas of: — Communication, Navigation and Surveillance (CNS); — Terrain Awareness and Warning Systems (TAWS); — Reduced Vertical Separation Minima (RVSM); and — Location of an Aircraft in Distress (LAD / GADSS). These CSs do not address the ATM/ANS GE requirements.</p>
comment	<p>948 comment by: FR DSAC</p> <p>“that comply with CS-STAN, CS-SC002b (or later versions), are considered to be an acceptable alternative to compliance with CS-ACNS.”</p> <p>Is this also applicable to TCO aircraft ? If not, could EASA's reasoning be provided?</p>
response	<p><i>Noted</i></p> <p>Please, refer to comment #945.</p>
comment	<p>949 comment by: FR DSAC</p> <p>“with national requirements equivalent to the requirements of CS-ACNS, Subpart D, Sections 2, 3, and 4, as applicable”</p> <p>It would be added-value to clarify this statement as follows: "Third-country operator (TCO) aircraft that operate within the SES airspace should comply with national requirements dealing with surveillance"</p>

	Generally speaking this whole statement is deemed as confusing since it would introduce a discrepancy between SES requirements applicable to EU operators only and national requirements applicable to TCO. It should be clear that requirements are the same and do not depend on operators' flag.
response	<i>Noted</i> See the response to comment #214.

GM3 AUR.SUR.2005 Requirements on aircraft equipment

p. 60

comment	950	comment by: <i>FR DSAC</i>
	<p>“- maintenance, i.e. routine or non-routine checks and [...] - [...] operated as non-revenue flights.”</p> <p>Shouldn't this statement be an AMC instead of a GM ?</p>	
response	<i>Not accepted</i>	

comment	951	comment by: <i>FR DSAC</i>
	<p>“This condition is applicable to aircraft whose operators have determined prior to 7 December 2020 [...] prior to 31 October 2025 and make it available upon request to their competent authority.”</p> <p>Shouldn't this statement be an AMC instead of a GM ?</p>	
response	<i>Not accepted</i>	
	<p>The rule is laid down in AUR.SUR.2005, while the purpose of this GM is to illustrate the meaning of the requirements. Therefore, GM is considered as appropriate.</p>	

4.4. Draft acceptable means of compliance and guidance material (draft EASA decision) amending ED Decision 2017/001/R

p. 62

comment	582	comment by: <i>EUROCONTROL</i>
	<p>Currently in the AMC & GM to Part-ATS there are references to the following repealed regulations:</p> <ul style="list-style-type: none"> - (EU) No 1206/2011 - (EU) No 1207/2011 <p>Respectively in:</p> <ul style="list-style-type: none"> - AMC1 ATS.TR.155(c)(1) ATS surveillance services (b) (1) - GM2 ATS.TR.155(b)(1) ATS surveillance services <p>These two items need to be amended to remove the reference to amended regulations. For GM2 comment on page 18 is proposing a solution.</p>	

In AMC & GM to SERA for which there is no proposal in this NPA there is also a reference to (EU) No 1206/2011 in GM1 SERA.13020(b) SSR transponder failure when the carriage of a functioning transponder is mandatory.

Proposed change:

It is proposed to make a reference to COMMISSION IMPLEMENTING REGULATION (EU) .../...of XXX laying down provisions on aircraft equipment required for the use of the Single European Sky airspace and operating rules related to the use of the Single European Sky airspace and repealing Regulation (EC) No 29/2009 and Implementing Regulations (EU) No 1206/2011, (EU) No 1207/2011 and (EU) No 1079/2012 Annex II Part-SUR.

response

Noted

The Agency appreciates the comment and suggestion to improve Regulation (EU) 2017/373 as regards consistency and correction of links. This NPA is about AMC/GM/DS material, and due to the time pressure to complete the IR package published in September 2023, the proposed clean-up was not feasible at this stage, so the exercise to clean and update links in the regulatory text will be done at the earliest possible occasion that Regulation (EU) 2017/373 is updated and amended.

comment

1059

comment by: AESA

Related with comment 1148 of CRD 2022-09, about activities that should be carried out by the ANSP prior to the purchase of certified or declared equipment, no considerations have been considered during the development of the associated AMC/GM

response

Partially accepted

Comment 1148 of CRD 2022-09 proposed the introduction of a preliminary safety assessment. It is up to ANSP to decide how to achieve the safety objectives and place performance requirements on the equipment or somewhere else (people or procedures). On a first analysis, this may only subject to GM, which will need to be explored within RMT.0743.

comment

1060

comment by: AESA

Related with comment 1149 of CRD 2022-09, about requirements for competent authorities, specially how competent authorities shall verify that the provider has made sure that the equipment is certified / declared by an approved DPO, no considerations have been considered during the development of the associated AMC/GM.



response

Partially accepted

Competent authorities will be able to check that equipment is certified when they review the documentation associated with the notified change to the functional system. A reference to the certificate given to a DPO will be documented by ANSPs, and CAs will have access to the certificates issued by EASA. During RMT.0743, the Agency will consider the need to develop complementary material which at this stage seems that it will be GM.

AMC1 ATM/ANS.AR.C.035 Decision to review a notified change to the functional system

p. 63

comment

244

comment by: *Nils*

New functions are novelty, but if a known DPO deliver a new function it will subjectively be handled differently compared to if a new DPO deliver the same functionality? Is this the intention and is that good for competition and getting new actors to deliver on the ATM market?

response

Noted

Novelty is a property that is linked to the DPO experience with the equipment in question. The requirements for all DPOs are the same, ensuring a level playing field, but the decision of the CA to review the change must be based on the risk that the assessment of the change is flawed. It is assumed that there are higher risks of having a change assessment flawed when a DPO's experience is low. This does not affect the level playing field.

comment

588

comment by: *EUROCONTROL*

The subjects discussed here are good information to put in a GM, not in AMC. Moreover, the notion of novelty is already addressed by existing GM to EU.2017/373 (and not AMC).

Proposed change:

Suggest to move to GM (and not AMC)

response

Not accepted

The introduction of the new ATM/ANS equipment may be a novelty and thus, be considered an essential criterion for the determination of the decision to review a change to a functional system. However, considering the comment, the text is amended to promote clarity.

comment

715

comment by: *Thales Land and Air Systems*

Competent Authority oversight criteria shall only rely on the novelty of ATM/ANS equipment subject to Statement of Compliance and on the integration of certified/declared ATM/ANS equipment.



response	<p>ATM/ANS equipment subject to certification and declaration are not part of the ANSP's Competent Authority oversight, only the integration of those equipment is subject to the local NSA oversight. Moreover, the novelty of ATM/ANS equipment subject to certification/declaration is already used to define the EASA LoI.</p> <p><i>Accepted</i></p> <p>The Agency concurs with the commentator's analysis. However, it believes that the commentator misinterpreted the text. The decision of the CA to review a notified change is associated with changes to the functional system rather than with the change of the design, regardless of the attestation method used for the equipment. The novelty of ATM/ANS equipment for a particular ATM/ANS provider should be a criterion to review the argument of the assessment prepared by the ATM/ANS provider when integrating such equipment in its functional system. The commentator is correct by saying that the oversight will not cover the equipment itself (in its role as competent authority for ATM/ANS provider, it is not responsible for the equipment certification/declaration), but for the approval of the safety assessment/safety support assessment.</p> <p>In any case, the text is amended to promote clarity that the AMC is about the review of the S(S)A.</p>
comment	<p>954 comment by: FR DSAC</p> <p>French DGAC fully supports this AMC which provides adequate means to CAs to perform an efficient, though proportionate, oversight.</p>
response	<p><i>Noted</i></p> <p>The Agency appreciates the support.</p>
comment	<p>1063 comment by: AESA</p> <p>Regarding the topics and criteria related to the novelty of ATM/ANS equipment subject to certification/declaration/statement of compliance, how will new functionalities, new concept of operation or new technologies be considered? What will be taken into account? Further clarification would be advisable.</p>
response	<p><i>Noted</i></p> <p>It is up to the CA to define the criteria (specific, valid and documented criteria) based on the novelty. The idea behind it is that the CA has to evaluate how unfamiliar the ANSP is with the novelty introduced by the ATM/ANS equipment. The unfamiliarity for the ANSP may lead to the argument in the SA/SSA being overly complex with the result that flaws may be introduced into the arguments and evidence used to justify the overall claim of the safety case. A complex change can affect the likelihood that a provider will misidentify or miscalculate the safety risks/performance associated with a change. Anyway, the Agency will re-evaluate the link of changes to the ATM/ANS equipment design classification as major/minor with the decision to review the change to the functional system within RMT.0743</p>

AMC & GM to PART-ATM/ANS.AR

p. 63

comment	<p>328 comment by: <i>German NSA (BAF)</i></p> <p>ATM/ANS.AR.C.025 Changes; ATM/ANS.AR.C.030 Approval of change management procedures for functional systems</p> <p>In addition to ATM/ANS.OR.A.045 (g) it is proposed to add (h), (i) and (j). (h), (i) and (j) which also describe precedures/tasks of ATM/ANS providers. Therefore they shall also be part of the approval of the change management.</p>
response	<p><i>Accepted</i></p> <p>Points (h), (i) and (j) have been added to the final text.</p>

AMC1 ATM/ANS.AR.C.025 Changes; ATM/ANS.AR.C.030 Approval of change management procedures for functional systems

p. 63

comment	<p>583 comment by: <i>EUROCONTROL</i></p> <p>In some case, the ATS Provider (which is a subset of ATM/ANS and required to comply with ATM/ANS.OR.B.010) has no equipment within its Functional System. This proposed AMC is misleading: suggest to move its content to GM.</p> <p>Proposed change: Move the content of the proposed AMC to GM</p>
response	<p><i>Not accepted</i></p> <p>It is unclear what type of ATS provider does not not ATM/ANS equipment to provide the service. But even in such a case, the AMC would not be applicable and it should not pose any trouble. The commentator has not provided any valid argument to move the content to GM.</p>
comment	<p>585 comment by: <i>EUROCONTROL</i></p> <p>This AMC is about the approval of the Change Management Procedure and should refer only to ATM/ANS.AR.C.030.</p> <p><u>Proposed change:</u> Remove the reference to ATM/ANS.AR.C.025.</p>
response	<p><i>Accepted</i></p> <p>The Agency concurs with the commentator's analysis. The reference to ATM/ANS.AR.C.025 has been removed from the final text.</p>

comment	<p>586 comment by: EUROCONTROL</p> <p>“... the system engineering activities related to the verification of compliance of ATM/ANS equipment subject to statement of compliance...”</p> <p><u>Proposed change:</u> Suggest to rephrase: “... the system engineering activities related to the verification of compliance of ATM/ANS equipment subject to statement of compliance...”</p>
response	<p><i>Not accepted</i></p> <p>The commentator has not provided any supporting argument to amend the text, and the Agency does not see the need.</p>
comment	<p>952 comment by: FR DSAC</p> <p>French DGAC fully supports this AMC which provides adequate means to CAs to perform an efficient, though proportionate, oversight. Regarding "system engineering activities related to the verification of compliance of ATM/ANS equipment", it is expected that compliance demonstrations will not be limited to verification activities and will rely on the application of state-of-the-art engineering activities.</p> <p>Proposal: Replace "verification of compliance" by "demonstration of compliance" to include the full set of engineering processes.</p>
response	<p><i>Accepted</i></p> <p>The Agency appreciates the support to the text. The final text is amended as suggested.</p>
comment	<p>953 comment by: FR DSAC</p> <p>System engineering activities due for SoC design and verification as well as activities due for the integration of all ATM/ANS equipment shall be part of the Management System and not specifically part of the functional system change management process. As such, approval of these procedures should be part of the review of the procedures for the certification of the provider.</p> <p>Proposal: Consider changing the reference of this AMC to ATM/ANS.AR.C.005</p>
response	<p><i>Not accepted</i></p> <p>The Agency considers the verification and integration activities as part of the change management process, which is part of the management system of the ATM/ANS provider. The commentator’s reasoning as to why these activities should be left out of the change management process, thus the text remains unchanged.</p>

**GM1 ATM/ANS.AR.C.040(b) Review of a notified change to functional system;
ATM/ANS.OR.A.045(g) Changes to a functional system;**

p. 63

comment	590	comment by: EUROCONTROL
	Rejection of an argument is and should remain an exceptional case.	
	<u>Proposed change:</u> Suggest to rephrase: “The supporting rationale for approval with conditions or rejection of the argument could relate, totally or partially, to topics associated with the integration of ATM/ANS equipment into the functional system.”	
response	<i>Accepted</i>	
	The Agency appreciates the comment and suggestions to improve the GM. The text is updated accordingly.	

comment	955	comment by: FR DSAC
	French DGAC fully supports this GM. However we would rather propose to refer to ATM/ANS.OR.A.045(g) in the text of the GM instead of having 2 references for this GM. Considering the impact of this GM, we would also propose to change this GM into an AMC.	
	<u>Proposal:</u> The supporting rationale for rejection of the argument could relate, totally or partially, to topics associated with the integration of ATM/ANS equipment into the functional system as required by ATM/ANS.OR.A.045(g).	
response	<i>Partially accepted</i>	
	The Agency concurs with the commentator’s view that the GM should be related to one requirement. The GM seems more appropriate linked to the AR requirement rather than the OR. It is not considered appropriate to have it as AMC, as the nature of the text is explanatory.	

GM1 ATM/ANS.OR.A.045(g) Changes to a functional system

p. 64

comment	10	comment by: DAC Luxembourg
	It is proposed to have this at AMC level, it is perceived as beneficial to do so.	
response	<i>Accepted</i>	
	Considering all comments received, this is placed at AMC level.	



comment	11	comment by: DAC Luxembourg
	Link should be made to AMC5 ATM/ANS.OR.C.005(a)(2) and AMC3 ATS.OR.205(a)(2) for the software aspect of the Functional System.	
response	<i>Not accepted</i>	
	The commented measure addresses the necessary activities by the ATM/ANS provider to ensure that the ATM/ANS equipment has undergone conformity assessment, i.e. it is of a generic nature; while the referenced AMC specifically deals with the SW assurance.	
	Therefore, the subtitle of the commented provision is amended to avoid misunderstandings.	
comment	81	comment by: ENAIRE
	Proposed amended text (to clarify):	
	The ATM/ANS provider should ensure that an EASA release form or a statement of compliance, as appropriate, exists for each ATM/ANS equipment affected by the change prior to putting the changed functional system into service, and as a part of the corresponding safety assessment (or safety support assessment) related to the transfer into operation in its functional system.	
response	<i>Partially accepted</i>	
	The text has been amended as per commentator's suggestion, but slightly modified.	
comment	564	comment by: DCAC NSA Officer
	Cyprus considers that this should be moved to an AMC	
response	<i>Accepted</i>	
	Considering all comments received, this is placed at AMC level.	
comment	957	comment by: FR DSAC
	French DGAC fully supports this GM.	
response	<i>Noted</i>	
	Considering all comments received, this is placed at AMC level.	
comment	1064	comment by: AESA
	ASSURANCE. The wording and the spirit of the text appears to be more mandatory than a GM. An AMC should be considered	
response	<i>Accepted</i>	

Considering all comments received, this is placed at AMC level.

GM1 ATM/ANS.OR.A.045(g) and (i) Changes to a functional system

p. 64

comment 12 comment by: DAC Luxembourg
Regarding (i), link should be made to AMC5 ATM/ANS.OR.C.005(a)(2) and AMC3 ATS.OR.205(a)(2) for the software aspect of the Functional System.

response *Not accepted*
The proposal to link this GM with SW assurance levels do not seem appropriate. It is not considered necessary to highlight SW requirements above others. The main purpose of this explanatory material is to illustrate what is considered under the term 'modified' ATM/ANS equipment.
The commentator is kindly invited to consider this issue when further developing AMC/GM within RMT.0743 in due time.

comment 330 comment by: German NSA (BAF)
GM1 ATM/ANS.OR.A.045(g) and (i) Changes to a functional system
MODIFIED ATM/ANS EQUIPMENT
ATM/ANS equipment is considered 'modified' when there is:

It is proposed to use "modified" instead of "change", s. page 28.
To avoid misunderstandings it is deemed necessary to insert the term "in the context of this GM".

The full sentence should be:
ATM/ANS equipment is considered "modified" in the context of this GM when there is:

response *Partially accepted*
The text has been amended as per commentator's suggestion, but slightly modified.

comment 772 comment by: ENAIRE
Proposed amended text:
The category of the equipment [certification, declaration, or statement of compliance] or the applicable detailed specifications may be impacted, and therefore reassessed, by modifications of (i.e. change in) its usage, without technical modification.
These changes will be identified by either ATS Safety Cases and/or other services' Safety Support Cases.

Rationale:



	<p>The fact that non-technical changes of the usage of a certain equipment are considered an “equipment modification” seems at odds with the general orientation of Regulation (UE) 2017/373, where safety analysis of ATM/ANS system usage is eventually determined by ATS providers.</p> <p>For instance, let us consider the case of a DME navaid traditionally used for conventional navigation only. Later on, it is decided that it will be used for DME/DME PBN navigation as well with no technical changes.</p> <p>This is an ATS change supported by several services - FPD and NAV among others. It would be expected that the new requirements would flow down from that change’s ATS Safety Case to the DME equipment, via the CNS DME Safety Support Case.</p>
response	<p><i>Partially accepted</i></p> <p>The Agency concurs with the commentator’s analysis and shares the spirit of the comment. However, the text has been amended differently from that proposed. A change in the use of equipment is regarded as a change in the architecture of the functional system (i.e. how its components interact) and is not included as part of ‘modified’ equipment, but as a change in the architecture of the functional system, thus subject to SA/SSA.</p>
comment	<p>958 comment by: FR DSAC</p> <p>French DGAC fully supports this GM but would propose to change this GM into an AMC.</p>
response	<p><i>Not accepted</i></p> <p>The text is explanatory in nature and aims to provide clarification of what ‘modify’ means. It is considered more appropriate to develop the AMC/GM (within RMT.0743) in a more appropriate and effective manner, which cannot be done at this stage.</p>

AMC2 ATM/ANS.OR.A.035 Demonstration of compliance	p. 64
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comment	<p>17 comment by: DAC Luxembourg</p> <p>It is helpful to have it as proposed, AMC level.</p>
response	<p><i>Not accepted</i></p> <p>The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled</p>

to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.

comment

80

comment by: ENAIRE

Proposed amended text (to clarify):

The ATM/ANS provider should, when demonstrating the compliance of the ATM/ANS equipment, allow the competent authority, if so requested, to participate in any compliance activity (related to demonstrate the compliance with user requirements, safety requirements, etc.) of the ATM/ANS equipment in the final or suitably mature design configuration. This is necessary to determine that the product has no feature or characteristic that renders the ATM/ANS equipment unsafe for the intended use.

response

Partially accepted

The text is amended based on the commentator suggestion, but slightly modified.

comment

100

comment by: DUNA

The wording seems too general to be placed at the AMC level.

We propose to place it at the GM level

response

Accepted

The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.

comment

144

comment by: Swedish Transport Agency, Civil Aviation Department
(Transportstyrelsen, Luftfartsavdelningen)**AMC2 ATM/ANS.OR.A.035 Demonstration of compliance, page 64**

Stakeholders view:

Place as GM, provide as a justification.

response

Accepted

The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled

to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.

comment

176

comment by: *CANSO*

The wording seems too general to be placed at the AMC level.

We propose to place it at the GM level

response

Accepted

The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.

comment

245

comment by: *Nils*

Regarding “Stakeholders are invited to provide their views on whether the proposed provision should be addressed at AMC level (as proposed) or be placed as GM, and provide *a* justification.”
-Preferably as GM with justification given the first entry.

response

Accepted

The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.

comment

329

comment by: *German NSA (BAF)*

AMC2 ATM/ANS.OR.A.035 Demonstration of compliance

EASA would like to get stakeholders view:
BAF proposes to address the provisions at AMC level to get a solid foundation for oversight.

response

Not accepted

The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and

audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.

comment 358 comment by: FOCA Switzerland

As regards the question, we suggest to have this provision as GM. Indeed, the CA/NSA has already by existing regulations +/- all competences to get access to anything they require to meet their oversight tasks.

response *Accepted*

The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.

comment 387 comment by: skeyes

AMC2 ATM/ANS.OR.A.035 64 Demonstration of compliance	Very general statement for an AMC. Furthermore raising the question of the competency of the (sic) competent authority to judge on technical aspects that could harm safety. Concerning the question AMC or GM, we would say it's GM
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response *Accepted*

The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.

comment	563	comment by: DCAC NSA Officer
	With regards to the question in the textbook Cyprus considers that it should remain in AMC	
response	<i>Not accepted</i>	
	The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.	
comment	595	comment by: EUROCONTROL
	The content of this proposed AMC is already covered by the obligations and associated AMC/GM of ATM/ANS.OR.B.015.	
	<u>Proposed change:</u> Suggest to either remove or move to GM with a link to ATM/ANS.OR.B.015	
response	<i>Accepted</i>	
	The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.	
comment	768	comment by: ENAIRE
	Regarding the question made by EASA, the GM option is preferred.	
response	<i>Accepted</i>	
	The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.	
comment	956	comment by: FR DSAC

	<p>Compliance demonstration will rely on much more than "verification activities" and could necessitate regular reviews during the development lifecycle of the equipment. Witnessing final compliance activities cannot bring significant confidence on the actual compliance and can't provide any assurance on the absence or presence of unsafe feature.</p> <p>Proposal: This kind of AMC is necessary to allow the involvement of the CA but should not be prescriptive on how and when the conformity oversight should be performed as it will depend on the criticality and the complexity of the equipment. Moreover, the last sentence should be removed as no activity performed by CA can be claimed to ensure that no feature renders the equipment unsafe.</p>
response	<p><i>Not accepted</i></p> <p>The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.</p>
comment	<p>1040 comment by: AESA</p> <p>Regarding the issue raised by EASA in this point, in our view, we believe that it should be included as an AMC in order to ensure that NSAs have access to such compliance activity.</p>
response	<p><i>Not accepted</i></p> <p>The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.</p>
comment	<p>1079 comment by: Deutscher Wetterdienst</p> <p>EASA is invited to address this provision as GM instead of AMC as currently proposed. Due to existing provisions, NSA are already entitled to get full access to any evidence necessary to ensure compliance of ANSP with applicable requirements. GM to address the participation upon request by NSA is thus considered sufficient.</p>
response	<p><i>Accepted</i></p> <p>The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is</p>

generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.

comment 1127 comment by: *Météo-France*

Météo-France supports EASA's proposal to have an AMC

response *Not accepted*

The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.

comment 1242 comment by: *Irish Aviation Authority (IAA)*

EASA question -
Suggest placing the proposed provision at GM level.

ATM/ANS.OR.A.035 places a requirement on the ATM/ANS provider to provide all of the relevant evidence to demonstrate compliance with the applicable requirements, at the request of the CA.

The proposed provision appears to address CA participation in any compliance activity being undertaken on the ATM/ANS equipment at the initial demonstration of compliance state. This is a welcome provision. However, it should not negate the need for the ATM/ANS provider to provide relevant evidence to demonstrate compliance at the request of the CA, at any stage during the life-cycle of the ATM/ANS system.

response *Accepted*

The consultation has resulted in slightly more stakeholders in favour of keeping the text as GM rather than AMC. Arguments in favour include the fact that the text is generic and the NSAs are already entitled to request presence in inspections and audits when performing oversight of the ATM/ANS providers (as per ATM/ANS.OR.A.050), while others were in favour to keep it as AMC to have more solid legal support to conduct oversight. The Agency believes that the NSA is entitled to request witnessing compliance demonstration activities already under ATM/ANS.OR.A.050, and this text is explanatory. The text was amended for clarity.

AMC & GM to PART-ATM/ANS.OR

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comment	30	comment by: <i>Finnish Meteorological Institute (FMI) - MET SP</i>
	FMI supports the current proposal to have it as AMC.	
response	<i>Noted</i>	
	The Agency appreciates the support.	
comment	222	comment by: <i>MeteoSwiss</i>
	It is understood that with ATM/ANS.OR.A.050 sufficient access to the service provider is guaranteed for any kind of supervising activity on IR leven and therefore a repetition here only at AMC level is potentially superfluous. Therefore this statement on GM level seems to be more than enough and EASA is invited to consider whether this paragraph is needed at all, independant of AMC or GM.	
response	<i>Accepted</i>	
	The Agency concurs with the commentator's analysis of the content of ATM/ANS.OR.A.050, which is about inspections and audits by the CA. The CA can always request to inspect the compliance activities of the ATM/ANS provider. After review of comments received, the Agency decided to keep the text as explanatory material and moved it at GM level, making explicit the link with ATM/ANS.OR.A.050.	
comment	491	comment by: <i>IFATCA</i>
	We are working in 10-7 environment. This seems to be elluded by this AMC. clarify and put it as a GM.	
response	<i>Accepted</i>	
	The CA can always request to inspect the compliance activities of the ATM/ANS provider. After review of comments received, the Agency decided to keep the text as explanatory material and moved it at GM level, making explicit the link with ATM/ANS.OR.A.050.	
comment	1170	comment by: <i>Belgian Supervisory Authority</i>
	AMC2 ATM/ANS.OR.A.035 Demonstration of compliance – question raised by EASA page 64	
	The Belgian Supervisory Authority advises to turn this AMC2 into a guidance material. This is because requirement ATM/ANS.OR.A.035 only deals with the demonstration of compliance to “this Regulation” [2017/373], and not to the delegated act on ATM/ANS equipment. The Belgian Supervisory Authority assessment is that a modification of ATM/ANS.OR.A.035 would be necessary to keep AMC2.	

response

Accepted

The CA can always request to inspect the compliance activities of the ATM/ANS provider. After review of comments received, the Agency decided to keep the text as explanatory material and moved it at GM level, making explicit the link with ATM/ANS.OR.A.050.

GM1 ATM/ANS.OR.A.045(g)(4) Changes to a functional system

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comment

156

comment by: *CANSO*

Page 64, GM1 ATM/ANS.OR.A.045(g)(4) Changes to a functional system

“(b) Following point (a) nevertheless, such equipment would belong to the functional system of the ATM/ANS provider; consequently, Regulation (EU) 2017/373 applies for equipment which is not subject to the conformity assessment framework.”

Appreciation for the fact that there is here recognition that the ATM/ANS functional system is one, which can nevertheless be composed of (sub) functional systems.

response

Noted

The Agency appreciates the support.

comment

269

comment by: *NAV Portugal E.P.E*

GM1 ATM/ANS.OR.A.045(g)(4) Changes to a functional system

“(b) Following point (a) nevertheless, such equipment would belong to **the functional system of the ATM/ANS provider**; consequently, Regulation (EU) 2017/373 applies for equipment which is not subject to the conformity assessment framework.”

Appreciation for the fact that there is here a recognition that the ATM/ANS functional system is one, which can nevertheless be composed of (sub) functional systems.

response

Noted

The Agency appreciates the support.

comment

492

comment by: *IFATCA*

are we talking here about complicated or complex systems? this is not clear and changes the nature of the article tremendously. Clarify

response

Noted

The GM is about systems that do not require assessment of conformity to applicable requirements as per Delegated Regulation (EU) 2023/1768. It is added for clarity.



comment	<p>594 comment by: EUROCONTROL</p> <p>What other equipment will not be subject to the CA? What are the criteria?</p> <p>Proposed change Please include the list of equipment that are excluded.</p>
response	<p><i>Not accepted</i></p> <p>The Agency appreciates the comment and suggestion to improve the GM, but the content of this GM is not about what equipment require assessment of conformity or not, but about that when the ATM/ANS equipment is not subject to conformity assessment, requirements about changes to functional systems still apply. Any GM about what equipment is subject or not to CA will be associated with Delegated Regulation (EU) 2023/1768.</p>
comment	<p>596 comment by: EUROCONTROL</p> <p>Text is complex. Point (a): suggest to rephrase: “Some equipment (e.g. FPD or data services tools) are not subject to ATM/ANS conformity assessment.”. The discussion about safety (support) assessment is useless as already addressed by other relevant AMC/GM of EU.2017/373. The considerations about DPO not being required are obvious as the considered ATM/ANS equipment would not be subject to Conformity Assessment.</p> <p><u>Proposed change:</u> Point (a): suggest to rephrase: “Some equipment (e.g. FPD or data services tools) are not subject to ATM/ANS conformity assessment.”</p>
response	<p><i>Partially accepted</i></p> <p>The text has been simplified following the commentator’s suggestion, but the clarification is considered relevant to keep the main message in GM.</p>
comment	<p>597 comment by: EUROCONTROL</p> <p>Point (b): these considerations are already addressed by existing AMC/GM of EU.2017/373 and could create confusion; the proposed examples could be part of the functional system or of its environment .</p> <p><u>Proposed change:</u> Suggest to remove point (b)</p>
response	<p><i>Partially accepted</i></p> <p>The text has been redrafted for simplicity, and render the message more straightforward. The Agency, nevertheless, considers the GM helpful and does not see the potential confusion.</p>

comment	634	comment by: <i>CANSO</i>
	<p>MODIFIED ATM/ANS EQUIPMENT Change of use of a technical system without change to that technical system should not be considered “modified” unless the new usage contravenes any stated limitations (e.g. as included in the declaration). The change to its use would be subject to a safety (support) assessment</p>	
response	<p><i>Accepted</i></p> <p>The Agency concurs with the commentator’s analysis, which led to amending the text, adding a clarification in this regard. A change in the use of the equipment will be subject to SA/SSA, as it is a change to the functional system.</p>	
comment	959	comment by: <i>FR DSAC</i>
	<p>French DGAC fully supports this GM. In (a): "ANSP" should not be used anymore.</p> <p>Proposal: Replace "ANSP" by "ATM/ANS Provider".</p>	
response	<p><i>Accepted</i></p> <p>The text has been amended as per commentator’s suggestion.</p>	
comment	1080	comment by: <i>Deutscher Wetterdienst</i>
	<p>EASA is invited to provide further clarification which equipment falls into this category and is therefore considered to be outside the scope of the CA framework. ('data services tools': which data?)</p>	
response	<p><i>Partially accepted</i></p> <p>Clarifications have been added. The content of this GM is not about what equipment requires assessment of conformity or not, but about that when the ATM/ANS equipment is not subject to conformity assessment, requirements about changes to functional systems still apply. Any GM about what equipment is subject to CA will be associated with Delegated Regulation (EU) 2023/1768.</p>	

AMC2 ATM/ANS.OR.B.005(b) Management system

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comment	7	comment by: <i>DAC Luxembourg</i>
	<p>Equivalent AMC for ATM/ANS providers on the deployment of ATM/ANS equipment subject to Certification or Declaration would be beneficial.</p>	
response	<p><i>Not accepted</i></p>	



It should be highlighted that the commented AMC related to the management system addressed the compliance procedure to issue a statement of compliance which is equivalent to the compliance demonstration activities by the approved design or production organisations (DPOs) for ATM/ANS equipment subject to certification or declaration.

ATM/ANS providers are not responsible for compliance demonstration of equipment certified or declared by DPOs. Such procedures and requirements are allocated to DPOs, and are established within Regulation (EU) 2023/1769.

comment 44 comment by: *DFS Deutsche Flugsicherung GmbH*

1. numbering of AMC should refer to ATM/ANS.OR.B.005(a)(8) (instead of OR.B.005(b)).
2. The approval by the CA for the process is already required by point b) of OR.B.010. Duplication

response *Partially accepted*

Numbering is amended to B.005(a)(8), as suggested by the commentator. Indeed, ATM/ANS.OR.B.005(b) is about provisions to document providers processes, and not about the compliance process in itself.

The procedure is not really part of the change management procedure, which is required by point (b) of AMT/ANS.OR.B.010, but a procedure that is part of the management system.

comment 145 comment by: *Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)*

AMC2 ATM/ANS.OR.B.005(b) Management system, page 65

Please note if the amc/gm is applicable starting 12 September 2023, ANSP will not have a procedure for compliance approved by CA by this date. Is the transitional period also eligible for ANSP procedure? Is the non-complex provider also required to have an approved by CA approved procedure?

response *Noted*

It is acknowledged that immediately after 12 September 2023, procedures will not be in place. The requirement to be approved by the CA is removed, as it is not appropriate to establish the requirement at the level of AMC, rather than IR. Despite the explicit transition period for this requirement, it is understood that a period of time will be needed; however, this should be relatively short as the procedure should not be too different from the current procedure to issue a DoV.

Yes, the obligation is for non-complex providers too.

comment 568 comment by: *DCAC NSA Officer*

1. The reference to “compliance monitoring is ATM/ANS.OR.B.005 Point (c) (not (b) as written in the NPA)



	<p>2. Cyprus proposes to remove entirely the obligation to submit the “compliance procedures” to the competent authority for approval because it creates confusion with various other compliance procedures referred to in ATM/ANS.OR.B.005 which do not need to be approved.</p> <p>We suggest to move this AMC to GM and change the text: GMx ATM/ANS.OR.B.005(b) The provisions related to compliance with Art.6 of Delegated Regulation... are understood to be part of the processes contained in the ATM/ANS provider Management System.</p> <p>GMx ATM/ANS.OR.B.005(c) The continuous compliance with obligations of Art.6 of Delegated Regulation... is considered to be part of the overall Compliance Monitoring of the ATM/ANS Provider.</p>
response	<p><i>Partially accepted</i></p> <p>1. The reference is corrected to point (a)(8) rather than point (c).</p> <p>2. The Agency considers appropriate to approve this procedure, in the same manner as it is required for others in the management system, and it does not see what confusion is introduced. The text is seen as appropriate as AMC.</p>
comment	<p>599 comment by: EUROCONTROL</p> <p>The reference to “compliance monitoring is ATM/ANS.OR.B.005 Point (c) (not (b) as written in the NPA).</p> <p><u>Proposed change:</u> Suggest to change the reference, to transform it into a GM and change the text: GMx ATM/ANS.OR.B.005(b)</p> <p>The provisions related to compliance with Art.6 of Delegated Regulation... are understood to be part of the processes contained in the ATM/ANS provider Management System.</p>
response	<p><i>Partially accepted</i></p> <p>The reference has been corrected and points to (a)(8) rather than (c). The text is considered as appropriate for AMC, and it remains as such. The Agency concurs with the commentator that the procedure is part of the management system, and this is indicated in the text.</p>
comment	<p>600 comment by: EUROCONTROL</p> <p>The statement “... and should submit these compliance procedures to the competent authority for approval...” is incorrect; currently there is no such obligation to have a formal approval of the ATM/ANS provider compliance monitoring procedure by it CA.</p> <p><u>Proposed change:</u></p>

	Suggest to split into GM to point (b) and to point (c) and to rephrase GMx ATM/ANS.OR.B.005(c) The continuous compliance with obligations of Art.6 of Delegated Regulation... is considered to be part of the overall Compliance Monitoring of the ATM/ANS Provider.
response	<i>Partially accepted</i> The procedure is considered necessary, but the Agency concurs with the commentator that the obligation for approval by the CA should be stated at the level of IR, rather than AMC.
comment	635 comment by: <i>CANSO</i> The AMC/GM lacks sufficient detail to ensure that Competent Authorities and ANSPs are implementing similar processes around SoCs. Therefore, there is a risk of significant differences in implementation across Member States and even between ANSPs.
response	<i>Noted</i> The commentator does not propose improvements to the text. The AMC text will be reviewed at the next occasion under RMT.0743 to improve its drafting.
comment	963 comment by: <i>FR DSAC</i> French DGAC fully supports this AMC which provides adequate means to CAs to perform an efficient, though proportionate, oversight.
response	<i>Noted</i> The Agency appreciates the support.

AMC1 ATM/ANS.OR.A.045(h) Changes to a functional system and

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comment	42 comment by: <i>DFS Deutsche Flugsicherung GmbH</i> point b) refers to AMC1 OR.A.045(g)(3) which does not exist. That compliance procedure now has moved under AMC4 to OR.B.005. The AMC should reflect the latest regulatory text when voted. The AMC should point to A.045 (j).
response	<i>Accepted</i> The AMC is updated referring to ATM/ANS.OR.A.045 (j), as indicated by the commentator (deployment procedures). The reference to ATM/ANS.OR.A.045(g)(3) in point (b) is incorrect, and it has been updated to the correct one, which is AMC1 OR.A.00B(a)(8).
comment	82 comment by: <i>ENAIRE</i>



	<p>Proposed amended text (to clarify):</p> <div style="border: 1px solid black; padding: 5px;"> <p>(a) As part of the change management procedures as laid down in ATM/ANS.OR.B.010, the ATM/ANS provider should establish deployment procedures for putting ATM/ANS equipment into service to ensure:</p> <ul style="list-style-type: none"> -the safe integration of the ATM/ANS equipment, or the modified ATM/ANS equipment, in its functional system, -that the new ATM/ANS equipment, or the modified ATM/ANS equipment, is deployed according to the conditions of use, <p>-as well as according to any prescribed limitations.</p> </div> <p>response <i>Accepted</i></p> <p>The text has been updated accordingly.</p>
comment	<p>183 comment by: <i>CANSO</i></p> <p>Proposed amended text ATM/ANS EQUIPMENT INTO SERVICE DEPLOYMENT ACTIVITIES</p> <p>(a) As part of the change management procedures as laid down in ATM/ANS.OR.B.010, the ATM/ANS provider should establish deployment procedures for putting ATM/ANS equipment into service to ensure:</p> <ul style="list-style-type: none"> -the safe integration of the ATM/ANS equipment, or the modified ATM/ANS equipment, in its functional system, -that the new ATM/ANS equipment, or the modified ATM/ANS equipment, is deployed according to the conditions of use, <p>-as well as according to any prescribed limitations.</p>
response	<p><i>Accepted</i></p> <p>The text has been updated accordingly.</p>
comment	<p>331 comment by: <i>German NSA (BAF)</i></p> <p>AMC1 ATM/ANS.OR.A.045(h) Changes to a functional system and</p> <p>("and" could be deleted. Or additional requirement should be added.)</p> <p>AMC1 requires that the ATM/ANS-provider has deployment procedures in place. This AMC covers only ATM/ANS.OR.A 045(h), but ATM/ANS.OR.A.045(i) and (j) handle also activities of ATM/ANS providers to put equipment into service. Therefore, it is proposed to add in the headline also ATM/ANS.OR.A.045 (i) and (j).</p>
response	<p><i>Partially accepted</i></p>

		The AMC has been corrected to make reference to (j), as it is purely about deployment. Points (h) and (i) should also be part of the procedure, as they are requirements that need to be complied with when equipment is put into service.
comment	565	comment by: <i>DCAC NSA Officer</i>
		With regards to point (b): AMC1 ATM/ANS.OR.A.045(g)(3) does not exist.
response		<i>Accepted</i>
		The reference has been corrected to AMC1 ATM/ANS.OR.B.005(a)(8).
comment	598	comment by: <i>EUROCONTROL</i>
		Point (b) Refers to “AMC1 ATM/ANS.OR.A.045(g)(3)” that does not exist and should be moved to GM.
		Proposed change
		Transform this AMC into a GM and provide the right reference
response		<i>Partially accepted</i>
		The reference has been corrected to AMC1 ATM/ANS.OR.B.005(a)(8), but it is maintained as AMC. The commentator has not provided any argument to move this to GM.
comment	601	comment by: <i>EUROCONTROL</i>
		Text is probably missing after “and”.
response		<i>Accepted</i>
		The word ‘and’ has been deleted.
comment	774	comment by: <i>ENAIRE</i>
		AMC1 ATM/ANS.OR.A.045(h) Changes to a functional system and... text incomplete?
response		<i>Accepted</i>
		The word ‘and’ has been deleted.
comment	960	comment by: <i>FR DSAC</i>
		French DGAC fully supports this AMC which provides adequate means to CAs to perform an efficient, though proportionate, oversight.

response *Noted*
The Agency appreciates the support.

comment *1056* comment by: *AESA*

In AMC1 ATM/ANS.OR.A.045(h) letter b) the AMC "AMC1 ATM/ANS.OR.A.045(g)(3)" is referenced, however no such AMC has been found in the NPA.

response *Accepted*

The reference has been corrected to AMC1 ATM/ANS.OR.B.005(a)(8).

comment *1171* comment by: *Belgian Supervisory Authority*

AMC1 ATM/ANS.OR.A.045(h) changes to a functional system – page 65
In point b), the point AMC1 ATM/ANS.OR.A.045(g)(3) does not exist. The Belgian Supervisory Authority suggests therefore to remove point b).

response *Partially accepted*

The reference has been corrected to AMC1 ATM/ANS.OR.B.005(a)(8).

comment *1244* comment by: *Irish Aviation Authority (IAA)*

Based on draft CIR amending Regulation (EU) 2017/373 at the time of review, it would appear that this AMC addressing "ATM/ANS equipment into service" should reference proposed ATM/ANS.OR.A.045(i) requirement rather than indicated ATM/ANS.OR.A.045(h).

This comment is also applicable to GM1 ATM/ANS.OR.A.045(h), GM2 ATM/ANS.OR.A.045(h) which specifically identifies AMC1 ATM/ANS.OR.A.045(h).

response *Accepted*

The reference to ATM/ANS.OR.A.045(h) has been corrected with reference the to ATM/ANS.OR.A.045(i).

GM2 ATM/ANS.OR.A.045(h) Changes to a functional system

p. 65

comment *43* comment by: *DFS Deutsche Flugsicherung GmbH*



response	<p>The relevant requirement (independent checking function) is put under OR.B.005 (8), the GM should be allocated there.</p> <p><i>Accepted</i></p> <p>According to the commentator's suggestion, GM has been moved as explanatory material to the compliance procedure to demonstrate compliance of the design.</p>
comment	<p>333 comment by: <i>German NSA (BAF)</i></p> <p>GM2 delivers guidance for deployment activities. These are covered in ATM/ANS.OR.A.045 (h) (i) and (j). Therefore, it is proposed to add here (i) and (j) also.</p>
response	<p><i>Not accepted</i></p> <p>GM has been moved as explanatory material to the compliance procedure to demonstrate compliance of the design.</p>
comment	<p>962 comment by: <i>FR DSAC</i></p> <p>French DGAC fully supports this GM which provides adequate means to CAs to perform an efficient, though proportionate, oversight.</p>
response	<p><i>Noted</i></p> <p>The Agency appreciates the support. Please note that the GM has been moved as explanatory material to the compliance procedure to demonstrate compliance of the design.</p>
comment	<p>1008 comment by: <i>AESA</i></p> <p>To ensure compliance with Annex VIII and Annex IX part A of Regulation 1207/2011, we would like to highlight the following:</p> <ol style="list-style-type: none"> 1. In the new regulatory framework, some of the requirements that comply with these annexes are established as GM, for example GM1 GE.GEN.010 Verification method, GM2 ATM/ANS.OR.B.005(b) Management system and GM2 ATM/ANS.OR.A.045(h) Changes to a functional system, when they should be established as AMC. 2. It has not been found where reference is made to point 4 of Annex VIII, related to the training of personnel performing the verification processes.
response	<p><i>Noted</i></p> <p>It is acknowledged that some requirements in the repealed Regulation are now placed in GM, but that should not create an issue.</p>

comment	332	comment by: <i>German NSA (BAF)</i>
	GM1 delivers guidance for deployment activities. These are covered in ATM/ANS.OR.A.045 (h) (i) and (j). Therefore, it is proposed to add here also (i) and (j)	
response	<i>Partially accepted</i>	
	The Agency concurs with the commentator that the AMC addresses deployment, and, as such, it seems more appropriate to refer to (j) rather than (h), which is linked to acceptance tests.	
comment	566	comment by: <i>DCAC NSA Officer</i>
	With regards to point (a): introducing a new term to explain another new term is not good guidance. Please clarify further with practical examples what are “operating conditions”.	
response	<i>Accepted</i>	
	The wording about operating conditions has been changed to deployment environment, including physical and operating contexts.	
comment	567	comment by: <i>DCAC NSA Officer</i>
	With regards to point (c): The meaning of this sentence is not clear. Suggest to remove.	
response	<i>Accepted</i>	
	Point (c) has been removed.	
comment	961	comment by: <i>FR DSAC</i>
	French DGAC fully supports this GM which provides adequate means to CAs to perform an efficient, though proportionate, oversight.	
response	<i>Noted</i>	
	The Agency appreciates the support.	

AMC3 ATM/ANS.OR.B.005(b) Management system

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comment	8	comment by: <i>DAC Luxembourg</i>
	Equivalent AMC for ATM/ANS providers on the deployment of ATM/ANS equipment subject to Certification or Declaration would be beneficial.	
response	<i>Not accepted</i>	

It should be highlighted that the commented AMC addresses the compliance procedure within the providers for the issue of a statement of compliance which is equivalent to the compliance demonstration activities by the approved design or production organisations (DPOs) for ATM/ANS equipment subject to certification or declaration.

ATM/ANS providers are not responsible for compliance demonstration of equipment certified or declared by DPOs. Such procedures and requirements are allocated to DPOs, and are established within Regulation (EU) 2023/1769.

comment 45 comment by: *DFS Deutsche Flugsicherung GmbH*

point b) is a duplication to what is already required by AMC1 to Article 6 in the equipment regulation. For legal clarity the sole allocation in this place is preferred. Nevertheless it is already required to notify any change. The AMC could be amended to put the change classification within the notification message.

The process mentioned is anchored in OR.B.005 (a)(8) and not (b).

response *Partially accepted*

Cross reference to AMC in the Delegated Regulation (U) 2023/1768 has been added for clarity. The reference to point (a)(8) is agreed and has been corrected.

comment 46 comment by: *DFS Deutsche Flugsicherung GmbH*

AMC3 point c) requires a compliance procedure for each change class. Any change (of equipment) will undergo a verification and validation check before put into service, as already required by AMC1 OR.A.045(h) "ATM/ANS equipment into service". Is it possible to apply the same procedure?

Principally, requirements on the ATM/ANS provider about conformity assessment procedures shouldn't be put under AMC of both Regulation on ATM/ANS equipment and Regulation 373.

response *Noted*

The procedures may be different as the nature of changes will differ, for example level of rigour, validation/verification activities, etc. There is no obligation to have two separate procedures.

comment 157 comment by: *CANSO*

Page 66, AMC3 ATM/ANS.OR.B.005(b) Management system

"(c) In addition to AMC1 ATM/ANS.OR.B.010(a), the ATM/ANS provider should establish a compliance procedure for each change class."

Clarification requested. Does this mean that the ANSP has to define one compliance procedure for minor changes and another for major changes?

response	<p><i>Noted</i></p> <p>The procedures may be different as the nature of changes will differ, for example level of rigour, validation/verification activities, etc. There is no obligation to have two separate procedures.</p>
comment	<p>270 comment by: NAV Portugal E.P.E</p> <p>AMC3 ATM/ANS.OR.B.005(b) Management system</p> <p><i>“(c) In addition to AMC1 ATM/ANS.OR.B.010(a), the ATM/ANS provider should establish a compliance procedure for each change class.”</i></p> <p>Clarification requested. Does this mean that the ANSP has to define one compliance procedure for minor changes and another for major changes?</p>
response	<p><i>Noted</i></p> <p>The procedures may be different as the nature of changes will differ, for example level of rigour, validation/verification activities, etc. There is no obligation to have two separate procedures.</p>
comment	<p>334 comment by: German NSA (BAF)</p> <p>To avoid confusion with change management in ATM/ANS.OR.A.045 it is proposed to use the word "modification" instead of "change". The new text would be (deleted text, <u>added text</u>):</p> <p>(a) Major changes <u>modifications</u> to ATM/ANS equipment subject to a statement of compliance in accordance with Article 6 of Regulation (EU) 2023/XXX [Delegated act on conformity assessment of ATM/ANS equipment] are always communicated to the competent authority prior to their implementation, indicating the description of the changes <u>modifications</u> and the impact on the demonstration of compliance with the EASA detailed specifications.</p> <p>(b) The ATM/ANS provider should classify the change <u>modification</u> to the ATM/ANS equipment subject to Article 6 of Regulation (EU) 2023/XXX [Delegated act on conformity assessment of ATM/ANS equipment] as minor unless one or more of the following apply, in which case the change is classified as major:</p> <p>(1) Identification of compliance demonstration with a new detailed specification, not subject to the initial SoC;</p> <p>(2) Identification of a new limitation;</p> <p>(3) Identification of a new deviation;</p> <p>(4) Identification of changes <u>modifications</u> in the means of compliance with the applicable detailed specification.</p> <p>(c) In addition to AMC1 ATM/ANS.OR.B.010(a), the ATM/ANS provider should establish a compliance procedure for each change <u>modification</u> class.</p>
response	<p><i>Not accepted</i></p>

The concern is understood, but the proposal will add confusion. The change of ATM/ANS equipment that is referred to in Delegated Regulation (EU) 2023/1768 is related to change in the design of the equipment. The change of equipment under Regulation (EU) 2017/373 is related to the entry into service of changes to the equipment (also to people and procedures). It does not seem appropriate to use different words to understand the scope of the two ‘changes’ covered in each regulation, so the use of ‘modification’ is not advisable.

comment 359 comment by: FOCA Switzerland

As regards (b), the conditions mentioned here to classify a change as major are different from the ones in "AMC1 DPO.OR.B.005(b) Change management" and "AMC1 Article 6 Statement of compliance". The different texts should be aligned.

response *Accepted*

The text has been aligned and a cross reference to the other regulatory text has been added to avoid duplication of requirements.

comment 388 comment by: skeyes

AMC3 ATM/ANS.OR.B.005(b) Management system Point (c) In addition to AMC1 66 ATM/ANS.OR.B.010(a), the ATM/ANS provider should establish a compliance procedure for each change class.	There is a lack of clarity of changes classes (see also comments made on page 27/28). Once again, it is important to systematically identify changes, mainly those impacting the functional system, and potentially the conformity assessment of related equipment’s, whatever the technical type of the change (minor or major) is.
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response *Noted*

The Agency concurs with the spirit of this comment. It is important to identify the changes, but the compliance procedure for minor and major may differ. Additional material to delineate minor versus major may be developed under RMT.0743.

comment 569 comment by: DCAC NSA Officer

With regards to point (a): For consistency with regulation 373 pls change the word “communicated” with “notified”.



	<p>However, as per our previous comments, we do not agree with associating the major/minor classification with notification aspects</p> <p>With point (a): Please provide some clarifications on what are the change classes. If you are referring to “major / minor” pls state it clearly.</p>
response	<p><i>Partially accepted</i></p> <p>The word ‘communicated’ is replaced by ‘notified’.</p> <p>The Agency notes the comment about notification of changes. In principle, all changes (major/minor) have to be notified (as per ATM/ANS.OR.A.045(a)), but certain changes are required to be notified prior to putting them into service. The CA will decide whether the changes will require review. The identification of major/minor may be (but not necessarily the only one) a criterion to the classification for changes for notification prior to entry into service and/or the decision to review changes.</p>
comment	<p>602 comment by: EUROCONTROL</p> <p>Point(a) is redundant to provisions related to the Notification of planned changes to the Functional System (ATM/ANS.OR.A.045). Proposed AMC1 ATM/ANS.AR.C.035 already highlight the fact that the criteria for making the decision to review (or not to review) need to be adapted in the context of this new regulatory framework.</p> <p><u>Proposed change:</u> Suggest to remove point(a)</p>
response	<p><i>Noted</i></p> <p>Point (a) has been removed.</p>
comment	<p>603 comment by: EUROCONTROL</p> <p>Point(b) is already addressed by proposed AMC1 Article 6, to avoid inconsistency and confusion.</p> <p><u>Proposed change:</u> suggest to remove point (b).</p>
response	<p><i>Partially accepted</i></p> <p>A cross reference has been introduced to link the definition of changes to AMC in Regulation (EU)2023/1768.</p>
comment	<p>604 comment by: EUROCONTROL</p> <p>Point(c): what is “change class”? and what is the relationship between this point (c) of a proposed AMC3 ATM/ANS.OR.B.005(b) and the general description of what should be/contain a Change Management Procedure in accordance with AMC1 ATM/ANS.OR.B.10(a).</p>

		<u>Proposed change:</u> Explain or remove point (c)
response	<i>Accepted</i>	Point (c) has been removed.
comment	636	comment by: <i>CANSO</i>
		This AMC does not appear to have any relationship to current ATM/ANS.OR.B.005(b) as it is framed as change specific which OR.B.005 is not. It feels like this should be AMC for A.045 rather than B.005, and it is not entirely clear if/how this AMC for the classification of changes to ATM/ANS Equipment interacts with the AMC/GM for notification of changes to the Functional System.
response	<i>Noted</i>	The reference to the GM has been corrected. The Agency notes the comment about notification of changes. In principle, all changes (major/minor) have to be notified (as per ATM/ANS.OR.A.045(a)), but certain changes are required to be notified prior to putting them into service. The CA will decide whether the changes will require review. The identification of major/minor may be (but not necessarily the only one) a criterion to the classification for changes for notification prior to entry into service and/or the decision to review changes.
comment	638	comment by: <i>CANSO</i>
		Paragraph (b) It is not clear whether a minor change would invalidate the DoV during the transition period, or whether only a major change would do this?
response	<i>Noted</i>	The comment is very pertinent. The current AMC/GM does not clarify this aspect. It should be clarified during the development of RMT.0743. In principle, minor changes would not require a new SoC, so the previous DoV would remain valid. However, there are implications with the compliance of DSs that are not addressed in the old DoV. These aspects will need a further explicit approach in AMC/GM.
comment	716	comment by: <i>Thales Land and Air Systems</i>
		This AMC seems redundant with AMC Article 6 SoC. It is suggested to merge the two AMCs.
response	<i>Accepted</i>	A cross reference to AMC of Regulation (EU) 2023/1768 has been introduced.

comment	766	comment by: ENAIRE
	<p>In AMC1 ATM/ANS.OR.A.045(h) Changes to a functional system: ATM/ANS EQUIPMENT INTO SERVICE</p> <p>(a) As part of the change management procedures as laid down in ATM/ANS.OR.B.010, the ATM/ANS provider should establish deployment procedures for putting ATM/ANS equipment into service to ensure that the new ATM/ANS equipment, or the modified ATM/ANS equipment, is deployed according to the conditions of use, as well as according to any prescribed limitations.</p> <p>It also included to do procedures for the deployment including in the case of modified ATM/ANS equipment (change HW/SW), so the proposal is to eliminate the paragraph (c) in AMC3 ATM/ANS.OR.B.005(b) Management system.</p>	
response	<p><i>Accepted</i></p> <p>Point (c) has been deleted.</p>	

comment	964	comment by: FR DSAC
	<p>Like for AMC2 Article 3(2) SoC Issuance will be overseen during continuous oversight and during functional system change reviews. Minor/Major classification could be used for CA's RBO but no notification of an equipment change should be required.</p> <p>Moreover, considering the pace of the introduction of new technologies and the complexity of ATM/ANS equipment, it is more than probable that future equipment will have drastic changes in their architectures and thus in their performances and safety features. This AMC doesn't consider the case where a significant change occurs in the architecture, technology, or performances. This kind of change should be considered major as it will lead to reconsider most of compliance evidence.</p> <p>Proposal: Remove all aspects dealing with notification or communication of equipment changes to CA, in particular (a). Add architectural and technological considerations for classifying a change.</p>	
response	<p><i>Partially accepted</i></p> <p>Point (a) has been removed. The Agency draws the commentator's attention to the fact that all changes to equipment must be notified, as they are changes to the functional system. Point (a) is removed on the basis that all notifications are regulated under ATM/ANS.OR.A.045(a)</p> <p>The architectural and technological changes in equipment are captured already in AMC to Regulation (EU) 2023/1768, and will be a major change, so there is no need to state it explicitly in this AMC.</p>	

comment	1057	comment by: AESA
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	<p>Point a) could go against the concept of routine changes covered by Regulation (EU) 2017/373 and the agreements reached between authorities and ANSPs in relation to these routine changes which can even be notified post-implementation. In this case, the term "communicate" is used. Should we understand that communicate is the same as notify?</p>
response	<p><i>Accepted</i></p> <p>Point (a) is removed to avoid inconsistencies with the notification of functional changes.</p>
comment	<p>1065 comment by: AESA</p> <p>b) 3) In this context, what does "deviation" stand for? This concept appears in some other requirements. It would be advisable to include a definition.</p>
response	<p><i>Accepted</i></p> <p>Clarification is added to explicitly refer to 'deviations from detailed specifications'.</p>
comment	<p>1081 comment by: Deutscher Wetterdienst</p> <p>EASA is invited to provide further clarification regarding the definition of 'major change' and the proposed change classes as well as the rationale for the requirement of multiple compliance procedures.</p>
response	<p><i>Noted</i></p> <p>New material has been provided to clarify minor/major distinction, in particular in the case of equipment for certification/declaration. Regarding the rationale, it has been clarified that this is a possibility rather than an obligation. The changes may require a different level of verification.</p>
comment	<p>1082 comment by: Deutscher Wetterdienst</p> <p>EASA is invited to harmonise the proposed definition of 'major change' with AMC1 Article 6 Statement of compliance.</p>
response	<p><i>Accepted</i></p> <p>The text has been amended to make reference to the AMC to Regulation (EU) (EU) 2023/1768 rather than duplicate requirements.</p>
comment	<p>1092 comment by: Alex Milns/EUROCAE</p>

	<p>To:</p> <p>(a) Major changes to ATM/ANS equipment subject to a statement of compliance in accordance with Article 6 of Regulation (EU) 2023/XXX [Delegated act on conformity assessment of ATM/ANS equipment] are always shall be communicated to the competent authority prior to their implementation, indicating the description of the changes and the impact on the demonstration of compliance with the EASA detailed specifications.</p>
response	<p><i>Noted</i></p> <p>This paragraph has been removed, and this comment is not relevant any longer.</p>
comment	<p>1245 comment by: <i>Irish Aviation Authority (IAA)</i></p> <p>Proposed AMC3 ATM/ANS.OR.B.005(b) refers to "Major changes" and "Minor changes" which are not defined within Regulation (EU) 2017/373, its proposed updates or the referenced draft CDR on conformity assessment of ATM/ANS equipment in the context of 'statement of compliance'.</p> <p>Suggest clarification and/or reference be provided to applicable CDR requirement in this AMC or additional GM regarding the definition of terms 'Major changes' and 'Minor changes' and use in the context of 'statement of compliance'.</p>
response	<p><i>Partially accepted</i></p> <p>A cross-reference has been introduced to link the definition of changes to AMC to Regulation (EU) 2023/1768.</p>

GM2 ATM/ANS.OR.B.005(b) Management system	p. 66
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comment	<p>335 comment by: <i>German NSA (BAF)</i></p> <p>(c) ensure and record the conformity of the test ATM/ANS equipment and ensure that the testspecimen conforms, as applicable, to the:</p> <p>For clarification it is proposed to rephrase the sentence as follows: (c) ensure and record the conformity of the test of ATM/ANS equipment [..]</p>
response	<p><i>Accepted</i></p> <p>The text has been rephrased as proposed by the commentator.</p>
comment	<p>336 comment by: <i>German NSA (BAF)</i></p>



	<p>e) carry out testing, in accordance with the methods for such testing, to determine whether the ATM/ANS equipment complies with the applicable detailed specifications.</p> <p>Because b) in this paragraph covers also inspection it is deemed necessary to add here also the word "inspection".</p> <p>Proposal for the new sentence: carry out testing and/or inspecting, in accordance with the method for such testing and/or inspecting, to determine.....</p>
response	<p><i>Partially accepted</i></p> <p>The commentator's argument is accepted, but the final text has been slightly modified compared to the commentator's proposal.</p>
comment	<p>965 comment by: FR DSAC</p> <p>This GM is extremely limited considering all activities that shall be performed in order to show compliance with most of detailed specifications. It seems that the complexity of ATM/ANS equipment and functions are not correctly apprehended and taken into account and that state-of-the-art engineering processes are ignored in such a GM.</p> <p>Proposal: Reword in order to consider all necessary engineering activities or remove this GM</p>
response	<p><i>Partially accepted</i></p> <p>The lack of details is noted and acknowledged. Future developments in coordination with the industry under RMT.0743 will develop the content of this GM.</p>

AMC4 ATM/ANS.OR.B.015 Contracted activities	p. 67
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comment	<p>19 comment by: DAC Luxembourg</p> <p>A link should be made to AMC3 ATM/ANS.OR.C.005(a)(2).</p>
response	<p><i>Not accepted</i></p> <p>The comment is not understood as the commented AMC addresses subcontracting DLS by the ATS provider, while AMC3 ATM/ANS.OR.C.005(a)(2) corresponds to the determination of the specification of the changed service. No justification has been provided.</p>
comment	<p>337 comment by: German NSA (BAF)</p> <p>It is not clear if the place for this AMC is the right one.</p> <p>Comment: it is doubtful whether the described tasks will help to get a better</p>

	performance of datalink service.
response	<p><i>Noted</i></p> <p>The Agency believes that the DLS requirements must be included in the service level agreement with contracted communication providers, and that such contract will help minimise technical issues and improve the performance of the DLS service.</p>
comment	<p>493 comment by: IFATCA</p> <p>what if the provider disappears? or if a duopoly becomes a monopoly? will we subject to the monopoly providers conditions?</p>
response	<p><i>Noted</i></p> <p>In the case that a CSP disappears from the market, ANSPs will need to sign new conditions with other CSPs. The case of a monopoly is hypothetical and it is a commercial decision of ANSPs on how to better negotiate the contract with it.</p>
comment	<p>609 comment by: EUROCONTROL</p> <p>Provisions covered by ATM/ANS.OR.B.015 already address the fact that ATM/ANS providers should ensure that services they (sub)contract are provided in accordance with the terms and conditions of a service level agreement or a contract in general.</p> <p><u>Proposed change:</u> Suggest to move to GM (this is not subject to AMC) and change the title specifying the scope being Datalink.</p>
response	<p><i>Partially accepted</i></p> <p>When assessing Article 5(3) of the repealed Commission Regulation (EC) No 29/2009 of 16 January 2009 laying down requirements on data link services for the single European sky, it was duly acknowledged that this provision is already covered in point ATM/ANS.OR.B.015 ‘Contracted activities’ of Annex III (Part-ATM/ANS.OR) to Implementing Regulation (EU) 2017/373. However, the rulemaking consultation invited EASA to consider it and therefore, EASA transposed it at AMC material applicable to ATS providers by taking into account the comment on the title and applicability.</p>
comment	<p>610 comment by: EUROCONTROL</p> <div style="border: 1px solid black; padding: 5px;"> <p>Provisions covered by ATM/ANS.OR.B.015 already address the fact that ATM/ANS providers should ensure that services they (sub)contract are provided in accordance with the terms and conditions of a service level agreement or a contract in general.</p> </div>

The elements proposed in the AMC represent valuable information independently for the (sub)contracted activities.

The fact that the proposed information presented here specifically apply to Datalink exchanges make them redundant with ICAO Annex 10 Vol3 (as referenced in EU.2017/373 Part-CNS). However this information might be relevant for GM but not for AMC.

Proposed change :

Suggest to move to GM (this is not subject to AMC) and change the title specifying the scope being Datalink.

response *Not accepted*

Please refer to the response to comment #609.

The comment on the redundance is well noted and will be addressed via RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

comment *611*

comment by: *EUROCONTROL*

The fact that the proposed information presented here specifically apply to Datalink exchanges make them redundant with ICAO Annex 10 Vol3 (as referenced in EU.2017/373 Part-CNS). However this information might be relevant for GM but not for AMC.

Proposed change:

Transform this AMC into a GM

response *Not accepted*

The Agency considers the material suitable for AMC. Redundancies with ICAO Annex 10 do not seem to be an issue. In addition, a service level agreement should lay down the obligations for the ATM/ANP provider to ensure the respective communication services.

comment *968*

comment by: *FR DSAC*

This is not understood why this AMC explicitly addresses communication services. As such ATM/ANS.OR.B.015 should be considered fulfilled if this AMC is achieved. And this is probably not the intent as all contracted activities are concerned by ATM/ANS.OR.B.015.

If the intent is to import IR DLS requirements, provide some context.



response	<p>Proposal: Make clear that the context of this AMC is DLS.</p> <p><i>Accepted</i></p> <p>Please refer to the response to comment #609.</p> <p>In addition, considering the comment, the title has been amended to clarify that it covers only datalink aspects.</p>
comment	<p>1066 comment by: AESA</p> <p>Are other organisations for the provision of communication services for data exchanges intended to address ARINC/SITA?</p>
response	<p><i>Noted</i></p> <p>The AMC is generic and it does not point to ARINC/SITA in particular. Future arrangements may be different and may add intermediate providers between ANSPs and SITA/ARINC.</p>

AMC2 ATM/ANS.OR.B.005(d) Management system	p. 67
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comment	<p>158 comment by: CANSO</p> <p>Page 67, AMC2 ATM/ANS.OR.B.005(d) Management system</p> <p>“ATS providers should monitor the quality of communication services and verify their conformance with the level of performance required for the operational environment under their responsibility.”</p> <p>The regulation EU 2017/373 requires: “(d) A service provider shall monitor the behaviour of its functional system and, where underperformance is identified, it shall establish its causes and eliminate them or, after having determined the implication of the underperformance, mitigate its effects.”</p> <p>Why is there a specific requirement for communication services? The regulation applies to all the functional system, thus to all its services. The AMC should cover all services or this should be AMC removed.</p>
response	<p><i>Partially accepted</i></p> <p>Considering the comment, the proposed provision is placed as GM and, to promote clarity, the text is amended.</p>
comment	<p>271 comment by: NAV Portugal E.P.E</p> <p>AMC2 ATM/ANS.OR.B.005(d) Management system</p>

“ATS providers should monitor the quality of **communication services** and verify their conformance with the level of performance required for the operational environment under their responsibility.”

The regulation EU 2017/373 requires:

“(d) A service provider shall monitor the behaviour of its functional system and, where underperformance is identified, it shall establish its causes and eliminate them or, after having determined the implication of the underperformance, mitigate its effects.”

- Why is there a specific requirement for communication services?
- The regulation applies to all the functional system, thus to all its services. The AMC should cover all services or this should be AMC removed.

response *Partially accepted*

AMC has been moved to GM. The commentator is correct and the requirement is general and covers all services. The text has been amended to provide more general explanation and introduce the case of communication services as an example.

comment **360** comment by: *FOCA Switzerland*

Point (d) in the regulation covers the entire functional system, hence, there does not seem to have a need to have a specific requirement on the communication system. We propose to either delete this AMC or provide a more comprehensive list of elements of the functional system to be monitored.

response *Partially accepted*

AMC has been moved to GM. The commentator is correct and the requirement is general and covers all services. The text has been amended to provide more general explanation and introduce the case of communication services as an example.

comment **361** comment by: *FOCA Switzerland*

The quality of communication services depends on the quality of services provided by DSP like SITA and ARINC. Are those DSPs part of the functional system and/or part of the communications services which quality should be monitored? Additionally, are SITA and ARINC to be certified as Service Providers by EASA?

response *Noted*

CSPs such as SITA/ARINC are COM providers. They have not applied for certification to EASA, although they may decide to apply. When the providers are not certified, the ATS providers using those services should ensure compliance of the CSP with the applicable requirements.

comment	<p>605</p> <p>comment by: <i>EUROCONTROL</i></p> <p>Article ATM/ANS.OR.B.005(d) already requires the continuous monitoring of the performance of the functional system in order to demonstrate that it delivers the services in line with relevant criteria (safety criteria or Service/Behavior/Context Specifications). Any underperformance shall be identified and resolved. This AMC does not add anything to the requirement.</p> <p><u>Proposed change:</u></p> <p>Suggest that AMC becomes a GM or, should, preferably, be removed. Clarify the scope limitation in the title.</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, the proposed provision is placed as GM and, to promote the clarity, the text is amended.</p>
comment	<p>606</p> <p>comment by: <i>EUROCONTROL</i></p> <p>This AMC specifically extract communication from the other means to deliver the services; there is no reason for that.</p> <p><u>Proposed change:</u></p> <p>This proposed AMC should become a GM or, should, preferably, be removed.</p>
response	<p><i>Partially accepted</i></p> <p>AMC has been moved to GM. The commentator is correct and the requirement is general and covers all services. The text has been amended to provide more general explanation and introduce the case of communication services as an example.</p>
comment	<p>775</p> <p>comment by: <i>ENAIRE</i></p> <p>ATM/ANS.OR.B.005(d) states "A service provider shall monitor the behaviour of its functional system and, where underperformance is identified, it shall establish its causes and eliminate them or, after having determined the implication of the underperformance, mitigate its effects." Which is the rationale for only referring to COMs in the AMC?</p>
response	<p><i>Noted</i></p> <p>AMC has been moved to GM. The commentator is correct and the requirement is general and covers all services. The text has been amended to provide more general explanation and introduce the case of communication services as an example.</p>
comment	<p>966</p> <p>comment by: <i>FR DSAC</i></p> <p>It is not understood why this AMC explicitly addresses communication services. As such, ATM/ANS.OR.B.005(d) should be considered fulfilled if only communication services are monitored. And this is probably not the intent.</p>

	<p>If the intent is to import IR DLS requirements, provide some context.</p> <p>Proposal: Mention specifically: "For data communications services, ATS providers should monitor the quality of services and verify their conformance with the level of performance required for the operational environment under their responsibility."</p>
response	<p><i>Partially accepted</i></p> <p>AMC has been moved to GM. The commentator is correct and the requirement is general and covers all services. The text has been amended to provide more general explanation and introduce the case of communication services as an example.</p>

AMC5 ATM/ANS.OR.B.015 Contracted activities
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comment	<p>246 comment by: <i>Nils</i></p> <p>In bullet (a) Why is Service Level Agreement only required for ground based surveillance and not for non-ground based surveillance? It would be sufficient to just mention surveillance data without any reference to any specific technology.</p>
response	<p><i>Accepted</i></p> <p>The wording used in the proposed text is directly transposed from Regulation (EU) No 1207/2011. The comment is accepted; it will be more comprehensive and will include space-based surveillance, for instance.</p>
comment	<p>612 comment by: <i>EUROCONTROL</i></p> <p>Point (a): Provisions covered by ATM/ANS.OR.B.015 already address the fact that ATM/ANS providers should ensure that services they (sub)contract are provided in accordance with the terms and conditions of a service level agreement or a contract in general. Additionally, when an ATM/ANS Provider shares its surveillance service with another ATM/ANSP; it acts as a "Service Provider other than ATS"; in that context, the proposed provisions are already completely addressed by the terms of Service and Context Specifications in accordance with ATM/ANS.OR.C.005.</p> <p><u>Proposed change:</u> Suggest to remove point (a) of the proposed AMC</p>
response	<p><i>Not accepted</i></p> <p>Although it is acknowledged that service and context specifications are to be provided within the safety support assessment and, thus, under ATM/ANS.OR.C.005, this AMC deals with arrangements that are required to be established prior to the interchange of surveillance information, and therefore linked to ATM/ANS.OR.B.015</p>

contracted activities. It has been concluded that it is appropriate to remain as proposed in the NPA.

comment

613

comment by: EUROCONTROL

The elements proposed in point (b) should be considered as a GM to ATM/ANS.OR.C.005 (not to ATM/ANS.OR.B.015)

Proposed change:

Suggest to move the content of point (b) to a dedicated GM to ATM/ANS.OR.C.005

response

Not accepted

Although it is acknowledged that service and context specifications are to be provided within the safety support assessment and, thus, under ATM/ANS.OR.C.005, this AMC deals with arrangements that are required to be established prior to the interchange of surveillance information, and therefore linked to ATM/ANS.OR.B.015 contracted activities. It has been concluded that it is appropriate to remain as proposed in the NPA.

comment

969

comment by: FR DSAC

ATM/ANS.OR.B.015 relates to "contracted activities" and not to "service provision". This AMC should relate to requirement for the provision of non-ATS services.

response

Noted

Contracted activities and service provisions are intertwined. Arrangements to cover contracted activities that involve provision of services between organisations will include the service specifications that are contracted. In this case, surveillance data sharing between providers will need to be specified in the arrangement, and this is the reason why the AMC is linked to requirement ATM/ANS.OR.B.015.

comment

970

comment by: FR DSAC

in (b): Most of these "formal arrangements" are part of surveillance service specifications and others are part of the Management System of the provider. Considering that surveillance providers shall be certified, and that service specification should be provided to service users, it is not understood why all these elements should be provided to the service user. Moreover, the content of this AMC should rather be linked to ATM/ANS.OR.B.005 or CNS.OR.100.

Proposal:

Take into consideration requirements on non-ATS providers which are already certified

response

Noted

The comment is not well understood. Contracted activities and service provisions are intertwined. Arrangements to cover contracted activities that involve provision of services between organisations will include the service specifications that are contracted; thus they are properly linked to ATM/ANS.OR.B.015.

AMC1 ATM/ANS.OR.B.005(f) Management system

p. 67

comment 362 comment by: FOCA Switzerland

Do you confirm that the appropriate arrangements mentioned here are with DSPs like SITA and ARINC ?

response *Noted*

The arrangements mentioned are with COM providers. This may include certainly SITA and Collins, but not necessarily. There may be other providers of communications to ensure the air/ground link communication with aircraft.

comment 363 comment by: FOCA Switzerland

Point (f) in the regulation covers formal interfaces with the relevant service providers and aviation undertakings, hence, there does not seem to have a need to have a specific requirement on the communication system. We propose to either delete this AMC or provide a more comprehensive list of such formal interfaces to be established.

response *Not accepted*

For the provision of datalink services, the ATS provider does usually rely on communication services provided by other organisations (either certified or not). The AMC refers to this situation. Note that the associated communication service on which datalink services are based may be under the full responsibility of the ATS providers themselves (if they are certified as COM providers and operate the functional system needed to provide the DLS service) and, consequently, the arrangements are not necessary.

comment 608 comment by: EUROCONTROL

The article states that “(f) Within its management system, the service provider shall establish formal interfaces with the relevant service providers and aviation undertakings...” there is no reason to specifically extract/highlight Datalink exchange.

Proposed change:

Suggest to move to GM (this is not subject to AMC) and change the title specifying the scope being Datalink.

response *Not accepted*

It should be duly acknowledged that this AMC stems from the transposition of Article 5(4) of the repealed Commission Regulation (EC) No 29/2009 of 16 January 2009



laying down requirements on data link services for the single European sky. Therefore, it was proposed by EASA and confirmed by the consultation process that cascading it at AMC level associated with the requirements laid down in ATM/ANS.OR.B.005(f)(2) is the appropriate approach.

comment

823

comment by: IATA

How does this AMC fit with the IRIS SDD sentence:

It is worth noting that if an Iris equipped aircraft overflies an airspace under an ANSP's remit who has not signed a valid Iris Working Agreement (hereinafter referred to as non-IWA Signatory) as described in section 3.4, the data link exchanges may be performed through SatCom unless the airspace user and the non-IWA Signatory force the non-use of data link (e.g. reverting to voice communication and procedures).

response

Noted

It should be duly acknowledged that this AMC stems from the transposition of Article 5(4) of the former Commission Regulation (EC) No 29/2009 of 16 January 2009 laying down requirements on data link services for the single European sky. Therefore, if the commentator does comply with the provision in question, it should be considered that the requirement is met.

And it is affirmative that IRIS will be one of the COM services providers with which ATS providers may sign arrangements to ensure that data exchanges can be established with all aircraft flying in the airspace under their responsibility and having data link capability in accordance with the applicable requirements.

comment

967

comment by: FR DSAC

This AMC is not understandable without context. AMC should mention that it is within the context of Datalink communication which requires coordination between the different providers.

Proposal:

Make clear the context of this AMC and the kind of arrangements which are expected

response

Accepted

Considering the comment, the text is amended to promote clarity that 'Where data link communications are used, the ATS provider should make appropriate arrangements with a communication services provider to (...)'.'

comment

1093

comment by: Alex Milns/EUROCAE

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(b) Formal arrangements between ATM/ANS providers for the exchange or provision of surveillance data should include the following minimum content:



	<p>.....</p> <p>(7) agreed service levels in terms of the following;</p> <p>(i) surveillance data performance;</p> <p>(ii) procedures in case of unserviceability;</p> <p>To:</p> <p>(7) agreed service levels in terms of the following;</p> <p>(i) surveillance data performance and availability;</p> <p>(ii) procedures in case of unserviceability;</p>
<p>response</p>	<p><i>Not accepted</i></p> <p>Although availability is an important element of the surveillance service, it is included in the 'performance' referred in the paragraph and it is not needed to be explicitly mentioned.</p>

<p>DS GE.GEN.001 Scope</p>	<p>p. 69</p>
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<p>comment</p>	<p>47 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>At the workshop (4.7.) we learned that equipment, for which no subpart and section and relevant industry standards is located in Part 2, shall be certified/declared against the Part 1 general requirements (and its manufacturer become approved DPO). We strongly disagree.</p> <p>There is no reason to level up any equipment under the conformity scheme of the equipment Regulation if simply the general parts of the DS shall be complied with. Only in the case where an equipment contributes to the harmonised and seamless functioning of the EATMN, it should come with a functional specification and be listed in the DS.</p> <p>For two reasons:</p> <p>the manufacturer of an ILS has no clue about function and performance of the equipment (lack of requirements within DS), but it contains a declaration that the design has been risk assessed and contains security provisions and electromagnetic compatibility.</p> <p>This is not meaningful, as it states "hey, I put an equipment on the market, for which I don't know, whether it will function and perform as you need, but it's certified for having done a risk assessment and some security features!".</p> <p>This will not enable a market and not give benefit neither to the DPO nor to the ATM/ANS provider.</p> <p>In the other case, Microsoft PCs, pencils and telecom lines then will come with a certificate/declaration - if you use it in ATM provision but no ATM-functional requirement exist, it has to fulfil the general part and as such fall under equipment relevant to the attestation scheme. Where is the boundary?</p> <p>Still, the ATM/ANS provider has to perform safety and security assessment when using and integrating such equipment. Will he need to become DPO for doing the</p>
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	<p>integration tasks and providing his own technical infrastructure and with that fulfil the General part of a DS? We believe that this is not the intent but that's exactly the difference to the airworthiness approach, where the integrator of the parts into an aircraft belly will receive the airworthiness certificate for that aircraft type. In ATM/ANS it is the service provider through his obligations according to ATM/ANS.OR.A.045 (h)-(j) to now ensure the "ATC-worthiness" of his functional system. Even though he makes use of equipment not subject to any functional specification at all. We need clarity which equipment falls under which rules.</p>
response	<p><i>Noted</i></p> <p>The commentator is kindly invited to consider the following:</p> <p>Firstly, Articles 4, 5 and 6 define the attestation method that applies to ATM/ANS equipment. DSs will need to reflect, and be coherent with, these definitions, and cannot in any way determine a different attestation method from the ones determined by Articles 4, 5 and 6. It is acknowledged that the rule text may lead to different interpretation, and to mitigate that and ensure harmonised implementation, EASA will propose additional AMC and GM in the context of RMT.0743.</p> <p>Secondly, Part 1 specifications are applicable to all types of equipment, and these specifications are related to general requirements (e.g. SW, HMI, etc.). If there are no additional specifications in Part 2 for a specific type of equipment (this may be due to several reasons: no standard available or yet to be recognised in the DSs), Part 1 applies, but the certification may add additional requirements proposed by the manufacturer, which will be added to the certification basis and listed in the DDP.</p> <p>Finally, the list of equipment mentioned by the commentator (e.g. PCs, telecom lines, any other) will only be certified/declared if they fall under the definition of Article 4, 5 or 6. And even in such case, the use of COTS is allowed, and it does not need to be certified (even though additional requirements will be needed).</p> <p>The last statement about the need for the ANSP to become DPO to integrate ATM/ANS equipment into its functional system is incorrect. It will need to become DPO, only if it designs/produces equipment (or modifies it).</p>
comment	<p>48 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>The market allows a DPO to decide whether his product is a software application only, that an ATM/ANS provider can use within his own infrastructure, or a complete "plug-and-play" system from the network plug to the HMI. How can the "application solution" fulfil Part 1 of the DS?</p>
response	<p><i>Noted</i></p> <p>Part 1 may contain specifications that may not be applicable in all cases. However, it seems evident that a software application will be required to comply with requirements related to 'information security' or 'software', or 'failure conditions', while requirements related to 'HW' will not be directly imposed on the SW application, but may be imposed to the hardware platform where the certified SW must run.</p>

comment	<p>50</p> <p>comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>We regret that the changes in the Regulation were not sufficiently discussed with industry and now impact with this NPA an in particular with the content of the DS. Article 5 now includes not only the sensors and transmitters but "anything for NAV and SUR".</p> <p>An ADS-B station includes a data processing unit, that converts the received signals into usable formats (specified as ASTERIX). That requirement has been put under the certification section, while the sensors are subject to the declaration section. What exactly is the DPO to do for this product?</p> <p>In our SUR service we use equipment wich allows a control for efficiency of the radio spectrum, but does not itself receive or transmit aircraft position data or navigation signals. The criticality of such equipment in the ranking of ATM/ANS system criticality (which is argument to differentiate the three attestation methods) is significantly lower. There may not even be common functional specifications available. How can a manufacturer get the idea that the product is relevant to those rules?</p>
response	<p><i>Noted</i></p> <p>The Agency shares the view of the commentator about the time pressure to discuss with the industry due to the need to adopt the rules by September 2023.</p> <p>The DSs have identified the SDPS as the equipment for the reception of sensors data to the delivery of the processed data to the CWP. That equipment is what needs to be certified. If a manufacturer decides to group elements of the processing together with the receptors, then the resulting equipment will contain functionalities subject to certification and subject to declaration. This will still be possible, and a certificate will be issued for the entire system. AMC/GM will be developed in the future to clarify how this will be applied in practice.</p>
comment	<p>189</p> <p>comment by: <i>CANSO</i></p> <p>At the workshop (4.7.) we learned that equipment, for which no subpart and section and relevant industry standards is located in Part 2, shall be certified/declared against the Part 1 general requirements (and its manufacturer become approved DPO). We strongly disagree.</p> <p>There is no reason to level up any equipment under the conformity scheme of the equipment Regulation if simply the general parts of the DS shall be complied with. Only in the case where an equipment contributes to the harmonised and seamless functioning of the EATMN, it should come with a functional specification and be listed in the DS.</p> <p>For two reasons: the manufacturer of an ILS has no clue about function and performance of the equipment (lack of requirements within DS), but it contains a declaration that the design has been risk assessed and contains security provisions and electromagnetic compatibility.</p>

This is not meaningful, as it states "hey, I put an equipment on the market, for which I don't know, whether it will function and perform as you need, but it's certified for having done a risk assessment and some security features!".
This will not enable a market and not give benefit neither to the DPO nor to the ATM/ANS provider.

In the other case, Microsoft PCs, pencils and telecom lines then will come with a certificate/declaration - if you use it in ATM provision but no ATM-functional requirement exist, it has to fulfil the general part and as such fall under equipment relevant to the attestation scheme. Where is the boundary?

Still, the ATM/ANS provider has to perform safety and security assessment when using and integrating such equipment. Will he need to become DPO for doing the integration tasks and providing his own technical infrastructure and with that fulfil the General part of a DS? We believe that this is not the intent but that's exactly the difference to the airworthiness approach, where the integrator of the parts into an aircraft belly will receive the airworthiness certificate for that aircraft type. In ATM/ANS it is the service provider through his obligations according to ATM/ANS.OR.A.045 (h)-(j) to now ensure the "ATC-worthiness" of his functional system. Even though he makes use of equipment not subject to any functional specification at all. **We need clarity which equipment falls under which rules.**

response

Noted

See the response to comment 47.

comment

190

comment by: *CANSO*

The market allows a DPO to decide whether his product is a software application only, that an ATM/ANS provider can use within his own infrastructure, or a complete "plug-and-play" system from the network plug to the HMI.
How can the "application solution" fulfil Part 1 of the DS?

response

Noted

See the response to comment 48.

comment

191

comment by: *CANSO*

We regret that the changes in the Regulation were not sufficiently discussed with industry and now impact with this NPA an in particular with the content of the DS. Article 5 now includes not only the sensors and transmitters but "anything for NAV and SUR".

An ADS-B station includes a data processing unit, that converts the received signals into usable formats (specified as ASTERIX). That requirement has been put under the certification section, while the sensors are subject to the declaration section. What exactly is the DPO to do for this product?

In our SUR service we use equipment wich allows a control for efficiency of the radio spectrum, but does not itself receive or transmit aircraft position data or navigation



response	<p>signals. The criticality of such equipment in the ranking of ATM/ANS system criticality (which is argument to differentiate the three attestation methods) is significantly lower. There may not even be common functional specifications available. How can a manufacturer get the idea that the product is relevant to those rules?</p> <p><i>Noted</i></p> <p>See the response to comment 50.</p>
comment	<p>213 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>To further develop this package, we deem it necessary to re-think the scope and definitions of the "functional system" in the context of the now applicable equipment rules. It is time to gain a common interpretation and have that guidance expressed by EASA. We need precision what is actually meant to fall under the rules and/or need to adapt the rules for equipment that is subject to interpretation. There are so many questions unclarified:</p> <ul style="list-style-type: none"> • Is IT-infrastructure and -communication equipment which is purchased and operated in isolation to the services and applications, that these carry, subject to the equipment Regulation and one of the three attestation methods? • Do you see every equipment that is used for providing ATM/ANS services as part of the Functional System? • And does this imply that such equipment is automatically subject to the equipment Regulation? • Does the ATM/ANS provider who is operating that infrastructure need to become a DPO in order to be able to integrate the functional software purchased from another DPO to form his functional system?
response	<p><i>Noted</i></p> <p>The comment is very welcome and the stakeholder is invited to provide further detailed proposals as part of the Draft EPAS 2026 Edition consultation.</p>
comment	<p>338 comment by: <i>German NSA (BAF)</i></p> <p>For the transition period it is not clear which GEN-requirements should be used for ATS and CNS equipment.</p> <p>Should be used GEN-requirements from DS-SoC or from DS-GE?</p> <p>An AMC for such a statement should be elaborated.</p> <p>See also comment to DS.SoC.GEN.001.</p>
response	<p><i>Accepted</i></p> <p>Considering the comment, AMC1 Article 7(3) Transitional provisions is introduced.</p>

comment	<p>369</p> <p style="text-align: right;">comment by: FOCA Switzerland</p> <p>We suggest to replace the current proposal with the following one:</p> <p><u>"These detailed specifications prescribe the standards define the requirements applicable and related acceptable means of compliance (AMC) and guidance material (GM) for the design, or for changes to the design, of ATM/ANS equipment for which certification is to be required [...] or a declaration is to be made by an approved organisation [...] and the related acceptable means of compliance (AMC) and guidance material (GM)"</u></p> <p>Indeed, DS are defining requirements and may reference standards for this purpose.</p>
response	<p><i>Partially accepted</i></p> <p>Considering the comment, the text is amended to promote clarity.</p>
comment	<p>777</p> <p style="text-align: right;">comment by: ENAIRE</p> <p>During the last workshop, EASA indicated that even if no Detailed Specifications exist, still an SoC needs to be elaborated.</p> <p>We consider that this should be further refined because it could lead to the need to elaborate SoCs of systems with no DS, no direct ATM/CNS functions, etc. (for example: telephone lines, networks, links etc. are normally COTS systems very far from the aeronautical world)</p>
response	<p><i>Noted</i></p> <p>The comment is welcome.</p> <p>To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.</p> <p>In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:</p> <ul style="list-style-type: none"> — launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period; — maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary; — promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website. <p>These activities are planned in the context of IST.0002.</p>

comment	779	comment by: ENAIRE
	Standards listed in the DS were not required by the IOP IRs. The list of standards should be revised in order not to overregulate. Otherwise, many problems would arise when updating/modifying existing functionalities in currently existing systems.	
response	<i>Noted</i>	
	To support the implementation of the new regulatory framework, this 1 st set of DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.	
comment	780	comment by: ENAIRE
	Regarding all DS, they are not SMART requirements (Specific, Measurable, Achievable, Realistic, Time-bound)	
response	<i>Noted</i>	
	The comment is well noted.	

4.5. Draft detailed specifications and acceptable means of compliance and guidance material for ATM/ANS ground equipment (DS-GE)

p. 69

comment	79	comment by: DFS Deutsche Flugsicherung GmbH
	The standards referenced as AMC in these DS have not necessarily all been mandatory in the IOP-framework. Now, when there is a major change, a new SoC needs to be issued by the ATM/ANS provider (currently) and state compliance with the applicable DS. Many of the standards listed in the DS were no Community Specifications or required by the IOP IRs, such that we now switch from a "guidance" to a "mandate" to use those standards. Furthermore, there are no provisions that explain whether it is possible to use an AltMoC to DS.	
	We need to prevent running into a not intended raise of retro-fit-implementations that are operationally not required or not feasible to implement into legacy systems. This principle is also valid for forward-fit equipment, which is contracted for a particular use and not in need of all applicable specifications.	
	We need clarity whether it is a matter of non-compliance if the equipment of a defined intended use comes into operation without parts of the applicable standards of a DS and what would be an appropriate way to introduce such equipment. Is this	



	what is meant by indicating the limitations and conditions of use within the SoC resp. certificate or declaration?
response	<p><i>Noted</i></p> <p>Community Specifications were not available for all IOP implementations. Other technical specifications were required to be identified by the implementers. This DS now incorporates all appropriate technical specifications. The technical specifications only apply to new designs or changes to designs and are not retrospectively applied.</p>
comment	<p>88 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>Where particular editions of standards, documents, Annexes to ICAO are referenced, can we expect that updates to these, when subject to an immediate safety fix, will be implemented by EASA in a timely manner to synchronise with ICAO in an update of the DS, or will this be a case to make use of equipment directives?</p>
response	<p><i>Noted</i></p> <p>When new editions of standards, documents, ICAO Annexes, etc. are published, any resulting updates to the detailed specifications will be managed in accordance with the rule making procedures and EPAS.</p>
comment	<p>99 comment by: <i>DSNA</i></p> <p>Interface specifications should focus on system interfaces only and exclude HMI which should be covered through functional requirements.</p>
response	<p><i>Noted</i></p> <p>DS GE.GEN.005 defines in an agnostic manner that the human-machine interface needs to verify and monitor that the functions of the ATM/ANS equipment are compliant and continue to be compliant with the applicable detailed specifications, in particular the interface specifications. As such, DS GE.GEN.005 applies to all installations where an HMI is required to ensure to that the functions of the ATM/ANS equipment, including monitoring, remain in accordance with the applicable detailed specifications.</p>
comment	<p>177 comment by: <i>CANSO</i></p> <p>Interface specifications should focus on system interfaces only and exclude HMI which should be covered through functional requirements.</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 99.</p>
comment	<p>192 comment by: <i>CANSO</i></p>

The standards referenced as AMC in these DS have not necessarily all been mandatory in the IOP-framework.
 Now, when there is a major change, a new SoC needs to be issued by the ATM/ANS provider (currently) and state compliance with the applicable DS.
 Many of the standards listed in the DS were no Community Specifications or required by the IOP IRs, such that we now switch from a "guidance" to a "mandate" to use those standards. Furthermore, there are no provisions that explain whether it is possible to use an AltMoC to DS.

We need to prevent running into a not intended raise of retro-fit-implementations that are operationally not required or not feasible to implement into legacy systems. This principle is also valid for forward-fit equipment, which is contracted for a particular use and not in need of all applicable specifications.

We need some clarity whether it is a matter of non-compliance if the equipment of a defined intended use comes into operation without parts of the applicable standards of a DS and what would be an appropriate way to introduce such equipment. Is this what is meant by indicating the limitations and conditions of use within the SoC resp. certificate or declaration?

response *Noted*

See the response to comment # 79.

comment *193*

comment by: *CANSO*

Where particular editions of standards, documents, Annexes to ICAO are referenced, can we expect that updates to these, when subject to an immediate safety fix, will be implemented by EASA in a timely manner to synchronise with ICAO in an update of the DS, or will this be a case to make use of equipment directives?

response *Noted*

See the response to comment # 88.

comment *364*

comment by: *FOCA Switzerland*

GENERAL REMARK I

There are many cases where a DS Requirement explicitly refers to AMC or a GM, whereas AMC / GM are only one possible (acceptable) way of demonstrating / helping to demonstrate compliance with the requirement. DS requirements should be standalone and not require text in AMC / GM to be understood.

response *Not accepted*

DS requirements provide the objectives, AMC provide means of compliance and GM provides guidance and additional clarifications. The applicant may propose other means of compliance.



comment	365	comment by: FOCA Switzerland
	GENERAL REMARK II	
	There are many cases where Standards or documents are mentioned with a specific version or edition number. Instead of referencing exact Version or Edition Numbers we would prefer a formulation such as e.g. 'latest version' or "version xx or later" or similar.	
response	<i>Not accepted</i>	
	See the response to comment # 88.	
comment	366	comment by: FOCA Switzerland
	GENERAL REMARK III	
	There are many cases where the term "intended purpose" is used. This term ("intended purpose") is not clear and should make reference either to the scope of the equipment or the functional requirements.	
response	<i>Noted</i>	
	The term 'intended purpose' reflects the operational and technical context and usage. As a consequence, it also includes the applicable environment conditions.	
comment	368	comment by: FOCA Switzerland
	GENERAL REMARK IV	
	For all cases where the terms Systems and Constituents are used, we would like to point out that the regulation refers to equipment with a specific meaning. All the DS, AMC, and GM text should then refer to Equipment instead of mixing the words, except when we are talking of something else than an equipment (e.g. The functional system of the ANSP).	
response	<i>Accepted</i>	
	The text has been amended to ensure consistency with the Regulation with regard to the use of the equipment, systems and constituents.	
comment	376	comment by: DFS Deutsche Flugsicherung GmbH
	The NPA 2022-09 proposal contained an elaborated set of characteristics of equipment to be able to allocate it to a more stringent attestation method the more critical the equipment is.	
	The intent was not to have all equipment used for the provision of one service meant to fall under one characteristics. With Opinion 2023-01, however, exactly this has been done by adding an Annex I, which seemed to misallocate some equipment to the wrong method, simply because only the service was allocated to a method.	

The Commission has withdrawn the Annex and added seemingly better clarity within the articles with the conviction to retain the recommendation of the high level group that has elaborated these methods.

Unfortunately, Recital (5) and Article 4 now allocate all equipment subejct to the air-ground-communications fully under the certification method. This comprises:

- the voice communication system used in the ATS service (headset, micropone and HMI to configure working stations/sectors and frequencies); and
- the application at the ATCO system for sending data messages into the cockpit; as well as
- the ground/ground communication network: and
- the air/ground radio stations, both for voice and data, the characteristics of which fall under Article 5 “equipment when it generates, receives, and transmits data”.

The intent of the definition "equipment supporting ATC" for sure had scoped it to what the ATC-people directly use, also if it is the last in the chain of COM and SUR. It is the voice and SUR data processing, but not the voice/data and SUR signal receiving and transmitting equipment, that was deemed to fall under the most stringent method.

In the future, COM and SUR services will more and more merge together, e.g. through the use of SATCOM to provide SUR data (ADS-B, ADS-C). The differentiation in attestation methodology rather confuses than enables the handling of such new services and allocated equipment.

Therefore, we need clarity within the DS what exactly is subject to which of the three methods and add an exhaustive list of equipment affected.

response

Noted

DS-GE PART 2 provides the methods of verification for ATM/ANS equipment subject to certificationand DS-GE PART 3 provides the methods of verification for ATM/ANS equipment subject to declaration of design compliance.

comment

389

comment by: *skeyes*

<p>69</p> <p>4.5. Draft detailed specifications and acceptable means of compliance and guidance material for ATM/ANS ground equipment (DS-GE)</p>	<p>At this stage, draft detailed specifications are not acceptable. Final version shall be available prior publication. DS Part 1 are rather similar to general high level requirements already existing in current regulation. Main difference is in the need to be approved DPO in some cases. What is the real added value?</p>
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response

Noted

The final version will be available in accordance with the rulemaking procedure. The need for the DPO was addressed in NPA 2022-09.

comment

640

comment by: *CANSO*

ANSPs may find themselves having to demonstrate compliance against these DS requirements from 13th September to enable the sign-off of a new SoC. In the absence of agreed DSs and established processes for SoCs this poses a significant compliance and potentially deployment risk to ANSPs.

response

Noted

The date of applicability is provided in the Basic Regulation. Where DSs are not available for specific equipment, the ANSP is required to demonstrate compliance with the GEN section only.

comment

971

comment by: *FR DSAC*

It is not understood how manufacturers can develop equipment satisfying the "intended purpose" in the "intended environment". If these intended characteristics are service provider specific, it is difficult to figure out the actual benefits and practicality of this new framework.

Proposal:
DS shall be much more detailed and accurate.

response

Not accepted

Manufacturers will define the 'intended purpose' of their equipment in the 'intended environment'. The ANSP should ensure that the certificate or declaration of the equipment is in line with the intended use. The accompanying AMC will provide additional details.

comment

972

comment by: *FR DSAC*

Interface specifications should focus on system interfaces only and exclude HMI which should be covered through functional requirements.

response

Noted

See the response to comment # 99.

comment	1001	comment by: Romanian CAA
	<p>During the workshop on the 4th of July it was explained that EASA will further identify systems and Detailed Specifications and soon expand the list in this NPA. It should be noted that these Detailed Specifications are requirements for ATM/ANS equipment that may undergo long acquisition and production and should not be subject to such a dynamic change in the basis for conformity assessment. What would happen to an equipment if new DS are published during design and production phases? Changes to the applicable requirements are to be implemented in a time-frame and should allow organisations to adapt to those.</p>	
response	<p><i>Noted</i></p> <p>See the response to comment # 88. Furthermore, the DS and associated referenced standards are the ones applicable at the time of application.</p>	

comment	1023	comment by: AESA
	<p>The EUROCONTROL Guidelines on the Assessment of Ground-based Surveillance Interrogation has not been included like AMC/GM in NPA 2023-05.</p>	
response	<p><i>Noted</i></p> <p>The referenced EUROCONTROL documents in AMC/GM have been considered appropriate to cover the objectives of the DS.</p>	

AMC1 GE.GEN.002 Information security

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comment	570	comment by: DCAC NSA Officer
	<p>Since this contains optional provisions, we suggest that it moved to the GM part.</p>	
response	<p><i>Not accepted</i></p> <p>However, 'may include' has been replaced by 'should include' in AMC1 GE.GEN.002 to improve clarity.</p>	

comment	614	comment by: EUROCONTROL
	<p>The term "may include " is of the level of GM not AMC. Rephrase if at the level of AMC</p> <p><u>Proposed change:</u> Rephrase if at the level of AMC</p>	
response	<p><i>Accepted</i></p> <p>See the response to comment # 570.</p>	

comment	<p>615</p> <p style="text-align: right;">comment by: EUROCONTROL</p> <p>As the information security requirement applies to the intended operation, the system isolation requirement is difficult if not impossible to demonstrate at DPO level. Only a first level of security can be demonstrated , a policy should be put in place by the equiment user /integrator on who can do what.</p> <p><u>Proposed change:</u></p> <p>Remove a) or adapt it to the demonstration possible at DPO level. Adapt or add further GM to clarify the limit of the DPO.</p>
response	<p><i>Not accepted</i></p> <p>The DPO will define the security requirements for the ‘intended purpose’ of the equipment in the ‘intended environment’. The ANSP should ensure that the certificate or declaration of the equipment is in line with the intended use.</p>
comment	<p>616</p> <p style="text-align: right;">comment by: EUROCONTROL</p> <p>Assuming a complex ATM/ANS system composed of multiple equipment, does EASA require that each equipment has its own recording of security events and ability to export or would this be required at the overall system level ?</p> <p><u>Proposed change:</u></p> <p>Clarify if the requirement applies to each constituent independently or to the overall system? Adapt to the limited scope of the DPO which is the equipment.</p>
response	<p><i>Noted</i></p> <p>The information security for the ATM/ANS equipment is appropriate for the intended purpose of the ATM/ANS systems in the intended environment. The example of complex ATM/ANS system composed of multiple equipment is part of the intended purpose / environment. Consequently, the security analysis should determine whether the requirement for recording of security events applies to each constituent independently and / or to the overall system. See the response to comment # 615.</p>
comment	<p>641</p> <p style="text-align: right;">comment by: CANSO</p> <p>Many of the aspects mentioned are unrelated to Constituents; they are architectural or implementation aspects addressed by ANSP systems. ATM Equipment was intended to cover both Systems and Constituents as it was argued that the distinction was not important but the inclusion of these requirements highlights that there is a clear distinction. The requirements also suggest that it will be necessary for ANSPs to become DPOs.</p>
response	<p><i>Noted</i></p>

The information security for the ATM/ANS equipment is appropriate for the intended purpose of the ATM/ANS systems in the intended environment. See the response to comment # 615.

comment

1231

comment by: Irish Aviation Authority (IAA)

"An acceptable level of information security may include the following measures [...]"

It is unclear how it has been determined that the very high-level and limited measures identified in AMC1 GE.GEN.002 'Information security', have been deemed sufficient to represent an 'acceptable level' for various types of ATM/ANS equipment and intended usage in various environments.

Suggest rewording to state - *"The following information security measures should be applied to ATM/ANS equipment at a minimum: [...]"*

response

Partially accepted

In AMC1 GE.GEN.002, the text 'An acceptable level of information security may include the following measures' has been replaced by 'An acceptable level of information security should include one of the following measures as a minimum'.

comment

1232

comment by: Irish Aviation Authority (IAA)

Previous draft version of this AMC circulated by EASA (titled 'Technical Spec _AMC EG paper v6') addressed *"patch management, dealing with system updates"* under this AMC but it is noted that it has subsequently been removed.

A common issue today, is ATM/ANS equipment on the market which incorporates unsupported and unpatched legacy versions of COTS Operating Systems (OS) and non-OS COTS third party software (e.g. databases, middleware, etc), as a central pillar of their system design and intended functionality.

The need for ATM/ANS equipment providers to incorporate information security patch management (including OS and non-OS third party software (e.g. databases, middleware, etc) should be adequately addressed within the scope of DS GE.GEN.002 'information security' and suggest AMC, as it is critical element in ensuring that intended information security posture is maintained.

response

Not accepted

The information security patch management is an organisational requirement.

comment	718	comment by: <i>Thales Land and Air Systems</i>
	As security risk management is to be performed with safety impacts in mind, the regulators should provide a minimum set of cyber-attack scenarios and safety hazards with the associated safety objectives to be considered by the security assessments	
response	<i>Noted</i>	
	Further developments of this subject will occur within the scope of regular updates of this DS.	
comment	1229	comment by: <i>Irish Aviation Authority (IAA)</i>
	EASA BR; Annex VIII; Section 3.3.1 states that EASA BR; Annex VIII; Section 3.3.1 states that " <i>Systems and constituents shall be designed to meet applicable safety and security requirements.</i> "	
	Security by design - The concept of 'security by design' should be addressed within this conformity assessment framework, as a fundamental element to be considered when designing ATM/ANS equipment.	
	It is noted that ICAO Annex 17; chapter 4.9 'measures relating to cyber threats' makes a recommendation that identifies 'security by design' as a measure to be considered from an information security perspective. Accordingly, the ATM/ANS equipment, based on its intended use, should be expected to incorporate this fundamental concept as part of its design process, to enable Member States to meet the prescribed ICAO recommendation where deemed necessary.	
	It is suggested that 'security by design concept' is addressed under the scope of DS GE.GEN.002 'Information security' for ATM/ANS equipment to support EASA BR; Annex VIII; Section 3.3.1 requirement.	
	Note: It is not considered that the above is addressed under Part-IS.	
response	<i>Noted</i>	
	EASA concurs with the concept of 'security by design'. The wording of 'intended purpose' and 'intended environment' covers the 'security by design' concept.	

AMC1 GE.GEN.003 Software

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comment	33	comment by: <i>Indra Navia</i>
	This comment is on GM1 GE.GEN.003 Software, which was not in the "list of segments":	
	It says "firmware is considered software". There is already established practice that firmware can be considered "complex hardware", ED-80/DO-254 being applicable. See EASA Certification Memorandum "CM-SWCEH-001 Issue 01 Revision 02 issued	



	<p>08 January 2018", section 8.4, and associated definitions. FPGA code is generally referred to as "firmware", and a programmed FPGA should therefore fall under the definitions in the memorandum section 8.4, ED-80 being applicable. In other cases (e.g. BIOS), it may be more relevant to define firmware as software, ED-109A being applicable. A categoric allocation of firmware in the software category is from our point of view, considered counterproductive, taking established practices into account.</p>
response	<p><i>Accepted</i></p> <p>The text 'Firmware is considered as software.' has been removed from GM1 GE.GEN.003.</p>
comment	<p>51 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>It does make sense that the company producing a system/software <u>decides</u> on a SWAL and develops the system/software accordingly. Then they can sell their product to all users with that SWAL or lower. Only the user can <u>calculate</u> their SWAL for their intended use. The user of the system/software can then only use a system/software developed according to their SWAL or higher. To avoid misunderstandings it might make sense to use the term "determine/decide" in the AMC, e.g. "Software should be developed with a determined assurance level that is commensurate..."</p>
response	<p><i>Not accepted</i></p> <p>The addition of 'determined' has no added value to the AMC.</p>
comment	<p>120 comment by: <i>skyguide Compliance Management</i></p> <p>This comment is in relation with the GM1 GE.GEN.003 Software:</p> <p>Q1: Linked to "GM1 GE.GEN.004 Hardware (b) Hardware may be a single piece or a set of pieces (i.e. network)", will we be required to CER/DEC firmware of our LAN/WAN devices? This is not realistic in the context of an ANSP as LAN/WAN devices are used to transport data.</p> <p>Q2: If firmware is considered as software, is it also true for libraries, operating systems, Enterprise Service Bus (in SOA), Security software, and all software used for virtualization (e.g., VMware)?</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 33.</p>
comment	<p>194 comment by: <i>CANSO</i></p>

	<p>It does make sense that the company producing a system/software <u>decides</u> on a SWAL and develops the system/software accordingly. Then they can sell their product to all users with that SWAL or lower.</p> <p>Only the user can <u>calculate</u> their SWAL for their intended use. The user of the system/software can then only use a system/software developed according to their SWAL or higher.</p> <p>To avoid misunderstandings it might make sense to use the term "determine/decide" in the AMC, e.g. "Software should be developed with a determined assurance level that is commensurate...."</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 51.</p>
comment	<p>248 comment by: <i>Nils</i></p> <p>These requirements on software seem quite redundant in comparison with existing requirements on software assurance process in EU 2017/373. They don't really add anything of value.</p>
response	<p><i>Noted</i></p> <p>Software is part of the technical capability of ATM/ANS equipment. Therefore, basic software requirements need to be specified within this DS. The goal of Regulation (EU) 2017/373 is to ensure that the SW meets the overall safety objectives of the functional system.</p>
comment	<p>617 comment by: <i>EUROCONTROL</i></p> <p>Proposed change: Regroup items (a) and (b) to align with item (a) of DS GE.GEN.003 Software</p> <p>The manufacturer of the GE cannot determine the severity of the effect of the failure as it depends on how the GE is integrated in the ATSP Functional System. See GM5 to AMC4 ATS.OR.205(a)(2) Safety assessment and assurance of changes to the functional system. GE Manufacturer may take assumptions but then they have to be stated in the conditions of use and verified by the ATSP integrating the GE. Two different manufacturers of the same GE may take different assumptions, although the two equipment are certified/declared on the same basis they may be based on different risk assessment assumptions.</p> <p>Proposed change: Clarify in a GM the limit of the software demonstration for the DPO</p>
response	<p><i>Partially accepted</i></p> <p>AMC1 GE.GEN.003(a) has been removed as its content is already addressed in CS GE.GEN.003(a).</p> <p>Regarding the software demonstration for a DPO, the DPO should demonstrate the software to have the declared assurance level.</p>

comment	<p>786 comment by: ENAIRE</p> <p>"(a) Software should function as intended to support the intended purpose": This requirement does not specify something measurable; it is very generic.</p>
response	<p><i>Accepted</i></p> <p>AMC1 GE.GEN.003(a) has been removed as its content is already addressed in CS GE.GEN.003(a).</p>
comment	<p>974 comment by: FR DSAC</p> <p>(b): as EASA did not define any standard "severity classes" nor standard SWAL allocation process, it is improbable that this AMC (b) can help manufacturers or providers define the adequate assurance level for certified/declared equipment. Prior to harmonising equipment specifications and putting constraints on low-level components, it would have been useful to harmonise safety practices and safety targets for certified services. Concretely today, some Providers are using SWAL4 software where some others claim using a SWAL2 for the same function, the same operational need and the same usage.</p> <p>Proposal: No proposal for this AMC but it is necessary that EASA provides guidance on safety assessment methodologies and provides means to harmonize high level safety objectives throughout Europe. Without this, requiring any specific SWAL for low level equipment is meaningless</p>
response	<p><i>Noted</i></p> <p>Further developments on this subject will occur within the scope of regular updates of this DS.</p>
comment	<p>975 comment by: FR DSAC</p> <p>(c): "minimum features required by the target hardware": safety is not only a question of "minimal portability". All hardware features having an impact on the evidence provided during verification activities of the software shall be captured as assumptions and be confirmed during hw/sw integration. This can address CPU compatibility for the compilation, hw resources and peripherals versions for drivers, memories and hdd capacities, network card bandwidth, GPU, overall performances, etc. The satisfaction of these "portability assumptions" shall be confirmable through a sufficient set of integration tests provided by the DPO with the equipment certificate.</p> <p>Be also explicit on the fact that the "target hardware" is only the hardware platform and does not include any OS/Virtual Machine/Hypervisor or cloud like infrastructure. If any piece of basic software runs on the platform, portability assumptions will have to be much more defined and will have to include at least API, dependences, performances, partitioning or SWAL compatibility aspects.</p> <p>Proposal:</p>

	<p>Reword this AMC and be more demanding as we are dealing with critical software. Universal portability doesn't exist and if EASA wants to certify pieces of software, then AMC shall be able to ensure that these pieces of software will be robust and as efficient as intended for all deployments. And this doesn't only require "minimal features".</p>
response	<p><i>Accepted</i></p> <p>The text 'the minimum features required by the target hardware' has been changed to 'all the features required by the target hardware'.</p>
comment	<p>976 comment by: FR DSAC</p> <p>Note 2: prefer "likelihood" to "probability" since there is no equivalence between a SWAL and a quantified probability of failure.</p> <p>Proposal: Replace "probability" with "likelihood".</p>
response	<p><i>Accepted</i></p> <p>The text has been amended.</p>
comment	<p>1067 comment by: AESA</p> <p>Regulation EU 2017/373 introduces requirements on the SW assurance process applicable to ANSP. The requirements under the CA framework for the systems used by these ANSP should be equivalent.</p>
response	<p><i>Noted</i></p> <p>The basic SW assurance requirement within this CA framework is to ensure that the ATM/ANS equipment is delivered to a known SWAL. The goal of Regulation (EU) 2017/373 is to ensure that the SW meets the overall safety objectives of the functional system.</p>
comment	<p>1097 comment by: DSNA</p> <p>Firmware is not software. Analysis and activities performed for software assurance cannot be performed for firmware. Please remove or precise that firmware is not considered as software.</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 33.</p>

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comment 52

comment by: DFS Deutsche Flugsicherung GmbH



	<p>GM1 GE.GEN.003: According to various relevant and public definitions, firmware should not be counted as software. It is not feasible nor does it make sense to apply ED-153 requirements on firmware - which is required for software in this regulation. Delete last sentence.</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 33.</p>
comment	<p>247 comment by: <i>Nils</i></p> <p>These requirements on software seem quite redundant in comparison with existing requirements on software assurance process in EU 2017/373. They don't really add anything of value.</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 248.</p>
comment	<p>618 comment by: <i>EUROCONTROL</i></p> <p>Not all equipment will have hardware.</p> <p>Proposed change: It is suggested to add "when applicable"</p>
response	<p><i>Not accepted</i></p> <p>It is understood that not all equipment will have hardware. However, the SW only equipment will function on hardware. Therefore, the requirement is to define the target hardware on which it is to function.</p>
comment	<p>724 comment by: <i>Thales Land and Air Systems</i></p> <p>The GE.GEN.007 cannot be considered as the adequate mean to allocate AL considering that ED-109 is based on a top down approach based on Failure Condition severity, whereas AMC1 GE.GEN.007 requests a FMEA bottom up approach ==> AMC1 GE.GEN.007 must promote the FHA top-down approach.</p>
response	<p><i>Noted</i></p> <p>Failure condition severities and associated risk assessment will be further developed and issued in future updates of the DS.</p>
comment	<p>726 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to GM2 GE.GEN.003 Software (b) Reference to ED-109A should be used instead of ED-109.</p>
response	<p><i>Accepted</i></p>

EUROCAE ED-109 has been changed to EUROCAE ED-109A including Corrigendum 1.

comment

749

comment by: *Thales Land and Air Systems*

Comment to GM1 GE.GEN.003 Software

Software GM1 mentions that "Firmware is considered as software" (implying that AMC1 to GEN.003 applies on this piece of SW).

In house development on FPGA are considered as Firmware but not subject to SW assurance considerations. This needs to be explicitly removed from the SW assurance AMC and GM.

==> We propose to remove the sentence "Firmware is considered as software" from GM1 GE.GEN.003 Software.

response

Accepted

See the response to comment # 33.

comment

751

comment by: *Thales Land and Air Systems*

Comment to GM1 GE.GEN.003 Software

Software GM1 mentions that "Firmware is considered as software" (implying that AMC1 to GEN.003 applies on this piece of SW).

SW integrated in Hardware COTS equipment (network, switches, routers) are considered as firmware, however it is not appropriate to apply SW assurance considerations on such equipment since the applicant does not intend to update/modify SW in network equipment, and since applicant does not have design data from the vendor of such piece of firmware.

Such SW integrated in Hardware COTS equipment should be considered as HW equipment as a whole.

We propose to remove the sentence "Firmware is considered as software" from GM1 GE.GEN.003 Software.

We also propose to improve GM1 GE.GEN.004 : "Hardware may be a single piece or a set of pieces (i.e. network, switches, routers)"

response

Accepted

See the response to comment # 33.

comment

782

comment by: *ENAIRE*

"(a) The software is suitable for the intended purpose": This is not a SMART requirement (Specific, Measurable, Achievable, Realistic, Time-bound)

response

Noted

Software requirements and associated AMC will be further developed and issued in future updates of the DS.

comment	839	comment by: <i>Indra Navia</i>
	(b): A portability specification is in many cases not relevant, for instance in case of embedded software on hardware designed specifically for the intended purpose, such as e.g. DSPs. This comment also applies to the corresponding AMC1.	
response	<i>Noted</i>	
	The application of portability requirement will depend on the product.	
comment	843	comment by: <i>Indra Navia</i>
	This comment is on GM2 to GE.GEN.003:	
	It is suggested to refer to ED-109A rather than ED-109. If the intention is to provide a more generic reference, not pointing to a specific version, I believe the convention is ED-109().	
response	<i>Partially accepted</i>	
	EUROCAE ED-109 has been changed to EUROCAE ED-109A including Corrigendum 1.	
comment	977	comment by: <i>FR DSAC</i>
	Caution : this comment concerns GM2 GE.GEN.003 which happen not to be available in the CRT	
	The 2 referred standards are used all over Europe. No actual alternative exists and any tentative to develop something new or innovative has failed. This GM should be an AMC like AMC20-115D for airworthiness. This would help/encourage to increase the maturity of ATM/ANS community on software assurance level. Moreover all standards derived from ED-109A and already mentioned in 2017/373 shall be added to cover all technologies: ED-215 for Tool qualification, Formal Methods Supplement to ED-12C and ED-109A (EUROCAE ED-216/RTCA DO-333), Object-Oriented Technology and related Techniques Supplement to ED-12C and ED-109A (EUROCAE ED-217/RTCA DO-332), Model-Based Development and Verification Supplement to ED-12C and ED-109A (EUROCAE ED-218/RTCA DO-331).	
	Proposal: Change this GM in AMC to be aligned with other aviation regulations and add supplements and tool qualification standard.	
response	<i>Not accepted</i>	
	It is recognised that standards referred to in GM2 GE.GEN.003 are the main standards currently used. However, these standards are not compatible with each other, the intended stakeholders are different and they have different methodologies such that it is inappropriate to use both as a means of compliance. This will be further addressed in future updates of the DS.	
comment	978	comment by: <i>FR DSAC</i>

	<p>Caution : this comment concerns GM2 GE.GEN.003 which happen not to be available in the CRT</p> <p>(b): Replace ED-109 by ED-109A which is more accurate and self-sufficient. Moreover, ED-109 or ED-109A does not provide any Assurance Level allocation means but defines development objectives for a given level. It is not understood why GM4 to AMC6 ATM/ANS.OR.C.005(a)(2) of 2017/373 is not copy/paste. This creates a difference between DPO requirements and ATM/ANS providers requirements which is not justified.</p> <p>Proposal: Copy/paste GM4 to AMC6 ATM/ANS.OR.C.005(a)(2) or at least do not mention that ED-109 "may be used to allocate SWAL associated with the risk assessment".</p>
response	<p><i>Partially accepted</i></p> <p>EUROCAE ED-109 has been changed to EUROCAE ED-109A including Corrigendum 1. The text 'used to allocate SWAL associated' has been replaced by 'used to support the SWAL allocation associated' in GM2 GE.GEN.003(a) and (b).</p>
comment	<p>1096 comment by: Alex Milns/EUROCAE</p> <p>Page 71</p> <p>GM2 GE.GEN.003 Software</p> <p>(a) EUROCAE ED-153 - Guidelines for ANS Software Safety Assurance may be used to allocate software assurance level (SWAL) associated with the risk assessment as defined in DS GE.GEN.007.</p> <p>(b) EUROCAE ED-109 - Software Integrity Assurance Considerations for CNS/ATM Systems may be used to allocate SWAL associated with the risk assessment as defined in DS GE.GEN.007.</p> <p>To</p> <p>GM2 GE.GEN.003 Software</p> <p>(a) EUROCAE ED-153 - Guidelines for ANS Software Safety Assurance may be used to allocate software assurance level (SWAL) associated with the risk assessment as defined in DS GE.GEN.007.</p> <p>(b) EUROCAE ED-109A including Corrigendum 1 - Software Integrity Assurance Considerations for CNS/ATM Systems may be used to allocate SWAL associated with the risk assessment as defined in DS GE.GEN.007. (ED-109A Corr 1 published in Feb 2021)</p>
response	<p><i>Accepted</i></p> <p>EUROCAE ED-109 has been changed to EUROCAE ED-109A including Corrigendum 1.</p>
comment	<p>1230 comment by: Irish Aviation Authority (IAA)</p> <p>COTS software lifecycle - A common issue today, is ATM/ANS equipment on the market which incorporates unpatched legacy versions of COTS Operating Systems (OS) and non-OS COTS third party software (e.g. databases, middleware, etc), as a</p>

	<p>central pillar of their system design and intended to support the intended functionality.</p> <p>The need to consider the life cycle of all core COTS software that is incorporated into ATM/ANS equipment design, including developer maintenance support availability (performance/security patches, updates, etc) for same, should be addressed within the scope of DS GE.GEN.003 'Software', as it is considered to be a central element in demonstrating that the security design of ATM/ANS equipment.</p>
response	<p><i>Noted</i></p> <p>EASA concurs with the concept of software lifecycle support. This is an organisational requirement, not a technical requirement.</p>
comment	<p>1298 comment by: <i>Tern Systems</i></p> <p>SWAL assignment by DPO</p> <p>In the very informative workshop on the 4th of July it was said and confirmed that DPOs will assign SWAL for their SW equipment. Is it correct to assume that service providers are still required to determine which SWAL they require for the equipment? If not, which guidance is available to DPOs to assign SWAL to their products? ED-109A does not cover assignment of assurance levels. ED-153 clearly explains why and that service providers assign the SWAL. A DPO cannot just use the methodologies presented in ED-153 to assign SWAL.</p> <p>Shall the DPO assign SWA</p>
response	<p><i>Partially accepted</i></p> <p>The limitations of ED-109A and ED-153 are well recognised by EASA. It is recognised that they are inappropriate to fulfil the allocation of a SWAL. These standards may be used by a DPO to support a SWAL definition.</p> <p>It is recognised that additional work in this area is required and will be incorporated in future updates of this DS.</p> <p>In GM2 GE.GEN.003 (a) and (b), the text 'may be used to allocate software assurance level (SWAL)' has been replaced by 'may be used <u>to support the allocation of software assurance level (SWAL)</u>'.</p>
comment	<p>1301 comment by: <i>Tern Systems</i></p> <p>Definition of the Software portability specification</p> <p>Should this contain anything more than the necessary hardware requirements? Installation and maintenance requirements? Training needs?</p>
response	<p><i>Noted</i></p> <p>AMC1 GE.GEN.003(c) provides clarifications: 'the portability specification provides all the features required by the target hardware to ensure that software can run correctly.'</p>

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comment	<p>973 comment by: <i>FR DSAC</i></p> <p>ED-205A shall be applied by ATM/ANS providers and security considerations will be provider specific. This GM cannot provide in any case the necessary means to design an equipment to be certified/declared by a manufacturer on its side.</p>
response	<p><i>Partially accepted</i></p> <p>The text 'may be used to define the required level of information security' has been changed to 'may be used to <u>support the definition of</u> the required level of information security'.</p>

GM1 GE.GEN.005 Human-machine interface

p. 71

comment	<p>106 comment by: <i>Hans Erstad</i></p> <p>Point (a) states that: "a human-machine interface is needed to verify and monitor that the functions of the ATM/ANS equipment are compliant with the applicable detailed specifications."</p> <p>A HMI interface that verify and monitor that the functions of the ATM/ANS equipment are compliant with the applicable detailed specifications does not seems feasible.</p> <p>Verification that the functions of the ATM/ANS equipment are compliant with the applicable detailed specifications is performed as stated/required by DS GE.GEN.010.</p> <p>This GM point (a) does not add any guidance, but rater mis-guidance. This GM point (a) should be removed.</p> <p>Point (b) of the GM talks about some requirements for HMI and refers to DS GE.GEN.005. DS GE.GEN.005 is the requirement, and it is a bit odd to have guidance material pointing to the requirement. GM should give additional guidance to a requirement.</p> <p>Propose to remove GM1 GE.GEN.005 completely, as it does not provide any guidance to DS GE.GEN.005</p>
response	<p><i>Partially accepted</i></p> <p>GM1 GE.GEN.005 (a): the text 'To a large extent, a human-machine interface is needed to verify and monitor that the functions of the ATM/ANS equipment are compliant with the applicable detailed specifications' has been changed to 'To a large</p>

extent, a human-machine interface is needed to monitor and control the functions of the ATM/ANS equipment as required by the detailed specifications.'

comment	367	comment by: FOCA Switzerland
	We think it is acceptable to have generic requirements for the HMI. However, the Controller Working Position (CWP) should have its own section in Part 2 DS GE.CER.	
response	<i>Noted</i>	
	Thank you for this comment. CWP requirements will be further developed in future updates of the DS.	

DS GE.GEN.005 Human-machine interface

p. 71

comment	107	comment by: Hans Erstad
	The common use of HMI in an ATS system is to view surveillance data and flight plan data. It does not really fall under (a) annunciations or (b) controls. The means to view data should be included.	
	This DS does not come with any AMC. The DS does not add any value to the "DS GE.GEN" section. It could rather be left out.	
response	<i>Not accepted</i>	
	This DS is generic and applicable to all types of working stations (HMI) needed for a complete ATM system. The requirement to view specific data will be incorporated in the specific subparts.	
	'(2) Means for the operator to view, create,' has been changed to '(2) Means for the operator to <u>view information and</u> to create,'.	
comment	123	comment by: skyguide Compliance Management
	Can you please define what is an operator for you in that context?	
response	<i>Noted</i>	
	The operator is any person that uses the HMI for the intended purpose.	
comment	620	comment by: EUROCONTROL
	Proposed change : Suggest to also include means to remotely operate the GE (start/stop/Change the mode of operation) and to report GE failures. Suggest to also require a local/dedicated HMI to perform maintenance tasks.	
response	<i>Not accepted</i>	



See the response to comment # 99.

comment 788 comment by: ENAIRE

The NPA should include a clear and concise definition of “HMI”. Otherwise even a keyboard could be considered as an HMI and then it would be need to have aural/visual indications, etc.

response *Not accepted*

This DS is generic and applicable to all types of working stations which are classified as HMI needed to operate an ATM system and are applicable dependent upon the intended use.

comment 790 comment by: ENAIRE

Proposed amended text:

Means for the operator to view, create, store, retrieve, edit, delete, and send messages, as applicable.

Rationale:

In an HMI of a CMS (control and monitoring) system for CNS equipment, there is no need to create or send messages. Therefore, it is suggested to add ", as applicable" to the proposed text.

response *Partially accepted*

DS GE.GEN.005 has been changed as follows:

As required for the intended function, a means is provided for:

(a) Annunciations ... / ... send messages.

comment 797 comment by: ENAIRE

Replace “operator” by “operator(s)”.

A single piece of equipment may have different operators with different HMIs. For instance, ATSEP vs ATC HMI.

response *Accepted*

The word ‘operator’ has been replaced by ‘operator(s)’ in DS GE.GEN.005.

comment 798 comment by: ENAIRE

"For ATM/ANS equipment that provides messages to support safe operation, as a minimum, DS GE.GEN.005(a)(2) and DS GE.GEN.005(b)(1) should be considered".

This text means that it is not needed to take into consideration all the DS GE.GEN.005 in all situations, but this is not clearly stated in the DS itself (e.g. using and/or).

response	<p>Every DS should make clear whether all the DS text is applicable to every case or not, because DS is the specification itself and such an important issue should not be left to be clarified in the associated GMs.</p> <p><i>Accepted</i></p> <p>The text 'For ATM/ANS equipment that provides messages to support safe operation, as a minimum, DS GE.GEN.005(a)(2) and DS GE.GEN.005(b)(1) should be considered.' has been removed.</p>
comment	<p>882 comment by: ENAIRE</p> <p>We understand that Monitoring and Control of CNS systems are under article 6 (SoC). Could EASA confirm this point?</p>
response	<p><i>Noted</i></p> <p>Monitoring and control of equipment defined in Articles 4 and 5 are part the overall equipment function and therefore DS GE.GEN is applicable.</p>
comment	<p>979 comment by: FR DSAC</p> <p>(b)(1): Should we understand that the ATCO (operator?) should be able to enable/disable functions/components? This kind of capability raises a lot of safety concerns and doesn't seem to bring any specific safety or interoperability benefit for certification. Actually, it is more usual to forbid any capability to deactivate operational functions/components from the ATCO'S HMI in order to reduce the safety impact of any inadvertent deactivation/activation and to focus on technical or human factor errors from ATSEP position. A detailed example is necessary in GM1 GE.GEN.005.</p> <p>Proposal: Complete GM1 GE.GEN.005 to make (b)(1) explicit.</p>
response	<p><i>Partially accepted</i></p> <p>DS GE.GEN.005 has been changed as follows: <u>As required for the intended function</u>, a means is provided for: (a) Annunciations ... / ... send messages.</p>

GM1 GE. GEN.004 Hardware	p. 71
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comment	<p>121 comment by: skyguide Compliance Management</p> <p>Is this also true for Virtualized platform?</p>
response	<p><i>Noted</i></p>

The hardware components that enable the Virtualized platform to operate should be considered.

comment 122 comment by: skyguide Compliance Management

An example "network" is provided. Can you please be more precise why you are referring to network as example? What shall be understood here? Are we talking about hardware used for our Local Area Network (LAN) or Wide Area Network (WAN)?

response Partially accepted

The text has been changed to 'Hardware may be a single piece or a set of pieces (e.g. network, switches, routers)'.

comment 752 comment by: Thales Land and Air Systems

Software GM1 mentions that "Firmware is considered as software" (implying that AMC1 to GEN.003 applies on this piece of SW).
 SW integrated in Hardware COTS equipment (network, switches, routers) are considered as firmware, however it is not appropriate to apply SW assurance considerations on such equipment since the applicant does not intend to update/modify SW in network equipment, and since applicant does not have design data from the vendor of such piece of firmware.
 Such SW integrated in Hardware COTS equipment should be considered as HW equipment as a whole.
 We propose to remove the sentence "Firmware is considered as software" from GM1 GE.GEN.003 Software.
 We also propose to improve GM1 GE.GEN.004 : "Hardware may be a single piece or a set of pieces (i.e. network, switches, routers)"

response Accepted

See the response to comments # 33 and # 122.

DS GE.GEN.004 Hardware p. 71

comment 249 comment by: Nils

These requirements don't add anything of value. If you want a worthwhile requirement related to hardware please consider requiring DPOs to calculate reliability and/or availability figures for hardware architecture. Or something else that is more concrete.

response Not accepted

DS GE.GEN.004 provides an objective for hardware. The DPO may have to demonstrate reliability and/or availability, etc. to support the intended purpose.



comment	619	comment by: EUROCONTROL
	Not all equipment will have hardware.	
	Proposed change :	
	It is suggested to add "when applicable".	
response	<i>Not accepted</i>	
	It is understood that not all equipment will have hardware. However, the SW only equipment will function on hardware. DS GE.GEN.003 provides an objective to define the target hardware.	

AMC1 GE.GEN.004 Hardware

p. 71

comment	250	comment by: Nils
	These requirements don't add anything of value. If you want a worthwhile requirement related to hardware please consider requiring DPOs to calculate reliability and/or availability figures for hardware architecture. Or something else that is more concrete.	
response	<i>Not accepted</i>	
	See the response to comment # 249.	
comment	1068	comment by: AESA
	Regulation EU 2017/373 introduces requirements on the HW of the systems employed by ANSP. The requirements under the CA framework for the systems used by these ANSP should be equivalent.	
response	<i>Noted</i>	
	Hardware is part of the technical capability of ATM/ANS equipment. Therefore, basic hardware requirements need to be specified within this DS. The goal of Regulation (EU) 2017/373 is to ensure that the hardware meets the overall safety objectives of the functional system.	

AMC1 GE.GEN.006 Environmental conditions

p. 72

comment	53	comment by: DFS Deutsche Flugsicherung GmbH
	Standards that are relevant for equipment in general, like this EMC and engineering norms, should not be part of an ATM/ANS equipment set of specifications. Where, if so, is the boundary considering the existence of manifold other harmonised standards? e.g. in the telecommunication or IT-infrastructure environment. These	

	<p>technologies are all not made for ATM/ANS purpose but need to fulfil those standards, whether or not used in an ATM/ANS provision infrastructure. Does this mean, that - if used - it must be subject to certification? How, then, can EASA ensure the correct knowledge to certify equipment against such (non-aviation) standards? And is this legally OK?</p> <p>Our understanding is that using such common infrastructure technology does not make that equipment fall under Equipment Regulation. Otherwise, all computer and radio manufacturers have to become DPO?</p>
response	<p><i>Noted</i></p> <p>The general principles, as defined in Annex VIII to the Basic Regulation, require ATM/ANS equipment to be fit for the intended purpose and to protect against interference. To achieve such objectives, the ATM/ANS equipment fitness to operate in the intended environment is an important aspect and the commented AMC is considered important for the safe and correct operations.</p>
comment	<p>195 comment by: <i>CANSO</i></p> <p>Standards that are relevant for equipment in general, like this EMC and engineering norms, should not be part of an ATM/ANS equipment set of specifications. Where, if so, is the boundary considering the existence of manifold other harmonised standards? e.g. in the telecommunication or IT-infrastructure environment. These technologies are all not made for ATM/ANS purpose but need to fulfil those standards, whether or not used in an ATM/ANS provision infrastructure. Does this mean, that - if used - it must be subject to certification? How, then, can EASA ensure the correct knowledge to certify equipment against such (non-aviation) standards? And is this legally OK?</p> <p>Our understanding is that using such common infrastructure technology does not make that equipment fall under Equipment Regulation. Otherwise, all computer and radio manufacturers have to become DPO?</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 249.</p>
comment	<p>800 comment by: <i>ENAIRE</i></p> <p>Care should be taken when referring to specific version / ed. no. for documents, norms, etc. E.g. ETSI EN 301 489-1 (V2.2.3) (2019-11) is specified in AMC1, but there is an alert in the ETSI webpage that an update is upcoming (https://portal.etsi.org/webapp/workprogram/Report_WorkItem.asp?WKI_ID=68583). Moreover, as standards evolve, will it be required for existing systems to adhere to new environment standards editions?</p>
response	<p><i>Noted</i></p> <p>The standards referred to in DS are the ones applicable and published at the time of consultation. Incorporation of any updates will be addressed via the EASA rule making</p>

process in accordance with the EPAS. Incorporation of such updates does not automatically require existing equipment to be upgraded.

comment 802 comment by: ENAIRE

Some questions about the two ETSI environmental standards:

- a) Will space-based ATM/ANS equipment comply with different sets of standards, to be defined in later stages?;
- b) Is ATM/ANS equipment installed in marine environments (e.g. oil rigs, vessels, etc.) considered as “ground-based”? Would it need additional specific requirements?

response *Noted*

In general, environmental standards should be updated to support the evolution of ATM equipment and architecture.

b) is addressed by GM1 GE.GEN.006.

comment 859 comment by: Indra Navia

Is it necessary to include version numbers? It will make it necessary to re-issue these AMC whenever new versions of the ETSI standards are issued. Also, it will be an extreme cost driver, since it will then be necessary to perform comprehensive re-tests of standard equipment types whenever new ETSI-standards are issued, even if no changes to the equipment have been performed. As a minimum, it is strongly encouraged to include "or newer" after the version number, in order to, in the future, allow fielding of equipment compliant to different versions of the ETSI standards.

response *Noted*

See the response to comment # 800.

comment 883 comment by: Indra Navia

The referred environmental standards include specifications for environmental parameters that ground equipment is normally not tested for. Even class 1 includes specifications for earth quakes and a range of chemical substances. If it is required to test for all specified parameters, it will be a significant cost driver. Normally, ground equipment environmental specifications for indoor equipment are limited to temperature and humidity, so introducing this standard implies the introduction of a wide range of environmental requirements that have not been applied before.

response *Noted*

Only the applicable parts of the standards, considering the intended purpose and environment, need to be addressed.

comment 1172 comment by: Belgian Supervisory Authority

AMC1 GE.GEN.006 Environmental conditions – page 72
 AMC1 GE.GEN.007 Risk Assessment – page 73

The Belgian Supervisory Authority considers that these AMCs can only be made applicable from 13/09/2025. Proposing to apply a new binding standards or substantial requirement 3 months ahead of its application is not acceptable for the Belgian Supervisory Authority. ATM/ANS providers will need a minimum time period to obtain the necessary information from their equipment suppliers, and obtain the necessary information. Obtaining EASA acceptance of an AltMoC if necessary will also take several months. Belgian Supervisory Authority does not want to be forced to apply the flexibility provision defined in article 71 of EASA Basic Regulation to allow the ATM/ANS providers to put in service equipment after 13/09/2023.

response

Not accepted

Deferred requirements within a DS cannot be achieved. Alternative means to comply can be proposed by applicants.

DS GE.GEN.007 Risk assessment

p. 72

comment

251

comment by: *Nils*

The requirement is worded in a somewhat weird way. We assume the intention is to word something related to acceptable risk. It sounds OK if you think about an equipment with high probability of failure. Yes, then the effect of those failures should be "low". But if you have an equipment with a low probability of failure, you still want the severity of those failures to be low. In the latter case you do not want the severity of failures to be the inverse of low (probability), i.e. high.

response

Accepted

The text has been amended to read:

'The ATM/ANS equipment is to be designed such that the probability of a failure condition is low when the severity of the effect of the failure is high, with respect to its intended use.'

comment

571

comment by: *DCAC NSA Officer*

With regards to the text "*has an inverse relationship...*", we suggest using simpler terms in regulations. For example, the text here could read: "*...such that the probability of a failure is lower when the severity of the effect of the failure is higher*"....

response

Partially accepted

The text has been amended to read:



'The ATM/ANS equipment is to be designed such that the probability of a failure condition is low when the severity of the effect of the failure is high, with respect to its intended use.'

comment

621

comment by: EUROCONTROL

The scope of this article is, as written, about "ATM/ANS equipment", the term "Risk Assessment" should not be used. As explained in DS GE.GE.001: "These detailed specifications prescribe the standards and related acceptable means of compliance (AMC) and guidance material (GM) for the design, or for changes to the design, of ATM/ANS equipment for which certification is to be required in accordance Regulation"; therefore, they are to be complied with by DPOs. DPOs cannot perform a risk assessment consistent with the definition of "risk" (severity of the harmful effect x probability of that effect) provided by EU.2017/373 where only ATSP can perform a risk assessment, as only they are subject to demonstration of acceptable risk.

Proposed change:

Suggest to replace "risk assessment" by another wording; e.g.: Failure mode assessment, Degraded mode analysis

response

Partially accepted

The term 'risk assessment' has been deleted and reference is made to 'Assessment of failure conditions'.

comment

623

comment by: EUROCONTROL

New proposed wording:

The ATM/ANS equipment is to be designed such that the probability of a failure has an inverse relationship with the severity of the effect of the failure with respect to **its intended use, as assumed by the DPO and as stated in the GE conditions of use.** It is to be noted that the intended use has to be very clear and precise, for instance "en-route operation in Europe" is not deemed precise enough, it should be at least "en-route operation high density in Europe" and with quantitative limits for high density (between N1 and N2 aircraft per sector and per hour). This is necessary to be able to assess if two different equipment can really be used in the same targeted intended use. In principle the quantitative Integrity and Continuity performance that the GE is reaching should be sufficient to verify if the equipment is compatible with its targeted use.

Proposed change:

Add the last paragraph as a new GM and adapt text as proposed : The ATM/ANS equipment is to be designed such that the probability of a failure has an inverse relationship with the severity of the effect of the failure with respect to **its intended use, as assumed by the DPO and as stated in the GE conditions of use.**

response

Not accepted

The additional proposed text is deemed superfluous. As the intended use of the DS is for the DPO, the intended use must be stated.

comment

720

comment by: *Thales Land and Air Systems*

We consider that this new regulatory framework does not achieve its initial objectives, meaning harmonisation of ATM/ANS equipment and certificate recognition across Europe.

The proposed risk assessment detailed specification is not deemed appropriate as :

- it is missing the definition of safety objectives to be achieved by the certified equipment
- the bottom up approach, proposed in the AMC, is inadequate as it does not address the need for adequation between the equipment safety level and the ANSPs requirements resulting from the ANSP safety assessment (as per 2017/373).

==> We consider that the Detailed Specification need to define:

- severity classes definitions
- safety objectives associated to the defined severity classes
- safety objectives allocation for each ATM/ANS function
- a standardised and recognised top down system safety methodology driven by the defined safety objectives

We will be more than happy to continue supporting EASA and the RMT in further maturing the Detailed Specifications to achieve the objectives of the regulatory framework.

response

Noted

EASA recognises the current limitation of the approach specified in the AMC. This will be further developed in future updates of the DS in accordance with the EPAS. Furthermore, EASA thanks Thales for the support to further develop and mature the DS.

comment

728

comment by: *Thales Land and Air Systems*

"the probability of a failure", the probability must not address the probability of the individual failure but the probability of the sum of all failures scenarios. This is inconsistent to the "failure condition" notion introduced within §3.3 AMC1 ATM/ANS.EQMT.CERT.015(b)(2) Application for an ATM/ANS equipment certificate => to satisfy AMC1 ATM/ANS.EQMT.CERT.015(b)(2) §3.3 need, replace "failure" by "failure condition" and clarify the definition of what is failure condition

response

Accepted

The text has been amended accordingly.

comment

730

comment by: *Thales Land and Air Systems*

How can the ATM regulation remain unable to go beyond the extremely basic principle detailing that "the probability of a failure has an inverse relationship with the severity of the effect of the failure with respect to its intended purpose" whereas

	<p>it exists in the embedded aeronautical domain since at least 1988 for FAA through the AC25.1309-1A and AMC25.1309 at the creation of the EASA in 2003 and even earlier by the JAA ACJ 25.1309?</p> <p>Today some inconsistent severity risk definition exist in different standards and are differently applied by the ATM domain like ED-78A ED-109A, Eurocontrol SAM.</p> <p>==> EASA must not limit this requirement to this too basic concept and must provide a real severity classes definition and must determine the associated safety objectives</p>
response	<p><i>Noted</i></p> <p>EASA recognises the current limitation of the approach. This will be further developed in future updates of the DS in accordance with the EPAS.</p>
comment	<p>887 comment by: <i>Indra Navia</i></p> <p>It may be confusing to refer to this process as risk assessment. A risk assessment evaluates probability and consequence, resulting in a measure of risk to the operation. An assessment on equipment level considers the probability of a failure mode, and the effect on the perimeter of the equipment (e.g. the probability of violating a functional, performance or safety requirement), but it normally cannot address the severity of the effect on the operation, since this is out of scope for an equipment assessment and may vary from one operational context to another. For instance, consider the effect "loss of comms". The severity of this effect varies extremely between an AFIS airfield with a couple of operations a day, and the busiest airspaces in Europe. Therefore, the risk associated with this effect cannot be evaluated on the equipment level, it must be evaluated on an operational level.</p> <p>Given this, it is proposed to use for instance the term "safety assessment" rather than "risk assessment".</p>
response	<p><i>Partially accepted</i></p> <p>The term 'risk assessment' has been deleted and reference is made to 'Assessment of failure conditions'.</p>
comment	<p>980 comment by: <i>FR DSAC</i></p> <p>Since EASA did not define any standard "severity classes" nor standard safety targets, it is improbable that this DS can help manufacturers or providers define the adequate probability of failure for certified/declared equipment. Prior to harmonising equipment specifications and putting constraints on low-level components, it would have been useful to harmonise safety practices and safety targets for certified services. Without more detailed guidance on safety assessment and safety targets, this DS will be interpreted completely differently by the different manufacturers and won't foster harmonisation.</p> <p>Proposal:</p> <p>No proposal for this AMC but it is necessary that EASA provides guidance on safety assessment methodologies and provides means to harmonize high level safety</p>

	objectives throughout Europe. Without this, requiring any specific safety performances for equipment is meaningless.
response	<p><i>Noted</i></p> <p>EASA recognises the current limitation of the approach. This will be further developed in future updates of the DS in accordance with the EPAS with further guidance with respect to safety assessment methodologies and severity classification.</p>

AMC1 GE.GEN.007 Risk assessment	p. 73
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comment	<p>54 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>AMCs should not stipulate specific methods - in this case FMEA - especially when there is only one AMC. That makes it very difficult to use another method! Stipulating specific methods is in general not a good practice in legislation. In this specific case, it can be added that there are methods far more suitable for the analysis of technical systems than FMEA. AMC1 and the related GMs are still valuable advice for those who want to use that method. Therefore, we suggest to make it clear that that is one example for a suitable method and other methods for risk assessments can also be used. E.g. through an AMC2 allowing for other methods that achieve the same objective</p>
response	<p><i>Not accepted</i></p> <p>Alternative means to comply can be proposed by applicants for all requirements specified in the DS, thus an AMC defining the possibility for GEN.007 is not necessary. Please note that the DS will be updated in accordance with the EPAS with further guidance with respect to safety assessment methodologies and severity classification.</p>
comment	<p>71 comment by: <i>Hans Erstad</i></p> <p>AMC1 GE.GEN.007 contain a sentence stating: "It should account for all safety-/service-related effects and the effects identified in these detailed specifications."</p> <p>The proposed detailed specifications do not identify any effects of failure modes. The sentence should be removed.</p>
response	<p><i>Partially accepted</i></p> <p>The sentence has been amended to read 'It should account for all safety-/service-related effects'.</p>
comment	<p>196 comment by: <i>CANSO</i></p>

	<p>AMCs should not stipulate specific methods - in this case FMEA - especially when there is only one AMC. That makes it very difficult to use another method. Stipulating specific methods is in general not a good practice in legislation. In this specific case, it can be added that there are methods far more suitable for the analysis of technical systems than FMEA. AMC1 and the related GMs are still valuable advice for those who want to use that method. Therefore, we suggest to make it clear that that is one example for a suitable method and other methods for risk assessments can also be used. E.g. through an AMC2 allowing for other methods that achieve the same objective.</p> <p>Furthermore, “worst-case effect” should be changed to “worst credible effect” to ensure realistic assessment.</p>
response	<p><i>Partially accepted</i></p> <p>With respect to the need for an AMC2, alternative means to comply can be proposed by applicants for all requirements specified in the DS, thus an AMC defining the possibility for GEN.007 is not necessary. Please note that the DS will be updated in accordance with the EPAS with further guidance with respect to safety assessment methodologies and severity classification.</p> <p>The wording ‘worst-case effect’ has been amended to read ‘worst credible effect’.</p>
comment	<p>252 comment by: <i>Nils</i></p> <p>FMEA is very useful in identifying different types of failures, which in turn are a valuable input to identifying safety requirements. But you will rarely be able to evaluate failure rates in a meaningful way for complete equipment (hardware <u>and</u> software). Please remove any requirements to produce quantitative failure rates for complete equipment.</p>
response	<p><i>Not accepted</i></p> <p>EASA recognises the current limitation of the approach. This will be further developed in future updates of the DS in accordance with the EPAS with further guidance with respect to safety assessment methodologies and severity classification. Note that reference to quantitative failure rates is provided in guidance material which is additional explanatory information.</p>
comment	<p>622 comment by: <i>EUROCONTROL</i></p> <p>This AMC prescribes the use of a method “FMEA”. Even if this method is well-known and widely used it should not be prescribed as EASA’s approach to regulation is to keep them “method agnostic”.</p> <p><u>Proposed change:</u> Suggest to move this AMC to GM.</p>
response	<p><i>Not accepted</i></p> <p>EASA recognises the current limitation of the approach. This will be further developed in future updates of the DS in accordance with the EPAS with further</p>

guidance with respect to safety assessment methodologies and severity classification.

comment

628

comment by: EUROCONTROL

At the level of a ground equipment the manufacturer can identify the failure modes of the equipment but cannot identify the potential effects and their impacts. This can only be done at the level of the "Functional System" (2017/373).

This risk assessment process is linked to DS GE.GEN.003 Software and DS GE.GEN.004 Software.

At the level of the functional system of an ATSP there are 2 options:

- The GE provided by the GE manufacturer (SW & HW combined) has the continuity and integrity that has been determined by the ATSP in its system FMEA. Then the ATSP will have to implement this GE to be compliant with the results of its FMEA.
- The GE provided by the GE manufacturer (SW & HW combined) has not the continuity or integrity that has been determined by the ATSP in its system FMEA. Then the ATSP will have to implement 2 or more GE's in parallel (possibly from different manufacturers) to be compliant with the results of its FMEA.

Proposed change:

Adapt the AMC to the limit of DPO's role and responsibility.

response

Partially accepted

The term 'risk assessment' has been deleted and reference is made to the DPO undertaking an 'Assessment of failure conditions' .

comment

733

comment by: Thales Land and Air Systems

Please clarify what does the "rates of the failure effects" mean compared to the notion of "severity of the effect" as defined in DS GE.GEN.007

An FMEA method belongs to the design phase and only permits to determine the functional effect of failures; without a Functional Hazard Analysis it does not permit to identify nor classify a risk.

Today all the industrial domains (railway, automotive, etc.), including embedded aeronautical domain are based on a FHA method to identify and classify the risk, it is documented in many standards (ARP4761, ISO-26262, etc.), the fact that EASA diverges from established safety best practices is not understandable and does not permit to fulfill the initial need of risk identification and evaluation.

==> replace FMEA approach by a FHA approach in this AMC and realign all subsequent GMx. GE.GEN.007 accordingly

response

Not accepted

EASA recognises the current limitation of the approach. This will be further developed in future updates of the DS in accordance with the EPAS with further guidance with respect to safety assessment methodologies and severity classification.

comment

734

comment by: Thales Land and Air Systems



response	<p>The level that is appropriate to conduct a FMEA (system, subsystem, constituent) has to be driven by the top down safety assessment approach and supported by the appropriate industry standard. The level of FMEA should not be mandated by the regulation.</p> <p>=> Where a FMEA is needed, remove guidances on the level at which the FMEA has to be conducted and refer to the appropriate top-down safety assessment standard or launch the required standardisation task.</p> <p><i>Not accepted</i></p> <p>EASA recognises the current limitation of the approach. This will be further developed in future updates of the DS in accordance with the EPAS with further guidance with respect to safety assessment methodologies (FHA, etc.) and severity classification.</p>
comment	<p>885 comment by: <i>Indra Navia</i></p> <p>(a) states "A failure mode effects analysis (FMEA) should be applied to evaluate the rates of the failure effects." FMEAs are not always quantitative, for instance, functional FMEAs of software are typically not quantitative and therefore do not evaluate rates. GM 1 to the same requirement acknowledges this.</p>
response	<p><i>Accepted</i></p> <p>The text has been amended to read ‘A failure mode effects analysis (FMEA) should be performed to evaluate the failure conditions.’</p>
comment	<p>981 comment by: <i>FR DSAC</i></p> <p>Reducing a risk assessment to FMEA and specifically for quantitative aspects is curious and does not allow to perform a proper and efficient safety or dependability assessment on complex systems and, as mentioned multiple times during RMT0161 workshops, ATM/ANS equipment may be very complex as they do not consist of a single piece of hardware or software. 2017/373 mentions that providers should be able to assess/monitor/reduce the level of uncertainty of their safety assessments; if this safety assessment consists of a simple FMEA, uncertainty will be more than high. As such certification will significantly reduce the level of safety. In any case FMEA cannot be used for quantitative assessment and for evaluating the overall failure rate of the equipment. It can only help in identifying and listing the failure rate of a single failure mode. For overall quantitative failure rates, manufacturers shall use Failure tree analysis, reliability block diagrams, petri nets, Markov chains, model-based safety assessments, etc. Regarding corresponding GM on FMEA, it is actually not understood why EASA proposes so much guidance for a specific methodologic tool which is already well standardized either in industrial standards or in aviation standards.</p> <p>Proposal: Remove this AMC pretending that FMEA can be used for quantitative assessments or, if really needed, develop an AMC with all applicable methods</p>
response	<p><i>Not accepted</i></p>

EASA recognises the current limitation of the approach. This will be further developed in future updates of the DS in accordance with the EPAS with further guidance with respect to safety assessment methodologies and severity classification.

comment 994 comment by: *LEONARDO*

Why only the FMEA and not other methodologies? (eg. FMECA, FTA combined with FMEA/FMECA)

response *Noted*

An alternative means to comply can be proposed by applicants for all requirements specified in the DS.

comment 1173 comment by: *Belgian Supervisory Authority*

AMC1 GE.GEN.006 Environmental conditions – page 72
AMC1 GE.GEN.007 Risk Assessment – page 73

The Belgian Supervisory Authority considers that these AMCs can only be made applicable from 13/09/2025. Proposing to apply a new binding standards or substantial requirement 3 months ahead of its application is not acceptable for the Belgian Supervisory Authority. ATM/ANS providers will need a minimum time period to obtain the necessary information from their equipment suppliers, and obtain the necessary information. Obtaining EASA acceptance of an AltMoC if necessary will also take several months. Belgian Supervisory Authority does not want to be forced to apply the flexibility provision defined in article 71 of EASA Basic Regulation to allow the ATM/ANS providers to put in service equipment after 13/09/2023.

response *Not accepted*

Deferred requirements within a DS cannot be achieved. Alternative means to comply can be proposed by applicants.

GM2 GE.GEN.007 Risk assessment

p. 73

comment 629 comment by: *EUROCONTROL*

Comments to GM1, 2, 3 & 4 GE.GEN.007

DPOs are supposed to know the tools they can use and to what objective.
This proposed definition and training on “FMEA” is not unique and could lead to confusion.

Proposed change:

response	<p>Suggest to delete these GMs :GM1 GE.GEN.007 Risk assessment, GM2 GE.GEN.007 Risk assessment, GM3 GE.GEN.007 Risk assessment, GM4 GE.GEN.007 Risk assessment</p> <p><i>Not accepted</i></p> <p>EASA recognises the current limitation of the approach. This will be further developed in future updates of the DS in accordance with the EPAS with further guidance with respect to safety assessment methodologies and severity classification.</p>
comment	<p>738 comment by: <i>Thales Land and Air Systems</i></p> <p>How can "(c) current drawings or schematics; (d) parts lists for each system or item; an applicable list of failure rates" be available at the stage of risk identification/evaluation? ==> GM2 to be removed and directly refer to the relevant section of existing standard material (ARP4761) which is the source of this GM</p>
response	<p><i>Not accepted</i></p> <p>EASA considered that direct reference to the existing standard (ARP4761) was currently not appropriate to be applied to ATM equipment. ARP4761 describes guidelines and methods of performing the safety assessment for certification of civil aircraft and is primarily associated with showing compliance with 25.1309. However, the DS will be updated in accordance with the EPAS with further guidance with respect to safety assessment methodologies and severity classification.</p>

GM1 GE.GEN.007 Risk assessment	p. 73
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comment	<p>642 comment by: <i>CANSO</i></p> <p>The description of the application of qualitative vs quantitative analysis in the GM is inconsistent with the description in AMC:</p> <p>AMC: [Analysis] ... "should be applied to evaluate the rates of the failure effects" implies quantitative required.</p> <p>GM: "This analysis may be quantitative or qualitative" and "If quantitative aspects are considered, it will be possible to determine a failure rate for each failure mode."</p>
response	<p><i>Accepted</i></p> <p>The AMC text has been amended to read 'A failure mode effects analysis (FMEA) should be performed to evaluate the failure conditions.'</p>
comment	<p>736 comment by: <i>Thales Land and Air Systems</i></p>

	<p>An FMEA is limited to single failure mode definition, how can it be sufficient to address the safety requirements resulting from an ANSP safety assesment. How can a "bottom-up method" be efficient with regard to a strategy of specification which is driven by a top-down approach? How can an analysis based on the "design" be efficient to drive the risk mitigation strategy which is not prescriptive in term of design?</p> <p>==> EASA must reference the recognized existing standards or launch adequate standardization tasks alllowing to define top down safety assessment guidances adapted to the ATM domain.</p>
response	<p><i>Not accepted</i></p> <p>EASA recognises the current limitation of the approach. This will be further developed in future updates of the DS in accordance with the EPAS. Note that guidance material is additional explanatory information and not the recognised AMC, for which the applicant can propose alternatives.</p>

GM3 GE.GEN.007 Risk assessment	p. 74
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comment	<p>72 comment by: <i>Hans Erstad</i></p> <p>GM3 GE.GEN.007 contain a sentence: "Failures modes or failure conditions are malfunctions of function."</p> <p>In EUROCAE ED-153 (That is referred to in DS GE.GEN.003) there is a distinction between Failure and Malfunction. ED-153 contain the following definitions: "Software Malfunction; The inability of a program to perform a required function correctly." "Software Failure; The inability of a program to perform a required function."</p> <p>The GM should not state that "Failures modes or failure conditions are malfunctions of function.", as this would limit the analysis to the inability to function correctly (malfunction), and not include the inability to perform a function (failure). Propose to re-phrase the sentence to: <u>"Failures modes or failure conditions are failures or malfunctions of function."</u></p> <p>With such re-phrase, the next sentence "This means either the loss or corruption of some intended function, e.g. function that is considered to be:....", would then explain that failure mean loss of function, and malfunctions means corruption of function - and this is correct.</p>
response	<p><i>Accepted</i></p> <p>The text has been amended as proposed.</p>
comment	<p>632 comment by: <i>EUROCONTROL</i></p>



response	<p>Piece(-part FMEA : does this apply to software? If not what should be done for software</p> <p><u>Proposed change:</u> Please clarify the case of software</p>
	<p><i>Noted</i></p> <p>For ATM/ANS equipment, which includes software, it must be demonstrated, with respect to the intended use, that the probability of a failure condition is low when the severity of the effect of the failure is high. If the application of FMEA is deemed inappropriate for the software, alternative means to comply can be proposed by applicants.</p>
comment	<p>740 comment by: <i>Thales Land and Air Systems</i></p> <p>1) "(a) more than (quantity, information); (b) less than (quantity, information); (c) additional to; (d) faster than; (e) slower than; (f) part of; (g) reverse of; (h) other than; (i) not; (j) earlier than; (k) later than; (l) before; or (m) after."</p> <p>EASA should not be so prescriptive and detailed in these failure modes, as those should be detailed in an industrial standard instead of in a regulation. EASA should rather focus on providing a severity class definition and the acceptable level of failure condition occurrence per ATM/ANS function.</p> <p>2) "Examples of detection methods include detection by hardware or software monitors, operator detection, power up tests, and/or maintenance checks." we are always here within the design phase which does not satisfy the initial need of DS GE.GEN.007 ==> GM3 to be removed and directly refer to the relevant section of existing ARP4761 material which has been used as the source of this GM</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 738.</p>
comment	<p>742 comment by: <i>Thales Land and Air Systems</i></p> <p>'There are two types of FMEA, functional and piece part: ...' As mentioned in this section of GM3, the FMEA are performed to support the safety analysis by providing further refinement of failure rates or ensure the target probability of the failure budget are met. An equipment safety analysis should not rely on a FMEA without having a safety objective to achieve.</p> <p>==> GM3 to be removed. ==> EASA must reference the recognized existing standards or launch standardization tasks allowing to define top down safety assessment guidances adapted to the ATM domain.</p>
response	<p><i>Not accepted</i></p>

EASA recognises the current limitation of the approach. This will be further developed in future updates of the DS in accordance with the EPAS. Note that guidance material is additional explanatory information and not the recognised AMC, for which the applicant can propose alternatives.

GM4 GE.GEN.007 Risk assessment

p. 76

comment	743	comment by: <i>Thales Land and Air Systems</i>
	'=> GM4 to be removed and directly refer to the relevant section of existing ARP4761 material which has been the source of this GM	
response	<i>Not accepted</i>	
	See the response to comment # 738.	

comment	1100	comment by: <i>Alex Milns/EUROCAE</i>
	Risk assessment paragraphs may consider the applicability of ED-78A in this area.	
response	<i>Noted</i>	

DS GE.GEN.008 ATM/ANS equipment documentation

p. 76

comment	987	comment by: <i>Indra Navia</i>
	Required preventive maintenance and corrective maintenance seem to be missing from the list of required documentation. Also, the structure of the set of manuals varies greatly from equipment type to equipment type. Some equipment types does not require human intervention for operation, they just perform their function inherently and may therefore not have an operations manual. Therefore, in order to generalize and take maintenance requirements into account, it is proposed to:	
	1. Delete the word "Operations" from "operations manuals"	
	2. Add "(4) preventive and corrective maintenance procedures" to the list	
response	<i>Accepted</i>	
	The text has been amended as proposed.	

GM1 GE.GEN. 010 Verification method

p. 77

comment	212	comment by: <i>Hans Erstad</i>
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The GM contain the following expression: “The demonstration of compliance with the prescribed standard may be accomplished by various means of compliance.....”

“means of compliance” is not the correct expression to use here.

“means of compliance” is usually the standards (e.g. from EUROCAE) referred to in AMC (and/or GM).

A more proper terms would be to use “verification method” as used in the title in the GM, or “Method of Compliance”

Propose to reword the first sentence of the GM to:

“The demonstration of compliance with the prescribed standard may be accomplished by various verification methods used in conjunction with each other or separately. Possible verification methods are:”

Additional information related to definition of Means of Compliance:

FAA provide some definitions for their use of “Means of Compliance” and “Method of Compliance”:

Means of Compliance – A detailed design standard that, if met, accomplishes the safety

intent of the regulation, is used by an applicant to show compliance with part 23 airworthiness standards, and accepted by the Administrator. A means of compliance is

one method, but not the only method, to show compliance with a regulatory requirement.

Method of Compliance – A description of how compliance will be shown (e.g., ground test, flight test, analysis, similarity, etc.). The description of the method of compliance

should be sufficient to determine that all necessary compliance-related data will be collected and all findings can be made.

(AC No: 23.2010-1)

response

Noted

The requirements specified in DS GE.GEN.010 and associated GM have been deleted from the DS and are referred to in the AMC & GM to Annex II (Part-ATM/ANS.EQMT.CERT) to Commission Delegated Regulation (EU) 2023/1768

comment

637

comment by: *EUROCONTROL*

New DS GE.GEN.011 Standardised interfaces

The current proposal leads to the repetition of the same interface requirement/standard for each GE implementing these standardised GE interfaces which are widely applied by Ground Equipment (ADEXP for ATS exchanges, ASTERIX categories for Surveillance information messages) . It is therefore proposed to create a new GEN requirement on standardised interfaces and corresponding AMCs, each AMC will be applicable if the type of interface is used in the equipment. The other

	<p>GEN requirements apply to the interfaces as they are an integrated part of the equipment and cannot be isolated as a component by itself.</p> <p>Proposed change: Add the DS below and its corresponding AMCs, and remove the intreface requirements from each equipment : DS GE.GEN.011 Standardised interfaces The GE implementation of standardised interface(s) is correct. AMC1 GE.GEN.011 All Purpose Structured EUROCONTROL Surveillance Information Exchange (ASTERIX) category NN The GE interface should comply with EUROCONTROL-SPEC-0149-NN (latest edition) or any other edition which is compatible with this latest edition AMC2 GE.GEN.011 OLDI messages The GE interface should comply with EUROCONTROL-SPEC-106, Edition 5.1, EUROCONTROL Specification for On-Line Data Interchange (OLDI) - Basic Procedure messages Chapter 6 - Ground-Ground Situational Awareness messages Chapter 7 - Civil- Military Co-ordination and Airspace Crossing messages Chapter 8 - Dialogue Procedure and Transfer of Communication messages Chapter 9 - Support to Air/Ground Data-Link messages Chapter 10 - Basic Procedure - Complementary Messages Chapter 11 ... AMC3 GE.GEN.011 ATS Data EXchange Presentation (ADEXP) The GE interface should comply with EUROCONTROL-SPEC-107, Edition 3.4, EUROCONTROL Specification for ATS Data EXchange Presentation (ADEXP)</p>
response	<p><i>Not accepted</i></p> <p>The standards are mentioned either as AMC or as GM in the applicable parts of the DS subject to their intended function.</p>

DS GE.GEN.010 Verification method	p. 77
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comment	<p>253 comment by: <i>Nils</i></p> <p>Considering that equipment are to be certified, the compliance to the detailed specifications is one of the most important things, but here there are no detailed requirements at all describing how verification should be performed, or who should do it. This should be added.</p>
response	<p><i>Not accepted</i></p> <p>The requirements specified in DS GE.GEN.010 and associated GM have been deleted from the DS and are referred to in the AMC & GM to Annex II (Part-ATM/ANS.EQMT.CERT) to Commission Delegated Regulation (EU) 2023/1768.</p>
comment	<p>753 comment by: <i>Thales Land and Air Systems</i></p>



	"Each condition" is to be clarified in the context of this DS.
response	<p><i>Noted</i></p> <p>The requirements specified in DS GE.GEN.010 and associated GM have been deleted from the DS and are referred to in the AMC & GM to Annex II (Part-ATM/ANS.EQMT.CERT) to Commission Delegated Regulation (EU) 2023/1768.</p>

PART 2 - ATM/ANS equipment subject to certification

p. 78

comment	<p>370 comment by: FOCA Switzerland</p> <p>We suggest to replace the current proposal with the following one:</p> <p>"These detailed specifications prescribe the standards for the certification and approval of designs, or of changes to the design, of ATM/ANS equipment supporting the following services:</p> <p>(a) <u>air traffic control (ATC) services when enabling the separation of aircraft or the prevention of collisions;</u></p> <p>(b) <u>air-ground controller – pilot communications."</u></p> <p>Indeed, the exact scope as defined by the regulation should be used :</p> <p>(a) equipment supporting controller – pilot communications;</p> <p>(b) equipment supporting air traffic control (ATC) services when enabling the separation of aircraft or the prevention of collisions.</p>
response	<p><i>Accepted</i></p> <p>‘These detailed specifications prescribe the standards for the certification and approval of designs, or of changes to the design, of ATM/ANS equipment supporting the following services:</p> <p>(a) <u>air traffic control (ATC) services when enabling the separation of aircraft or the prevention of collisions;</u></p> <p>(b) <u>air-ground controller – pilot communications.’</u></p>
comment	<p>371 comment by: FOCA Switzerland</p> <p>Could you explain why we read "certification and approval" and not only "certification". Is there a difference? Note that the same wording is used several times in this document.</p>
response	<p><i>Accepted</i></p> <p>The term ‘certification and approval’ has been replaced by ‘certification’.</p>
comment	<p>572 comment by: DCAC NSA Officer</p>



	We suggest that a GM is added in order to state clearly what should be done in case no detailed specifications are drafted for a certain equipment that is subject to certification or declaration	
response	<i>Not accepted</i>	
	The DS will be further updated to include the additional equipment subject to certification or declaration. For other cases, the requirements specified in Regulation (EU) 2023/1768 apply.	
comment	1069	comment by: AESA
	If part 2 only applies to certifiable equipment, is the scope of the requirement right?	
response	<i>Noted</i>	
	EASA considers that the elements currently published are correct for the scope of ATM/ANS equipment within the subparts.	
comment	1071	comment by: AESA
	There is no section that applies to systems used in the Remote Towers operation. These systems are used to separate aircrafts as per Article 4 of the Regulation.	
response	<i>Noted</i>	
	The initial scope is described in the NPA 2023-05. Additional equipment will be added in subsequent revisions in accordance with the EPAS.	

DS GE.CER.ATS.101 Applicability

p. 79

comment	124	comment by: skyguide Compliance Management
	Same comment as in "EXECUTIVE SUMMARY" section. Why assuming that there is a pre-defined set of ATM equipment, whose functionality cannot be altered? The consequence of this assumption is that the current wording would prohibit any integration or service decomposition of these "equipment", since their functionality is attributed to the whole, including HMI components. We would rather recommend focusing on defining functionality & interfaces, avoiding any coupling to components or "equipment".	
response	<i>Noted</i>	
	Part-ATS Subpart A applies to all equipment supporting ATS services. Thus, all equipment defined in the subsequent sections may be considered individually and not as single piece of equipment. Furthermore, the individual equipment specified in the subsequent sections primarily addresses functionalities and interfaces.	
comment	372	comment by: FOCA Switzerland



	<p>We suggest to replace the current proposal with the following one;</p> <p>"This Section provides the standards <u>defines the requirements</u> applicable to the certification and approval of design, or of changes to the design, of ATM/ANS equipment, supporting air traffic services in relation to: [...]"</p>
response	<p><i>Partially accepted</i></p>
	<p>This Section <u>defines the standards</u>. The term ‘requirements’ is reserved for IA and DA.</p>
comment	<p>639 comment by: EUROCONTROL</p> <p>Article 4 has evolved significantly since the development of the detailed specifications by the RMT 161 task 3 contributors. If initially all ATS equipment were to be considered, this is no longer the case. The new scope is limited to ATS equipment supporting ATC services when enabling the separation of aircraft or the prevention of collisions. With this definition, some functions of the FDP should be moved to the SoC category as it does not directly contribute to the separation of aircraft or the prevention of collision, this in particular the case for the initial flight plan which is used for preplanning only at least 120 h in advance to the flight. Similarly for XMAN that are not directly contributing to it, but supports the controller.</p> <p><u>Proposed change:</u> For ATS equipment, amend as necessary to limit the certification specifications to functionalities that fall under the more restrictive scope of ATS equipment than the one considered by RMT 161 Task 3 members.</p>
response	<p><i>Accepted</i></p>
	<p>Initial flight planning, E-AMAN and DMAN have been moved to the SoC category.</p>
comment	<p>803 comment by: ENAIRE</p> <p>The list of equipment does not include safety nets or pilot-controller “part” / processor. Should they be included? Please clarify</p>
response	<p><i>Noted</i></p>
	<p>The initial scope is described in NPA 2023-05. Additional equipment will be added in the subsequent revisions in accordance with the EPAS.</p>
comment	<p>804 comment by: ENAIRE</p> <p>According with article 4 “ Certification of ATM/ANS equipment” (a) equipment supporting controller – pilot communications; This equipment is missing. It is proposed to add "(x) Voice Communication System".</p>

response	<p><i>Not accepted</i></p> <p>'Voice Communication Equipment' is addressed in Subpart B controller – pilot communications.</p>
comment	<p>806 comment by: ENAIRE</p> <p>According with article 4 “ Certification of ATM/ANS equipment” (b) equipment supporting air traffic control (ATC) services when enabling the separation of aircraft or the prevention of collisions. Equipment supporting for prevention of collisions is not clearly identified.</p> <p>It is proposed to add "(x) STCA, MTCM, ...".</p>
response	<p><i>Not accepted</i></p> <p>The initial scope is described in NPA 2023-05. Additional equipment will be added in the subsequent revisions in accordance with the EPAS.</p>
comment	<p>807 comment by: ENAIRE</p> <p>What about HMI?</p> <p>It is proposed to add "(x) CWP".</p>
response	<p><i>Not accepted</i></p> <p>The initial scope is described in NPA 2023-05. Additional equipment will be added in the subsequent revisions in accordance with the EPAS.</p>
comment	<p>811 comment by: ENAIRE</p> <p>EAMAN and DMAN equipment are planning tools that enable more efficient operations from the capacity and environment point of views, but do not contribute to the separation of aircraft nor the prevention of collisions. According to that, they are not under Article 4 prescriptions, and the attestation method should be the SoC.</p>
response	<p><i>Accepted</i></p> <p>EAMAN and DMAN have been moved to SoC.</p>
comment	<p>1070 comment by: AESA</p> <p>If part 2 only applies to certifiable equipment, is the scope of the requirement right?</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 1069.</p>

DS GE.CER.ATS.110 ATS recording

p. 79

comment	125	comment by: <i>skyguide Compliance Management</i>
	Recording (and in particular replay) should not necessary be in the same "equipment". We would rather recommend focusing on defining functionality & interfaces.	
response	<i>Noted</i>	
	The term 'equipment' refers to system and constituents. Thus, recording capability could be a subpart of the system.	
comment	809	comment by: <i>ENAIRE</i>
	Recording is not provided directly for this equipment and replay is done by off-line systems. Should the recording and replay system be a Certified equipment?	
response	<i>Noted</i>	
	See the response to comment # 125. Recording and replay are considered to be part of an overall system.	
comment	1099	comment by: <i>DSNA</i>
	"ATM/ANS equipment specified in this Subpart is to provide recording and replay capability of technical and operational data, and system status" Word missing. We suggest changing the wording to "is able to provide"	
response	<i>Not accepted</i>	
	Recording and replay are considered to be part of an overall system.	
comment	1105	comment by: <i>Alex Milns/EUROCAE</i>
	ATM/ANS equipment specified in this Subpart is to provide recording and replay capability of technical and operational data, and system status. Recording systems should comply with ED-111 'FUNCTIONAL SPECIFICATIONS FOR CNS/ATM GROUND RECORDING'	
response	<i>Partially accepted</i>	
	Reference to ED-111 has been added as GM.	
comment	1134	comment by: <i>Roy Posern, Fraport AG / ACI Europe</i>
	This is a very vague requirement and needs to be specified further. Is just the capability for recording and playback needed or are there any corresponding	

	requirements such as "recording storage duration" and details, if an input/output recording is required or also a level of on-screen recording?
response	<i>Noted</i> Reference to ED-111 has been added as GM.

Subpart A - Air traffic services	p. 79
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comment	1102 Should Remote Tower services be identified here?	comment by: Alex Milns/EUROCAE
response	<i>Not accepted</i> See the response to comment # 1071.	

Section 2 - Flight data processing	p. 80
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comment	96 Could you please specify the requirements for Airline Operators and Computer Flight Planning Service Providers in this process? Is the Operational Flight Plan until submission to the Eurocontrol Network Manager defined as a content to be regulated under this new regulatory framework?	comment by: Deutsche Lufthansa AG
response	<i>Noted</i> The requirement is on FDP equipment. Airline Operators and Computer Flight Planning are not considered as FDPS equipment. However, the requirements regarding Initial flight planning have been moved to the SoC category (see comment # 639).	

comment	373 As regards DS GE.CER.FDP.201 Applicability, we suggest to replace the current proposal with the following one: "This Section provides the functional and performance, <u>interface and integrity requirements standards</u> applicable to flight data processing equipment." Indeed, DS are defining requirements and may reference standards for this purpose. Moreover the scope should include all the types of requirements provided in the section. It has to be noted that not all the sections include Integrity and the logic of the different part of each section should be aligned.	comment by: FOCA Switzerland
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response *Not accepted*

The terms 'functional' and 'performance' are high-level terms that include items such as interfaces and integrity.

Regarding the alignment of all sections with the inclusion of integrity, this will be addressed in future updates of the DS in accordance with the EPAS.

comment **374** comment by: *FOCA Switzerland*

As regards DS GE.CER.FDP.201, is there a reason why the title is "Applicability" and not "scope" like it is for the other sections?

response *Accepted*

'Applicability' has been replaced by 'scope'. Other parts of the document have been consistently changed as well.

comment **375** comment by: *FOCA Switzerland*

As regards DS GE.CER.FDP.201 Applicability, in our opinion, this DS requirement (whether it is called applicability or scope) should define the scope of the equipment covered by this section and not the scope of the section. Maybe the scope of the section should be at the start without being a DS.

Note - The same comment is applicable to the majority of the sections.

response *Not accepted*

Wording and numbering are standard practices in EASA specifications.

comment **407** comment by: *FOCA Switzerland*

In this section, it seems that the scope of the equipment is defined in the Function part whereas in other section it is defined in the applicability or scope part. The logic should be aligned.

response *Not accepted*

In all sections the 'function' part supports the applicability or scope part.

AMC1 GE.CER.FDP.210 Flight data processing equipment

p. 80

comment **126** comment by: *skyguide Compliance Management*

Many of the interfaces around ATFM & FDP are specified according to the "old" standards, such as OLDI & ADEXP, and make no mention (or only on the technical level) of SWIM, FIXM or FF-ICE, meaning that these elements will have to be backward-compatible, but not using the new technologies & interfaces defined in CP1.

response	<p><i>Noted</i></p> <p>EASA has not been made aware of standard technical specifications supporting SWIM interfaces, FIXM or FF-ICE available. OLDI and ADEXP are still applied today. SWIM, FIXM or FF-ICE should be further addressed in future updates of the DS when the new standards are available.</p>
comment	<p>443 comment by: <i>SDM</i></p> <p>Original text: For the initial flight planning, systems should comply with EUROCONTROL-SPEC-0107 Specification for ATS Data Exchange Presentation (ADEXP), Edition 3.4, Chapter E.2 Flight Plan Messages.</p> <p>SDM comment: This is not in line with the SESAR Deployment Programme 2022 (SDP 2022) where eFPL is mandated by 31 December 2025. The CP1 requirements should be reflected accordingly.</p> <p>SDM proposed new text: <i>For the initial flight planning, systems should comply with EUROCONTROL-SPEC-0107 Specification for ATS Data Exchange Presentation (ADEXP), Edition 3.4, Chapter E.2 Flight Plan Messages until 2025 where eFPL should be the primary means of Flight Plan data, after then the FDP must be able to handle both ADEXP and FIXM Format as presented in eFPL.</i></p>
response	<p><i>Not accepted</i></p> <p>Applicability dates with respect to mandated upgrades are not included in the DS. Furthermore, EASA has not been made aware of standard technical specifications supporting eFPL. eFPL will be further addressed in future updates of the DS when the new standards are available. Note that the requirements specific to Initial flight planning have been moved to the SoC category (see comment # 639).</p>
comment	<p>781 comment by: <i>Thales Land and Air Systems</i></p> <p>In (a), Annex E defined in ADEXP spec (Foreword, para 6) as 'Informative', rather than 'Normative', so unclear what the purpose of referring to Annex E is.</p>
response	<p><i>Noted</i></p> <p>It is considered that EUROCONTROL-SPEC-0107 ADEXP, Ed 3.4, Chap E.2 provides the means of compliance for the Flight Plan Messages to be exchanged and therefore, referenced in an AMC to DS GE.CER.FDP.210(a) even if Annex E defined in ADEXP spec is 'Informative'. The Section 2 — Flight data processing has to be considered in the context of the intended purpose. Only the messages supporting the objective of DS GE.CER.FDP.210 should be considered.</p>
comment	<p>783 comment by: <i>Thales Land and Air Systems</i></p> <p>In (a), Messages listed in referred chapter of ADEXP specification, but not defined in either reference document: RCHG, RCNL</p>
response	<p><i>Noted</i></p>

EUROCONTROL-SPEC-0107 ADEXP, Ed 3.4, ANNEX B states that RCHG means Repetitive Flight Plan Data Modification Message and RCNL means Repetitive Flight Plan Data Cancellation Message. Annex E.2.2 mentions that messages and the sources for the definitions (ACK, IARR, ICHG, ICNL, IDEP, IDLA, IFPL, IRPL, IRQP, MAN, RCHG, RCNL, REJ) are in 'ICAO Document 4444', which indeed defines the repetitive flight planning and IFPS Users Manual, Edition 27, which does not mention any repetitive flight planning.

Section 2 — Flight data processing has to be considered in the context of the intended purpose. Only the messages supporting the objective of DS GE.CER.FDP.210 should be considered. Note that the requirements specific to Initial flight planning has been moved to the SoC category (see comment # 639).

comment 784 comment by: *Thales Land and Air Systems*

In (b) (2), unclear what is the purpose of referring to Annex B, as it refers to many messages that are out of the scope of notification, coordination and transfer

response *Noted*

Annex B provides an index of all ADEXP messages. Section 2 — Flight data processing has to be considered in the context of the intended purpose. Only the messages supporting the objective of DS GE.CER.FDP.210 should be considered.

comment 785 comment by: *Thales Land and Air Systems*

In (b) (2), Annex E defined in ADEXP spec (Foreword, para 6) as 'Informative', rather than 'Normative', so unclear what the purpose of referring to Annex E is

response *Noted*

See the response to comment # 781.

comment 787 comment by: *Thales Land and Air Systems*

In (b) (2), Section E.4.2 lists all OLDI messages in referred standard, and in addition LRM & RCL. Unclear what these messages are

response *Noted*

EUROCONTROL-SPEC-0107 ADEXP, Ed 3.4, ANNEX B states that LRM means Logical Rejection Message and RCL means Request Oceanic Clearance Message. Annex E.2.4 mentions that messages and the sources for the definitions for ATC Co-ordination Messages are in EUROCONTROL Specification for On-Line Data Interchange, Edition 5.1, dated 24 May 2023;, which does not mention any LRM and RCL. Section 2 — Flight data processing has to be considered in the context of the intended purpose. Only the messages supporting the objective of DS GE.CER.FDP.210 should be considered.

comment 812 comment by: *ENAIRE*

	Would it be necessary to re-certificate the equipment if a new version of the specification is set and the equipment comply with it without any change?
response	<i>Noted</i> The equipment needs to comply with the DS at the time of application.
comment	830 comment by: IATA The NPA should be more explicit with regard to the FF-ICE R1 requirements mandated in CP1, as well as the general requirements included in the ICAO State Letter 2022/108 amending several Annexes and PANS-ATM (FF-ICE) services and envisaged for applicability on 28 November 2024. See more comments for further details
response	<i>Not accepted</i> EASA has not been made aware of standard technical specifications supporting FF-ICE available. FF-ICE will be further addressed in future updates of the DS when the new standards are available.
comment	836 comment by: IATA As referenced in the beginning of the current NPA, the ATM/ANS equipment proposed for inclusion within the scope of this first set of DS-GE need to consider the CP1 requirements. However, there is not any mention to the requirements introduced by CP1 in terms of FF-ICE and the obligations that this regulation brings on ANSPs to modify the FDP to make them able to process eFPL. As stated in the supporting material to the SDP, "ANSPs need to update FDPs to process eFPLs to materialise all the operational benefits". Additionally, the NPA should also consider including FIXM as the future flight plan information standard, as mandated in CP1, to be adopted by 2025
response	<i>Not accepted</i> EASA has not been made aware of standard technical specifications supporting eFPL or FF-ICE available. OLDI and ADEXP are still applied today. eFPL or FF-ICE will be further addressed in future updates of the DS when the new standards are available.
comment	1113 comment by: Alex Milns/EUROCAE (b) For the notification, coordination, and transfer of flights between air traffic control units, systems should comply with following specifications: (1) EUROCONTROL SPEC-106 Specification for On-Line Data Interchange (OLDI), Edition 5.1, Chapter 4, Chapter 6, and Chapter 10; (2) EUROCONTROL SPEC-107 Specification for ATS Data Exchange Presentation (ADEXP), Edition 3.4, Sections 1.4.3, 1.4.4, 3, 4, 5, 6, Annex B, and Section E.4.
response	<i>Accepted</i>

EUROCONTROL SPEC-0107 has been replaced by EUROCONTROL SPEC-107.

DS GE.CER.FDP.201 Applicability

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comment 127 comment by: *skyguide Compliance Management*

Comment for AMC1 GE.CER.FDP.220 FDP equipment performance:
Many of the interfaces around ATFM & FDP are specified according to the "old" standards, such as OLDI & ADEXP, and make no mention (or only on the technical level) of SWIM, FIXM or FF-ICE, meaning that these elements will have to be backward-compatible, but not using the new technologies & interfaces defined in CP1.

response *Not accepted*

See the response to comment # 126.

DS GE.CER.FDP.210 Flight data processing equipment

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comment 254 comment by: *Nils*

This comment is also related to AMC1 GE.CER.FDP.210.
It is supported that FDPS and its constituent functionalities such as Coordination and Transfer should be subject to certification. On this topic LFV would like to highlight the substantial value of COOPANS work on OLDI, going above and beyond both the existing OLDI specification and the guidance material available, and which was instrumental in allowing COOPANS to implement permanent and persistent Free routes airspaces across multiple national borders well in advance of the rest of EU (Borealis FRA initial ops 2013). In the recent years, the efforts resulted in what could be described as an early version of Trajectory based operations where route/profile/trajectory elements are shared and processed for coordination and revisions thereof, between neighbouring ATS units in a similar way as what is envisaged in FF-ICE R2/R3. The ongoing introduction of 'Full OLDI' will also allow for CDM-like negotiations on routes and profiles – rollouts achieved or planned - Spring 2023 between Austria and Croatia, fall of 2023 for Sweden internally, winter 2023 between Sweden and Denmark. 'Full OLDI' is the next logical step in inter-ACC automation and interoperability. It reduces verbal coordination between ATCOs, and makes it easier for flights to get their preferred routes/levels. In the context of the SDM-led ATC TBO IOP activity, COOPANS, jointly with MUAC, recently took an action to formalize the principles and usage of route sharing in OLDI, in a short specification document, this with a broad support of all ANSPs present and NM. LFV/COOPANS stands ready to support EASA in the future refinement of the detailed specification FDPS, with the view to contribute to this important work and help form the specification to be forward-looking namely in conjunction with the anticipated rollout of TBO, noting that the specifications listed in AMC1 would not be sufficient to achieve this objective.



response	<p><i>Noted</i></p> <p>See the response to comment # 830.</p>
comment	<p>646 comment by: EUROCONTROL</p> <p>Many ATS functions are not listed in the NPA. E.g. 'FDP' is restricted to only a few services. But the delegated regulation speaks in much broader terms. E.g. what is required for safety nets, for the correlation logic in the FDP, etc. ?</p> <p>The physical implementation of "DS GE.CER.FDP.210 Flight data processing equipment" may not necessarily be part of the FDP, it depends on the local architecture of the ANSP. For instance item (b) is stipulated between ATC units not between FDP's. Therefore capability (b) may be implemented in a GE that is not part of the FDP and that is manufactured by a different DPO than the one manufacturing the FDP.</p> <p>FDP's have interfaces with aerodromes which are not standardised because they depend on the local aerodrome infrastructure. How is it planned to certify such FDP capabilities?</p> <p><u>Proposed change:</u> EASA should revisit the FDP detailed spec to reflect better the functionalities that would be subject to certification and those that would fall under SoC. Moreover, EASA should take into account the aerodrome's local interfaces and the fact that flight data processing is not always embedded in the FDP.</p>
response	<p><i>Noted</i></p> <p>The initial scope is described in NPA 2023-05. Additional equipment will be added in the subsequent revisions in accordance with EPAS.</p> <p>DS GE.CER.FDP.210 provides the objectives of FDP equipment for ATS centres that have been identified by RMT.0161.</p>

GM1 GE.CER.FDP.210 Flight data processing equipment	p. 80
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comment	<p>999 comment by: LEONARDO</p> <p>The correct ref is EUROCONTROL-SPEC-0101 EUROCONTROL Specification for the Initial Flight Plan Edition 2.0</p>
response	<p><i>Accepted</i></p> <p>'EUROCONTROL-GUID-0101 EUROCONTROL Specification for the Initial Flight Plan Edition 2.0' replaced by 'EUROCONTROL-SPEC-0101 EUROCONTROL Specification for the Initial Flight Plan Edition 2.0' and moved to AMC1 GE.CER.FDP.210(c).</p> <p>Note: Initial flight planning has been moved to the SoC category (see comment # 639).</p>

GM1 GE.CER.FDP.230 FDP equipment interfaces

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comment	<p>128 comment by: <i>skyguide Compliance Management</i></p> <p>"Extended Arrival Management" shall not be perceived as an equipment but as an ATM functionality according to Implementing Regulation (EU) 2021/116 (CP1). The regulation distinguishes between the ATM functionality and the means to operate it (see Art. 2). Therefore, "Extended Arrival Management" shall not be subject to certification as expressed in this NPA 2023-05, but what could be subject to certification are the equipment that constitute the means to support this ATM functionality (e.g., AMAN, equipment supporting OLDI communication, equipment implementing SWIM compliant Arrival Sequence Service).</p> <p>Request to EASA:</p> <ul style="list-style-type: none"> All "Section 3 – Extended arrival management (including interface)" should be re-placed by new sections addressing the corresponding equipment.
response	<p><i>Not accepted</i></p> <p>In line with the scope defined in DS GE.CER.AMAN.301, the AMAN equipment (system and constituents) needs to be compliant with the functionalities defined in DS GE.CER.AMAN.310. Note: E-AMAN and DMAN have been moved to the SoC category (see comment # 639).</p>
comment	<p>129 comment by: <i>skyguide Compliance Management</i></p> <p>Comment from another unit of the company (it's not a duplicate, even if it looks so): Extended Arrival Management is NOT an equipment but, according to the CP1 regulation, an ATM function, i.e. a group of AM interoperable operational functions or services related to trajectory, airspace and surface management or to information sharing within the en-route, terminal, airport or network operating environments. The CP1 regulation clearly makes a distinction between an ATM function and the means to operate an ATM functionality (see CP1 Article 2). Therefore, extended AMAN should not be subject to certification. What can be subject to certification are the equipment that constitute the means to support this ATM function (AMAN, equipment ensuring OLDI communication, equipment implementing SWIM compliant Arrival Sequence Service). This section should be removed and replaced by sections addressing the corresponding equipment. The remark applies to all the points of the section and is particularly relevant when coming to interfaces.</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 128.</p> <p>Note: E-AMAN and DMAN have been moved to the SoC category (see comment # 639).</p>

AMC1 GE.CER.FDP.230 FDP equipment interfaces

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comment	<p>444 comment by: SDM</p> <p>Original text: For the initial flight planning, FDP equipment should comply with:(1) Part 3, Subpart A, Section 2 ‘AMHS’ of this DS; or (2) Part 3, Subpart A, Section 3 ‘SWIM technical infrastructure’ of this DS.</p> <p>SDM comment: Not aligned with CP1/ SDP 2022. For flight plan filing, SWIM is mandatory from 31 December 2025. The NPA should be updated accordingly to reflect the regulatory requirements.</p> <p>SDM proposed text: <i>For the initial flight planning, FDP equipment should comply with:(1) Part 3, Subpart A, Section 2 ‘AMHS’ of this DS until 31/12-2025; or and (2) Part 3, Subpart A, Section 3 ‘SWIM Yellow Profile technical infrastructure’ of this DS by 31/12-25.</i></p>
response	<p><i>Not accepted</i></p> <p>AMC1 GE.CER.FDP.230 states ‘AMHS or SWIM’. Applicability dates with respect to mandated upgrades are not included in the DS.</p>

comment	<p>648 comment by: EUROCONTROL</p> <p>In line with the comment that SWIM shall not be described as ATM/ANS equipment but exclusively be specified at the level of interface specifications, the link to Part 3, Subpart A, Section 3 ‘SWIM technical infrastructure’ of the DS shall be replaced by explicit AMC for the SWIM interface (references to existing specifications).</p> <p><u>Proposed change:</u></p> <p>(a) For the initial flight planning, FDP equipment should comply with:</p> <p>(1) Part 3, Subpart A, Section 2 ‘AMHS’ of this DS; or</p> <p>(2) When SWIM interfaces are implemented:</p> <p>a. EUROCONTROL-SPEC-169 Specification for SWIM Information Definition (Edition 1.0, December 2017)</p> <p>b. EUROCONTROL-SPEC-168 Specification for SWIM Service Description (SD) (Edition 2.0, March 2022)</p> <p>c. EUROCONTROL-SPEC-170 Specification for SWIM Technical Infrastructure (TI) Yellow Profile (Edition 1.1, July 2020)</p> <p>Note: (a)(1) is not a valid exchange option for initial flight planning as of 1-1-2026</p>
response	<p><i>Not accepted</i></p> <p>SWIM will be further addressed in future updates of the DS when SWIM interfaces are required and when the associated standards are available.</p>

comment	<p>453 comment by: SDM</p>
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SDM comment: In line with the comment that SWIM shall not be described as ATM/ANS equipment but exclusively be specified at the level of interface specifications, the link to Part 3, Subpart A, Section 3 'SWIM technical infrastructure' of the DS shall be replaced by explicit AMC for the SWIM interface (references to existing specifications).

SDM proposed text: *Part (a) of AMC1 GE.CER.FDP.230 to be adapted:*

(a) For the initial flight planning, FDP equipment should comply with:

(1) Part 3, Subpart A, Section 2 'AMHS' of this DS; or

(2) When SWIM interfaces are implemented:

a. EUROCONTROL-SPEC-169 Specification for SWIM Information Definition (Edition 1.0, December 2017)

b. EUROCONTROL-SPEC-168 Specification for SWIM Service Description (SD) (Edition 2.0, March 2022)

c. EUROCONTROL-SPEC-170 Specification for SWIM Technical Infrastructure (TI) Yellow Profile (Edition 1.1, July 2020)

Note: (a)(1) is not a valid exchange option for initial flight planning as of 1-1-2026

response *Not accepted*

See the response to comment # 648.

comment 454

comment by: SDM

SDM comment: From the specification it is not clearly identified when AMHS and/or SWIM shall be used for initial flight planning. It could be interpreted that all information exchanges related to the service shall be capable of exchanging information through AMHS and SWIM interfaces or these are options to choose from. Regulation (EU) 2021/116, and to some extent Regulation (EU) 2017/373, is however very clear in describing the type of interface that shall be used for what and by when. In the specific case of initial flight planning, from 2026 all initial flight planning shall be exclusively done 'over SWIM; AMHS is not a possibility anymore.

SDM propose to introduce a reference to Regulation (EU) 2021/116 and Regulation (EU) 2017/373, providing a reference for the type of interface that shall be used by whom and by/from when.

response *Not accepted*

Reference to regulations is not included in the DS; the DS define the technical specification for ATM/ANS equipment. Any dates with respect to mandated upgrades will be addressed in the applicable implementing regulations. See the response to comment # 444.

comment 647

comment by: EUROCONTROL

From the specification it is not clearly identified when AMHS and/or SWIM shall be used for initial flight planning. It could be interpreted that all information exchanges related to the service shall be capable of exchanging information through AMHS and

	<p>SWIM interfaces or these are options to choose from. Regulation (EU) 2021/116, and to some extent Regulation (EU) 2017/373, is however clear in describing the type of interface that shall be used for what and by when. In the specific case of initial flight planning, from 2026 all initial flight planning shall be exclusively done 'over SWIM; AMHS is not a possibility anymore.</p> <p><u>Proposed change:</u> Introduce a reference to Regulation (EU) 2021/116 and Regulation (EU) 2017/373, providing a reference for the type of interface that shall be used by whom and by/from when.</p>
response	<p><i>Not accepted</i></p> <p>Reference to regulations is not included in the DS; the DS define the technical specification for ATM/ANS equipment. Any dates with respect to mandated upgrades will be addressed in the applicable implementing regulations. See the response to comment # 444.</p>

Section 3 - Extended arrival management

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comment	<p>84 comment by: <i>DSNA</i></p> <p>EAMAN and DMAN are sequencing tools. They contribute to cooperative processes to optimize capacity in the planning phase (H-2 hours - H) and thus complement ATFM measures. They do not enable appropriate separation. For this reason, their level of criticality does not justify subjecting them to the certification requirements of art. 4 neither to declaration requirements of art. 5. They should be handled as ATFM tools</p> <p>Proposal : EAMAN DMAN are attributed to SoC specifications. (art. 6)</p>
response	<p><i>Accepted</i></p> <p>E-AMAN and DMAN have been moved to the SoC category.</p>
comment	<p>178 comment by: <i>CANSO</i></p> <p>EAMAN and DMAN are sequencing tools. They contribute to cooperative processes to optimize capacity in the planning phase (H-2 hours - H) and thus complement ATFM measures. They do not enable appropriate separation. For this reason, their level of criticality does not justify subjecting them to the certification requirements of art. 4, nor to declaration requirements of art. 5. They should be handled as ATFM tools.</p> <p>Proposal: EAMAN DMAN are attributed to SoC specifications. (art. 6)</p>
response	<p><i>Accepted</i></p>



See the response to comment # 84.

comment	430	comment by: FOCA Switzerland
	All requirements are labeled AMAN instead of E-AMAN. Does this mean that pure AMAN systems are not planned to be included in the list of equipment subject to certification later on?	
response	<i>Noted</i>	
	The initial scope is described in the NPA 2023-05. As required, additional equipment (including pure AMAN equipment) will be added in the subsequent revisions in accordance with EPAS.	

AMC1 GE.CER.AMAN.310 Extended arrival management equipment

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comment	130	comment by: skyguide Compliance Management
	Many of the interfaces around ATFM & FDP are specified according to the "old" standards, such as OLDI & ADEXP, and make no mention (or only on the technical level) of SWIM, FIXM or FF-ICE, meaning that these elements will have to be backward-compatible, but not using the new technologies & interfaces defined in CP1.	
response	<i>Not accepted</i>	
	See the response to comment # 126.	

comment	791	comment by: Thales Land and Air Systems
	To comply to DS GE.CER.AMAN.310, ED-254 reference is missing	
response	<i>Accepted</i>	
	AMC1 GE.CER.AMAN.310 has been changed to: 'Extended AMAN equipment should comply with the following specifications: (a) EUROCONTROL SPEC-106 Specification for On-Line Data Interchange (OLDI), Edition 5.1, Section 11.6; <u>or</u> (b) EUROCONTROL SPEC-0107 Specification for ATS Data Exchange Presentation (ADEXP) Edition 3.4, Section E.4.2; <u>or</u> (c) EUROCAE ED-254 – Arrival Sequence Service Performance Standard.'	

comment	793	comment by: Thales Land and Air Systems
	Referencing OLDI and ADEXP induces that the EAMAN equipment will have to do it, nevertheless in most of the current implementations, it is done by the FDP of the ATC	

	system, does it mean the EAMAN encompass a part of FDP for such implementation ? Would it be more adequate to transfer this DS/AMC to the FDP DS ?
response	<p><i>Noted</i></p> <p>Although AMAN equipment has a separate certification section, this does not prevent it from being integrated with the FDP. The DS is architecturally agnostic.</p> <p>Note: E-AMAN and DMAN have been moved to the SoC category.</p>
comment	<p>794 comment by: <i>Thales Land and Air Systems</i></p> <p>EAMAN can be done via SWIM or OLDI/ADEXP, so AMC should leave the option to the ground manufacturers to select the applicable standard based on its implementation choice.</p>
response	<p><i>Accepted</i></p> <p>AMC1 GE.CER.AMAN.310 has been changed to:</p> <p>‘Extended AMAN equipment should comply with the following specifications:</p> <p>(a) EUROCONTROL SPEC-106 Specification for On-Line Data Interchange (OLDI), Edition 5.1, Section 11.6; <u>or</u></p> <p>(b) EUROCONTROL SPEC-0107 Specification for ATS Data Exchange Presentation (ADEXP) Edition 3.4, Section E.4.2; <u>or</u></p> <p>(c) EUROCAE ED-254 – Arrival Sequence Service Performance Standard.’</p>
comment	<p>796 comment by: <i>Thales Land and Air Systems</i></p> <p>ADEXP should be limited to AMA message, Limitation induced by the OLDI document only referencing the Section 11.6 (AMA message).</p>
response	<p><i>Not accepted</i></p> <p>The message sets to be used will be limited by the intended exchange interface.</p>
comment	<p>813 comment by: <i>ENAIRE</i></p> <p>The implementation of EAMAN based on OLDI/ADEXP is not mandatory according to CP1.</p>
response	<p><i>Noted</i></p> <p>Thank you for your comment. The intent of the DS, where appropriate, is to permit all technical possibilities to be implemented, it will be the DPO decision which to support.</p>

comment	<p>131 comment by: <i>skyguide Compliance Management</i></p> <p>Comment here is related to AMC1 GE.CER.AMAN.320 Extended AMAN equipment performance:</p> <p>Many of the interfaces around ATFM & FDP are specified according to the "old" standards, such as OLDI & ADEXP, and make no mention (or only on the technical level) of SWIM, FIXM or FF-ICE, meaning that these elements will have to be backward-compatible, but not using the new technologies & interfaces defined in CP1.</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 126.</p>
comment	<p>799 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to AMC1 GE.CER.AMAN.320</p> <p>Could you elaborate (b) in the scope of EAMAN, what will be the trigger for such additional conditions ?</p>
response	<p><i>Noted</i></p> <p>According to AMC1 GE.CER.AMAN.320(b), additional performance conditions may apply because AMC1 GE.CER.AMAN.320(a) may not be sufficient according to the intended purpose. Please note that AMC1 GE.CER.AMAN.320(b) has been changed to '(b) Additional performance conditions applicable to the intended purpose of AMAN equipment may be defined as required. Such potential additional performance conditions may be derived from activities related to DS GE.GEN.002, DS GE.GEN.003, and DS GE.GEN.004, and DS GE.GEN.007'.</p> <p>Note: E-AMAN and DMAN have been moved to the SoC category and therefore such an assessment will not be required.</p>
comment	<p>805 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to AMC1 GE.CER.AMAN.320</p> <p>As DS GE.GEN.003 and DS GE.GEN.004 purpose is to achieve the safety requirements allocated on HW and SW from the Safety assessment required by DS GE.GEN.007, replace "DS GE.GEN.002, DS GE.GEN.003 and DS GE.GEN.004" with "DS GE.GEN.002 and DS GE.GEN.007"</p>
response	<p><i>Not accepted</i></p> <p>E-AMAN and DMAN have been moved to the SoC category.</p>
comment	<p>808 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to AMC1 GE CER.AMAN.320</p> <p>OLDI and ED-254 should be exclusive</p>

	Maybe both can be required in a given context assuming that different subscribers (one ATSU versus another) don't have the same capabilities but in nominal cases it should be OR/AND. As an exclusivity of one of them can be enough for a given operational context.
response	<p><i>Accepted</i></p> <p>E-AMAN and DMAN have been moved to the SoC category and OLD/ED-254 exclusivity has been introduced in the SoC.</p>

FUNCTION

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comment	<p>445 comment by: <i>SDM</i></p> <p>Original text: Extended AMAN equipment should comply with the following specifications: (a) EUROCONTROL SPEC-106 Specification for On-Line Data Interchange (OLDI), Edition 5.1, Section 11.6 (b) EUROCONTROL SPEC-0107 Specification for ATS Data Exchange Presentation (ADEXP) Edition 3.4, Section E.4.2.</p> <p>SDM comment: <i>This is not in line with the CP1 mandate that states that from 31 December 2025, Extended AMAN data exchanges shall use SWIM. The only applicable standard for the timebeing is ED254.</i></p> <p>SDM proposed text: <i>Extended AMAN equipment should comply with the following specifications until 2025: (a) EUROCONTROL SPEC-106 Specification for On-Line Data Interchange (OLDI), Edition 5.1, Section 11.6 (b) EUROCONTROL SPEC-0107 Specification for ATS Data Exchange Presentation (ADEXP) Edition 3.4, Section E.4.2. Hereinafter Extended AMAN equipment must be compliant with exchanges of Extended AMAN data using the SWIM yellow profile available specification is Eurocae ED254.</i></p>
response	<p><i>Partially accepted</i></p> <p>See the response to comment # 791. Furthermore, applicability dates with respect to mandated upgrades are not included in the DS.</p> <p>Note: E-AMAN and DMAN have been moved to the SoC category.</p>

DS GE.CER.AMAN.301 Applicability

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comment	<p>789 comment by: <i>Thales Land and Air Systems</i></p> <p>Could you confirm that this Detailed Specification covers only Extended AMAN, and that AMAN without that the extended fonction is not subject to the regulatory framework ?</p>
response	<i>Noted</i>



The initial scope is described in the NPA 2023-05. As required, additional equipment (including pure AMAN equipment) will be added in the subsequent revisions in accordance with the EPAS.

APPLICABILITY

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comment	816	comment by: ENAIRE
	AMC1 GE.CER.AMAN.320: The implementation of EAMAN based on OLDI/ADEXP is not mandatory according to CP1.	
response	Noted	
	See the response to comment # 813.	

AMC1 GE.CER.AMAN.330 Extended AMAN equipment interfaces

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comment	455	comment by: SDM
	SDM comment: From the specification it is not clearly identified when AMHS, SWIM and/or FMTP shall be used for EAMAN. It could be interpreted that all information exchanges related to the service shall be capable of exchanging information through AMHS, SWIM and FMTP interfaces or these are options to choose from. Regulation (EU) 2021/116, and to some extent Regulation (EU) 2017/373, is however very clear in describing the type of interface that shall be used for what and by when. In the specific case of EAMAN.	
	SDM propose to Introduce a reference to Regulation (EU) 2021/116 and Regulation (EU) 2017/373, providing a reference for the type of interface that shall be used by whom and by/from when for EAMAN.	
response	Not accepted	
	Reference to regulations is not included in the DS, the DS define the technical specification for ATM/ANS equipment any dates with respect to mandated upgrades will be addressed in the applicable implementing regulations.	
comment	650	comment by: EUROCONTROL
	In line with the comment that SWIM shall not be described as ATM/ANS equipment but exclusively be specified at the level of interface specifications, the link to Part 3, Subpart A, Section 3 'SWIM technical infrastructure' of the DS shall be replaced by explicit AMC for the SWIM interface (references to existing specifications).	
	<u>Proposed change:</u>	
	Part (b) of AMC1 GE.CER.AMAN.330 to be rewritten:	

	<p>(b) When SWIM interfaces are implemented:</p> <p>a. EUROCONTROL-SPEC-169 Specification for SWIM Information Definition (Edition 1.0, December 2017)</p> <p>b. EUROCONTROL-SPEC-168 Specification for SWIM Service Description (SD) (Edition 2.0, March 2022)</p> <p>c. EUROCONTROL-SPEC-170 Specification for SWIM Technical Infrastructure (TI) Yellow Profile (Edition 1.1, July 2020)</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 648.</p> <p>Note: E-AMAN and DMAN have been moved to the SoC category.</p>
comment	<p>810 comment by: <i>Thales Land and Air Systems</i></p> <p>Referencing AMHS and FMTP induces that the EAMAN equipment will have to do it, nevertheless in most of current implementation, it is done by the FDP of the ATC system. Would it more adequate to transfer this DS/AMC to the FDP part ?</p>
response	<p><i>Not accepted</i></p> <p>Although AMAN equipment has a separate certification section, this does not prevent it from being integrated with the FDP. The DS is architecturally agnostic.</p> <p>Note: E-AMAN and DMAN have been moved to the SoC category.</p>
comment	<p>818 comment by: <i>ENAIRE</i></p> <p>The implementation of EAMAN based on OLDI/ADEXP/FMTP is not mandatory according to CP1.</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 813.</p>

DS GE.CER.AMAN.330 Extended AMAN equipment interfaces
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p. 83

comment	<p>456 comment by: <i>SDM</i></p> <p>SDM comment: In line with the comment that SWIM shall not be described as ATM/ANS equipment but exclusively be specified at the level of interface specifications, the link to Part 3, Subpart A, Section 3 'SWIM technical infrastructure' of the DS shall be replaced by explicit AMC for the SWIM interface (references to existing specifications).</p> <p>SDM proposed new text:</p> <p>Part (b) of AMC1 GE.CER.AMAN.330 to be adapted:</p>
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	<p>(a) When SWIM interfaces are implemented:</p> <p>a. EUROCONTROL-SPEC-169 Specification for SWIM Information Definition (Edition 1.0, December 2017)</p> <p>b. EUROCONTROL-SPEC-168 Specification for SWIM Service Description (SD) (Edition 2.0, March 2022)</p> <p>c. EUROCONTROL-SPEC-170 Specification for SWIM Technical Infrastructure (TI) Yellow Profile (Edition 1.1, July 2020)</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 648.</p> <p>Note: E-AMAN and DMAN have been moved to the SoC category.</p>
comment	<p>649 comment by: EUROCONTROL</p> <p>From the specification it is not clearly identified when AMHS, SWIM and/or FMTP shall be used for EAMAN. It could be interpreted that all information exchanges related to the service shall be capable of exchanging information through AMHS, SWIM and FMTP interfaces or these are options to choose from. Regulation (EU) 2021/116, and to some extent Regulation (EU) 2017/373, is however clear in describing the type of interface that shall be used for what and by when. In the specific case of EAMAN.</p> <p><u>Proposed change:</u> Introduce a reference to Regulation (EU) 2021/116 and Regulation (EU) 2017/373, providing a reference for the type of interface that shall be used by whom and by/from when for EAMAN.</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 455.</p> <p>Note: E-AMAN and DMAN have been moved to the SoC category.</p>

DS GE.CER.DMAN.420 DMAN equipment performance
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p. 84

comment	<p>457 comment by: SDM</p>
	<p>SDM comment: From the specification it is not clearly identified when AMHS, SWIM and/or FMTP shall be used for DMAN. It could be interpreted that all information exchanges related to the service shall be capable of exchanging information through AMHS, SWIM and FMTP interfaces or these are options to choose from. Regulation (EU) 2021/116, and to some extent Regulation (EU) 2017/373, is however very clear in describing the type of interface that shall be used for what and by when. In the specific case of DMAN.</p> <p>SDM propose to introduce a reference to Regulation (EU) 2021/116 and Regulation (EU) 2017/373, providing a reference for the type of interface that shall be used by whom and by/from when for DMAN.</p>

response	<p><i>Not accepted</i></p> <p>See the response to comment # 455.</p> <p>Note: E-AMAN and DMAN have been moved to the SoC category.</p>
comment	<p>819 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to AMC1 GE CER.DMAN.420</p> <p>Could you elaborate (b) in the scope of DMAN, what will be the trigger for such additional conditions ?</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 799.</p> <p>Note: E-AMAN and DMAN have been moved to the SoC category.</p>
comment	<p>822 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to AMC1 GE.CER.DMAN.420</p> <p>As DS GE.GEN.003 and DS GE.GEN.004 purpose is to achieve the safety requirements allocated on HW and SW from the Safety assessment required by DS GE.GEN.007, replace "DS GE.GEN.002, DS GE.GEN.003 and DS GE.GEN.004" with "DS GE.GEN.002 and DS GE.GEN.007"</p>
response	<p><i>Not accepted</i></p> <p>E-AMAN and DMAN have been moved to the SoC category.</p>

AMC1 GE.CER.DMAN.410 Departure manager equipment	p. 84
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comment	<p>815 comment by: <i>Thales Land and Air Systems</i></p> <p>ED-146 purpose is to provide <u>guidelines</u> for test and validation, it should be moved from the AMC to a Guidance Material.</p>
response	<p><i>Not accepted</i></p> <p>E-AMAN and DMAN have been moved to the SoC category.</p>
comment	<p>1031 comment by: <i>ADB SAFEGATE</i></p> <p>ED-141, ED-145 and ED-146 are outdated. They have been produced in 2008 and reference to Eurocontrol A-CDM documents, which have been removed from the Eurocontrol web page.</p> <p>Currently WG-111 is in the progress of updating ED-141, ED-145 and ED-146 and also produces a new (SWIM-based) Interface document.</p>

	<p>Furthermore there is no reference to Eurocontrol A-CDM material which is the foundation of A-CDM in Europe. A link should be given to Eurocontrol A-CDM implementation guide. Also, Eurocontrol is working on an A-CDM specification that will define the functional requirements of A-CDM systems which include DMANs. Similar like in the A-SMGCS section where a reference to the Eurocontrol A-SMGCS specification exists there should be also a link to Eurocontrol documents in the DMAN section.</p>
response	<p><i>Not accepted</i></p> <p>New or updated standards should be further addressed in future updates of the DS when the material is available in accordance with the EPAS. An implementation guide is not a technical standard.</p> <p>Note: E-AMAN and DMAN have been moved to the SoC category.</p>
comment	<p>1162 comment by: <i>Alex Milns/EUROCAE</i></p> <p>To note: ED-141, ED-145, ED-146 are currently under review by EUROCAE WG-111. The current references to there standards remains applicable, but updates will be published from early in 2024 and the 'A' versions should be referenced in future.</p>
response	<p><i>Noted</i></p> <p>Updated standards will be further addressed in future updates of the DS when the material is available in accordance with the EPAS.</p>

DS GE.CER.DMAN.410 Departure manager equipment	p. 84
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comment	<p>817 comment by: <i>Thales Land and Air Systems</i></p> <p>As per AMC1 GE.CER.DMAN.410, please confirm that a DMAN without CDM capability is not subject to regulatory framework.</p>
response	<p><i>Noted</i></p> <p>The initial scope is described in the NPA 2023-05. DMAN with or without CDM capability is subject to Regulation (EU) 2023/1768.</p>
comment	<p>1054 comment by: <i>ADB SAFEGATE</i></p> <p>The description is too vague. At least a reference to A-CDM elements "Variable taxi times" and "Pre-departure Sequencing" should be made. In general also a reference to Information sharing platform should be made to provide TOBT, otherwise DMAN will not work.</p>
response	<p><i>Noted</i></p> <p>E-AMAN and DMAN have been moved to the SoC category.</p>

FUNCTION

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comment	820	comment by: <i>ENAIRE</i>
	GM1 GE.CER.DMAN.410: Data for EMAN and DMAN algorithms are not the same. Integrated AMAN/DMAN is not compulsory in all airports according to CP1.	
response	<i>Noted</i>	
	Thank you for your comment. The intent of the DS, where appropriate, is to permit all technical possibilities to be implemented, it will be the DPO decision which to support.	

Section 4 - Departure manager

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comment	1149	comment by: <i>Roy Posern, Fraport AG / ACI Europe</i>
	please consider that parts of the referenced standards on DMAN (Airport CDM) are outdated and will be revised shortly	
response	<i>Noted</i>	
	Updated standards will be further addressed in future updates of the DS when the material is available in accordance with the EPAS.	

AMC1 GE.CER.DMAN.430 DMAN equipment interfaces

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comment	458	comment by: <i>SDM</i>
	SDM comment: In line with the comment that SWIM shall not be described as ATM/ANS equipment but exclusively be specified at the level of interface specifications, the link to Part 3, Subpart A, Section 3 'SWIM technical infrastructure' of the DS shall be replaced by explicit AMC for the SWIM interface (references to existing specifications).	
	SDM propos to Part (b) of AMC1 GE.CER.DMAN.430 to be rewritten:	
	(b) When SWIM interfaces are implemented:	
	a. EUROCONTROL-SPEC-169 Specification for SWIM Information Definition (Edition 1.0, December 2017)	
	b. EUROCONTROL-SPEC-168 Specification for SWIM Service Description (SD) (Edition 2.0, March 2022)	
	c. EUROCONTROL-SPEC-170 Specification for SWIM Technical Infrastructure (TI) Yellow Profile (Edition 1.1, July 2020)	

response	<p><i>Not accepted</i></p> <p>See the response to comment # 648.</p> <p>Note: E-AMAN and DMAN have been moved to the SoC category.</p>
comment	<p>652 comment by: EUROCONTROL</p> <p>In line with the comment that SWIM shall not be described as ATM/ANS equipment but exclusively be specified at the level of interface specifications, the link to Part 3, Subpart A, Section 3 'SWIM technical infrastructure' of the DS shall be replaced by explicit AMC for the SWIM interface (references to existing specifications).</p> <p><u>Proposed change:</u> Part (b) of AMC1 GE.CER.DMAN.430 to be rewritten:</p> <p>(b) When SWIM interfaces are implemented:</p> <ol style="list-style-type: none"> a. EUROCONTROL-SPEC-169 Specification for SWIM Information Definition (Edition 1.0, December 2017) b. EUROCONTROL-SPEC-168 Specification for SWIM Service Description (SD) (Edition 2.0, March 2022) c. EUROCONTROL-SPEC-170 Specification for SWIM Technical Infrastructure (TI) Yellow Profile (Edition 1.1, July 2020)
response	<p><i>Not accepted</i></p> <p>See the response to comment # 648.</p> <p>Note: E-AMAN and DMAN have been moved to the SoC category.</p>

DS GE.CER.DMAN.430 DMAN equipment interfaces	p. 85
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comment	<p>651 comment by: EUROCONTROL</p> <p>From the specification it is not clearly identified when AMHS, SWIM and/or FMTP shall be used for DMAN. It could be interpreted that all information exchanges related to the service shall be capable of exchanging information through AMHS, SWIM and FMTP interfaces or these are options to choose from. Regulation (EU) 2021/116, and to some extent Regulation (EU) 2017/373, is however clear in describing the type of interface that shall be used for what and by when. In the specific case of DMAN.</p> <p><u>Proposed change:</u> Introduce a reference to Regulation (EU) 2021/116 and Regulation (EU) 2017/373, providing a reference for the type of interface that shall be used by whom and by/from when for DMAN.</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 455.</p>

Note: E-AMAN and DMAN have been moved to the SoC category.

AMC1 GE.CER.ASMGCS.510 A-SMGCS

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comment 55 comment by: *DFS Deutsche Flugsicherung GmbH*
 ASMGCS listed under ATS-System Section should not contain requirements that are relevant to the connected sensors. These rather belong to the SUR-Section.

response *Noted*
 An A-SMGCS has the capability to use data provided by the sensors. The sensors are not subject to Section 5.

comment 92 comment by: *Hans Erstad*
 The AMC refers to ED-87E - MASPS for A-SMGCS including Airport Safety Support Service Routing Service and Guidance Service - and reference is provided to Sections 2.1.2, 2.1.3 and 2.1.4. In ED-87E guidance service is provided in section 2.1.5, so there is an inconsistency in the sentence.
 The inconsistency should be removed.

It is further suggested that the AMC describe that the A-SMGCS and constituent comply with ED-87E for the services covered by the system/constituent. DS GE.CER.ASMGCS.5xx and its AMC and GM should be formulated such that an A-SMGCS does not have to include routing service and guidance service to fall under the applicability of A-SMGCS.

response *Accepted*
 AMC1 GE.CER.ASMGCS.510 has been changed to 'A-SMGCS and constituents should comply with EUROCAE ED-87E - MASPS for A-SMGCS including Airport Safety Support Service and Routing Service and Guidance Service.'

comment 111 comment by: *T.Leitner*
 The text mentions "... for A-SMGCS including Airport Safety Support Service, Routing Service and Guidance Service" ... but the list of sections 2.1.2, 2.1.3 and 2.1.4 does NOT cover the guidance service.

Also: Why does it list the single services at all? I think it is sufficient to say: "A-SMGCSs and constituents should comply with EUROCAE ED-87E - MASPS for A-SMGCS"

As ED-87E already contains enough material about how the single services shall be implemented and when.

response	<i>Accepted</i> See the response to comment # 92.
comment	<i>197</i> comment by: <i>CANSO</i> ASMGCS listed under ATS-System Section should not contain requirements that are relevant to the connected sensors. These rather belong to the SUR-Section.
response	<i>Noted</i> See the response to comment # 55.
comment	<i>1055</i> comment by: <i>ADB SAFEGATE</i> Is there a reason why this is only referring to EUROCAE ED-87 and not also to EUROCONTROL-Spec 171?
response	<i>Noted</i> Technical and performance requirements defining desired characteristics or properties of the system are detailed in EUROCAE Document ED-87.
comment	<i>1106</i> comment by: <i>DSNA</i> Reference to Guidance Service to be removed
response	<i>Accepted</i> See the response to comment # 92.
comment	<i>1121</i> comment by: <i>Alex Milns/EUROCAE</i> A-SMGCSs and constituents should comply with EUROCAE ED-87E - MASPS for A-SMGCS including Airport Safety Support Service, Routing Service and Guidance Service, Sections 2.1.2, 2.1.3, and 2.1.4 and 2.1.5.
response	<i>Not accepted</i> See the response to comment # 92.
comment	<i>1137</i> comment by: <i>Roy Posern, Fraport AG / ACI Europe</i> Is there a reason why only section 2 of ED-87E is referred to in this section? Should be all ED-87E.
response	<i>Noted</i> Subsections 2.1.2, 2.1.3 and 2.1.4. of ED-87E refer to the current A-SMGCS functions addressed by the DS.

GM1 GE.CER.ASMGCS.501

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comment	<p>91 comment by: <i>Hans Erstad</i></p> <p>It is stated that A-SMGCS provide (a) surveillance service, (b) airport safety support service, (c) routing service. There may be ATM/ANS equipment used in ATS that perform only (a) surveillance service, and partly (b) airport safety support service, and no (c) routing service.</p> <p>Such equipment would then not comply with the detailed specification for A-SMGCS and not be possible to put in operation. Alternatively, it would be regarded as equipment without detailed specification and not subject to any conformity assessment.</p> <p>DS GE.CER.ASMGCS.510 could be modified to allow for A-SMGCS without routing service.</p>
response	<p><i>Noted</i></p> <p>The initial scope is described in the NPA 2023-05; as such, the scope of DS for A-SMGCS includes surveillance, airport safety support and routing services and is applicable at the time of application of the change.</p>
comment	<p>431 comment by: <i>FOCA Switzerland</i></p> <p>Could you clarify the scope of the A-SMGCS equipment. Is it like the SDPS where the sensors (e.g. SMR) are outside the scope and subject to a declaration ?</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 55.</p>

DS GE.CER.ASMGCS.510 A-SMGCS

p. 86

comment	<p>110 comment by: <i>T.Leitner</i></p> <p>"using deployed cooperative and non-cooperative sensors" might lead to discussions. I think it need to be clearly stated that BOTH cooperatig and non-cooperative sensors are needed for an A-SMGCS.</p> <p>Otherwise someone might say that the do not have a "deployed non-cooperative sensor" and still would like to implement an A-SMGCS.</p>
response	<p><i>Noted</i></p> <p>An A-SMGCS has the capability to use data provided by sensors such as deployed cooperative or non-cooperative sensors.</p>

comment	<p>164 comment by: <i>CANSO</i></p> <p>Page 86, DS GE.CER.ASMGCS.510 A-SMGCS (...) (2) manually correlating targets (with call signs); (...)</p> <p>This capability should be reworded to include the general and most frequent case of “automatic correlation”.</p> <p>As per described in the EUROCONTROL-SPEC-171, Edition 2.0 regarding to this specific sub function:</p> <p>“to manually correlate targets (link a target with a callsign) for the rare cases where there is an operational need to, e.g. areas of poor cooperative surveillance coverage and the need to track non-cooperative targets such as towed aircraft.”</p>
response	<p><i>Accepted</i></p> <p>To be more general, and referring also to comment # 1103, DS GE.CER.ASMGCS.510 has been changed to:</p> <p>A-SMGCSs and constituents provide:</p> <p>(a) surveillance service capable of;</p> <p>(1) using deployed cooperative and or non-cooperative sensors;</p> <p>(2) <u>automatically and</u> manually correlating targets (with call signs);</p> <p>(3) including surveillance information for aircraft on approach;</p> <p>(b) airport safety support service;</p> <p>(c) routing service.</p>
comment	<p>272 comment by: <i>NAV Portugal E.P.E</i></p> <p>DS GE.CER.ASMGCS.510 A-SMGCS (...) (2) manually correlating targets (with call signs); (...)</p> <p>This capability should be reworded to include the general and most frequent case of “automatic correlation”.</p> <p>As per described in the EUROCONTROL-SPEC-171, Edition 2.0 regarding to this specific sub function:</p> <p>“to manually correlate targets (link a target with a callsign) for <u>the rare cases where there is an operational need</u> to, e.g. areas of poor cooperative surveillance coverage and the need to track non-cooperative targets such as towed aircraft.”</p>
response	<p><i>Accepted</i></p>

	See the response to comment # 164.	
comment	1003	comment by: LEONARDO
	No reference to runway lights handling	
response	<p><i>Noted</i></p> <p>The initial scope is described in NPA 2023-05; additional functionalities such as runway lights handling will be considered in further updates of the DS in accordance with EPAS 2025.</p>	
comment	1103	comment by: DSNA
	<p>(1) : What is the rationale of 'deployed' ?</p> <p>(2) : "manually correlating targets (with call signs)" is confusing. Proposition to be replaced by : Manually and automatically correlating targets and display call signs</p>	
response	<p><i>Accepted</i></p> <p>See the response to comment # 164.</p>	
comment	1118	comment by: Alex Milns/EUROCAE
	<p>A-SMGCSs and constituents provide:</p> <p>(a) surveillance service capable of;</p> <p>(1) using deployed cooperative and non-cooperative sensors;</p> <p>(2) manually correlating targets (with call signs);</p> <p>(3) including surveillance information for aircraft on approach;</p> <p>(b) airport safety support service;</p> <p>(c) routing service;</p> <p>(d) guidance service.</p>	
response	<p><i>Not accepted</i></p> <p>The initial scope is described in NPA 2023-05; additional functionalities such as runway lights handling will be considered in further updates of the DS in accordance with EPAS 2025.</p>	
comment	1136	comment by: Roy Posern, Fraport AG / ACI Europe
	<p>(a)(2): please remove "manually", because A-SMGCS functionality is to automatically (and in fallback manually) correlate flight plans to targets.</p>	
response	<p><i>Accepted</i></p> <p>See the responses to comments # 164 and # 1103.</p>	
comment	1180	comment by: Indra Navia

	refers to the “routing service”, while AMC1 GE.CER.ASMGCS.510 A-SMGCS refers to “Routing Service and Guidance Service” -should be consequent.
response	<i>Accepted</i> See the response to comment # 164.

GM1 GE.CER.ASMGCS.510 A-SMGCS

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comment	112 comment by: <i>T.Leitner</i> <ul style="list-style-type: none"> • Why is ICAO 9830 still listed? This is completely outdated. Its sufficient to list ED-87E which has some words about ICAO 9830. • ED-128 is currently being updated by EUROCAE WG-41. Also a new A-SMGCS ED-xxx will be defined which focuses on interoperability.
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response	<i>Accepted</i> The reference to ICAO Doc 9830 has been removed. The revision of ED-128 and the new A-SMGCS ED-xxx were not available at the time of consultation and will be considered in further revisions of the DS in accordance the EPAS.
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comment	273 comment by: <i>NAV Portugal E.P.E</i> GM1 GE.CER.ASMGCS.510 A-SMGCS Consider the inclusion of a reference to ED-99 USER REQUIREMENTS FOR AERODROME MAPPING INFORMATION.
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response	<i>Not accepted</i> ED-99 is referenced in ED-87E.
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comment	1104 comment by: <i>DSNA</i> "(b) Aerodrome conformance monitoring should integrate A-SMGCS surveillance data and, when available, surface movement routing and air traffic controller routing clearances." It should be considered as an AMC rather than part of GM.
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response	<i>Accepted</i> Aerodrome conformance monitoring is covered by AMC1 GE.CER.ASMGCS.510 : ED-87E Section 2.1.3. Consequently, GM1 GE.CER.ASMGCS.510 has been changed to: (a) Additional information can be found in the following: (1) (a) ICAO Doc 9830, Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Manual;
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~~(2) (a) EUROCONTROL-SPEC-171, Edition 2.0, EUROCONTROL Specification for Advanced-Surface Movement Guidance and Control System (A-SMGCS) Services;~~

~~(3) (b) EUROCAE ED-128 - Guidelines for Surveillance Data Fusion in Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Levels 1 and 2.~~

~~(b) Aerodrome conformance monitoring should integrate A-SMGCS surveillance data and, when available, surface movement routing and air traffic controller routing clearances.'.~~

DS GE.CER.ASMGCS.501 Applicability

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comment	1101	comment by: <i>DSNA</i>
	A-SMGCS constituents subject to certification should be defined	
response	<i>Noted</i>	
	DS GE.CER.ASMGCS.510 (a) defines the functionalities required for the certification of A-SMGCS and hence the constituents.	

DS GE.CER.ASMGCS.520 A-SMGCS performance

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comment	93	comment by: <i>Hans Erstad</i>
	This comment is mostly toward AMC1 GE.CER.ASMGCS.520, but that AMC was not in the list of segments of the CRS tool.	
	From AMC1 GE.CER.ASMGCS.520 it is clear that the intention is to regard surveillance systems for use in A-SMGCS as part of the A-SMGCS itself, and covered by the detailed specification and AMC/GM. (ED-116, ED-117A.. is listed)	
	For air surveillance the sensors are defined as surveillance systems, and will be covered by the detailed specifications under PART 3 subpart C - Surveillance (SUR), and will be subject to declaration of design compliance.	
	This mean that surveillance systems used in A-SMGCS will be subject to certification, while surveillance systems used as input to "surveillance data processing systems (SDPSs) and constituents supporting air traffic services" will be subject to declaration of design compliance.	
	This seems inconsistent and unless intended should be made consistent by placing all surveillance systems in one category.	
response	<i>Noted</i>	



See the response to comment # 55.

comment

165

comment by: *CANSO*

Page 87 GM1 GE.CER.ASMGCS.510 A-SMGCS or AMC1 GE.CER.ASMGCS.520
Consider the inclusion of a reference to ED-99 USER REQUIREMENTS FOR
AERODROME MAPPING INFORMATION.

response

Not accepted

See the response to comment # 273.

comment

821

comment by: *ENAIRE*

Standards related to sensors, not the ATS system (A-SMGCS), appear (e.d. ED-117A).
Are they actually applicable here?

response

Noted

See the response to comment # 55.

AMC1 GE.CER.ASMGCS.520 has been changed to:

'(a) A-SMGCSs and constituents should comply with:

(1) EUROCAE ED-87E - MASPS for A-SMGCS including Airport Safety Support Service
Routing Service and Guidance Service, Section 3;

~~(2) EUROCAE ED-116 - MOPS for Surface Movement Radar Sensor Systems for use in
A-SMGCS, Section 3;~~

~~(3) EUROCAE ED-117A - MOPS for Mode S Multilateration Systems for use in
Advanced Surface Movement Guidance and Control Systems (A-SMGCS), Section 3;~~

(4) (2) ETSI EN 303 213-5-1 (V1.1.1) (2020-03) Advanced Surface Movement Guidance
and Control System (A-SMGCS); Part 5: Harmonised Standard for access to radio
spectrum for Multilateration (MLAT) equipment; Sub-part 1: Receivers and
Interrogators;

.../... '.

comment

1124

comment by: *Alex Milns/EUROCAE*

The performance of A₁SMGCS and constituents supports the intended purpose.

response

Accepted

DS GE.CER.ASMGCS.520 has been changed to 'The performance of A₁SMGCS and
constituents supports the intended purpose'.

comment

1126

comment by: *Alex Milns/EUROCAE*

(b) Additional performance conditions applicable to the intended purpose of A₁
SMGCSs.....

response

Accepted

AMC1 GE.CER.ASMGCS.520 has been changed to '(b) Additional performance conditions applicable to the intended purpose of A-SMGCSs'.

PERFORMANCE

p. 87

comment

113

comment by: *T.Leitner*

AMC GE.CER.ASMGCS.520 is not contained in the segment list -- so here:

Why are ETSI ENs still listed. It was my impression that these AMCs, DS and GMS would replace the ETSI ENs?

response

Noted

The introduction of the new conformity assessment framework replaces the need for Community Specifications; however, the underpinning standards are still required. ETSI ENs provide recognised standards with respect the technical requirements related to the spectrum.

comment

274

comment by: *NAV Portugal E.P.E***AMC1 GE.CER.ASMGCS.520**

Consider the inclusion of a reference to ED-99 USER REQUIREMENTS FOR AERODROME MAPPING INFORMATION.

response

Not accepted

See the response to comment # 273.

AMC1 GE.CER.ASMGCS.530 A-SMGCS interfaces

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comment

114

comment by: *T.Leitner*

- Status of "ATS systems: landing systems, visual aids, ATIS" ... this is NOT in ED-87E and actually not the basic function of an A-SMGCS to provide this. Please remove.
- "Information relating to emergencies" is also not in ED-87E or EUROCONTROL SPEC-171. Also it is far too vague. This is also NOT part of an A-SMGCS functionality.
- The AMC is entitled "A-SMGCS interfaces" while the contents relates more to the human machine interface.

response

Accepted

The text of AMC1 GE.CER.ASMGCS.530 comes from EUROCONTROL SPEC-171 subsection 5.3.1.1, which states that ‘Aerodrome environment and information derived from other systems could be integrated: status of ATS systems (landing systems, visual aids, ATIS), air traffic monitor (approach radar), meteorological information, information relating to emergencies.’.

Consequently, AMC1 GE.CER.ASMGCS.530 has been replaced by:

‘A-SMGCSs and constituents should comply with EUROCAE ED-87E - MASPS for A-SMGCS including Airport Safety Support Service and Routing Service, Sections 2.1.2.3, 2.1.2.4, 2.1.3.3, 2.1.4.1, 2.1.4.3 and 2.4.’.

comment

166

comment by: *CANSO*

Page 88 AMC1 GE.CER.ASMGCS.530 A-SMGCS interfaces
air traffic monitor (approach radar);

Consider replacing by: air traffic monitor (approach surveillance);

response

Not accepted

AMC1 GE.CER.ASMGCS.530 A-SMGCS interfaces has been replaced in accordance with the text as per comment # 114.

comment

275

comment by: *NAV Portugal E.P.E*

AMC1 GE.CER.ASMGCS.530 A-SMGCS interfaces
air traffic monitor (approach radar);

Consider replacing by: air traffic monitor (approach surveillance);

response

Not accepted

AMC1 GE.CER.ASMGCS.530 A-SMGCS interfaces has been replaced in accordance with the text as per comment # 114.

comment

1181

comment by: *Indra Navia*

Not all delivered A-SMGCS systems have status of ATS, visual aid or ATIS, but they do have and need FPLs, clock (NTP), ASR, SMR and MLAT and or ADS in b), it would be better to say “could” an not “should”. a) should read “on a high resolution ground map”

response

Not accepted

AMC1 GE.CER.ASMGCS.530 A-SMGCS interfaces has been replaced in accordance with the text as per comment # 114.

comment	167	comment by: <i>CANSO</i>
	Page 88 GM1 GE.CER.ASMGCS.530 A-SMGCS interfaces	
	The following paragraph is only applicable to the display of SMR video signals: “The identification of the detected mobiles and their unambiguous representation on the HMI is essential. Depending on the quality of the video signal, valuable information about the detected aircraft size and orientation can be obtained. It also helps to detect intruders which do not have an operating transponder or transmitter.” What about the display of cooperative surveillance sources?	
response	<i>Accepted</i>	
	See the response to comment # 276.	
comment	276	comment by: <i>NAV Portugal E.P.E</i>
	GM1 GE.CER.ASMGCS.530 A-SMGCS interfaces	
	The following paragraph is only applicable to the display of SMR video signals: <i>“The identification of the detected mobiles and their unambiguous representation on the HMI is essential. Depending on the quality of the video signal, valuable information about the detected aircraft size and orientation can be obtained. It also helps to detect intruders which do not have an operating transponder or transmitter.”</i> What about the display of cooperative surveillance sources?	
response	<i>Accepted</i>	
	The text has been deleted.	
comment	1108	comment by: <i>DSNA</i>
	"Interfaces include the communications supporting external information exchanges and the human- machine interface (HMI) as defined in DS GE.GEN.005." This requirement should be rephrased to stay an equipment requirement and not to be an implementing requirement : “A-SMGCS should be able to provide a means to input controller electronic clearance”	
response	<i>Not accepted</i>	
	DS GE.CER.ASMGCS.530(b)(2) already provides means for the controller to input clearances.	
comment	1182	comment by: <i>Indra Navia</i>
	Very general. Should also refer to ED-87E. Second last sentence should be changed to “Depending on the quality of the SMR video signal,…”	
response	<i>Not accepted</i>	

See the response to comment # 276.

DS GE.CER.ASMGCS.530 A-SMGCS interfaces

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comment 1107 comment by: *DSNA*

"(b) A clear and unambiguous means is provided:
 (1) to inform the controller of:
 (i) the aerodrome environment; and
 (ii) traffic information (position and identity);
 (2) for the controller to input clearances."
 This part of the DS and related AMC make reference to the HMI functions. To avoid confusion between the system interface and HMI functions, this part should be included in DS Function instead of DS Interfaces

response *Not accepted*

HMI is considered as interface in the DS.

comment 1128 comment by: *Alex Milns/EUROCAE*

(a) The interfaces of A-SMGCSs and constituents.....

response *Accepted*

The text has been amended.

AMC1 GE.CER.DLS.610 DLS equipment

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comment 56 comment by: *DFS Deutsche Flugsicherung GmbH*

For Baseline 1, ED-120 as well as ED-110 (on which the ED-120 implementation over ATN is based) should be referenced as well.

response *Not accepted*

Through the ATS B2 / ATN B1 backward compatibility defined in EUROCAE ED-231A, the ATN B1 referred to in this section supports the data link services ACM, ACL and AMC. EUROCAE ED-228A applies for Safety and Performance Requirements for DLS B1 and B2.

comment 57 comment by: *DFS Deutsche Flugsicherung GmbH*

GM1:



response	<p>ACL is only defined in ED-120 (B1). It does not exist in ATS B2 (ED-228). This has changed to CRD Clearance Delivery and Request. But ACL ist not a 1:1 mapping to CRD. There is also IER Information Exchange and Reporting. Please adapt wording.</p>
	<p><i>Accepted</i></p> <p>In GM1 GE.CER.DLS.610 DLS, the text ‘The ATS B2 referred to in this Section supports the services ATC communications management (ACM), ATC clearances (ACL) and ATC microphone check (AMC) through ...’ has been changed to ‘The ATS B2 referred to in this Section supports the services ATC communications management (ACM), <u>Clearance Request and Delivery (CRD), IER Information Exchange and Reporting (for the equivalent B1 CPDLC messages)</u> and ATC microphone check (AMC) through ...’.</p>
comment	<p>58 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>GM1: Whether DLIC will be a prerequisite for ADS-C is still under discussion in EUROCAE WG78 (for the B2 Rev B standards). Suggest to wait before publishing that GM.</p>
response	<p><i>Not accepted</i></p> <p>Revision B of ED-228() and ED-229() was not available at the time of consultation and will be considered for reference in further revisions of the DS in accordance with the EPAS.</p>
comment	<p>198 comment by: <i>CANSO</i></p> <p>For Baseline 1, ED-120 as well as ED-110 (on which the ED-120 implementation over ATN is based) should be referenced as well.</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 56.</p>
comment	<p>199 comment by: <i>CANSO</i></p> <p>GM1: ACL is only defined in ED-120 (B1). It does not exist in ATS B2 (ED-228). This has changed to CRD Clearance Delivery and Request. But ACL ist not a 1:1 mapping to CRD. There is also IER Information Exchange and Reporting. Please adapt wording.</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 57.</p>
comment	<p>200 comment by: <i>CANSO</i></p> <p>GM1: Whether DLIC will be a prerequisite for ADS-C is still under discussion in EUROCAE WG78 (for the B2 Rev B standards). Suggest to wait before publishing that GM.</p>

response	<p><i>Not accepted</i></p> <p>See the response to comment # 58.</p>
comment	<p>441 comment by: <i>SDM</i></p> <p>SDM comment: Please refer also to legacy documents like: ED120 and ED110 for ATN B1</p> <p>SDM propose to refer also to legacy documents like: ED120 and ED110 for ATN B1</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 56.</p>
comment	<p>654 comment by: <i>EUROCONTROL</i></p> <p>Items (a), (b) and (c) require compliance to rev A of EUROCAE documents ED-228, 229 and 231. What about rev B, which is expected to be published soon?</p> <p>ED-228B, ED-229B are approved for publication and they are in the process to be published Q4 2023.</p> <p><u>Proposed change:</u> EASA should already refer to Revision B of ED-228 and ED-229 or at least clarify</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 58.</p>
comment	<p>655 comment by: <i>EUROCONTROL</i></p> <p>Revision B documents supersede the Revision A documentation.</p>
response	<p><i>Noted</i></p> <p>The revision will be considered for reference in further revisions of the DS in accordance with the EPAS.</p>
comment	<p>656 comment by: <i>EUROCONTROL</i></p> <p>The operational only ground system on Revision A implementation is Maastricht UAC. Future implementers should be looking at Revision B implementation which is backwards compatible with Revision A and CPDLC v1.</p>
response	<p><i>Noted</i></p>

Revision B of ED-228() and ED-229() was not available at the time of consultation and will be considered for reference in further revisions of the DS in accordance with the EPAS.

comment

658

comment by: EUROCONTROL

Comment on GM1 GE.CER.DLS.610 (segment missing in CRT content page)

The ADS-C application contains a lot more than only EPP and there is no version which supports "only EPP".

The ADS-C application should be referred to as a whole, and not part of it aka. There is no "ADS-C application only air group" either. Treating the ADS-C application in such way creates confusion and fragmentation as during logon the aircraft can only indicate if it has the ADS-C capability as defined in the standard or not: ADS-C v1 does not have an "only EPP" meaning.

The paragraph therefore should refer to the whole ADS-C application and the usage of the data should be up to local implementation. The lack of clear guidelines increase the possibility of fragmented ground implementation.

Proposed change:

EASA should refer to ADS-C application as a whole and clarify that the use of data is left to local implementation. EASA should clarify this in additional guidelines

response

Not accepted

The DS supports the technical aspects of DLS services. The specific operations of the data are foreseen in Regulation (EU) 2021/116. Thus, the DLS is intended to support the minimum ADS-C intent. EPP is part of ADS-C V1 application.

See also the response to comment # 1020.

comment

763

comment by: Thales Land and Air Systems

How the transition period will be managed for DLS systems already in operation and compliant with ED120/ED110, when a major change not related to CP1 (ADS-C) has to be deployed ? There is no more reference to ED120/ED110 for CPDLC B1

response

Noted

According to AMC1 GE.CER.DLS.610 DLS, EUROCAE ED-231A should be used to manage the transition period through a ATS B2 / ATN B1 backward compatibility to be performed on the ground. The applicability of the DS applies to changes to systems at the date of application.

For the reference to ED120/ED110, see the response to comment # 56.

comment

765

comment by: Thales Land and Air Systems



response	<p>The AMC only refers to ATS B2 standards, for systems not transitioning to ATS B2 CPDLC especially before CP1 mandate date (2028), it will be adequate to add also reference to ED120A and ED110B for CDPLC only at least as guidance material. ATC system will be able to comply CPDLC ATN B1 without moving to ATS B2 and still comply with CP1 for ADS-C EPP, it is similar than CS ACNS</p> <p><i>Noted</i></p> <p>See the response to comment # 763.</p>
comment	<p>767 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to GM1 GE.CER.DLS.610</p> <p>ATS B2 CPDLC via ATN B1 backward compatibility seems to be required in this NPA which is not the case in CP1 regulation. Please align with CP1 mandate without adding additional requirements.</p> <p>As it is in guidance material, it should be more explicite in AMC that it is an implementation choice to support ATN B1 with ATS B2 instead of ED120/ED-110. It is managed that way in CS ACNS for CPDLC</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 56.</p> <p>CP1 mandate specifies the operational use of EPP, not the technical requirements.</p>
comment	<p>985 comment by: <i>Boeing</i></p> <p>Page 90 Paragraph: GM1 GE.CER.DLS.610 DLS equipment</p> <div style="border: 1px solid black; padding: 5px;"> <p><u>THE PROPOSED TEXT STATES:</u></p> <p>Through the ATS B2 / ATN B1 backward compatibility, the ATN B1 referred to in this Section supports the data link services ACM, ACL and AMC.</p> <p><u>REQUESTED CHANGE:</u></p> <p><i>DLS equipment supports both ATS B2 and ATN B1 data link services.</i> Through the ATS B2 / ATN B1 backward compatibility, the ATN B1 referred to in this Section supports the data link services ACM, ACL and AMC.</p> <p><u>JUSTIFICATION:</u> Clarification that ground systems are able to support both B2 and B1 aircraft.</p> </div>
response	<p><i>Accepted</i></p>

The text of GM1 GE.CER.DLS.610DS GE.CER.DLS.601 has been changed to 'DLS equipment supports both ATS B2 and ATN B1 data link services, through the ATS B2 / ATN B1 backward compatibility, ...'.

comment

992

comment by: AIRBUS

AMC1 GE.CER.DLS.610 DLS equipment**Comments:**

Please remove “Baseline 2” in (a) :

(a) EUROCAE ED-228A - Safety and Performance Requirements Standard for Baseline 2 ATS Data Communications (~~Baseline 2~~ SPR Standard)”

Rationale / Justification:

In (a) is provided the reference “EUROCAE ED-228A - Safety and Performance Requirements Standard for Baseline 2 ATS Data Communications (Baseline 2 SPR Standard)”. It is correct that the official title of the ED-228A includes the word “Baseline 2”. However, as explained in the SPR document (section 1), the SPR document is technology agnostic, i.e., it is applicable to all technologies, including FANS 1/A+, ATN B1 and Baseline 2. Thus, the word “Baseline 2” is never used in the ED-228A document (content). Thus, the word ‘Baseline 2’ should be removed from the above reference (ED-228A/DO-350A), to avoid any confusion. To be noted that the word “Baseline 2” is removed from the Title of the ED-228B/DO-350B approved by the EUROCAE/RTCA joint group WG78/SC214 on 2023 July, the 14th.

response

Not accepted

The official titles of the published standards are referenced.

comment

1020

comment by: AIRBUS

AMC1 GE.CER.DLS.610 DLS equipment**Comments:**

In (c), replace the reference to the section 5 by a reference to the section 5.1.

Rationale / Justification:

In (c) there is reference to the section 4 (OK) and to the section 5. But in section 5, there is the section 5.1 which refers to the ASN.1 not supporting the DRNP/IM services, while the section 5.2 refers to the ASN.1 supporting the DRNP/IM services. It is expected (and agreed) that nobody implements the DRNP/IM services as defined in the ED-229A. This is clearly stated in the ED-229B approved and to be published



	<p>soon. Thus, the reference to the section should be replaced by a reference to the section 5.1.</p>
response	<p><i>Accepted</i></p> <p>AMC1 GE.CER.DLS.610(c) has been changed to ‘EUROCAE ED-231A - Interoperability Requirements Standard for Baseline 2 ATS Data Communications and ATN Baseline 1 Accommodation (ATN Baseline 1 - Baseline 2 Interop Standard), Sections 4 and 5.1 for the services ATC communications management (ACM), ATC clearances (ACL), Clearance Request and Delivery (CRD), IER Information Exchange and Reporting (for the equivalent B1 CPDLC messages) and ATC microphone check (AMC) in line with CPDLC version 1 for B1 and in line with CPDLC version 2 for B2;’.</p> <p>To ensure consistency, AMC1 GE.CER.DLS.610(a) has been changed to EUROCAE ED-228A - Safety and Performance Requirements Standard for Baseline 2 ATS Data Communications (Baseline 2 SPR Standard), Sections 3.1, 3.2, 3.3, 3.4, 3.9, 4, 5.1, 5.2, 6.1 and 6.2 for the services ATC communications management (ACM), Clearance Request and Delivery (CRD), IER Information Exchange and Reporting (for the equivalent B1 CPDLC messages) and ATC microphone check (AMC) in line with CPDLC version 2 (v2) and for the downlink of EPP through ADS-C in line with ADS-C version 1 (v1);’.</p> <p>To ensure consistency, AMC1 GE.CER.DLS.610(a) has been changed to ‘EUROCAE ED-229A - Interoperability Requirements Standard for Baseline 2 ATS Data Communications (Baseline 2 Interop Standard), Sections 2, 3, 4, 5.1 and 5.3 for the services ATC communications management (ACM), Clearance Request and Delivery (CRD), IER Information Exchange and Reporting (for the equivalent B1 CPDLC messages) and ATC microphone check (AMC) in line with CPDLC version 2 (v2) and for the downlink of EPP through ADS-C in line with ADS-C version 1 (v1);’.</p>
comment	<p>1021 comment by: AIRBUS</p> <p>GM1 GE.CER.DLS.610 DLS equipment</p> <p><u>Comments:</u></p> <p>Replace “ATC clearances (ACL)” by “Clearance Request and Delivery (CRD), Information Exchange and Reporting (IER)” in the sentence :</p> <p>“The ATS B2 referred to in this Section supports the services ATC communications management (ACM), ATC clearances (ACL), Clearance Request and Delivery (CRD), Information Exchange and Reporting (IER), and ATC microphone check (AMC) through the CPDLC application and the downlink of extended projected profile (EPP) through the ADS-C application”</p> <p><u>Rationale / Justification:</u></p> <p>The ACL (ATC Clearances) service does not exist for the ATS B2: it is defined neither in ED-228A, nor in ED-229A for ATS B2. Only the Clearance Request and Delivery (CRD) and Information Exchange and Reporting (IER) exist and are defined in ED-228A</p>

(technology agnostic), and in ED-229A for ATS B2. The ACL service, as defined in ED-120 and ED-110B for ATN B1 only, is a combination of a piece of CRD service and of a piece of IER service.

If “ACL” is maintained in the GM1 GE.CER.DLS.610, then it should be clarified what it means for the ATS B2 (as it is defined nowhere in ED-228A and in ED-229A which are quoted in the DS GE.CER.DLS.610).

response *Accepted*

See the response to comment # 57.

comment 1026

comment by: AIRBUS

GM1 GE.CER.DLS.610 DLS equipment

Comments:

Add “through the CPDLC application” at the end of the following sentence:

“Through the ATS B2 / ATN B1 backward compatibility, the ATN B1 referred to in this Section supports the data link services ACM, ACL and AMC **through the CPDLC application.**”

Rationale / Justification:

Editorial comment. To be consistent with the previous sentence saying “The ATS B2 referred to in this Section supports the services ATC communications management (ACM), ATC clearances (ACL) and ATC microphone check (AMC) through the CPDLC application and the downlink of extended projected profile (EPP) through the ADS-C application.”

response *Accepted*

GM1 GE.CER.DLS.610 has been changed to ‘the ATN B1 referred to in this Section supports the data link services ACM, ACL and AMC through the CPDLC application’.

comment 1027

comment by: AIRBUS

GM1 GE.CER.DLS.610 DLS equipment

Comments:

Clarify what ACL stands/what the definition of ACL is for in the sentence “Through the ATS B2 / ATN B1 backward compatibility, the ATN B1 referred to in this Section supports the data link services ACM, ACL and AMC”.

Rationale / Justification:

“ACL” is clearly defined in ED-120 and ED-110B for ATN B1. It is only “shortly” reminded in the ED-231A. Then it might be useful to remind/clarify what ACL means

	and/or where the definition of ACL service can be found. ED-228A and ED-229A does not use “ACL” and does not know what “ACL” is.
response	<p><i>Not accepted</i></p> <p>The backward compatibility standard ED-231A refers to ACL.</p>
comment	<p>1028 comment by: AIRBUS</p> <p>GM1 GE.CER.DLS.610 DLS equipment</p> <p><u>Comments:</u></p> <p>Could you please clarify what is the reason behind quoting the following sentences as “The ATS B2 referred to in this Section...” and “ATN B1 referred to in this Section...” as the terms ATS B2 and ATN B1 are not used elsewhere in DS GE.CER.DLS.610 or AMC1 GE.CER.DLS.610 or in the whole NPA 2023-05, except in the high-level DS GE.CER.DLS.60.</p> <p><u>Rationale / Justification:</u></p> <p>This GM says “The ATS B2 referred to in this Section...” and “ATN B1 referred to in this Section...”, but the terms ATS B2 and ATN B1 are never used neither in the DS GE.CER.DLS.610 or AMC1 GE.CER.DLS.610 nor in the whole NPA 2023-05, except in the high-level DS GE.CER.DLS.601.</p>
response	<p><i>Not accepted</i></p> <p>ATN B1 and ATS B2 are referred to in DS GE.CER.DLS.600 and in the titles of standards mentioned in AMC1 GE.CER.DLS.610.</p>
comment	<p>1109 comment by: DSNA</p> <p>AMC1 : EUROCAE documents for ATN B1 shall be added (ED-110b and ED-120). GM1 : "Through the ATS B2 / ATN B1 backward compatibility, the ATN B1 referred to in this Section supports the data link services ACM, ACL and AMC." This is not clear. Eurocae documents related to ATN B1 (e.g. ED-110b and ED-120) should be referred to besides ED-228A.</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 56.</p>
comment	<p>1188 comment by: EUROCONTROL</p> <p>Item (d) requires compliance to ICAO Doc 9880 Second edition, 2016, which has known defects and omissions. Notably, ADS-C provisions are currently “to be developed”. ICAO has recently agreed to update doc 9880. How can we ensure applicability of the future edition of Doc 9880?</p> <p>Proposed change:</p>

	Please clarify
response	<p><i>Noted</i></p> <p>The new edition of ICAO Doc 9880 was not available at the time of consultation and will be added in further revisions of the DS in accordance with the EPAS.</p>

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comment	<p>439 comment by: <i>SDM</i></p> <p>Original text in document: d) terminate CPDLC and ADS-C transactions</p> <p>SDM comment: It seems that this wording does not support the ADS-C common service</p> <p>SDM Propose to add a note: “if not delegated to the ADS-C common service”</p>
response	<p><i>Not accepted</i></p> <p>The technical requirements for ADS-C common services were not available at the time of consultation and will be added in further revisions of the DS in accordance with the EPAS.</p>

comment	<p>440 comment by: <i>SDM</i></p> <p>Original text: (e) forward ADS-C data</p> <p>SDM comment: It seems that this wording does not support the ADS-C common service</p> <p>SDM propose to add a note: “if not delegated to the ADS-C common service”</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 439.</p>

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comment	<p>643 comment by: <i>CANSO</i></p> <p>Paragraph (a) effectively enforces Baseline 2 from 13 September 2023 thereby introducing a regulatory requirement beyond what is specified by any delegated or implementing act. This is not appropriate.</p>
response	<p><i>Noted</i></p>



Any system upgrades will have to be compliant with the DS effective at the date of application. The DS does not determine applicability dates; any mandates to upgrade systems by specific dates are managed in other frameworks.

comment 657 comment by: EUROCONTROL

Clarification needed: forward what are ADS-C data and to whom? What is the purpose of forwarding ADS-C data?

Proposed change:

EASA to clarify the forward functionality

response *Partially accepted*

DS GE.CER.DLS.610 (f) 'forward logon parameters' has been added and is supported by AMC1 GE.CER.DLS.610 (e).

AMC1 GE.CER.DLS.610 (e) has been changed to '(e) EUROCONTROL-SPEC-106, Edition 5.1, EUROCONTROL Specification for On-Line Data Interchange (OLDI), Chapter 10, for LOF (Log-On Forwarding) and NAN (Next Authority Notified) messages'.

'(e) forward ADS-C data' has been replaced by (e) 'distribute ADS-C data'.

Note: The technical requirements for ADS-C common services were not available at the time of consultation and will be added in further revisions of the DS.

Regulation (EU) 2021/116, para 6.1.3 item (a) supports the need for ADS-C data distribution.

comment 771 comment by: Thales Land and Air Systems

in e) it is mentioned "forward ADS-C data" but nothing is specified in AMC nor GM about that capability.

Please remove e) or complete AMC/GM

response *Noted*

The ground distribution standard(s) will be added when available in accordance with the EPAS.

Point '(e) forward ADS-C data' has been replaced by (e) 'distribute ADS-C data', for clarity.

See also the response to comment # 657.

comment 877 comment by: A4E

DS GE.CER.DLS.610 DLS (d)(e)

It seems the wording does not support the implementation of central services (e.g. ADS-C Common Service ACS), Common logon Service for G/G ADS-C data sharing acc. To CIR 2021-116 paragraph 6.3.1. LHG sees a need for ACS to harmonize and ease



	deployment for ANSPs and to support VDL relief measures. The common logon service would support easier flight deck procedures because of a single European logon address for ADS-C and CPDLC and potentially increase then logon rates. Please change the text to support common services.
response	<i>Not accepted</i> See the response to comment # 439.
comment	1005 comment by: <i>LEONARDO</i> In ATS B2 standard is specified that: "NOTE: ATN ADS-C Forward capability is out-of-scope for the Baseline 2 services."
response	<i>Noted</i> Point '(e) forward ADS-C data' has been replaced by (e) 'distribute ADS-C data'. Regulation (EU) 2021/116, para 6.1.3 item (a) supports the need for ADS-C data distribution.
comment	1308 comment by: <i>Garmin International</i> AMC1 GE.CER.DLS.610 DLS equipment: Page 89 Although ED-228A, ED-229A, and ED-231A are the current revision of ATS B2 standards, publication of Rev B of these standards is imminent. It is expected that many aircraft and ground systems will be developed to these Rev B standards. While not intending to preclude existing standards that may be technically and operationally acceptable, the systems following the Rev B standards should also be recognized. Proposed Text: In section stating "DLS equipment should comply with:" either change references to ED-228B, ED-229B, and ED-231B or allow both A and B revisions.
response	<i>Not accepted</i> See the response to comment # 58.

DS GE.CER.DLS.601 Applicability

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comment	773 comment by: <i>Thales Land and Air Systems</i> Please confirm that the regulatory framework doesn't apply to FANS1/A Datalink Services.
response	<i>Noted</i>

The initial scope is described in NPA 2023-05; additional functionalities such as FANS1/A Datalink may be considered in further updates of the DS in accordance EPAS 2025. The applicability of the framework is defined in Regulation (EU) 2023/1768.

comment

1187

comment by: EUROCONTROL

The functional and performance standards in this section seem to cover ATM/ANS ground equipment supporting both ATS B2 and ATN B1. Most current ground systems support ATN B1 only. It is not clear how the current equipment is covered by these specifications.

Proposed change :
Please clarify the case of ATN B1

response

Noted

It is recognised that the current systems in general support ATN B1 only; the DS is applicable to new systems for which the scope is 'ATS B2 and ATN B1'.

Section 6 - Data link services

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comment

1022

comment by: AESA

Regulation 29/2009 article 7.3 address to Annex III point 2 and 3. In these points there are requirements for the systems and the standards that support them, but in the AMC/GM (Subtask 3) there is no mention of these standards so it should be included.

2. Chapter 3 — Aeronautical Telecommunication Network, Section 3.5.1.1 'Context Management' (CM) application items (a) and (b) of ICAO Annex 10 — Aeronautical Telecommunications — Volume III, Part I (Digital Data Communication Systems) (Second edition, July 2007, incorporating amendments 70-82).

3. Chapter 3 — Aeronautical Telecommunication Network, Section 3.5.2.2 'Controller-Pilot Data Link Communications' (CPDLC) application items (a) and (b) of ICAO Annex 10 — Aeronautical Telecommunications — Volume III, Part I (Digital Data Communication Systems) (Second edition, July 2007, incorporating amendments 70-82.)

response

Noted

The standards mentioned in AMC1 GE.CER.DLS.610 support the objective of CS GE.CER.DLS.610. Furthermore Regulation (EO) Np 29/2009 has been repealed and superseded by Regulations (EU) 2023/1770, 2023/1771 and 2023/1772.

DS GE.CER.DLS.630 DLS equipment interfaces

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comment	<p>59 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>ADS-C communication is handled by the ATS system itself. The ATCO has only limited possibilities to initiate and terminate certain types of ADS-C contracts. Suggest rephrasing point (b)(1): „display ADS-C status information and display ADS-C based flight information.”</p>
response	<p><i>Partially accepted</i></p> <p>DS GE.CER.DLS.630 (b) has been changed to:</p> <ul style="list-style-type: none"> - ‘(6) display all <u>CPDLC</u> messages (UM and DM) <u>and ADS-C based flight information</u>, with minimal human action, in a format that is easy to comprehend and distinguishable from each other;’ - ‘(7) determine the status of the data link <u>ATM/ANS equipment (CPDLC and ADS-C)</u>’. <p>Note that ADS-C communication can be performed both by the ‘ATSU system’ and ‘ATSU controller’ according to ED-228() and ED-229().</p>
comment	<p>201 comment by: <i>CANSO</i></p> <p>ADS-C communication is handled by the ATS system itself. The ATCO has only limited possibilities to initiate and terminate certain types of ADS-C contracts. Suggest rephrasing point (b)(1): „display ADS-C status information and display ADS-C based flight information.”</p>
response	<p><i>Partially accepted</i></p> <p>DS GE.CER.DLS.630 (b) has been changed to:</p> <ul style="list-style-type: none"> - ‘(6) display all <u>CPDLC</u> messages (UM and DM) <u>and ADS-C based flight information</u>, with minimal human action, in a format that is easy to comprehend and distinguishable from each other;’ - ‘(7) determine the status of the data link system <u>ATM/ANS equipment (CPDLC and ADS-C)</u>’. <p>It is recognised that automation should be implemented as much as possible. However, initiation and termination of ADS-C can be performed both by the ‘ATSU system’ and ‘ATSU controller’ according to ED-228() and ED-229().</p>
comment	<p>442 comment by: <i>SDM</i></p> <p>Original text: b) A clear and unambiguously means is provided to the air traffic controller to:</p> <p style="padding-left: 40px;">(1) initiate and to terminate the data link services and ADS-C contracts;</p> <p>SDM comment: Please write “CPDLC” instead of “data link services”</p> <p>SDM proposed text: "1) initiate and to terminate the CPDLC and ADS-C contracts";</p>
response	<p><i>Partially accepted</i></p>

	DS GE.CER.DLS.630 (b) has been changed to: - '(1) initiate and to terminate <u>CPDLC</u> and ADS-C;'	
comment	659	comment by: EUROCONTROL
	Point b) EASA to rephrase so that ATCO are not responsible for initiating ADS-C contracts but this shall be done by automation in the background.	
response	<i>Not accepted</i>	
	It is recognised that automation should be implemented as much as possible. However, initiation and termination of ADS-C can be performed both by the 'ATSU system' and 'ATSU controller' according to ED-228() and ED-229() and thus the system should have the capability.	
comment	660	comment by: EUROCONTROL
	Proposed change	
	Replace : "A clear and unambiguously means is" by "Clear and unambiguous means are"	
response	<i>Partially accepted</i>	
	'A clear and unambiguously means is' has been replaced by 'a clear and <u>unambiguous</u> means is'.	
comment	661	comment by: EUROCONTROL
	It is not clearly identified when DataCom and/or FMTP shall be used for DLS. It could be interpreted that all information exchanges related to the service shall be capable of exchanging information through these two means or these are options to choose from. Regulation (EU) 2021/116, and to some extent Regulation (EU) 2017/373, is however clear in describing the type of interface that shall be used for what and by when. In the specific case of DLS.	
	<u>Proposed change:</u> Introduce a reference to Regulation (EU) 2021/116 and Regulation (EU) 2017/373, providing a reference for the type of interface that shall be used by whom and by/from when for DLS.	
response	<i>Not accepted</i>	
	It is clear that DataCom supports the air/ground and FMTP the ground/ground communications. Furthermore, reference to regulations is not included in the DS; the DS define the technical specification for ATM/ANS equipment and any dates with respect to mandated upgrades will be addressed in the applicable implementing regulations.	

comment	662	comment by: EUROCONTROL
	Point c) Proposed change: Replace : "means is" by "means are"	
response	<i>Not accepted</i> See the response to comment # 660.	
comment	663	comment by: EUROCONTROL
	Point c) Until the entire message is displayed : This should be a requirement on the flight crew side too in order to avoid incidents stemming from non-human-friendly display of clearances, such as the UM79 CLEARED TO [position] VIA [routeclearance] where the [routeclearance] part is sometimes shown as simple text ROUTECLEARANCE instead of containing the fixes inside the [routeclearance] variable. <u>Proposed change:</u> EASA to ensure that an equivalent requirement exists for the flight crew.	
response	<i>Noted</i>	
comment	776	comment by: Thales Land and Air Systems
	comment on (b) (1): generally ATC controllers are not supposed to establish CPDLC or ADS-C connections, it is automatically done by the DLS system. For sure, they can be initiated or terminated manually, but this is not the nominal case. So what is the objective of this sentence ?	
response	<i>Noted</i> It is recognised that automation should be implemented as much as possible. However, initiation and termination of ADS-C can be performed both by the 'ATSU system' and 'ATSU controller' according to ED-228() and ED-229(), thus the system should have the capability.	
comment	1110	comment by: DSNA
	"(b) (1) initiate and to terminate the data link services and ADS-C contracts;" This is not clear. A/G connection management is automated through the system.	
response	<i>Noted</i> See the response to comment # 776.	
comment	1189	comment by: EUROCONTROL
	Item (b) typo: unambiguously -> unambiguous	

response *Accepted*

The typo has been corrected.

comment *1311*

comment by: *Garmin International*

GM1 GE.CER.DLS.610 DLS equipment: Page 90

The wording of this section makes it sound as if the ground systems must support the previously mandated ATN B1 ACM, ACL, and AMC services but in a native B2 implementation. Owing to section CS ACNS.B.DLS.020 Data Link Capabilities from NPA 2023-07, it would seem as if EASA expects these existing ATN B1 services to continue to be certified using ATN B1 rather than ATS B2 in the airborne systems. Is there an intentional requirement forcing the ground equipment to move these B1 services to B2? Is the intent from EASA to keep the airborne and ground requirements synchronized or is there intent to force the ground systems to move to B2 CPDLC with backwards compatibility for B1 aircraft?

Proposed Text:

Proposed text dependent on EASA intent. No change is needed if the intent is to provide a means for ground equipment to certify to ATS B2 CPDLC. If the intent is to align with airborne requirements, then consider striking this section as NPA 2023-07 proposes keeping the CPDLC component using ATN B1 standards.

response *Noted*

The intent is for the ground systems to move to ATS B2 CPDLC with backward compatibility for ATN B1 CPDLC aircraft, recognising that aircraft may opt to be certified for ATS-B2 capability.

Interface

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comment *459*

comment by: *SDM*

SDM comment: It is not clearly identified when DataCom and/or FMTP shall be used for DLS. It could be interpreted that all information exchanges related to the service shall be capable of exchanging information through these two means or these are options to choose from. Regulation (EU) 2021/116, and to some extent Regulation (EU) 2017/373, is however very clear in describing the type of interface that shall be used for what and by when. In the specific case of DLS.



	SDM propos to Introduce a reference to Regulation (EU) 2021/116 and Regulation (EU) 2017/373, providing a reference for the type of interface that shall be used by whom and by/from when for DLS.
response	<i>Not accepted</i> See the response to comment # 661.

DS GE.CER.DLS.620 DLS equipment performance

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comment	769 comment by: <i>Thales Land and Air Systems</i> Comment to AMC1 GE.CER.DLS.620 It only refers to ATS B2 standards to comply, for systems not transitioning to ATS B2 CPDLC especially before CP1 manadate date (2028), it will be adequate to add also reference to ED120A and ED110B for CDPLC only at least as guidance material. ATC system will be able to comply CPDLC ATN B1 without moving to ATS B2 and still comply with CP1 for ADS-C EPP, it is similar than CS ACNS
response	<i>Noted</i> See the response to comment # 1311.

comment	1030 comment by: <i>AIRBUS</i> AMC1 GE.CER.DLS.620 DLS equipment performance <u>Comments:</u> Please remove “Baseline 2” in (a) : EUROCAE ED-228A - Safety and Performance Requirements Standard for Baseline 2 ATS Data Communications (Baseline-2 SPR Standard) <u>Rationale / Justification:</u> In (a) is provided the reference “EUROCAE ED-228A - Safety and Performance Requirements Standard for Baseline 2 ATS Data Communications (Baseline 2 SPR Standard)”. It is correct that the official title of the ED-228A includes the word “Baseline 2”. However, as explained in the SPR document (section 1), the SPR document is technology agnostic, i.e., it is applicable to all technologies, including FANS 1/A+, ATN B1 and Baseline 2. Thus, the word “Baseline 2” is never used in the ED-228A document (content). Thus, the word ‘Baseline 2’ should be removed from the above reference (ED-228A/DO-350A), to avoid any confusion. To be noted that the word “Baseline 2” is removed from the Title of the ED-228B/DO-350B approved by the EUROCAE/RTCA joint group WG78/SC214 on 2023 July, the 14th.
response	<i>Not accepted</i>

See the response to comment # 992.

comment

1309

comment by: *Garmin International***AMC1 GE.CER.DLS.620 DLS equipment : Page 90**

Although ED-228A is the current revision of ATS B2 standards, publication of Rev B of this standard is imminent. It is expected that many aircraft and ground systems will be developed to this Rev B standard. While not intending to preclude existing standards that may be technically and operationally acceptable, the systems following the Rev B standard should also be recognized.

Proposed Text:

In section stating "DLS equipment should comply with:" either change reference to ED-228B or allow both A and B revisions.

response

Not accepted

See the response to comment # 58.

AMC1 GE.CER.DLS.630 DLS equipment interfaces

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comment

460

comment by: *SDM*

SDM comment: It is not clearly identified when DataCom and/or FMTP shall be used for DLS. It could be interpreted that all information exchanges related to the service shall be capable of exchanging information through these two means or these are options to choose from. Regulation (EU) 2021/116, and to some extent Regulation (EU) 2017/373, is however very clear in describing the type of interface that shall be used for what and by when. In the specific case of DLS.

SDM propose to Introduce SWIM interfaces for ADS-C.

response

Not accepted

See the response to comment # 661.

The technical requirements for SWIM interfaces for ADS-C were not available at the time of consultation and will be added in further revisions of the DS in accordance with the EPAS.

comment

664

comment by: *EUROCONTROL*

The specification is not future-proof in considering SWIM-based information exchanges for ADS-C as required by Regulation (EU) 2021/116, the only options mentioned are 'Data communications' and 'FMTP'. It should be considered to add SWIM already as the third means of exchange. When introduced, it should be done



	<p>similarly as suggested before, an explicit AMC for the SWIM interface (references to existing specifications).</p> <p><u>Proposed change:</u> Introduce SWIM interfaces for ADS-C.</p>
response	<p><i>Not accepted</i></p> <p>The technical requirements for SWIM interfaces for ADS-C were not available at the time of consultation and will be added in further revisions of the DS in accordance with the EPAS.</p>
comment	<p>770 comment by: <i>Thales Land and Air Systems</i></p> <p>SWIM reference is missing if DLS equipment is connected to centralized ADS-C server which is envisaged in Europe. Guidance material could be added</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 664.</p>
comment	<p>778 comment by: <i>Thales Land and Air Systems</i></p> <p>Standards referenced in this AMC, do not allow to comply with DS GE.CER.DLS.630 even if they are valid for another DS to be written. a) is for Air/Ground exchanges and b) for ground/ground coordination via OLDI/FMTP</p>
response	<p><i>Accepted</i></p> <p>The title 'AMC1 GE.CER.DLS.630 DLS equipment interfaces' has been changed to 'AMC1 GE.CER.DLS.630(a) DLS equipment interfaces'</p>

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comment	<p>61 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>The required performance for 3 or 5NM separation is not achieved by the function and performance of an SDPS alone. It depends on the type and coverage of SUR sensors and the overall SUR chain performance, which can be assessed by the mentioned GM1 GE.CER.SURS.720. The SDPS can provide the listed data items but it is not the preposition for 3/5 NM separation - what the headline anticipates.</p> <p>Does EASA want to introduce an EU-wide application of 3/5 NM separation? This should not be done at this place.</p> <p>The current GEN SUR standard (ED-261) addresses surveillance and ATS surveillance function as a whole, it is recommended to make use of those existing provisions for further evolution of the DS.</p>
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	<p>If you wish to leave this list of data items as DS it is recommended to change the title to, e.g., "provision of data items".</p> <p>Secondly, the delivery of such data items requires particular types of SUR sensors connected. To prevent the requirement to be understood to deliver these data in any case, there should be a comment (GM?) that it depends on the capability of the SUR sensors to receive those data and, of course, on the capability of the aircraft transponder to transmit these data.</p>
response	<p><i>Accepted</i></p> <p>The title of DS GE.CER.SURS.710 has been changed to 'Data items to support 3 NM or 5 NM horizontal separation.'</p>
comment	<p>160 comment by: <i>CANSO</i></p> <p>Page 92, DS GE.CER.SURS.710 Data items to support 3 NM or 5 NM horizontal separation</p> <p>This requirement does not recognize that other horizontal separation exist. As the required data items for any separation is the same, it is proposed to remove the reference to separation values.</p> <p>The requirement ID would be DS GE.CER.SURS.710 Data items to support horizontal separation.</p> <p>A PSR will not be able to comply with these requirements. How will these systems be addressed in the scope of the conformity assessment?</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 61.</p>
comment	<p>202 comment by: <i>CANSO</i></p> <p>The required performance for 3 or 5NM separation is not achieved by the function and performance of an SDPS alone. It depends on the type and coverage of SUR sensors and the overall SUR chain performance, which can be assessed by the mentioned GM1 GE.CER.SURS.720.</p> <p>The SDPS can provide the listed data items but it is not the preposition for 3/5 NM separation - what the headline anticipates.</p> <p>Does EASA want to introduce an EU-wide application of 3/5 NM separation? This should not be done at this place.</p> <p>The current GEN SUR standard (ED-261) addresses surveillance and ATS surveillance function as a whole, it is recommended to make use of those existing provisions for further evolution of the DS.</p> <p>If you wish to leave this list of data items as DS it is recommended to change the title to, e.g., "provision of data items".</p>

response	<p>Secondly, the delivery of such data items requires particular types of SUR sensors connected. To prevent the requirement to be understood to deliver these data in any case, there should be a comment (GM?) that it depends on the capability of the SUR sensors to receive those data and, of course, on the capability of the aircraft transponder to transmit these data.</p> <p><i>Accepted</i></p> <p>See the response to comment # 61.</p>
comment	<p>255 comment by: <i>Nils</i></p> <p>DS GE.CER.SURS.710 Bullet (b) point (1). Is it really correct that Surveillance data processing systems should be able to produce the ICAO aircraft identification. Isn't that the callsign which is entered into flight plans? To produce that type of identification you usually have to parse information from a Surveillance data processing system and a flight plan system. And why is Mode S identity not mentioned when Mode 3/A code is mentioned?</p>
response	<p><i>Noted</i></p> <p>SDP will receive the aircraft identification reported by the aircraft, and will process and provide this data item for further usage. The information needed by the operator is aircraft identification and Mode A code.</p> <p>For clarity the text has been amended: '...SDPS provides, <u>determines</u> ...'</p>
comment	<p>278 comment by: <i>NAV Portugal E.P.E</i></p> <p>DS GE.CER.SURS.710 Data items to support 3 NM or 5 NM horizontal separation</p> <p>This requirement does not recognize that other horizontal separation exist. As the required data items for any separation is the same, it is proposed to remove the reference to separation values.</p> <p>The requirement ID would be DS GE.CER.SURS.710 Data items to support horizontal separation.</p> <p>A PSR will not be able to comply with these requirements. How will these systems be addressed in the scope of the conformity assessment?</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 61.</p>
comment	<p>761 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to DS GE.CER.SURS.710</p>

response	<p>in c) (1) it is mentioned 'non-cooperative' => if standalone primary radar are included in the scope of this Detailed Specification then there is contradiction with the item (b) because these items are obtained only through cooperative means.</p> <p><i>Noted</i></p> <p>DS GE.CER.SURS.710 states that SDP provides a surveillance data status, including 'non-cooperative'. It does not state that all items mentioned under DS GE.CER.SURS.710 (a) and (b) are available when the status is 'non-cooperative'.</p>
comment	<p>824 comment by: ENAIRE</p> <p>DS GE.CER.SURS.710 Data items to support 3 NM or 5 NM horizontal separation: Provision of data would depend on its availability (which depend on the actual reporting by A/C and the SUR sensor technology: e.g. Mode A/C transponders will not report 24-bit address and e.g. cooperative chain will not provide ID). This should be clearly stated in the text.</p>
response	<p><i>Not accepted</i></p> <p>All the objectives of DS GE.CER.SURS.710 need to be demonstrated using an adequate verification method. This does not depend on the actual operational scenario.</p>
comment	<p>1132 comment by: Alex Milns/EUROCAE</p> <p>To</p> <p>(a) Positional data (1) Horizontal (2D) position; (2) Time of applicability of horizontal position; (3) Vertical position based upon pressure altitude received from the aircraft; (4) Time of applicability of vertical position.</p> <p>(5) Integrity and accuracy metrics for the horizontal position</p> <p>(b) Operational identification data (1) Aircraft identity (Aircraft Identification, ICAO aircraft address or Mode 3/A code) reported by the aircraft; (2) Supplementary indicators: (i) emergency indicator (general emergency, radio failure and unlawful interference); (ii) special position identification (or indicator) SPI.</p> <p>(c) Surveillance data status (1) Cooperative/non-cooperative/combined; (Question: is it necessary to delineate between a Mode S/SSR and an ADS-B data source?) (2) Coasted/not coasted (position).</p>
response	<p><i>Partially accepted</i></p>

Integrity and accuracy metrics for the horizontal position and aircraft (24-bit) address are elements that are not directly displayed to the operators. These elements are processed by the SPD system.

EUROCONTROLSPEC-147 Section 3.4.2 Required data items does not focus on a delineation between a Mode S/SSR and an ADS-B data source but on Cooperative/non-cooperative/combined.

A reference to (5) Integrity and accuracy metrics for the horizontal position has been added.

Section 7 - Surveillance data processing

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comment

63

comment by: *DFS Deutsche Flugsicherung GmbH*

The allocation of SDP to the ATS-service supporting systems was made rule by Regulation 552/2004.

Simply because modern technology has enhanced the radar signal for the ATCO (as output of the SUR Service) such that the presentation form is pre-processed, this function has been allocated to an ATS system.

It is now not clear, what is meant by a "SURS". That above mentioned function of an ATS system, or the data processing function of a SUR system? The latter would confuse with the fact that the sensors of a SUR system are subject to declaration and not to this chapter (while you could assume that the same system needs both certificate and declaration).

The use of the "SURS" throughout this chapter may confuse with the SUR letters used for surveillance, while we are here talking about the SUR data processing system at the ATS service aren't we?

Suggest to use letters "SDP" or "SDPS" and clarify the applicability to SUR systems.

response

Accepted

SURS has been replaced by SDP.

comment

203

comment by: *CANSO*

The allocation of SDP to the ATS-service supporting systems was made rule by Regulation 552/2004.

Simply because modern technology has enhanced the radar signal for the ATCO (as output of the SUR Service) such that the presentation form is pre-processed, this function has been allocated to an ATS system.

It is now not clear, what is meant by a "SURS". That above mentioned function of an ATS system, or the data processing function of a SUR system? The latter would confuse with the fact that the sensors of a SUR system are subject to declaration and not to this chapter (while you could assume that the same system needs both certificate and declaration).



	<p>The use of the "SURS" throughout this chapter may confuse with the SUR letters used for surveillance, while we are here talking about the SUR data processing system at the ATS service aren't we?</p> <p>Suggest to use letters "SDP" or "SDPS" and clarify the applicability to SUR systems.</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 63.</p>
comment	<p>665 comment by: EUROCONTROL</p> <p>This Section is too vague to provide a certification basis for a complex system like an SDPS (i.e. a multi-sensor tracker).</p> <p><u>Proposed change:</u> EASA should revisit the certification basis for SDPS</p>
response	<p><i>Noted</i></p> <p>The DS will be further expanded as required in accordance with the EPAS based on implementation experience.</p>
comment	<p>758 comment by: Thales Land and Air Systems</p> <p>Can you confirm that the regulatory framework doesn't apply to non-cooperative sensor (e.g. standalone primary radar)?</p>
response	<p><i>Noted</i></p> <p>The DS will be further expanded to include references to all sensor technologies as required in accordance with the EPAS.</p>
comment	<p>1234 comment by: Irish Aviation Authority (IAA)</p> <p>Clarification should be provided regarding specific location of transposition of (EU) 1207/2011 Article 7(1) and Annex V.</p> <p>It is considered that the requirements contained in current SPI-IR; Article 7(1) and Annex V should be transposed in full.</p>
response	<p><i>Not accepted</i></p> <p>Article 7(1) is an organisational requirement and not a technical requirement applicable to DS.</p>

comment	<p>94</p> <p style="text-align: right;">comment by: <i>Hans Erstad</i></p> <p>The applicability (in DS GE.CER.SURS.701) is stated to be: "surveillance data processing systems (SDPSs) and constituents supporting air traffic services."</p> <p>For function (DS GE.CER.SURS.710) and performance (DS GE.CER.SURS.720) the applicability is limited to; "to support 3 NM or 5 NM horizontal separation".</p> <p>There could be "surveillance data processing systems (SDPSs) and constituents supporting air traffic services" that are not used to support 3 NM or 5 NM horizontal separation. Such systems could be interpreted two ways; to fall outside applicability of this detailed specification; or inside the applicability.</p> <p>This ambiguity of the detailed specification should be clarified. It seems reasonable to limit the detailed specification (or parts of it) to SDPSs supporting horizontal separation, but it should be clearer. It should be stated in the Scope/applicability section.</p> <p>As Section 7 is written, it is not clear what requirements (apart from GEN) will be applicable for SDPSs and constituents supporting air traffic services, but not supporting 3NM or 5NM horizontal separation. Such SDPSs are typically used in Aerodrome Control service.</p> <p>(Note on the relationship between air traffic services and aerodrome control service - the following definitions exists in regulation549/2004: 'air traffic services' means the various flight information services, alerting services, air traffic advisory services and ATC services (area, approach and aerodrome control services))</p>
response	<p><i>Accepted</i></p> <p>The title of DS GE.CER.SURS.710 has been changed to 'Data items to support 3 NM or 5 NM horizontal separation.'</p>
comment	<p>159</p> <p style="text-align: right;">comment by: <i>CANSO</i></p> <p>Page 92, GM1 GE.CER.SURS.701 Scope</p> <p>"Surveillance data processing encompasses the complete ground surveillance processing chain after the detection of aircraft by sensors up to the provision of surveillance data on the controller working position (CWP). It is independent of detection technologies (e.g. Mode S, WAM, ADS-B, etc.)."</p> <p>Does this imply that for the conformity assessment all surveillance systems are considered SDPS's? Is an ADS-B station, composed of the antenna and the Surveillance data processing unit that converts the received signal to ASTERIX messages, be considered an SDPS system thus requiring EASA certification?</p>
response	<p><i>Noted</i></p>

If an ADS-B station and associated SDP unit perform the functions as described in DS GE.CER.SURS.701, then it is subject to certification.

GM1 GE.CER.SURS.701 has been changed for clarity to ‘Surveillance data processing encompasses the complete ground surveillance processing chain after the detection of aircraft by sensors up to the provision of surveillance data on to the controller working position (CWP). It is independent of detection technologies (e.g. Mode S, WAM, ADS-B, etc.)’.

comment

277

comment by: NAV Portugal E.P.E

GM1 GE.CER.SURS.701 Scope

“Surveillance data processing encompasses the complete ground surveillance processing chain after the detection of aircraft by sensors up to the provision of surveillance data on the controller working position (CWP). It is independent of detection technologies (e.g. Mode S, WAM, ADS-B, etc.).”

Questions:

- Does this imply that for the conformity assessment all surveillance systems are considered SDPS’s?
- Is an ADS-B station, composed of the antenna and the Surveillance data processing unit that converts the received signal to ASTERIX messages, be considered an SDPS system thus requiring EASA certification?

response

Noted

See the response to comment # 159.

comment

432

comment by: FOCA Switzerland

As regards GM1 GE.CER.SURS.701 Scope, the definition does not seem to cover the possibility of getting sensor data from external suppliers (e.g. neighboring ANSPs or MIL). Or do you consider in such a case that the ground-ground link allowing the delivery of such sensor data is part of the SDPS ?

response

Noted

GM1 GE.CER.SURS.701 has been changed for clarity: ‘Surveillance data processing encompasses the complete ground surveillance processing chain after the detection of aircraft by sensors up to the provision of surveillance data on to the controller working position (CWP). It is independent of detection technologies (e.g. Mode S, WAM, ADS-B, etc.)’.

comment

433

comment by: FOCA Switzerland

As regards GM1 GE.CER.SURS.701 Scope, is the CWP (or part of it) part of the SDPS or does the SDPS scope stop when the surveillance data are delivered to the CWP being considered as an equipment with its own DS ?



response

Noted

CWP is currently not part of the DS. However, the SDP has the capability to provide the items mentioned under DS GE.CER.SURS.710 and the generic HMI requirements are to be considered.

GM1 GE.CER.SURS.701 has been changed for clarity: 'Surveillance data processing encompasses the ~~complete~~ ground surveillance processing ~~chain~~ after the detection of aircraft by sensors up to the provision of surveillance data ~~on~~ to the controller working position (CWP). It is independent of detection technologies (e.g. Mode S, WAM, ADS-B, etc.)'.

comment

666

comment by: EUROCONTROL

On the basis of this GM, a surveillance data distribution system that may be located in between sensors and a surveillance data processing system (i.e., a multi-sensor tracker) may be considered in the scope of the SDP GE, whereas these two constituents may be provided by different vendors.

The text refers to the "ground surveillance processing chain..." So, distribution may be considered as out of this scope.

There is a need to clarify better to avoid putting too strong/weak attestation mechanism for some GE's.

In addition the rest of Section 7 only addresses SDPS.

According to the NPA, "surveillance data processing" covers the full chain between sensor and controller working position. Does it imply gateways, local network equipment (COTS) and 3rd party WAN equipment (e.g. connectivity provided by telco companies) need to be certified as well?

Proposed change:

EASA is invited to clarify GM1 GE.CER.SURS.701 Scope and ensure that the possibility of having two different DPOs for the Surveillance data distribution system and a surveillance data processing system.

response

Noted

GM1 GE.CER.SURS.701 has been changed for clarity.

GM1 GE.CER.SURS.701 has been changed for clarity: 'Surveillance data processing encompasses the ~~complete~~ ground surveillance processing ~~chain~~ after the detection of aircraft by sensors up to the provision of surveillance data ~~on~~ to the controller working position (CWP). It is independent of detection technologies (e.g. Mode S, WAM, ADS-B, etc.)'.

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comment

62

comment by: DFS Deutsche Flugsicherung GmbH

AMC1 GE.CER.SURS.720

The sentence of this chapter "The data items should comply with the following Asterix messages" should be amended so to address the dependency on the used

response	<p>detection technology. E.g. compliance to that data item list could be a challenge if ADS-B data only are processed.</p> <p><i>Not accepted</i></p> <p>AMC1 GE.CER.SURS.720 includes 'or' depending on the data provided for the intended purpose.</p>
comment	<p>162 comment by: CANSO</p> <p>Page 93, GM1 GE.CER.SURS.720 Required performance to support 3 NM and 5 NM horizontal separation</p> <p>“The assessment of these performance indicators could be performed as described in EUROCONTROL SPEC- 0147, Edition 1.1, EUROCONTROL Specification for ATM Surveillance System Performance, Section 4.”</p> <p>EUROCAE document ED-261 Generic Surveillance Safety & Performance Requirements Document GEN-SUR SPR includes surveillance performance requirements and can be used to evaluate the adequacy of the SDPS systems for other horizontal separation values. Please add Reference to ED-261 Volume 1, chapter 4.</p>
response	<p><i>Not accepted</i></p> <p>Further evaluation of ED-261 can be performed in respect of further updates of the DS. It should be noted that the scope of this DS is limited to former IOP means of compliance.</p>
comment	<p>163 comment by: CANSO</p> <p>Page 93, AMC1 GE.CER.SURS.720 Surveillance data items Interface</p> <p>1 - The edition should not be fixed. The ASTERIX standard has its own rules for evolution ensuring compatibility across editions. 2 – Note that ASTERIX cat 1 & 2 are still in use and might continue to be used. They comply with the requirements in DS GE.CER.SURS.710.</p>
response	<p><i>Not accepted</i></p> <p>All standards evolve and may be considered for inclusion in further updates of the DS. Fitness for purpose needs to be assessed.</p> <p>CAT001 has become obsolete and has been replaced by CAT048 as mentioned in AMC1 GE.CER.SURS.720 (b). CAT002, which is a service message, has become obsolete and has been replaced by CAT034.</p>
comment	<p>204 comment by: CANSO</p> <p>AMC1 GE.CER.SURS.720</p>

response	<p>The sentence of this chapter "The data items should comply with the following Asterix messages" should be amended so to address the dependency on the used detection technology. E.g. compliance to that data item list could be a challenge if ADS-B data only are processed.</p> <p><i>Not accepted</i></p> <p>See the response to comment # 62.</p>
comment	<p>281 comment by: NAV Portugal E.P.E</p> <p>AMC1 GE.CER.SURS.720 Surveillance data items Interface</p> <p>1 - The edition should not be fixed. The ASTERIX standard has its own rules for evolution ensuring compatibility across editions. 2 – Note that ASTERIX cat 1 & 2 are still in use and might continue to be used. They comply with the requirements in DS GE.CER.SURS.710.</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 163.</p>
comment	<p>435 comment by: FOCA Switzerland</p> <p>As regards AMC1 GE.CER.SURS.720, it should read AMC1 GE.CER.SURS.730 (not 720).</p>
response	<p><i>Noted</i></p> <p>720 has been changed to 730.</p>
comment	<p>669 comment by: EUROCONTROL</p> <p>AMC1 GE.CER.SURS.720 Surveillance data items Interface</p> <p>Does it imply that former editions are acceptable as well? What about later Editions?</p> <p><u>Proposed change:</u> EASA should clarify which editions are acceptable.</p>
response	<p><i>Noted</i></p> <p>At the time of application, the editions as published in the DS are applicable.</p>
comment	<p>827 comment by: ENAIRE</p> <p>AMC1 GE.CER.SURS.720: ASTERIX deals with reports, which contain data items. Not all categories are applicable to all technologies.</p>

response	<p>Proposed amended text:</p> <p>Surveillance reports should comply with the following Asterix messages, where applicable.</p> <p><i>Not accepted</i></p> <p>AMC1 GE.CER.SURS.720 includes 'or' depending on the data provided for the intended purpose.</p>
comment	<p>890 comment by: <i>EASA Focal Point for AustroControl ANSP-issues</i></p> <p>Page 93: AMC1 GE.CER.SURS.720 Surveillance data items Interface: <Quote></p> <p>The data items should comply with the following Asterix messages: (a) Cat 062 in accordance with EUROCONTROL-SPEC-0149-9, Edition 1.20, CAT062 - EUROCONTROL Specification for Surveillance Data Exchange ASTERIX - Part 9 Category 062 SDPS Track Reports; or..... <\Quote></p> <p>Presently, ARTAS processing of Cat 062 is harmonized only up to Edition 1.16. To mandate processing of Edition 1.20 seems not to be realistic for a transition time of 5 years maximum.</p>
response	<p><i>Noted</i></p> <p>Edition 1.20 is applicable only at the time of application of the change.</p>
comment	<p>1183 comment by: <i>Indra Navia</i></p> <p>In AMC1 GE.CER.SURS.720 Surveillance data items Interface – Propose to include a note to be provided that the SDPS shall also process the service messages from e.g. ASTERIX CAT 034, 019, 023 and 063 and 065.</p>
response	<p><i>Partially accepted</i></p> <p>AMC1 GE.CER.SURS.720 has been changed to:</p> <p>'AMC1 GE.CER.SDP.SURS.7230 Surveillance data items Interfaces</p> <p>The data items should comply with the following Asterix messages:</p> <p>(a) Cat 062 in accordance with EUROCONTROL-SPEC-0149-9, Edition 1.20, CAT062– EUROCONTROL Specification for Surveillance Data Exchange ASTERIX - Part 9 Category 062 SDPS Track Reports;</p> <p>or</p> <p>(b) Cat 048 in accordance with EUROCONTROL-SPEC-0149-4, Edition 1.31, EUROCONTROL Specification for Surveillance Data Exchange ASTERIX - Part 4 Category 048 Monoradar Target</p>

<p>Reports; or</p> <p>(c) Cat 021 in accordance with EUROCONTROL-SPEC-0149-12, Edition 2.6, EUROCONTROL</p> <p>Specification for Surveillance Data Exchange ASTERIX - Part 12 Category 021 ADS-B Target</p> <p>Reports; or</p> <p>(d) Cat 020 in accordance with EUROCONTROL-SPEC-0149-14, Edition 1.10, EUROCONTROL</p> <p>Specification for Surveillance Data Exchange ASTERIX - Part 14 Category 020 Multilateration</p> <p>Target Reports; <u>or</u></p> <p><u>(e) Cat 065 'SDPS Service Status Messages' in accordance with EUROCONTROL-SPEC-0149-Part 15, Edition 1.6;</u></p> <p><u>(f) Cat 034 'Monoradar Service Messages' in accordance with EUROCONTROL-SPEC-0149-Part 2b, Edition 1.29;</u></p> <p><u>(g) Cat 023 'CNS/ATM Ground Station Service Messages' in accordance with EUROCONTROL-SPEC-0149-Part 16, Edition 1.3;</u></p> <p><u>(h) Cat 019 'MLT System Status Messages' in accordance with EUROCONTROL-SPEC-0149-Part 18, Edition 1.3.'</u></p>

PERFORMANCE

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comment

74

comment by: *DFS Deutsche Flugsicherung GmbH*

The SUR performance is a complex issue and is subject to the decision of the ATS provider. If he wants to offer 3/5NM separation, he needs a particular SUR service, that he has to request from his SUR provider. Only in the end, with connected sensors, SDPS and working position the sufficiency of the SUR chain performance can be measured to determine whether it is fit for 3/5NM separation. At the point of certification by EASA, this is not possible.

The re-cast of the SPI IR has transposed the requirement for the SUR performance for separation minima to the ATS provider in requirement ATS.OR.446 (c). The former AMC Article 4 To the SPI IR was meant for the provider, not for the equipment. The use of the in GM mentioned Eurocontrol Spec-147 should go as AMC under Reg. 373. ATS.OR.466 (c).

When requiring an equipment to be "fit for the intended purpose" and in absence of an industry standard, what should the DPO imagine as intended purpose (if he has no concrete contract to build an SDPS)? The DPO may not know about the intended purpose. Evidences may be all and nothing and depend on the goodwill of the authority. This section should rather be left empty until further evolution.

response

Not accepted

The outputs of SDP will be attested based on sensor input performance for the intended purpose.

comment

115

comment by: *T.Leitner*

DS GE.CER.SURS-720 and GM1 GE.CER.SURS.720: This chapter is about the GROUND SURVEILLANCE. See "CE.CER.SURS.701 Scope" where it says

"Surveillance data processing encompasses the complete ground surveillance processing chain after the detection of aircraft by sensors up to the provision of surveillance data on the controller working position (CWP). It is independent of detection technologies (e.g. Mode S, WAM, ADS-B, etc.)."

This implies and this surveillance data processing function would support the A-SMGCS only and therefore cannot be used for approach separation.

This needs to be clarified.

response

Noted

The title of DS GE.CER.SURS.710 has been changed to 'Data items to support 3-NM or 5-NM horizontal separation.'

GM1 GE.CER.SURS.701 has been changed for clarity: 'Surveillance data processing encompasses the complete ground surveillance processing chain after the detection of aircraft by sensors up to the provision of surveillance data on to the controller working position (CWP). It is independent of detection technologies (e.g. Mode S, WAM, ADS-B, etc.).'

Section 7 — Surveillance data processing does not refer to the A-SMGCS only.

comment

205

comment by: *CANSO*

The SUR performance is a complex issue and is subject to the decision of the ATS provider. If he wants to offer 3/5NM separation, he needs a particular SUR service, that he has to request from his SUR provider. Only in the end, with connected sensors, SDPS and working position the sufficiency of the SUR chain performance can be measured to determine whether it is fit for 3/5NM separation.

At the point of certification by EASA, this is not possible.

The re-cast of the SPI IR has transposed the requirement for the SUR performance for separation minima to the ATS provider in requirement ATS.OR.446 (c). The former AMC Article 4 To the SPI IR was meant for the provider, not for the equipment. The use of the in GM mentioned Eurocontrol Spec-147 should go as AMC under Reg. 373. ATS.OR.466 (c).

When requiring an equipment to be "fit for the intended purpose" and in absence of an industry standard, what should the DPO imagine as intended purpose (if he has no concrete contract to build an SDPS)? The DPO may not know about the intended



	<p>purpose. Evidences may be all and nothing and depend on the goodwill of the authority. This section should rather be left empty until further evolution.</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 74.</p>
comment	<p>256 comment by: <i>Nils</i></p> <p>The requirements on surveillance data processing are very weak in comparison to other areas in the NPA. The only requirements are on interfaces, and there are no requirements on performance (accuracy, correctness, delays, availability etc.). As ANSPs we will have to perform the same verification/validation activities as today. Or is it the intention that performance of SDPS should be verified by ANSPs? We do after all have access to the best data needed for verification/validation of an individual SDPS.</p> <p>Also, why do you point to section 4 in EUROCONTROL-SPEC-0147 (ESASSP) in GM1 GE.CER.SURS.720? Section 4 (in ESASSP) only explains <u>how</u> to perform the assessments, and it does not even point back to the actual performance requirements in section 3 of ESASSP. Also, section 4 in ESASSP is very much a text that focuses on helping and guiding people who are assessing surveillance systems. It is more like a mix of lessons learned, good advice and FAQ. More of a knowledge base than requirement text. A simple way of introducing some established performance requirements for SDPS would be to clearly point to section 3 in ESASSP (which is very good actually!).</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 1012.</p> <p>Note: ANSPs will not have to perform the same verification/validation activities as today for certified equipment.</p>
comment	<p>279 comment by: <i>NAV Portugal E.P.E</i></p> <p>DS GE.CER.SURS.720 Required performance to support 3 NM and 5 NM horizontal separation</p> <p>This requirement does not recognize that other horizontal separation exist. As the performance has to be adequate for whichever horizontal separation, it is proposed to remove the reference to separation values.</p> <p>The requirement ID would be DS GE.CER.SURS.720 Required performance to support horizontal separation.</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 94.</p>

comment	<p>280 comment by: NAV Portugal E.P.E</p> <p>GM1 GE.CER.SURS.720 Required performance to support 3 NM and 5 NM horizontal separation</p> <p><i>“The assessment of these performance indicators could be performed as described in EUROCONTROLSPEC- 0147, Edition 1.1, EUROCONTROL Specification for ATM Surveillance System Performance, Section 4.”</i></p> <p>EUROCAE document ED-261 Generic Surveillance Safety & Performance Requirements Document GEN-SUR SPR includes surveillance performance requirements and can be used to evaluate the adequacy of the SDPS systems for other horizontal separation values. Please add Reference to ED-261 Volume 1, chapter 4.</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 162.</p>
comment	<p>339 comment by: German NSA (BAF)</p> <p>GM1 GE.CER.SURS.720 Required performance to support 3 NM and 5 NM horizontal separation</p> <p>The current <u>edition</u> of EUROCONTROL-SPEC-0147 is <u>1.2</u>.</p>
response	<p><i>Accepted</i></p> <p>‘EUROCONTROL-SPEC-0147, Edition 1.1’ has been changed to ‘EUROCONTROL-SPEC-0147, Edition <u>1.2</u>’.</p>
comment	<p>434 comment by: FOCA Switzerland</p> <p>As regards GM1 GE.CER.SURS.720, we would like to make the following remark.</p> <p>EUROCONTROL-SPEC-0147 covers the performance of the entire surveillance chain including all the sensors and information sources. It cannot therefore be used as a means to demonstrate the performance of the SDPS independently of the sensors and sources. Moreover, the latest available version of ESASSP is 1.2. and the reference should be either that one (v1.2) or mentioned as : v1.1 or later.</p>
response	<p><i>Accepted</i></p> <p>See the responses to comments # 339 and # 1012.</p>
comment	<p>573 comment by: DCAC NSA Officer</p> <p>With regards to DS GE.CER.SURS.720: Wrong wording / typo. We suggest to change it to: “The performance of the SDPS supports the intended purpose”.</p>
response	<p><i>Accepted</i></p>

DS GE.CER.SURS.720 has been changed to 'The performance of the SDPS supports the intended purpose'.

comment

667

comment by: EUROCONTROL

GM1 GE.CER.SURS.720 Required performance to support 3 NM and 5 NM horizontal separation

Proposed change:

EASA should refer to the "last" version or find a more flexible wording to accommodate the later versions (as done above for the CS-STAN in AMC1 AUR.COM.3005 and AMC1 AUR.SUR.2005 Requirements on aircraft equipment).

response

Accepted

See the response to comment # 162.

comment

668

comment by: EUROCONTROL

GM1 GE.SURS.720

The performance assessed at the level of the equipment is performed in a simulated environment and depends of different factors such as data inputs.

Proposed change:

EASA should add some clarification on the limits of the performance assessment at equipment level and stress the importance of the verification at integration level.

response

Noted

See the response to comment # 1012. DS GE.CER.SURS.720 should be verified in accordance with the new AMC1 GE.CER.SURS.720 and using the verification methods referred to in the AMC & GM to Annex II (Part-ATM/ANS.EQMT.CERT) to Commission Delegated Regulation (EU) 2023/1768.

comment

756

comment by: Thales Land and Air Systems

Comment to GM1 GE.CER.SURS.720

EUROCONTROL-SPEC-0147, Edition 1.1, EUROCONTROL=> note that version 1.2 is applicable

response

Accepted

See the response to comment # 339.

comment

826

comment by: ENAIRE

GM1 GE.CER.SURS.720:

Ed. 1.1. is obsolete: Ed. 1.2 already exists. Ed. 1.3 is under open consultation.



response	<p><i>Accepted</i></p> <p>See the response to comment # 339.</p>
comment	<p>1012 comment by: <i>LEONARDO</i></p> <p>For SDPS , in the AMC session it is not reported any reference to DS GE.GEN.002, DS GE.GEN.003, and DS GE.GEN.004 (as typically reported in all the other requirements). Is this a copy/paste mistake or it is done on purpose? And Why ?</p>
response	<p><i>Accepted</i></p> <p>GM1 GE.CER.SURS.720 has been replaced by '<u>AMC1 GM1 GE.CER.SURSSDP.720</u> Required performance to support 3 NM and 5 NM horizontal separation</p> <p>(a) The assessment of these performance indicators should be performed as described in EUROCONTROL-SPEC-0147, Edition 1.1, EUROCONTROL Specification for ATM Surveillance System Performance, Section <u>34</u>.</p> <p>(b) Additional performance conditions applicable to the intended purpose of SDPS may be defined as required. Such potential additional performance conditions may be derived from activities related to DS GE.GEN.002, DS GE.GEN.003, and DS GE.GEN.004 <u>and DS GE.GEN.007</u>, for which the possible effects of the severity of the effect of failure on safety should be assessed.'</p>
comment	<p>1138 comment by: <i>Alex Milns/EUROCAE</i></p> <p>GM1 GE.CER.SURS.720 Required performance to support 3 NM and 5 NM horizontal separation</p> <p>The assessment of these performance indicators could be performed as described in EUROCONTROL-SPEC-0147, Edition 1.1, EUROCONTROL Specification for ATM Surveillance System Performance, Section 4.</p> <p>Comment: ED-261 ; SAFETY & PERFORMANCE REQUIREMENTS STANDARD FOR A GENERIC SURVEILLANCE SYSTEM, may have applicability here also</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 162.</p>
comment	<p>1235 comment by: <i>Irish Aviation Authority (IAA)</i></p> <p>It is suggested that GM1 GE.CER.SURS.720 should be at AMC level, as ATM/ANS providers currently demonstrate conformance with EUROCONTROL-SPEC-0147 to ensure seamless operations with neighbouring ANSPs.</p> <p>Accordingly, current SPI IR; AMC1 Article 4 'performance requirements' should be transposed in full and addressed as AMC at ATS requirement level in appropriate section of Regulation (EU) 2017/373, as also applicable to ATS providers.</p>
response	<p><i>Accepted</i></p>

See the response to comment # 1012.

comment 1304 comment by: *Tern Systems*

Typo

The performance of the SDPS **is to be supports** the intended purpose.

=>

The performance of the SDPS **supports** the intended purpose.

response *Accepted*

DS GE.CER.SURS.720 has been changed to 'The performance of the SDPS ~~is to be~~ supports the intended purpose'.

INTEGRITY

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comment 64 comment by: *DFS Deutsche Flugsicherung GmbH*

The spec is useless if there is no AMC. The DPO may not know about the intended purpose. Evidences may be all and nothing and dependent to goodwill of the authority. Rather reserve the chapter for later.

response *Accepted*

See the response to comment # 1012. Integrity is one performance item covered by CS GE.CER.SDP.720 and the new AMC1 GE.CER.SDP.720. DS GE.CER.SURS.740 has been removed.

comment 206 comment by: *CANSO*

The spec is useless if there is no AMC. The DPO may not know about the intended purpose. Evidences may be all and nothing and dependent to goodwill of the authority. Rather reserve the chapter for later.

response *Accepted*

See the response to comment # 64.

APPLICABILITY

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comment 436 comment by: *FOCA Switzerland*

As regards GM1 GE.CER.AGDC.101 Applicability, could you explain how far this equipment supports the use of SATCOM in addition to VDL Mode 2. It should be mentioned that a multilink architecture is part of the scope.

response *Noted*



It is recognised that SATCOM is also an enabler and will be added in further revisions of the DS in accordance with the EPAS.

comment	1191	comment by: EUROCONTROL
	Item (b) Constituents should also include ATN routers other than in the CSP domain, i.e. GGRs operated by ANSPs.	
	Proposed change :	
	Consider either a new item or generalising item b.	
response	Accepted	
	GM1 GE.CER.AGDC.101 has been changed to '(b) ATN routers in the CSP domain (i.e. GGR, AGR)'.	

DS GE.CER.AGDC.101 Scope	p. 95
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comment	828	comment by: Thales Land and Air Systems
	Comment to GM1 GE.CER.AGDC.101	
	Please confirm that ATN Ground-Ground BIS router in the ANSP domain is not part of the scope of this Detailed Specification.	
	If ATN G-G BIS reouter in the ANSP router is to be considered; please add it in the scope, if not where should it be specified DLS ? GG COM ?	
response	Accepted	
	See the response to comment # 1191.	
comment	1111	comment by: DSNA
	GM1 : Satcom (e.g. IRIS) services should be added.	
response	Noted	
	See the response to comment # 436.	
comment	1142	comment by: Alex Milns/EUROCAE
	(b) ATN routers in the CSP domain (i.e. GGR, AGR).	
	Comment: The acronyms CSP, GGR, AGR are not explained	
response	Accepted	

See the response to comment # 1191.

DS GE.CER.AGDC.110 Data communications equipment

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comment	1192	comment by: EUROCONTROL
	in the AMC1 GE.CER.AGDC.110	
	proposed change :	
	To add the 3rd part of ETSI EN 301 841:	
	ETSI EN 301 841-3 V2.1.1 (2016)	
response	<i>Accepted</i>	
	AMC1 GE.CER.AGDC.110 has been changed to add '(c) <u>ETSI EN 301 841-3 V2.1.1 (2016)</u> '.	

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comment	70	comment by: DFS Deutsche Flugsicherung GmbH
	Also the VDL Mode 2 MASPS DO-224A (most recent version is from 13.September 2000) shall be listed here.	
response	<i>Not accepted</i>	
	The updated AMC1 GE.CER.AGDC.110 (see the response to comment # 1192) covers the objective of DS GE.CER.AGDC.110.	
comment	207	comment by: CANSO
	Also the VDL Mode 2 MASPS DO-224A (most recent version is from 13.September 2000) shall be listed here.	
response	<i>Not accepted</i>	
	See the response to comment # 70.	
comment	644	comment by: CANSO
	AMC1.GE.CER.AGDC.120 Data communication equipment performance – VDL M2 Paragraph (a)(1): Again, as per comment against AMC1 GE.CER.DLS.610 DLS Equipment, this requires, effectively, the mandatory deployment of Baseline 2 ATS data communication from the next change of equipment after 13 September 2023, as otherwise a SoC cannot be produced.	

response	<i>Noted</i>
comment	<p>832 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to AMC1 GE.CER.AGDC.120</p> <p>Since an ATN GG router can be deployed as a single equipment, why does the AMC encompass other functions performed by AG router and VGS ?</p> <p>Please replace with the proposed text: Air-ground data communications equipment should comply, for the provided function, with:</p>
response	<p><i>Not accepted</i></p> <p>The intended purpose includes the 'provided function'.</p>
comment	<p>1088 comment by: <i>LEONARDO</i></p> <p>AMC1 GE.CER.AGDC.120: Bullet b) is ambiguous as does not reference any specific standard related to the A/G Data Link. Propose to modify as follows:</p> <p><i>(b) Additional performance conditions applicable to the intended purpose of air-ground data communications may be defined as required. Such potential additional performance conditions should refer to specific applicable A/G Data Link standard and may be derived from activities related to DS GE.GEN.002, DS GE.GEN.003, and DS GE.GEN.004, for which the possible effects of the severity of the effect of failure on safety should be assessed.</i></p>
response	<p><i>Not accepted</i></p> <p>Specific applicable A/G Data Link standards are mentioned in AMC1 GE.CER.AGDC.120(a). AMC1 GE.CER.AGDC.120(b) refers to DS GE.GEN.002, DS GE.GEN.003, DS GE.GEN.004 and DS GE.GEN.007.</p>
comment	<p>1112 comment by: <i>DSNA</i></p> <p>"The performance of air-ground data communications equipment supports the intended purpose." Satcom (e.g. IRIS) services should be added.</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 436.</p>
comment	<p>1193 comment by: <i>EUROCONTROL</i></p> <p>In AMC1 GE.CER.AGDC.120 : Proposed change :</p>

	<p>Add a reference to the VDL2 MOPS: EUROCAE ED-92C (Oct 18)</p> <p>In addition a reference to the EUROCAE document 276 (2020) with guidance on VDL interoperability issues needs to be added: ED-276 (2020) - Guidance on VDL interoperability</p>
response	<p><i>Partially accepted</i></p> <p>EUROCAE ED-92C (Oct 18) is applicable to the airborne domain.</p> <p>The new GM1 GE.CER.AGDC.120 <i>Data communications equipment performance — VDL M2</i> is added. This GM refers to ED-276 for additional information and guidance on the subject.</p>
comment	<p>1196 comment by: <i>Park Air Systems Ltd</i></p> <p>AMC1 GE.CER.AGDC.120 Data communications equipment performance — VDL M2 (a)(5)</p> <p>"ETSI EN 301 841-3 V1.2.1 (2015-04) VHF air-ground Digital Link (VDL) Mode 2; Technical characteristics and methods of measurement for ground-based equipment; Part 3: Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive"</p> <p>Unclear why this older version, that references the old R&TTE directive is referenced. Suggest change to V2.1.1 of September 2016 which references Radio Equipment Directive 2014/53/EU.</p>
response	<p><i>Accepted</i></p> <p>'ETSI EN 301 841-3 V1.2.1' has been replaced by 'ETSI EN 301 841-3 <u>V2.1.1</u>'.</p>
comment	<p>1310 comment by: <i>Garmin International</i></p> <p>AMC1 GE.CER.AGDC.120 Data communications equipment performance - VDL M2 : Page 96</p> <p>Although ED-228A is the current revision of ATS B2 standards, publication of Rev B of this standard is imminent. It is expected that many aircraft and ground systems will be developed to this Rev B standard. While not intending to preclude existing standards that may be technically and operationally acceptable, the systems following the Rev B standard should also be recognized.</p> <p>Proposed Text:</p>

response

In section stating "Air-ground data communications equipment should comply with:" either change reference to ED-228B or allow both A and B revisions.

Not accepted

Revision B of ED-228() and ED-229() was not available at the time of consultation and will be considered in further revisions of the DS in accordance with the EPAS .

INTERFACE

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comment

834

comment by: *Thales Land and Air Systems*

Comment to AMC1 GE.CER.AGDC.130

How to comply to all standards when it is not applicable for a particular equipment which needs only a limited type of interfaces, for example ATN GG BIS router ?

Please modify the following text as proposed:

Air-ground data communications equipment interfaces should comply, for the provided interfaces, with:

response

Not accepted

The proposed text adds a limited value and alternative means can be acceptable.

comment

1194

comment by: *EUROCONTROL*

In AMC1 GE.CER.AGCD.130

Proposed change :

Item (c). ICAO Doc 9880 reference can specifically be to Part III Chapter 3 - Internet Communications Service (ICS).

In addition a reference to the EUROCAE document 276 (2020) with guidance on VDL interoperability issues should be added:

ED-276 (2020) - Guidance on VDL interoperability

response

Partially accepted

See the response to comment # 1193. Item (c) has been amended to include ICS.



APPLICABILITY

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comment	<p>108</p> <p style="text-align: right;">comment by: <i>DSNA</i></p> <p>There is a discrepancy between categorization of radio equipment and radar station equipment. Surveillance Data Processing Systems are in the certification category while radar station equipment are only in the declaration category. The same logic should be applicable for Voice Communication Systems -subject to certification- and radio station equipment which are already well standardized. Consequently, radio station equipment should not be subject to certification and should be moved in the declaration category, in the same way than radar equipment are.</p>
response	<p><i>Not accepted</i></p> <p>Article 4 1.(a) of Regulation (EU) 2023/1768 covers the equipment supporting controller–pilot communications; therefore, this includes the radio station equipment.</p>
comment	<p>179</p> <p style="text-align: right;">comment by: <i>CANSO</i></p> <p>There is a discrepancy between categorization of radio equipment and radar station equipment. Surveillance Data Processing Systems are in the certification category while radar station equipment are only in the declaration category. The same logic should be applicable for Voice Communication Systems -subject to certification- and radio station equipment which are already well standardized. Consequently, radio station equipment should not be subject to certification and should be moved in the declaration category, in the same way than radar equipment are.</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 108.</p>
comment	<p>831</p> <p style="text-align: right;">comment by: <i>ENAIRE</i></p> <p>DS GE.CER.AGVC.201:</p> <p>It seems that the scope of this section is limited only to radio equipment. No detailed specifications for VCS VoIP systems?</p>
response	<p><i>Noted</i></p>

The section focuses on air-to-ground voice communication equipment, which is supported by radio equipment. VCS VoIP system will be added in further revisions of the DS in accordance with the EPAS.

comment 1148 comment by: Alex Milns/EUROCAE

General comment for this whole section:

Should this be describing ground to air communications, or air to ground to air (not air to ground)

Should it be made clear that though some of the (EUROCAE) performance standards referenced refer to VoIP, the performance requirements are equally applicable to other forms of distribution of voice communications?

response *Noted*

'Air-ground' is the usual wording that includes all types of communication between the airborne and ground domains. Section 2 — Voice communications should facilitate the future transition to VoIP, which will be addressed in further revisions of the DS in accordance with the EPAS.

PERFORMANCE

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comment 829 comment by: ENAIRE

DS GE.CER.AGVC.210 Air-to-ground voice communications:

What about stand-alone AGVC, that is Transceiver portable version?

response *Noted*

Transceiver portable is outside the scope.

comment 1002 comment by: Romanian CAA

At **AMC1 GE.CER.AGVC.220 (a)**

References to ICAO Annexes need to be reviewed or explained. For example, the NPA references ICAO Annex 10 to a later amendment than R373/2017 CNS.TR.100, that is Amd 91 vs Amd 89 in the Regulation.

response *Noted*

The update will be performed in time in the frame of the regular updates of Regulation EU) 2017/373.



comment 1007 comment by: LEONARDO

AMC3 GE.CER.AGVC.220 Climax performance: In the statement: (a) for CLIMAX PERFORMANCE should be specified the requirement number equal to seven (7) according to the ED 136 par 2.3 requirement n.7 [REQ RADIO PERFORMANCE].

response *Accepted*

AMC3 GE.CER.AGVC.220(a) has been changed to '(a) EUROCAE ED-136 – Voice over Internet Protocol (VoIP) Air Traffic Management (ATM) System Operational and Technical Requirements, Section 2.3, requirement n. 7 [REQ RADIO PERFORMANCE]';.

comment 1013 comment by: LEONARDO

For VOICE COMMUNICATION , in the AMC session it is not reported any reference to DS GE.GEN.002, DS GE.GEN.003, and DS GE.GEN.004 (as typically reported in all the other requirements). Is this a copy/paste mistake or it is done on purpose? And Why ?

response *Accepted*

AMC1 GE.CER.AGVC.220 Air-to-ground voice communication performance has been changed to:

(a) The air-to-ground voice communication equipment should comply with:

~~(a)~~ (1) ICAO Annex 10, Volume III, Part 2 (Second Edition – July 2007 incorporating Amendment No 91), Chapter 2, 'Aeronautical Mobile Service':

~~(1)~~ (i) Section 2.1 'Air-ground VHF communication system characteristics';

~~(2)~~ (ii) Section 2.2 'System Characteristics of the Ground Installation'.

~~(b)~~ (2) ETSI EN 300 676-2 (V2.1.1) (2015-12) Ground-based VHF hand-held, mobile and fixed radio transmitters, receivers and transceivers for the VHF aeronautical mobile service using amplitude modulation; Part 2: Harmonised Standard covering the essential requirements of article 3.2 of the Directive 2014/53/EU.

(b) Additional performance conditions applicable to the intended purpose of air-ground voice communications may be defined as required. Such potential additional performance conditions may be derived from activities related to DS GE.GEN.002, DS GE.GEN.003, GE.GEN.004 and DS GE.GEN.007, for which the possible effects of the severity of the effect of failure on safety should be assessed.

comment 1151 comment by: Alex Milns/EUROCAE

AMC3 GE.CER.AGVC.220 Climax performance

In multi-carrier/climax operation the difference between the longest and the shortest voice latencies for ground transmission components should comply with:

(a) EUROCAE ED-136 – Voice over Internet Protocol (VoIP) Air Traffic Management (ATM) System Operational and Technical Requirements, Section 2.3, requirement n. [REQ RADIO PERFORMANCE];

	Requirement n. needs to be resolved.	
response	<i>Accepted</i> See the response to comment # 1007.	
comment	1200	comment by: <i>Park Air Systems Ltd</i>
	AMC 2 GE.CER.AGVC.220 Voice delay Whitespace between AMC and reference number, inconsistent with elsewhere in document where there is no whitespace.	
response	<i>Accepted</i> The typo has been corrected.	
comment	1201	comment by: <i>Park Air Systems Ltd</i>
	AMC3 GE.CER.AGVC.220 Climax performance For EUROCAE ED-136, the applicable requirement in section 2.3 of that standard is not identified: "Section 2.3, requirement n." Suggest that the correct requirement here is requirement 7.	
response	<i>Accepted</i> See the response to comment # 1007.	
comment	1202	comment by: <i>Park Air Systems Ltd</i>
	AMC1 GE.CER.AGVC.225 Voice coding "A-low" should be A-law	
response	<i>Noted</i> AMC1 GE.CER.AGVC.225(a) has been removed. See the response to comment # 1203.	
comment	1203	comment by: <i>Park Air Systems Ltd</i>
	AMC1 GE.CER.AGVC.225 Voice coding The requirement in (a) is covered by the standard referenced in (b). Consider if it is necessary to include the codecs directly in (a).	
response	<i>Accepted</i> Indeed, EUROCAE ED-137 states that 'The Voice SHALL be coded according to ITU-T G.711 A-law or μ -law' and consequently AMC1 GE.CER.AGVC.225(a) has been removed.	

FUNCTION		p. 98
comment	<p>982</p> <p>comment by: <i>FR DSAC</i></p> <p>DS GE.CER.AGVC.210 This requirement is not understood. Does it mean that it concerns the certification of Voice Communication Systems (VCS)? What does "support the connection to the VCS" mean? If it concerns only the interface to the VCS, what kind of equipment does EASA consider for this DS? For an air-ground communication systems, it basically includes antennas, coupling equipment, emitters/receptors, networks, VCS, Operator Interface, headsets or equivalent. Could you be more explicit on the equipment concerned by this DS? Most of the intelligence, interoperability and criticality of Air-Ground communication systems are gathered in the VCS itself and no requirements seem to apply except for "voice coding"...</p> <p>Proposal: Be more explicit on the scope of the DS.</p>	
response	<p><i>Accepted</i></p> <p>DS GE.CER.AGVC.201 has been changed to 'The Section provides the functional and performance standards for air-to-ground voice communications <u>radios</u> operating in the band 117,975-137 MHz.'. DS GE.CER.AGVC.210 has been changed to 'Air-to-ground voice communications <u>radios</u> support the connections to the VCS.'.</p> <p>VCS VoIP system will be added in further revisions of the DS.</p>	
comment	<p>1150</p> <p>comment by: <i>Alex Milns/EUROCAE</i></p> <p>DS GE.CER.AGVC.210 Air-to-ground voice communications (See AMC1 GE.CER.AGVC.210) Air-to-ground voice communications support the connections to the VCS. <i>Acronym VCS unexplained. There is earlier reference to Voice Channel Spacing (VCS) on page 58, but not I do not think that is what is intended by VCS in this context.</i></p>	
response	<p><i>Accepted</i></p> <p>DS GE.CER.AGVC.210 has been changed to 'DS GE.CER.AGVC.210 Air-to-ground voice communications <u>radio</u></p> <p>Air-to-ground voice communications <u>radios</u> support the connections to the <u>Voice Communication System</u>-VCS.'.</p>	
comment	<p>1198</p> <p>comment by: <i>Park Air Systems Ltd</i></p> <p>DS GE.CER.AGVC.210 Air-to-ground voice communications</p> <p>Typo in "communications"</p>	
response	<p><i>Accepted</i></p>	

See the response to comment # 1150.

comment	1199	comment by: <i>Park Air Systems Ltd</i>
	DS GE.CER.AGVC.210 Air-to-ground voice communications	
	Should the word "equipment" be inserted between "communications" and "support", for consistency with other sections?	
response	<i>Partially accepted</i>	
	See the response to comment # 1150.	

Section 2 - Voice communications

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comment	1197	comment by: <i>Park Air Systems Ltd</i>
	DS GE.CER.AGVC.201 Scope	
	Should the word "equipment" be inserted between "communications" and "operating", for consistency with other sections?	
response	<i>Partially accepted</i>	
	See the response to comment # 1150.	

INTERFACE

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comment	1158	comment by: <i>Juan L. Diz</i>
	AMC1 GE.CER.AGVC.240 Air-to-ground voice communications interfaces	
	(b) (3)	
	EUROCAE ED-137.1/C, Sections 2.3, 3.1, 3.3, 3.4, 3.8.4, and 5.5.4	
	Question: Is it needed for the fulfilment of the section 5.5.4 in the ED137C -1/C, the functionality PTT Summation?	
response	<i>Noted</i>	
	RMT.0161 has identified AMC1 GE.CER.AGVC.240, in particular ED137C -1/C, as capable of supporting the objective of DS GE.CER.AGVC.240.	
comment	1204	comment by: <i>Park Air Systems Ltd</i>
	AMC1 GE.CER.AGVC.240 Air-to-ground voice communications interfaces	

	<p>"ICAO Annex 10, Section 2.2" - Clarify that this is section 2.2 of Volume 3 Part 2, i.e. consistent with reference in AMC1 GE.CER.AGVC.220 (a)</p> <p>Alternatively, consider if reference to Section 2.2 necessary here as this duplicates requirement in AMC1 GE.CER.AGVC.220 (a)</p>
response	<p><i>Accepted</i></p> <p>AMC1 GE.CER.AGVC.220 has been changed to:</p> <p>'The air-to-ground voice communication equipment should comply with:</p> <p>(a) ICAO Annex 10, Volume III, Part 2 (Second Edition – July 2007 incorporating Amendment No 91), Chapter 2, 'Aeronautical Mobile Service':</p> <p>(1) Section 2.1 'Air-ground VHF communication system characteristics';</p> <p>(2) Section 2.2.1.2 'System Characteristics of the Ground Installation' 'Power'.</p> <p>AMC1 GE.CER.AGVC.240 has been changed to:</p> <p>'(a) The air-to-ground voice communications system should support the following interfaces:</p> <p>(1) analogue 4W and 4WE&M,</p> <p>(2) voice over IP (VoIP)</p> <p>(b) The air-to-ground voice communications system should comply with:</p> <p><u>(1) ICAO Annex 10, Section 2.1;</u></p> <p>(1) (2) ICAO Annex 10, Sections <u>2.2</u> <u>2.2.1.1</u>, <u>2.2.1.3</u> and <u>2.2.1.4</u>;</p> <p>(2) (3) EUROCAE ED-136, Section 2.2.1;</p> <p>(3) (4) EUROCAE ED-137.1/C, Sections 2.3, 3.1, 3.3, 3.4, 3.8.4, and 5.5.4.'</p>
comment	<p>1205 comment by: <i>Park Air Systems Ltd</i></p> <p>AMC1 GE.CER.AGVC.240 Air-to-ground voice communications interfaces</p> <p>This section uses phase "communications system" whereas elsewhere "communications equipment" is used. Unclear if this distinction is intentional.</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 1150.</p>
comment	<p>1216 comment by: <i>Erik Tambs Andresen</i></p> <p>AMC1 GE.CER.AGVC.240 Air-to-ground voice communications interfaces, (b) (2)). The reference to ICAO Annex 10 is very inaccurate. It should be more precise.</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 1204.</p>

Subpart A - Ground-to-ground communications (COM)

p. 102

comment	670	comment by: EUROCONTROL
	<p>EUROCONTROL is providing a Surveillance Data Distribution System (assumed to be classified as G-G COM ground equipment TBC) for which there is not yet a specific DS-DS. Should EUROCONTROL provide a SoC (based only on DS-GEN requirements) to the ANS/ATM service provider integrating it in their Functional System after 12/09/2023 and before Sept 28?</p> <p><u>Proposed change:</u> EASA should clarify the SoC baseline for a Surveillance Data Distribution System during the transitional phase</p>	
response	<p><i>Noted</i></p> <p>Only a certified entity can issue a SoC.</p>	

DS GE.DEC.GGCOM.001 Scope

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comment	840	comment by: Thales Land and Air Systems
	<p>Please confirm that ATN GG BIS router in the ANSP domain is not part on the Ground-Ground communications section.</p>	
response	<p><i>Noted</i></p> <p>The specific equipment (e.g. GG routers) depends on the boundaries of equipment the DPO wishes to declare.</p>	

FUNCTION

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comment	109	comment by: DFS Deutsche Flugsicherung GmbH
	<p>AMC1 GE.DEC.AMHS.220 lists the chapters and Annexes of Eurocontrol-Spec-0136 to be complied with. The term "intended use" within the DS is understood, that, in cases where a DPO chooses (or the COM provider so requested) not to integrate a directory system (wich is specified in Annex C) or to opt for security mechanisms (as laid down in Annex D) this falls under the "intended use" and as such, those Annexes to the Spec-0136 may not be applied. Despite, the compliance of that equipment can be declared against this DS? Or does this mean a limited compliance, then?</p> <p>If this is not the intent, we rather recommend to retain the voluntary character of those two features and put them in a separate requirement wiht the introduction "if xy will be used, it should comply with ... Annex C" or "optionally the xyz feature ..."</p>	



response	<p>Due to lack of experience in applying DS or parts thereof some guidance or FAQ material would be helpful.</p> <p><i>Noted</i></p> <p>The limitations need to be declared and mentioned in the documentation as defined in DS GE.GEN.008.</p>
comment	<p>1243 comment by: <i>Frequentis Comsoft GmbH</i></p> <p>AMC1 GE.DEC.AMHS.220 GM1 GE.DEC.AMHS.220</p> <p>The specification of the Extended ATSMHS establishes four additional AMHS functional groups, which are IPM Heading Extensions (IHE), File Transfer Body Part (FTBP), Use of Directory (DIR) and AMHS Security (SEC).</p> <p>AMC1 GE.DEC.AMHS.220 refers to, among others, Annex B (Extended ATSMHS), Annex C (Directory) and D (AMHS Security) whereas GM1 GE.DEC.AMHS.220 is limited to IHE and FTBP. It is proposed to align AMC and GM.</p> <p>Please note, Note 2 of the EUROCONTROL Specification 0136 states that "it is recognised that the provision of AMHS Security services is not as advanced as other elements of the Extended ATSMHS, and still requires a number of technical and procedural issues to be resolved in a suitable forum. For that reason, the specifications in <u>Annex D are considered as advisory indications of the evolutionary direction.</u>"</p>
response	<p><i>Accepted</i></p> <p>GM1 GE.DEC.AMHS.220 has been changed to:</p> <p>'The extended ATS message handling service (use of FTBP and IHE) provides functionalities in addition to those of the basic AMHS such as the support of file transfer containing binary coded data, files, etc.'</p> <p>On the other hand, it should be noted that DS GE.GEN.002 is intended to address the information security appropriate for the intended use in the intended environment; thus, the application of Annex D could be considered as advisory material.</p>

Section 2 - ATS message handling system (AMHS)	p. 103
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comment	<p>257 comment by: <i>Nils</i></p> <p>For the whole of Section 2 the EUROCONTROL-SPEC-0136, Edition 2.1 seems like a very good choice. However, another document which has also been developed with the intention to cover the many regulatory and guiding documents within the field of AMHS is the EUR AMHS Manual, EUR Doc 020 from ICAO. This document contains (besides a comprehensive list of currently relevant requirements) some very useful descriptions of test procedures to completely verify this type of equipment. Is it</p>
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response	<p>possible to put in the ICAO EUR AMHS Manual (EUR Doc 020) as an alternative means of Detailed Specification in this section? Maybe especially as part of AMC1 GE.DEC.AMHS.230 AMHS?</p> <p><i>Partially accepted</i></p> <p>GM1 GE.DEC.AMHS.210 has been changed to:</p> <p>'(a) The basic AMHS meets the basic requirements of the MHS Profiles published by ISO as International Standardized Profiles (ISPs), and it incorporates additional features to support the service offered by the aeronautical fixed telecommunications network (AFTN);;</p> <p><u>(b) Additional information regarding the basic AMHS can be found in ICAO EUR Doc 020 EUR AMHS Manual v16 0.'</u></p> <p>GM1 GE.DEC.AMHS.220 has been changed to:</p> <p>'(a) The extended ATS message handling service (use of FTBP and IHE) provides functionalities in addition to those of the basic AMHS such as the support of file transfer containing binary coded data, files, etc.);;</p> <p><u>(b) Additional information regarding the extended AMHS can be found in ICAO EUR Doc 020 EUR AMHS Manual v16 0.'</u></p>
comment	<p>1239 comment by: <i>Frequentis Comsoft GmbH</i></p> <p>AMCs in this section (AMHS), namely AMC1 GE.DEC.AMHS.210, AMC1 GE.DEC.AMHS.220, AMC1 GE.DEC.AMHS.230 and AMC1 GE.DEC.AMHS.240, refer to the EUROCONTROL-SPEC-0136, <u>Edition 2.1</u>.</p> <p>EUROCONTROL-SPEC-0136, <u>Edition 2.0</u> had been acknowledged as Community Specification as published in the EU official journal (2009/C 323/06). As a result, current European regulation and related V&V activities refer to Edition 2.0. It seems Edition 2.1 so far has not been published as Community Specification replacing Edition 2.0.</p> <p>In this regard RMT.0161 subtask 3 raised a request for clarification of the status of <u>Edition 2.1</u> and to which extent Edition 2.1 has been validated or approved.</p> <p>In case there is no affirmative result for Edition 2.1 it is proposed to revert to Edition 2.0 for general reference in the AMCs identified above in order to maintain the status quo at least for the initial EASA specification.</p>
response	<p><i>Noted</i></p> <p>Edition 2.1 is applicable at the time of application for the change. Furthermore, as a result of the introduction of the new conformity assessment framework, the application of community specifications is no longer possible.</p>
comment	<p>1266 comment by: <i>Frequentis Comsoft GmbH</i></p> <p>AMC1 GE.DEC.AMHS.220 AMC1 GE.DEC.AMHS.230</p>

AMC1 GE.DEC.AMHS.240

There seems to be some misalignment regarding the references to chapters and annexes of EUROCONTROL-SPEC-0136. Chapters of the main part contain explanatory material for the requirements given by the annexes:

Basic ATSMHS: Chapter 2 - Annex A

Extended ATSMHS: Chapter 3 - Annex B

Directory: Chapter 4 - Annex C

Security: Chapter 5 - Annex D

In AMC1 GE.DEC.AMHS.220, chapter 3 and annexes B, C and D are mentioned. It is proposed to either add chapters 4 and 5, or to remove annexes B and D.

In AMC1 GE.DEC.AMHS.230, chapter 3 and annexes A and B are mentioned. It is proposed to either add chapter 2 or to remove annex A.

In AMC1 GE.DEC.AMHS.240, annex A in subclause (a) resp. annex B in subclause (b) are mentioned.

It is proposed to add chapter 2 in subclause (a) resp. to add chapter 3 in subclause(b).

response

Accepted

AMC1 GE.DEC.AMHS.210 Basic AMHS has been changed to:

'The basic AMHS should comply with EUROCONTROL-SPEC-0136, Edition 2.1, EUROCONTROL Specification for the Air Traffic Services Message Handling System (AMHS), Chapter 2, ~~Annex A~~.'

AMC1 GE.DEC.AMHS.220 Extended AMHS has been changed to:

The extended AMHS should comply with EUROCONTROL-SPEC-0136, Edition 2.1, EUROCONTROL Specification for the Air Traffic Services Message Handling System (AMHS), Chapters 3, 4 and 5, ~~Annex B, Annex C and Annex D~~.

AMC1 GE.DEC.AMHS.230 AMHS performance has been changed to:

(a) Basic and extended AMHSs should comply with EUROCONTROL-SPEC-0136, Edition 2.1, EUROCONTROL Specification for the Air Traffic Services Message Handling System (AMHS), ~~Chapter 3, Annex A and Annex B~~ Section A.2.1.4.

AMC1 GE.DEC.AMHS.240 AMHS interfaces has been changed to:

AHMS interfaces should comply with:

(a) EUROCONTROL-SPEC-0136, Edition 2.1, EUROCONTROL Specification for the Air Traffic Services Message Handling System (AMHS), ~~Chapter 2, Annex A – Basic~~

(b) EUROCONTROL-SPEC-0136, Edition 2.1, EUROCONTROL Specification for the Air Traffic Services Message Handling System (AMHS), ~~Chapter 3, Annex B – Extended~~

INTERFACE

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comment 452

comment by: SDM



	<p>SDM comment: <i>System wide information management (SWIM) is introduced as ATM/ANS equipment. However, SWIM shall exclusively be defined and specified at the level of interface specifications for the relevant ATM/ANS equipment such as FDP, EAMAN, DMAN, DL, AIM, ASM, ATFM and MET.</i></p> <p><i>Different than proprietary exchange technologies and protocols such as AMHS and FMTP, SWIM is based around common of the shelf IT commodities and therefore not specific to ATM/ANS. Creating a dedicated set of specifications/requirement for 'SWIM ATM/ANS Equipment' might create a perspective that SWIM is about proprietary technologies and requires investments in dedicated equipment.</i></p> <p><i>Describing the requirements at the level of interface specifications is sufficient to meet the objectives of the Basic Regulation, the new regulatory framework on the conformity assessment of ATM/ANS systems and ATM/ANS constituent, Regulation (EU) 2017/373 and Regulation (EU) 2021/116.</i></p>
response	<p><i>Noted</i></p> <p>Thank you for your comment. Software is an ATM/ANS constituent and is therefore addressed by the framework.</p>

FUNCTION	p. 105
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comment	<p>645 comment by: <i>CANSO</i></p> <p>As with many of the DS requirements, they might make sense if they were being placed on the ANSP – particularly as that is the basis of many of the referenced standards. However, the requirements appear to be too vague to be applied to a DPO. For example, it makes sense for an ANSP to ensure equipment is fit for its intended purpose, but a DPO may not know the intended purpose for all of their potential customers.</p>
response	<p><i>Noted</i></p> <p>ANSPs ensure that equipment is fit for the intended change of the functional system. They should ensure that the purchased equipment complies with the functional system.</p>
comment	<p>838 comment by: <i>IATA</i></p> <p>As referenced in the beginning of the current NPA, the ATM/ANS equipment proposed for inclusion within the scope of this first set of DS-GE need to consider the CP1 requirements.</p> <p>In that sense, the AMC defined for SWIM technical infrastructure only mentions the specifications for SWIM Infrastructure (TI) Yellow Profile detailed in EUROCONTROL SPEC-170, Edition 1.1.</p> <p>To be considered including the GM, specs and standards defined by the SDM as necessary and detailed in supporting material to the SDP, 2023, page 119:</p> <ul style="list-style-type: none"> - SWIM Common PKI policies & Procedures - Trust Framework



response	<p>- EACP Criteria and Methodology for Interoperability - Common PKI policies and processes - SWIM interfaces to Common PKI</p> <p><i>Not accepted</i></p> <p>EUROCONTROL SPEC-170 already cover the elements of security. The DS only addresses the technical requirements.</p>
comment	<p>984 comment by: FR DSAC</p> <p>AMC1 GE.DEC.SWIM.320 Mention explicitly that SWAL constraints may apply.</p> <p>Proposal: Mention explicitly that SWAL constraints may apply.</p>
response	<p><i>Not accepted</i></p> <p>SWAL is covered by DS GE.GEN.003.</p>

APPLICABILITY p. 105

comment	<p>983 comment by: FR DSAC</p> <p>DS GE.DEC.SWIM.301 It is not understood how equipment will be able to be declared SWIM compliant with the good level of performance without any a priori "intended use". It shall be explicit that SWIM compliant declaration should be linked to a specific usage and that compliance to this DS can only have a benefit if included within another certification/declaration/SoC application or it shall be explicit that SWIM compliance declaration of the infrastructure shall be delivered with design constraints/limitations for hosted applications. No mention of SWAL constraints?</p> <p>Proposal: Be more explicit on the scope of the DS and on the applicability and benefits of the declaration.</p>
response	<p><i>Noted</i></p> <p>SWIM is required to be fit for the intended use as determined by the DPO; therefore, a declaration should describe the intended use and any limitations foreseen.</p>

Section 4 - Flight message transfer protocol (FMTP) p. 107

comment	<p>66 comment by: DFS Deutsche Flugsicherung GmbH</p>
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response	<p>In the certification Section, the requirements for FMTP refer to this section, which falls under equipment for declaration. Does this mean that the FMTP parts of equipment for certification needs only a declaration? And: FMTP itself is not an equipment. This Section is not understood.</p> <p><i>Noted</i></p> <p>FMTP itself is equipment by definition (SW). Equipment subject to certification needs to include SW that interfaces with FMTP.</p>
comment	<p>208 comment by: <i>CANSO</i></p> <p>In the certification Section, the requirements for FMTP refer to this section, which falls under equipment for declaration. Does this mean that the FMTP parts of equipment for certification needs only a declaration? And: FMTP itself is not an equipment. This Section is not understood.</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 66.</p>
comment	<p>671 comment by: <i>EUROCONTROL</i></p> <p>Proposed change :</p> <p>Should previous comment to create DS GE.GEN.011 Standardised interfaces in Part GEN be approved this section could be removed.</p>
response	<p><i>Not accepted</i></p> <p>See the response to comment # 637.</p>
comment	<p>1010 comment by: <i>AESA</i></p> <p>The interoperability requirements of Annex I indicated in Article 3 of Regulation 633/2007 have not been directly carried over as AMC/GM from NPA 2023-05. It is indicated in this NPA that the FMTP must comply with EUROCONTROL-SPEC-0100, Edition 2.0, EUROCONTROL Specification of Interoperability and Performance Requirements for the Flight Message Transfer Protocol, so we request clarification as to whether this SPEC refers to these requirements.</p>
response	<p><i>Noted</i></p> <p>The transfer of data is an organisational obligation. The DS is technical only.</p>

- ATM/ANS equipment subject to certification or declaration of design compliance may be put into operation subject to a statement of compliance until 12 September 2028 (ref. EQMT Article 7(3))
- There will be a time period starting 13 September 2023 until approved DPOs are ready to provide certifications or declarations of design compliance in which Certified ATM/ANS Service Providers will issue SoCs for e.g Navigation equipment.
- The SoC shall state compliance with **detailed specifications** as proposed in NPA 2023-05.
- NPA 2023-05 Chapter 4.4 Part 3 Subpart B (Navigation) does not state any requirements at all
- What shall the SoC refer to in the time period until detailed specifications for Navigation is in place?

response *Noted*

The SoC should state compliance with the GEN specifications until the relevant DS sections have been published. The DS will be updated in accordance with the EPAS.

comment 98 comment by: DSNA

No specification is provided for the Navigation (NAV) subpart.

response *Noted*

NAV will be added in further revisions of the DS in accordance with the EPAS.

comment 180 comment by: CANSO

No specification is provided for the Navigation (NAV) subpart.

response *Noted*

See the response to comment # 98.

comment 888 comment by: EASA Focal Point for AustroControl ANSP-issues

This Subpart B is empty:

No AMC's and GMs on NAV to be found

response *Noted*

See the response to comment # 98.

Section 1 - General	p. 109
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comment 1214 comment by: Juan L. Diz



response	To be completed. See general comment 1089.
	<i>Noted</i>
	See the response to comment # 98.

DS GE.DEC.MSS.101 Scope

p. 110

comment	13	comment by: <i>DAC Luxembourg</i>
	This section should also include PSR and SSR radars.	
response	<i>Noted</i>	
	Other technologies such as PSR will be added in further editions of the DS in accordance with the EPAS.	
comment	833	comment by: <i>ENAIRE</i>
	Include DS for SMR, PSR and SSR.	
response	<i>Noted</i>	
	Other technologies such as PSR will be added in further editions of the DS in accordance with the EPAS.	
comment	841	comment by: <i>Thales Land and Air Systems</i>
	Do you confirm that primary radars are not include in the scope of regulatory framework and this Detailed Specification?	
response	<i>Noted</i>	
	Other technologies such as PSR will be added in further editions of the DS in accordance with the EPAS.	
comment	1236	comment by: <i>Irish Aviation Authority (IAA)</i>
	Suggest that subparts be included to address PSR, MSSR, SMR, MLAT.	
response	<i>Noted</i>	
	Other technologies such as PSR will be added in further editions of the DS in accordance with the EPAS.	

Subpart C - Surveillance (SUR)

p. 110

comment	258	comment by: <i>Nils</i>
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response	<p>Is it intentional that non-cooperative sensor types (PSR) will not be addressed in this regulation?</p> <p><i>Noted</i></p> <p>Other technologies such as PSR will be added in further editions of the DS in accordance with the EPAS.</p>
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FUNCTION

p. 111

comment	<p>67 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>DEC.MSS.210: "The MSS detects aircraft equipped with a transponder and provides the following data items" --> this is only possible for MSS if the transponder provides this information. According EMS "The following data items shall be made available to the transponder and be transmitted by the transponder as requested by the ground-based surveillance chain, via the Mode S protocol and in accordance with the formats specified in ICAO document 9871 (2nd edition):"</p> <p>Suggest to add that the "equipped with a transponder" rather formulates to a equipage prescription, e.g. CS-ACNS. And the DS should clarify that the MSS can only make available data items that it receives.</p>
response	<p><i>Partially accepted</i></p> <p>DS GE.DEC.MSS.210 has been changed to 'The MSS detects aircraft equipped with a transponder and <u>has the capability to</u> provide the following data items'.</p>
comment	<p>209 comment by: <i>CANSO</i></p> <p>DEC.MSS.210: "The MSS detects aircraft equipped with a transponder and provides the following data items" --> this is only possible for MSS if the transponder provides this information. According EMS "The following data items shall be made available to the transponder and be transmitted by the transponder as requested by the ground-based surveillance chain, via the Mode S protocol and in accordance with the formats specified in ICAO document 9871 (2nd edition):"</p> <p>Suggest to add that the "equipped with a transponder" rather formulates to a equipage prescription, e.g. CS-ACNS. And the DS should clarify that the MSS can only make available data items that it receives.</p>
response	<p><i>Partially accepted</i></p> <p>See the response to comment # 67.</p>

comment	<p>846 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to AMC1 GE.DEC.MSS.210</p> <p>Propose to replace with: The MSS should comply with System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapters 3, 5 and 6. Demonstration should be done in accordance to Mode S general operating model described in Annex A.</p>
response	<p><i>Partially accepted</i></p> <p>AMC1 GE.DEC.MSS.210 has been changed to 'The MSS should comply with <u>System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapters 3, 5 and 6.</u>'</p> <p>The DPO decides on the method of demonstration.</p>
comment	<p>847 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to AMC1 GE.DEC.MSS.220</p> <p>The MSS should comply with System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapters 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.11, 7.12, and Annex D. Demonstration should be done in accordance to Mode S general operating model described in Annex A.</p>
response	<p><i>Partially accepted</i></p> <p>AMC1 GE.DEC.MSS.220 has been changed to 'The MSS should comply with <u>System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapters 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.11, 7.12, and Annex D.</u>'</p> <p>The DPO decides on the method of demonstration.</p>
comment	<p>1117 comment by: <i>DSNA</i></p> <p>DS GE.DEC.MSS.210 Data items</p> <p>Not correct to say "MSS ... provides the following the data items" because this is highly dependent on what avionics can provide on the one hand, and on the EHS extraction configuration in a radar on the other (it reuses the IR SPI list, but this list was a requirement imposed on avionics and not on Mode S radars). Considering EHS, the radar only copy the data delivered by the transponder (if available) into asterix messages. It would have been preferable to indicate this, as we cannot impose any requirement on a technical system that is largely dependent on the capabilities of external systems.</p> <p>Comment applicable to all paragraphes where EMS is mentionned : AMC1 GE.DEC.MSS.210 Data items</p>

	DSNA Mode S radar are not compliant with EMS 4.0. They comply with Version 3.11 and ICAO Annexe 10 amd 88 and/or 89
response	<p><i>Noted</i></p> <p>Edition 4.0.is applicable at the time of application for the changes.</p> <p>DS GE.DEC.MSS.210 has been changed to 'The MSS <u>has the capability to</u> detects aircraft equipped with a transponder and provides the following the data items:'.</p>

APPLICABILITY

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comment	<p>835 comment by: <i>ENAIRE</i></p> <p>DS GE.DEC.MSS.201Scope:</p> <p>Eliminate from the list:</p> <p>(d) data recorder and playback;</p> <p>(g) NTP time server.</p> <p>Rationale:</p> <p>Those elements are ancillary for MSS.</p> <p>Data Recorder and Replay system could be a general off-line system for incident investigation.</p> <p>Meanwhile, NTP Server is a well-known protocol in the internet and TIC field. It is out of the scope of the MSS.</p>
response	<p><i>Accepted</i></p> <p>Those functions are included in AMC1 GE.DEC.MSS.230(a).</p> <p>DS GE.DEC.MSS.201 has been changed to:</p> <p>This Section provides the standards applicable to the Mode S ground station system (MSS) composed of the following elements:</p> <p>(a) interrogator;</p> <p>(b) processing (SMF, DLF, PAI);</p> <p>(c) local display;</p> <p>(d) data recorder and playback;</p> <p>(e) control and monitoring systems (CMS);</p> <p>(f) far field monitor;</p> <p>(g) NTP time server.</p>
comment	<p>842 comment by: <i>Thales Land and Air Systems</i></p> <p>remove (SMF, DLF, PAI) and keep only "processing".</p> <p>Those accronyms are too specific.</p>

response	<p><i>Accepted</i></p> <p>DS GE.DEC.MSS.201 has been changed to:</p> <p>This Section provides the standards applicable to the Mode S ground station system (MSS) composed of the following elements:</p> <ul style="list-style-type: none"> (a) interrogator; (b) processing (SME, DLF, PAI); (c) local display; (d) data recorder and playback; (e) control and monitoring systems (CMS); (f) far field monitor; (g) NTP time server.
comment	<p>844 comment by: <i>Thales Land and Air Systems</i></p> <p>EMS 4.0 defines the Mode S radar specification for the future and includes an entire set of functionalities that are not systematically required by every european ANSPs, some of them being even optional.</p> <p>EMS 4.0 has a variable scope allowing to each ANSP to specify a surveillance sensor consistent with its needs and environment. EMS 4.0 is not limited to Mode S radars, it also includes ADS-B functionalities which are not addressed in NPA-2023-05 Part 3/ Subpart B/Section 2.</p> <p>Structure of the EMS 4.0 is not suited for certification/declaration purpose, some EMS 4.0 sections are related to tenderer decisions and are not under the responsibility of the DPO.</p> <p>Moreover, some ANSP still purchase EMS 3,11 compliant radars to keep an homogeneous park of surveillance sensors.</p> <p>We propose two ways forward:</p> <ul style="list-style-type: none"> 1) refine the detailed specification by listing one by one the EMS 4.0 requirements under the DPO responsibility mandatory for the declaration 2) or accept to : <ul style="list-style-type: none"> a) continue deploy and put into service EMS 3,11 compliant radars for the european ANSPs requiring it; and b) deploy radars partially compliant to EMS 4.0 because some functionalities are not required by some european ANSP, for exemple ANSPs purchase radars without requiring a radome or purchase Mode S radars only without the ADS-B capability <p>Not to mention that the issued declaration will capture the associated limitations.</p>
response	<p><i>Partially accepted</i></p> <p>At the time of application, EMS 4.0 is applicable for the intended purpose.</p> <p>AMC1 GE.DEC.MSS.230 has been changed to:</p> <ul style="list-style-type: none"> (a) The MSS should comply with EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), <u>Chapter 2</u>.

comment	1115	comment by: DSNA
	DS GE.DEC.MSS.201 Scope (g) NTP servers. NTP to be suppressed. Some radars still use Time server with serial links.	
response	Accepted	
	See the response to comment # 835.	

Section 2 - Mode S ground station system (MSS)

p. 111

comment	1139	comment by: Roy Posern, Fraport AG / ACI Europe
	It is not clear what a MSS is different from the ASMGCS MLAT or the WAM system and what the intended use is. In A-SMGCS there is also reference to the constituent MLAT. Would that mean that in case of A-SMGCS an MLAT is not an MSS? The abbreviations in (b) are not explained.	
response	Noted	
	The scope of Section 2 is Mode S ground station system; it is not related to A-SMGCS. See the response to comment # 835.	

PERFORMANCE

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comment	848	comment by: Thales Land and Air Systems
	Comment to AMC1 GE.DEC.MSS.230 MSS	
	It is proposed to replace with: (a) The MSS should comply with System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapter 2.6 Mode S Performance. Demonstration should be done in accordance to Mode S general operating model described in Annex A.	
response	Partially accepted	
	AMC1 GE.DEC.MSS.230 has been changed to 'The MSS should comply with <u>System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in</u> EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapter 2.6.'. The DPO decides on the method of demonstration.	
comment	1119	comment by: DSNA

	<p>"AMC1 GE.DEC.MSS.230 MSS performance" ESASSP will become an AMC for the performances of the surveillance chain. Things are not so clear for sensors, but ESASSP should be usable. Whatever, ESASSP performances requirements have been introduced in EMS 4.0 for 3 and 5 NM separations performance requirement. We suggest to be more explicite and introduce ESASSP in the list of AMC for MSS performances.</p> <p>"(b) ETSI EN 303 363-1 (V1.1.1) (2022-02) Air Traffic Control Surveillance Radar Sensors; Secondary Surveillance Radar (SSR); Harmonised Standard for access to radio spectrum; Part 1: SSR Interrogator13." Considering spectrum, only Annex 10 vol III and IV is enforceable against the various manufacturers of radars and transponders (plus MOPS for the latter). Vol IV of Annex 10 is the worldwide baseline (for radars and transponders),</p> <p>Replace ETSI ref by ICAO annex 10 vol 4?</p>
response	<p><i>Not accepted</i></p> <p>The scope of ESASSP is limited to processing of ATM surveillance system and does not directly apply to Mode S ground station system.</p> <p>ETSI ENs provides recognised standards for the access to radio spectrum.</p>

comment	<p>1152 comment by: Alex Milns/EUROCAE</p> <p>ED-261 ; SAFETY & PERFORMANCE REQUIREMENTS STANDARD FOR A GENERIC SURVEILLANCE SYSTEM, may have applicability here also</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 162.</p>

INTERFACE

p. 113

comment	<p>672 comment by: EUROCONTROL</p> <p>AMC1 GE.DEC.MSS.240 MSS interfaces Proposed change : EASA is invited to add : "or later editions"</p>
response	<p><i>Not accepted</i></p> <p>At the time of application, the editions referred to in AMC1 GE.DEC.MSS.240 are applicable.</p>
comment	<p>849 comment by: Thales Land and Air Systems</p>

	<p>Comment to AMC1 GE.DEC.MSS.240 MSS</p> <p>It is proposed to replace with: The MSS should comply with System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapter 4.</p>
response	<p><i>Accepted</i></p> <p>AMC1 GE.DEC.MSS.240 has been changed to 'The MSS should comply with <u>System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in</u> EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapter 4'.</p>

INTEGRITY

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comment	<p>850 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to AMC1 GE.DEC.MSS 250</p> <p>The MSS should comply with System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapter 9.7.2.</p>
response	<p><i>Accepted</i></p> <p>AMC1 GE.DEC.MSS.240 has been changed to 'The MSS should comply with <u>System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in</u> EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapter 9.7.2'.</p>

HARDWARE

p. 113

comment	<p>851 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to AMC1 GE.DEC.MSS 260</p> <p>It is proposed to replace with:</p> <p>The MSS hardware should comply with System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapters 8.4 and 8.5.4. Demonstration should be done in accordance to Mode S general operating model described in Annex A.</p>
response	<p><i>Accepted</i></p>

AMC1 GE.DEC.MSS.260 has been changed to 'The MSS should comply with System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapters 8.4 and 8.5.4.

The DPO decides on the method of demonstration.

SPECIFIC ENVIRONMENTAL CONDITIONS

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comment	852	comment by: <i>Thales Land and Air Systems</i>
	Comment to AMC1 GE.DEC.MSS 270	
	It is proposed to replace with: The MSS should comply with System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapter 9.2.	
response	<i>Accepted</i>	
	AMC1 GE.DEC.MSS.270 has been changed to 'The MSS should comply with <u>System Requirements (identified as EMS-Cxx-SYS-SHA-xxxxx) included in EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapter 9.2.</u>	
comment	860	comment by: <i>ENAIRE</i>
	Editorial change: Environmental conditions.	
response	<i>Accepted</i>	
	DS GE.DEC.MSS 270 and AMC1 GE.DEC.MSS 270 have been changed to 'Environmental conditions'.	
comment	1024	comment by: <i>Indra Navia</i>
	Does this requirement take precedence over GE.GEN.006? How/where is this stated?	
response	<i>Noted</i>	
	DS GE.DEC.MSS 270 is an additional part to GE.GEN.006.	
comment	1153	comment by: <i>Alex Milns/EUROCAE</i>
	DS GE.DEC.MSS 270 Environmental conditions (See AMC1 GE.DEC.MSS.270)	
	The MSS is capable of operating in the environmental conditions corresponding to its intended purpose.	
	AMC1 GE.DEC.MSS 270 Environmental conditions	



response	<p>The MSS should comply EUROCONTROL-SPEC-189, Edition 4.0, EUROCONTROL Specification for European Mode S Station (EMS), Chapter 9.2.</p> <p><i>Accepted</i></p> <p>See the response to comment # 860.</p>
comment	<p>1206 comment by: <i>Park Air Systems Ltd</i></p> <p>DS GE.DEC.MSS 270 Environnemental conditions</p> <p>"Environnemental" - French spelling rather than English? Inconsistent with elsewhere in document</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 860.</p>
comment	<p>1207 comment by: <i>Park Air Systems Ltd</i></p> <p>AMC1 GE.DEC.MSS 270 Environnemental conditions</p> <p>"Environnemental" - French spelling rather than English? Inconsistent with elsewhere in document</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 860.</p>

FUNCTION	p. 115
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comment	<p>68 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>Reference to the aircraft transponder should not be "an ADS-B 1090ES transponder" but "an aircraft transponder according to ED-129B" (or any formulation that points into the relevant provision for the acft transponder equipage prescription, e.g. CS-ACNS).</p> <p>And the DS should clarify that the ADS-B can only make available data items that it receives.</p>
response	<p><i>Partially accepted</i></p> <p>DS GE.DEC.ADSB.310 has been changed to 'The ADS-B system detects aircraft equipped with an <u>appropriate ADS-B transmitter 1090ES transponder</u> and <u>has the capability to provide the following data items:</u>'.</p>
comment	<p>210 comment by: <i>CANSO</i></p>



	<p>Reference to the aircraft transponder should not be "an ADS-B 1090ES transponder" but "an aircraft transponder according to ED-129B" (or any formulation that points into the relevant provision for the acft transponder equipage prescription, e.g. CS-ACNS).</p> <p>And the DS should clarify that the ADS-B can only make available data items that it receives.</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 68.</p>
comment	<p>674 comment by: EUROCONTROL</p> <p>AMC1 GE.DEC.ADSB.310 Function</p> <p>As above for the Editions: ED-129C will shortly be published, before the 12th of Sept. Is is recommended to include to use ED-129C instead or at least to include a statement "or later editions".</p> <p><u>Proposed change:</u> EASA is invited to refer to ED-129C</p>
response	<p><i>Noted</i></p> <p>Revision C of ED-129() was not available at the time of consultation and will be added in further revisions of the DS in accordance with the EPAS.</p>
comment	<p>861 comment by: ENAIRE</p> <p>DS GE.DEC.ADSB.310: Provision of data would depend on its availability (i.e. the actual reporting by A/C). This should be clearly stated in the text.</p>
response	<p><i>Partially accepted</i></p> <p>See the response to comment # 68.</p>
comment	<p>863 comment by: ENAIRE</p> <p>AMC1 GE.DEC.ADSB.310: In the near future, ED-129C will supersede ED-129B. How will DS cope with this kind of updates? In case of specs updates, it is assumed that DS will not require the upgrade of systems whose declaration was made according to older (but applicable at the time of declaration) standards/specs. Please, clarify.</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 674.</p>
comment	<p>864 comment by: ENAIRE</p>

response	<p>AMC1 GE.DEC.ADSB.315: In the near future, ED-129C will supersede ED-129B. How will DS cope with this kind of updates? In case of specs updates, it is assumed that DS will not require the upgrade of systems whose declaration was made according to older (but applicable at the time of declaration) standards/specs. Please, clarify.</p> <p><i>Noted</i></p> <p>See the response to comment # 674.</p>
comment	<p>1120 comment by: DSNA</p> <p>DS GE.DEC.ADSB.310</p> <p>"(o) aircraft length and width; (p) global navigation satellite system (GNSS) antenna offset"</p> <p>Functions (o) and (p) are not mandatory. Never observed in ADS B data flow.</p> <p>We propose to suppressed these two functions.</p>
response	<p><i>Not accepted</i></p> <p>DS GE.DEC.ADSB.310 has been changed to 'The ADS-B system detects aircraft equipped with an <u>appropriate ADS-B transmitter</u> 1090ES transponder and <u>has the capability to</u> provide the following data items:'.</p>
comment	<p>1154 comment by: Alex Milns/EUROCAE</p> <p>Consider update from reference from ED-129B to ED-129C - as ED-129C at the date of this comment ED-129C is with EUROCAE Council for approval and expected to be published prior to 12 September</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 674.</p>

Section 3 - ADS-B	p. 115
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comment	<p>673 comment by: EUROCONTROL</p> <p>DS GE.DEC.ADSB.301 Scope</p> <p>Proposed change :</p> <p>Replace "ground" by "Surveillance"</p>
response	<p><i>Accepted</i></p>

DS GE.DEC.ADSB.301 has been changed to 'This Section provides the standards applicable to 1090 MHz extended squitter ADS-B ~~ground~~ surveillance systems.'

PERFORMANCE

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comment	340	comment by: <i>German NSA (BAF)</i>
	AMC1 GE.DEC.ADSB.320 ADS-B performance (b)	
	Please check if the reference is correct. It seems that "CER" can be deleted.	
response	<i>Accepted</i>	
	AMC1 GE.DEC.ADSB.320(b) has been changed to '(b) Additional performance conditions applicable to the intended purpose of ADS-B systems may be defined as required. Such potential additional performance conditions may be derived from activities related to DS GE.CER-GEN.002, DS GE.CER-GEN.003, and GE.CER-GEN.004 and <u>DS GE.GEN.007</u> , for which the possible effects of the severity of the effect of failure on safety should be assessed.'	
comment	865	comment by: <i>ENAIRE</i>
	AMC1 GE.DEC.ADSB.320: In the near future, ED-129C will supersede ED-129B. How will DS cope with this kind of updates? In case of specs updates, it is assumed that DS will not require the upgrade of systems whose declaration was made according to older (but applicable at the time of declaration) standards/specs. Please, clarify.	
response	<i>Noted</i>	
	See the response to comment # 674. A declaration is valid for the equipment and does not require updating due to the publication of a revised DS.	
comment	866	comment by: <i>ENAIRE</i>
	AMC1 GE.DEC.ADSB.320: DS GE.CER-GEN.002, DS GE.CER-GEN.003, and DS GE.CER-GEN.004 not found. Please review.	
response	<i>Noted</i>	
	See the response to comment # 340.	
comment	1122	comment by: <i>DSNA</i>
	These DS do not exist in this document. Suppressing CER lead to correct references	

response *Accepted*
See the response to comment # 340.

comment *1155* comment by: *Alex Milns/EUROCAE*
Consider update from reference from ED-129B to ED-129C - as ED-129C at the date of this comment ED-129C is with EUROCAE Council for approval and expected to be published prior to 12 September

response *Noted*
See the response to comment # 674.

INTERFACE

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comment *1156* comment by: *Alex Milns/EUROCAE*
Consider update from reference from ED-129B to ED-129C - as at the date of this comment ED-129C is with EUROCAE Council for approval and expected to be published prior to 12 September

response *Noted*
See the response to comment # 674.

ENVIRONMENTAL CONDITIONS

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comment *868* comment by: *ENAIRE*
AMC1 GE.DEC.ADSB.340:
ETSI EN 300 019 1-3 & 1-4 versions indicated in ED-129B and in AMC1 GE.GEN.006 are different. Will AMC1 GE.GEN.006 prevail? As indicated in a previous comment above, care should be taken when referring to specific version / ed. no. for documents, norms, etc.

response *Noted*
AMC1 GE.DEC.ADSB.340 has been deleted.

comment *870* comment by: *ENAIRE*
Editorial change: Environmental conditions.

response *Accepted*
See the response to comment # 860.



comment	1025	comment by: <i>Indra Navia</i>
	Does this requirement take precedence over GE.GEN.006?	
response	<i>Noted</i>	
	AMC1 GE.DEC.ADSB.340 has been deleted.	

comment	1157	comment by: <i>Alex Milns/EUROCAE</i>
	Consider update from reference from ED-129B to ED-129C - at the date of this comment ED-129C is with EUROCAE Council for approval and expected to be published prior to 12 September	
response	<i>Noted</i>	
	See the response to comment # 674.	

comment	1208	comment by: <i>Park Air Systems Ltd</i>
	DS GE.DEC.ADSB.340 Environnemental Conditions	
	"Environnemental" - French spelling rather than English? Inconsistent with elsewhere in document	
response	<i>Accepted</i>	
	See the response to comment # 860.	

comment	1209	comment by: <i>Park Air Systems Ltd</i>
	AMC1 GE.DEC.ADSB.340 Environnemental Conditions	
	"Environnemental" - French spelling rather than English? Inconsistent with elsewhere in document	
response	<i>Accepted</i>	
	See the response to comment # 860.	

General

p. 118

comment	1215	comment by: <i>Juan L. Diz</i>
	To be completed. See general comment 1089.	
response	<i>Noted</i>	



4.6. Draft detailed specifications and guidance material for ATM/ANS equipment subject to Statement of Compliance (DS-SoC)

p. 119

comment

89

comment by: *DFS Deutsche Flugsicherung GmbH*

Terminology used in DS for SoC is not understood. There are no AMC and the DS contains both, the present tense and "should". ICAO Doc and Annex, EUROCAE docs, EUROCONTROL Spec, and ETSI standards change between DS, AMC and GM level; without traceable methodology.

Why is that DS not built in the same principle as the DS for Cert/Decl? To be simple and clear, we need an objective to fulfil and an AMC that, if used, achieves the objective.

The statement that we put under comment No 79 applies here, too:

We need to prevent running into a not intended raise of retro-fit-implementations that are operationally not required or not feasible to implement into legacy systems. This principle is also valid for forward-fit equipment, which is contracted for a particular use and not in need of all applicable specifications.

We need clarity whether it is a matter of non-compliance if the equipment of a defined intended use comes into operation without parts of the applicable standards of a DS and what would be an appropriate way to introduce such equipment. Is this what is meant by indicating the limitations and conditions of use within the SoC resp. certificate or declaration?

response

Noted

Throughout the DS the present tense is used when describing the needed actions; furthermore, as the DS is 'soft law', terms such as 'shall' are not permitted, thus the use of 'should'.

As presented in various forums, the objective of a SoC is to list the applicable standards to be applied, as SoC are deemed as a simplified method of declaring compliance. With respect to retrofit obligations, the publication of DS does not impose any; the specifications become applicable when a change of the applicable system is undertaken.

comment

1072

comment by: *AESA*

There is no section that applies to "other ATS equipment supporting air traffic control (ATC) services when enabling the separation of aircraft or the prevention of collisions", as per GM1 Article 4.

response

Noted

Other equipment will be added to further revisions in accordance with the EPAS.

DC SoC.GEN.005 Standards to meet technical conditions

p. 119



comment	<p>211</p> <p style="text-align: right;">comment by: <i>CANSO</i></p> <p>Terminology used in DS is not understood. There are no AMC and the DS contains both, the present tense and "should". Why is that DS not built in the same principle as the DS for Cert/Decl? I.e. we need an objective to fulfil and an AMC that, if used, achieves the objective.</p> <p>The statement that we put under comment No 79 applies here, too: We need to prevent running into a not intended raise of retro-fit implementations that are operationally not required or not feasible to implement into legacy systems. This principle is also valid for forward-fit equipment, which is contracted for a particular use and not in need of all applicable specifications.</p> <p>We need some clarity whether it is a matter of non-compliance if the equipment of a defined intended use comes into operation without parts of the applicable standards of a DS and what would be an appropriate way to introduce such equipment. Is this what is meant by indicating the limitations and conditions of use within the SoC resp. certificate or declaration?</p>
response	<p><i>Noted</i></p> <p>See the response to comment # 89.</p>
comment	<p>223</p> <p style="text-align: right;">comment by: <i>MeteoSwiss</i></p> <p>It is assumed that the 'DC SoC.GEN.005' is a typo and should correctly read 'DS SoC.GEN.005'. If the 'DC' is deliberately used in some cases, then please disregard this comment.</p>
response	<p><i>Accepted</i></p> <p>The typo has been corrected.</p>
comment	<p>259</p> <p style="text-align: right;">comment by: <i>Nils</i></p> <p>Bullet (b)</p> <p>In relation to DS GE.GEN.003 Software there is only guidance material (GM2 GE.GEN.003) which propose the use of EUROCAE ED-153 and EUROCAE ED-109, but regarding Statement of Compliance it is required at Implementing Rule level (!) to use ED-153 and ED-109. The same level of Software Assurance should be required irrespective of whether a Declaration of Design Compliance or a Statement of Compliance is to be produced. Considering that most of the objectives in ED-153 and ED-109 fall under the responsibility of DPOs they still have to deal with these objectives.</p>
response	<p><i>Partially accepted</i></p> <p>DC SoC.GEN.005(b) has been changed to:</p> <p>'Software is to be developed with an assurance level that is commensurate with the intended use. The software assurance level should be determined according to the safety assessment.</p> <p>In addition GM1 SoC.GEN.005(b) has been added with reference to</p>

(1) EUROCAE ED-109A including Corrigendum 1 - Software Integrity Assurance Considerations for CNS/ATM Systems
 (2) EUROCAE ED-153 - Guidelines for ANS Software Safety Assurance'

comment 260 comment by: Nils

Bullet (d)
 This is a weird way of wording the concept of acceptable risk. What it actually says is that if the probability of a failure is low the severity of the effect of the failure should be high. Please change to a statement with something like "the higher the severity of the effect of a failure the lower the acceptable probability of the failure needs to be".

response *Not accepted*
 The initial text is appropriate.

comment 576 comment by: DCAC NSA Officer

With regards to point (d) please see our previous suggestion on the term:
 "an inverserelationship with the severity of the effect".

response *Not accepted*
 The initial text is appropriate.

comment 675 comment by: EUROCONTROL

ETSI EN 300 019-1-3 **defines classes of environmental conditions** and their severities to which telecommunication equipment may be exposed. As CNS equipment is not be found in SoC , that reference does not seem appropriate. Same issue with reference (2). Suggest to suppress them and replace them with appropriate standards if any.

Proposed change:

Remove items (1) and (2) as out of scope of SoC

response *Not accepted*
 The applicability of such standard to specific equipment is to be assessed at the time of application.

comment 676 comment by: EUROCONTROL

Item (e) Information security

Proposed change :

	<p>The sentence should read as "The ATM/ANS equipment security is to be appropriate for the intended purpose in the intended environment" to be consistent with what is stated in DS GE.GEN.002 Information security. To be confirmed on the basis of ED-205A.</p>
response	<p><i>Partially accepted</i></p> <p>GM1 SoC.GEN.005(e) has been added that states:</p> <p>The framework provided by EUROCAE ED-205A 'Process standard for information security certification and declaration of ATM ANS ground systems' may be used to support the definition of the required level of information security.'</p>
comment	<p>857 comment by: <i>Thales Land and Air Systems</i></p> <p>comment on (b) Software</p> <p>Item (d) cannot be considered as the adequate mean to allocate AL as it does not define any safety assessment methodology to identify and classify the risks associated to the equipment nor to allocate the relevant Assurance Level to the Software. ==> Item (d) must promote the adequate safety top-down assessment approach.</p>
response	<p><i>Noted</i></p> <p>An update of the risk assessment methodology will be considered in further revisions in accordance with the EPAS.</p>
comment	<p>858 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to (b) software</p> <p>Reference to ED-109A should be used instead of ED-109.</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 259.</p>
comment	<p>862 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to (c) Hardware</p> <p>Item (d) cannot be considered as the adequate mean to allocate relevant safety requirements on the Hardware, as it does not define any safety assessment methodology to identify and classify the risks associated to the equipment nor to allocate the relevant requirements to the Hardware. ==> Item (d) must promote the adequate safety top-down assessment approach.</p>
response	<p><i>Noted</i></p> <p>An update of the risk assessment methodology will be considered in further revisions in accordance with the EPAS.</p>

comment	<p>867 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment to (d)</p> <p>We consider that this new regulatory framework does not achieve its initial objectives, meaning harmonisation of ATM/ANS equipment and certificate recognition across Europe.</p> <p>The proposed risk assessment detailed specification is not deemed appropriate as :</p> <ul style="list-style-type: none"> - it is missing the definition of safety objectives to be achieved by the certified equipment - is does not define a safety assessment methodology ensuring the adequation between the equipment safety level and the ANSPs requirements resulting from the ANSP safety assessment (as per 2017/373). <p>==> We consider that the Detailed Specification need to define:</p> <ul style="list-style-type: none"> - severity classes definitions - safety objectives associated to the defined severity classes - safety objectives allocation for each ATM/ANS function - a standardised and recognised top down system safety methodology driven by the defined safety objectives <p>We will be more than happy to continue supporting EASA and the RMT in further maturing the Detailed Specifications.</p>
response	<p><i>Noted</i></p> <p>An update of the risk assessment methodology will be considered in further revisions in accordance with the EPAS.</p>
comment	<p>869 comment by: <i>Thales Land and Air Systems</i></p> <p>Comment on (d)</p> <p>How can the ATM regulation remain unable to go beyond the extremely basic principle detailing that "the probability of a failure has an inverse relationship with the severity of the effect of the failure with respect to its intended purpose" whereas it exists in the embedded aeronautical domain since at least 1988 for FAA through the AC25.1309-1A and AMC25.1309 at the creation of the EASA in 2003 and even earlier by the JAA ACJ 25.1309?</p> <p>Today some inconsistent severity risk definition exist in different standards and are differently applied by the ATM domain like ED-78A ED-109A, SAM.</p> <p>==> EASA must not limit this requirement to this too basic concept and must provide a real severity classes definition and must determine the associated safety objectives</p>
response	<p><i>Noted</i></p> <p>An update of the risk assessment methodology will be considered in further revisions in accordance with the EPAS.</p>
comment	<p>871 comment by: <i>Thales Land and Air Systems</i></p>

	<p>Comment on (e)</p> <p>As security risk management is to be performed with safety impacts in mind, the regulators should provide a minimum set of cyber-attack scenarios and safety hazards with the associated safety objectives to be considered by the security assessments</p>
response	<p><i>Accepted</i></p> <p>An update of the risk assessment methodology will be considered in further revisions in accordance with the EPAS.</p>
comment	<p>872 comment by: ENAIRE</p> <p>What does DC stand for? It seems to be a misspelling and it should be “DS” instead of “DC”.</p>
response	<p><i>Accepted</i></p> <p>The typo has been corrected.</p>
comment	<p>873 comment by: ENAIRE</p> <p>The standard referred to in (1) is applicable to telecommunications equipment. It is understood that it doesn't apply to in-house Data Processing Systems.</p>
response	<p><i>Noted</i></p> <p>If data processing systems are part of the ATM/ANS equipment, the standards are applicable.</p>
comment	<p>874 comment by: ENAIRE</p> <p>Some questions about the ETSI environmental standards:</p> <p>a) Will space-based ATM/ANS equipment comply with different sets of standards, to be defined in later stages?;</p> <p>b) Is ATM/ANS equipment installed in marine environments (e.g. oil rigs, vessels, etc.) considered as “ground-based”? Would it need additional specific requirements?</p>
response	<p><i>Noted</i></p> <p>a) In general, environmental standards should be updated to support the evolution of ATM; thus, if required, a different set will be applicable.</p> <p>b) It is addressed by GM1 GE.GEN.006.</p>
comment	<p>876 comment by: ENAIRE</p>

	<p>GM1 SoC.GEN.005:</p> <p>This GM contains a number of time-sensitive elements such as website/postal addresses or phone numbers which may be quickly rendered obsolete. Some of these data can be obtained from those organisations' websites.</p> <p>Furthermore, the level of detail of the contact data is not the same for all organisations (e.g. Eurocontrol's postal address is not shown).</p>
response	<p><i>Accepted</i></p> <p>GM1 SoC.GEN.005 has been changed to:</p> <p>'The standards documents referred to in these detailed specifications may be purchased or obtained from the following organisations:</p> <p>ETSI European Telecommunications Standards Institute https://www.etsi.org/standards</p> <p>EUROCAE documents: website: www.eurocae.net</p> <p>EUROCONTROL Document Library: https://www.eurocontrol.int/standardisation</p>
comment	<p><i>1009</i> comment by: <i>LEONARDO</i></p> <p>It is proposed to replace SWAL with SWAL/AL, according to either ED-153/ED-109A</p>
response	<p><i>Not accepted</i></p> <p>SWAL is deemed to be the correct term.</p>
comment	<p><i>1015</i> comment by: <i>LEONARDO</i></p> <p>Why for equipment for which a statement of compliance (SoC) is foreseen the ED-153, E-109A e ED-205 are a requirement and not a GM? In the "Declaration" and "Certification" documents they are indeed a GM.</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 259.</p>
comment	<p><i>1016</i> comment by: <i>LEONARDO</i></p> <p>Is the GM1 SoC.GEN.005 valid also for CS/DS GE?</p>
response	<p><i>Noted</i></p> <p>GM1 SoC.GEN.005 is only valid with respect to the referenced SoC.</p>

comment	1083	comment by: <i>Deutscher Wetterdienst</i>
	<p>EASA is invited to provide further clarification and / or guidance material regarding measures to ensure the compliance of ATM/ANS equipment for which the specified standards are not applicable.</p> <p>The current text may result in non-homogeneous implementation, contradicting the intended principle of harmonization.</p>	
response	<p><i>Noted</i></p> <p>With respect to the ATM/ANS equipment subject to SOC, it is anticipated that all will be addressed by available standards. The DS will be updated in accordance with the EPAS to include additional ATM/ANS equipment.</p>	
comment	1129	comment by: <i>Météo-France</i>
	<p>(d) Risk assessment needs to be clarified with GMs</p>	
response	<p><i>Noted</i></p> <p>This will be considered in further updates of the DS in accordance with the EPAS.</p>	
comment	1160	comment by: <i>Alex Milns/EUROCAE</i>
	<p>(b) Software</p> <p>Software is to be developed with an assurance level that is commensurate with the intended operations.</p> <p>Compliance should be demonstrated with one of the following, as applicable:</p> <p>(1) EUROCAE ED-109A including Corrigendum 1 - Software Integrity Assurance Considerations for CNS/ATM Systems</p> <p>(2) EUROCAE ED-153 - Guidelines for ANS Software Safety Assurance</p> <p>Comment for section (d):</p> <p>Risk assessment may consider the applicability of ED-78A in this area.</p>	
response	<p><i>Partially accepted</i></p> <p>See the response to comment # 259. ED-78A 'guidelines for approval of the provision and use of air traffic services supported by data communications' is not considered as supporting the risk assessment.</p>	
comment	1174	comment by: <i>Belgian Supervisory Authority</i>
	<p>DC SoC.GEN.005 Standards to meet technical conditions – page 119</p> <p>Text below to be made applicable only from 13/09/2025, with the same reasoning as for AMC1 GE.GEN.006 and AMC1 GE.GEN.007.</p> <p>Additionally, by analogy with AMC1 GE.GEN.006, the Belgian Supervisory Authority assesses that those provisions should be an AMC, not a “hard requirement”. It</p>	

	<p>would not be logic that SoC systems are subject to tougher requirements than certified systems.</p> <p>Compliance should be demonstrated with one of the following environmental standards, as applicable:</p> <p>(1) ETSI EN 300 019-1-3 (V2.4.1) (2014-04) ‘Environmental Engineering (EE); Environmental conditions and environmental tests for telecommunications equipment; Part 1-3: Classification of environmental conditions; Stationary use at weather protected locations’</p> <p>(2) ETSI EN 300 019-1-4 (V2.2.1) (2014-04) ‘Environmental Engineering (EE); Environmental conditions and environmental tests for telecommunications equipment; Part 1-4: Classification of environmental conditions; Stationary use at non-weather protected locations’</p>
response	<p><i>Partially accepted</i></p> <p>Deferred requirements within a DS cannot be achieved. See the response to comment # 1172.</p>

comment	<p>1175 comment by: <i>Belgian Supervisory Authority</i></p> <p>GM1 SoC.GEN.005 Standards to meet technical conditions – page 120</p> <p>According to this GM requirement, the standards documents are meant to be “purchased or obtained”. How these standards documents may be obtained without being purchased? How small companies developing ATM/ANS equipment would be able to purchase the required standards documents? In case of a performances’ update in an ETSI or a EUROCAE standards document, would it be necessary to purchase again the updated standards document?</p>
response	<p><i>Noted</i></p> <p>Some standards are freely available on websites, some others need to be purchased.</p>

comment	<p>1210 comment by: <i>Park Air Systems Ltd</i></p> <p>DC SoC.GEN.005 Standards to meet technical conditions</p> <p>Suggest DC should be DS, i.e. detailed specification.</p>
response	<p><i>Accepted</i></p> <p>See the response to comment # 223.</p>

DS SoC.GEN.001 Scope	p. 119
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comment	<p>341 comment by: <i>German NSA (BAF)</i></p>
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	<p>For the transition period it is not clear which GEN-requirements should be used for ATS and CNS equipment.</p> <p>Should be used GEN-requirements from DS-SoC or from DS-GE?</p> <p>An AMC for such a statement should be elaborated.</p> <p>See also comment on “DS GE.GEN.001 Scope”.</p>
response	<p><i>Not accepted</i></p> <p>The DS refers to technical requirements which are not related to transition. Consequently, an AMC cannot be added in this respect. Equipment subject to certification or declaration needs to comply with DS GE even though in the transition a SoC can be issued.</p>

SUBPART A - General

p. 119

comment	574	comment by: <i>DCAC NSA Officer</i>
	Double “and”. Please correct typo.	
response	<i>Accepted</i>	
comment	575	comment by: <i>DCAC NSA Officer</i>
	We suggest that a GM is added in order to clarify what should be done in case no detailed specifications are drafted for a certain equipment that is subject to a SoC	
response	<i>Not accepted</i>	
	This will be considered in the EASA FAQ.	
comment	1159	comment by: <i>Alex Milns/EUROCAE</i>
	Deleted(relocated to 1160)	
response	<i>Noted</i>	

DC SoC.GEN.010 Identification

p. 120

comment	224	comment by: <i>MeteoSwiss</i>
	It is assumed that the 'DC SoC.GEN.010' is a typo and should correctly read 'DS SoC.GEN.010'. If the 'DC' is deliberately used in some cases, then please disregard this comment.	



response *Accepted*

'DC SoC' has been changed to 'DS SoC'.

comment *677* comment by: *EUROCONTROL*

New DC SoC.GEN.015 Standardised interfaces is proposed below. It will avoid repeating the same requirement/standard for each GE implementing these standardised GE interfaces which are widely applied by Ground Equipment (ADEXP for ATS exchanges, ASTERIX for Surveillance information, B2B for interfaces with NM systems)

Proposed change:
Add the following new requirement :

DC SoC.GEN.015 Standardised interfaces
The GE implementation of standardised interface(s) is correct.
AMC1 SoC.GEN.015 All Purpose Structured EUROCONTROL Surveillance Information Exchange (ASTERIX) category NN
The GE interface should comply with EUROCONTROL-SPEC-0149-NN (latest edition) or any other edition which is compatible with this latest edition
AMC2 SoC.GEN.015 NM B2B
The GE interface should comply with EUROCONTROL NMB2B/27.0 NM 27.0 - NM B2B Reference Manual Edition 3

response *Not accepted*

The standards are mentioned across the document.

comment *875* comment by: *ENAIRE*

What does DC stand for? It seems to be a misspelling and it should be "DS" instead of "DC".

response *Accepted*

See the response to comment # 224.

comment *878* comment by: *ENAIRE*

Not consistent with table in GM1 Article 4 in pages 22-23.

response *Not accepted*

The table provides guidance regarding the means of conformity assessment for the various types of ATM/ANS equipment. DS SoC.GEN.010 applies to the identification of specific ATM/ANS equipment.

comment *1211* comment by: *Park Air Systems Ltd*

	DC SoC.GEN.010 Identification
	Suggest DC should be DS, i.e. detailed specification.
response	<i>Accepted</i>
	See the response to comment # 224.

SUBPART B - Detailed specifications for ATM/ANS equipment subject to statement of compliance

p. 121

comment	132	comment by: <i>skyguide Compliance Management</i>
	Why not covering DS SoC for ATS to fit with the scope provided on the table (page 22 of the NPA 2023-05) and more precisely to cope with "3c. other ATS equipment"?	
response	<i>Noted</i>	
	The category '3c. other ATS equipment supporting air traffic control (ATC) services when enabling the separation of aircraft or the prevention of collisions' will be considered in further updates of the DS in accordance with the EPAS.	
comment	1017	comment by: <i>LEONARDO</i>
	Typo: correct "statemen" with "statement"	
response	<i>Accepted</i>	
	The typo has been corrected.	
comment	1029	comment by: <i>Indra Navia</i>
	Typo in the heading ("statement")	
response	<i>Accepted</i>	
	The typo has been corrected.	
comment	1161	comment by: <i>Alex Milns/EUROCAE</i>
	SUBPART B — Detailed specifications for ATM/ANS equipment subject to statement of compliance	
response	<i>Accepted</i>	
comment	1212	comment by: <i>Park Air Systems Ltd</i>
	"statemen" - typo	

response *Accepted*

DS SoC.001 Aeronautical information management (AIM) system

p. 122

comment **90** comment by: *DFS Deutsche Flugsicherung GmbH*

Title 1.2 "minimum performance standard" is invalid for what is to be achieved here. Preferrably, the objectives that an AIS equipment shall fulfil should be a headline.

But: in AIS provision mainly the output product is specified in terms of data set, data format and data quality. As such, these are technical requirements for the service provider and laid down in Regulation 373.

There are no specifications on the market, according to which a manufacturer could build AIS equipment. Mainly COTS products are used and bespoke software is added. The suitability of use of such product can be assessed by the AIS provider.

However, a statement of compliance against the provisions laid down in chapter 1.2 would state that the equipment can produce products of the required quality, but it is not the equipment itself that has characteristics to comply with and to state compliance against.

The rules must not mix up the service provision requirements with the equipment requirements !!!

A common message exchange format like AIXM would be an appropriate standard and help enhancing interoperability, but has not yet been agreed on European level, unfortunately.

Before this section can reasonably be filled with equipment relevant standards, a better review and insight of the nature and usage of equipment for the AIS service and separation from service technical requirements must be done.

So, for the time being this chapter should be empty.

And for the use of COTS infrastructure in combination with AIS service related software applications the same arguments and questions apply as posed previously (applicability of these rules to such hardware, scope of functional system relevant rules in question, integration tasks of AIS provider subject to need to become DPO - in order to issue SoC- etc.)

response *Not accepted*

The intent is to separate service provisions from technical provisions. Where it is believed that this is not the case, the commentator is kindly invited to provide a detailed proposal for change, which will be considered in further updates of the DS.

comment **308** comment by: *DFS Deutsche Flugsicherung GmbH*

Equipment used in AIM provision mainly consists of COTS products, supplemented with software to compile operational data. The DPO of such equipment may declare that the equipment is assembled so to achieve the output in the described manner.



	<p>The AIM provider can oversee the application within its defined scope but not the production process of the software itself. A COTS vendor, owning the code, will not be able to declare conformity with the standards listed here.</p> <p>We suggest an elaboration of guidance of what test cases are expected to be applied by the AIM provider - and in general for all providers that use equipment to come with SoC - in order to correctly check the use of the listed standards in this DS and fill in the SoC template.</p>
response	<p><i>Noted</i></p> <p>The proper method of verification has to be determined by the ATM ANS provider which integrates the equipment.</p>
comment	<p>447 comment by: SDM</p> <p>SDM comment: Section (i) "Distribution" refers to ICAO documents, but it should also refer to the SESAR Deployment Programme 2022 and its guidance material.</p>
response	<p><i>Noted</i></p> <p>The SESAR Deployment Programme cannot be deemed as the means of compliance with a technical requirement as established in the EASA framework.</p>
comment	<p>448 comment by: SDM</p> <p>Section (e) "NOTAM Production" should have a reference to Digital NOTAM, as mandated by CP1.</p> <p>SDM proposed text: <i>Text to be updated to reflect also the requirements coming from CP1 on Digital NOTAM.</i></p>
response	<p><i>Not accepted</i></p> <p>'NOTAM Production' is a generic term, which may include Digital NOTAM.</p>
comment	<p>450 comment by: SDM</p> <p>SDM comment: <i>It is not understood why in the DS SoC.001 reference is made to ICAO Annexes and PANS, specifically Annex 15, Annex 4 and PANS-AIM, as the applicable minimum performance standards. ICAO provisions in general are not intended to serve as system constituent/equipment specifications but intend to list the obligations of a State to provide a certain set of minimum services in support of international air navigation. These are from an ICAO perspective completely system/equipment agnostically described.</i></p> <p><i>Moreover, to use Annexes and PANS as performance standards in system design frequently lead to non-harmonised and non-interoperable systems. This was clearly recognised and an objective for the transposition of ICAO provisions in EU Regulation. During this transposition, due consideration was given to these harmonisation and interoperability aspects, one of the reasons for EU Regulation on AIS/AIM to not be identical with ICAO provisions on AIS/AIM. Detailed consideration was given to</i></p>

	<p><i>transpose the referenced chapters of Annex 15, Annex 4, PANS-AIM and also EUROCAE ED-76A into Regulation (EU) 2017/373, to eliminate any source of misinterpretation or lack of harmonisation/interoperability. The baseline for the performance standards that AISP shall consider is EU Regulation.</i></p> <p><i>SDM proposed text: Replace the references to Annex 15, Annex 4, PANS-AIM and EUROCAE ED-76A with the associated chapters paragraphs in Regulation (EU) 2017/373, and when applicable Regulation (EU) 2021/116.</i></p>
response	<p><i>Not accepted</i></p> <p>The intent is to separate service provisions from technical provisions. Where it is believed that this is not the case, the commentator is kindly invited to provide a detailed proposal for change, which will be considered in further updates of the DS.</p>
comment	<p>461 comment by: SDM</p> <p>SDM comment: From an information exchange interoperability perspective, the proposed requirements for the statement of compliance are different per identified domain (AIM, ASM, AFTM and MET), where Regulation (EU) 2017/373 and Regulation (EU) 2021/116 are not distinctively different from what a service provider shall do. This provides ambiguous and potentially contradicting perspectives to what a service provider shall implement by or in its equipment that is deployed. On one side, Regulation (EU) 2021/116 is very clear on what shall be exchanged by when using SWIM interfaces, on the other side it also clearly limits what shall be done using SWIM. ASM and AFTM are part of Regulation (EU) 2021/116 and therefore reference in the DS SoC to SWIM is expected. For MET, only a (important) subset of products is subject of Regulation (EU) 2021/116, and not the full portfolio of products as described by Regulation (EU) 2017/373. Th DS SoC.004 could however create a perception that ‘everything’ shall be SWIM-based.</p> <p>SDM propose to introduce a generic ‘interface minimum performance standard’ for all four domains, associated with the requirements from Regulation (EU) 2017/373 and Regulation (EU) 2021/116.</p>
response	<p><i>Not accepted</i></p> <p>Once developed, the minimum performance standard will be considered in further updates of the DS in accordance with the EPAS.</p>
comment	<p>678 comment by: EUROCONTROL</p> <p>DS SoC.001 DS SoC.002 DS SoC.003 DS SoC.004</p> <p>From an information exchange interoperability perspective, the proposed requirements for the statement of compliance are different per identified domain (AIM, ASM, AFTM and MET), where Regulation (EU) 2017/373 and Regulation (EU) 2021/116 are not distinctively different from what a service provider shall do. This</p>

provides ambiguous and potentially contradicting perspectives to what a service provider shall implement by or in its equipment that is deployed. On one side, Regulation (EU) 2021/116 is clear on what shall be exchanged by when using SWIM interfaces, on the other side it also clearly limits what shall be done using SWIM. ASM and ATFM are part of Regulation (EU) 2021/116 and therefore reference in the DS SoC to SWIM is expected.

For MET, only a (important) subset of products is subject of Regulation (EU) 2021/116, and not the full portfolio of products as described by Regulation (EU) 2017/373. Th DS SoC.004 could however create a perception that 'everything' shall be SWIM-based.

Proposed change:
Introduce a generic 'interface minimum performance standard' for all four domains, associated with the requirements from Regulation (EU) 2017/373 and Regulation (EU) 2021/116.

response *Not accepted*

See the response to comment # 461.

comment 679

comment by: EUROCONTROL

It is not understood why in the DS SoC.001 reference is made to ICAO Annex 15, ICAO Annex 4, ICAO PANS-AIM and EUROCAE ED-76A as the applicable minimum performance standards.

ICAO provisions in general are not intended to serve as system constituent/equipment specifications but intend to list the obligations of a State to provide a minimum of services in support of international air navigation. The referenced ICAO provisions are from an ICAO perspective completely system/equipment agnostic. Moreover, practices show that the use of these Annexes and PANS as performance standards in system procurement, design and development frequently led to non-harmonised and non-interoperable systems.

This was clearly recognised and an objective for the transposition of these ICAO provisions in EU Regulation. During this transposition, consideration was given to these harmonisation and interoperability aspects, one of the reasons for EU Regulation on AIS/AIM to not be identical with ICAO provisions on AIS/AIM.

Detailed consideration was given to transpose the relevant elements (applicable for conformity assessment) of the referenced chapters of Annex 15, Annex 4, PANS-AIM and EUROCAE ED-76A into Regulation (EU) 2017/373, eliminating any source of misinterpretation or lack of equipment harmonisation/interoperability.

Therefore, the added value by referring to ICAO and EUROCAE as performance standard is not understood; the baseline for the performance standards that AISP shall consider is EU Regulation. The currently proposed text potentially creates even further divergence in harmonised and interoperable implementation of AIS/AIM systems or includes elements that are not relevant to systems but to services, and therefore not relevant to the conformity assessment framework at all.

	<p><u>Proposed change:</u> Remove the references to Annex 15, Annex 4, PANS-AIM and EUROCAE ED-76A. When deemed necessary, include references to Regulation (EU) 2017/373, and when applicable Regulation (EU) 2021/116.</p>
response	<p><i>Not accepted</i></p> <p>The list of applicable standards for DS SoC.001 is deemed to be the correct set to fulfil the definition of AIM equipment. As the SoC are technical requirements, references to the Regulation are inappropriate.</p>
comment	<p>855 comment by: <i>Thales Land and Air Systems</i></p> <p>Why is the ICAO Doc 8126 “AIS Manual” (7th Edition) not referenced? Section 1.2 c) and e) as a minimum should be referenced.</p>
response	<p><i>Not accepted</i></p> <p>ICAO Doc 8126 ‘AIS Manual’ does not provide technical standards in addition to the list of the identified applicable standards for DS SoC.001.</p>
comment	<p>856 comment by: <i>Thales Land and Air Systems</i></p> <p>Regarding the current overhaul in progress for the next version of the document “EUROCAE ED-76A”, we suggest to not reference this document in DS SoC.001. Indeed, this document is difficult to implement for ground manufacturers as its scope is unclear and it is focused on airborne equipment.</p>
response	<p><i>Not accepted</i></p> <p>ED-76A is not focused on airborne equipment and supports the development of the data chain.</p>

DC SoC.002 Local ASM support system	p. 125
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comment	<p>225 comment by: <i>MeteoSwiss</i></p> <p>It is assumed that the 'DC SoC.002' is a typo and should correctly read 'DS SoC.002'. If the 'DC' is deliberately used in some cases, then please disregard this comment.</p>
response	<p><i>Accepted</i></p> <p>'DC SoC' has been changed to '<u>DS</u> SoC'.</p>
comment	<p>879 comment by: <i>ENAIRE</i></p> <p>What does DC stand for? It seems to be a misspelling and it should be “DS” instead of “DC”.</p>

response *Accepted*
'DC SoC' has been changed to 'DS SoC'.

comment *1213* comment by: *Park Air Systems Ltd*
Suggest DC should be DS, i.e. detailed specification.

response *Accepted*
'DC SoC' has been changed to 'DS SoC'.

DS SoC.003 ATFM system

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comment *680* comment by: *EUROCONTROL*
Should comment to create DS SoC.GEN.015 Standardised interfaces be accepted, bullets EUROCONTROL-SPEC-0107 Specification for ATS Data Exchange Presentation (ADEXP) (Edition 3.4, May 2023) can be replaced by ADEXP (see part GEN) and the bullet EUROCONTROL NMB2B/27.0 NM 27.0 - NM B2B Reference Manual Edition 3 can be replaced by NM B2B (see Part GEN).

response *Not accepted*
Please refer to the response to comment #677.

comment *853* comment by: *Thales Land and Air Systems*
Please confirm the functional scope of a local ATFM in Europe (ATFM equipment of an ATS provider).
In Europe, the definition of a local ATFM is not clear.

response *Noted*
A local ATFM does not need to be defined. The ATFM equipment refers to an ATS provider (DS SoC.003 (Section 1.2 (b))).

comment *854* comment by: *Thales Land and Air Systems*
References to ADEXP/IFPL are not relevant for a local ATFM as local ATFM are supposed to be connected to NMB2B interfaces.
==> remove reference to ADEXP and IFPL standards for local ATFM
==> the DS should leave the option to the manufacturer and the ANSP to select the applicable standard in the list proposed in DS SoC.003 based on its implementation.

response *Not accepted*



DS SoC.003 Section 1.2 (b) provides a list of standards to be implemented in accordance with the intended use. The DS should leave the option to select the applicable standard in the list proposed in DS SoC.003 based on its implementation.

DS SoC.004 MET data distribution

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comment 31 comment by: *Finnish Meteorological Institute (FMI) - MET SP*
FMI suggests to use term "latest version" or similar instead of version numbers and dates to minimise the need for updates when document versions change.

response *Not accepted*
When new editions of standards, documents, Annexes to ICAO, etc. are published, updates will be managed in accordance with the rule making procedure and EPAS. The fitness for purpose with regard to the EASA Basic Regulation objectives will need to be assessed.

comment 226 comment by: *MeteoSwiss*
The formulation of 1.2 'Minimum performance standard' seems to solve the problem of regular updating elegantly, but only works if newer standards that may be applied with this formulation are backwards compatible. It is therefore proposed to accept this potential risk and keep the formulation as is.

response *Noted*

comment 437 comment by: *FOCA Switzerland*
As regards 1.2, we suggest a formulation such as e.g. 'latest version' or "version xx or later" or similar, instead of referencing exact Version Numbers or Editions.

On the other hand, DS SoC.004 1.2. is titled 'minimum performance standard' and therefore does not exclude to use the latest version available (e.g. with regard to IWXXM, there is already a Version 2023-1 available), but only requires not to go below a certain standard. Is our understanding correct ?

response *Not accepted*
When new editions of standards, documents, Annexes to ICAO, etc. are published, updates will be managed in accordance with the rule making procedure and EPAS. The fitness for purpose with regard to the EASA Basic Regulation objectives will need to be assessed. The FOCA understanding is correct.

comment 880 comment by: *ENAIRE*

Clarify the GE that support distribution of MET data until the future SWIM will be deployed (more than 2 years).



response *Noted*
This will be considered in the further updates of the DS.

comment *1085* comment by: *Deutscher Wetterdienst*
DWD supports the reference to Eurocontrol SWIM specifications. With regard to the requirements under 1.3 to 1.7, further clarification and / or guidance material is needed to ensure there is applicability for MET data distribution services and tools.

response *Noted*
Where applicable to the specific equipment, the requirements should be applied. For example, the environmental standards are probably not applicable to SW but applicable to HW and SW.

comment *1086* comment by: *Deutscher Wetterdienst*
Please explain if it is intended to adapt the "minimum performance standard" to newer versions or to keep it permanently as "minimum".

response *Noted*
When new editions of standards, documents, Annexes to ICAO, etc. are published, updates will be managed in accordance with the rule making procedure and EPAS. The fitness for purpose with regard to the EASA Basic Regulation objectives will need to be assessed.

comment *1087* comment by: *Deutscher Wetterdienst*
Please explain if an extension is planned as MET data distribution is not only (and only in a few years) performed via SWIM services.

EASA is invited to consult with concerned MET service providers and NSA on the extension of the DS for the provision of MET information, e.g. for the local supply to ATS-P at airports.

response *Noted*
EASA intends to extend to all equipment associated with MET data distribution in accordance with the requirements of the Basic Regulation. This will be considered in the further updates of the DS in accordance with the EPAS.

5. Monitoring and evaluation

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comment *881* comment by: *ENAIRE*



	If new sets of DSs and/or AMC introduces new ones for an equipment with SoC previously issued, is it necessary to issue new release of the SoC?
response	<i>Noted</i>
	This will be determined on a case-by-case basis, and this subject will be regulated into the respective articles of the ED Decisions.

6. Proposed actions to support implementation

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comment

549

comment by: *Thales Land and Air Systems*

Acknowledging that the Detailed specification proposed in NPA 2023-05 are focused on SES interoperability regulation and recast requirements specified in Community Specification of Regulation (EC) No 552/2004 transposition and need to be further completed and matured to achieve the objective of this new regulatory framework: it is proposed to add an action to support the implementation of the new regulatory framework:

- continuation of RMT.0161 or the creation of a new RMT in order to further mature and complement the Detailed Specification with the objective of achieving streamlined conformity assessment mechanisms and harmonisation of ATM/ANS equipment brought to the EU market.

response

Accepted

The comment is well received.

To support the implementation of the new regulatory framework, this 1st set of AMC/GM/DSs is considered essential for the initial phase of implementation, while their improvement as well as the development of new ones will be addressed via RMT.0743 'Regular update of AMC/GM associated with ATM/ANS ground equipment conformity assessment framework' and RMT.0744 'Regular update of detailed specifications for ATM/ANS ground equipment'.

In addition, a number of activities are planned to support the implementation of the new regulatory framework, including but not limited to:

- launching pilot certification projects of ATM/ANS ground equipment with volunteer organisations (i.e. design or production organisations of ATM/ANS ground equipment (DPOs) ahead of the end of the transitional period;
- maintaining a high level of awareness through information sharing and various other activities and addressing issues raised by stakeholders, as necessary;
- promoting the effective implementation of the conformity assessment framework and enabling relevant technological evolution by establishing a dedicated 'EASA ATM/ANS ground equipment webpage' on the EASA website.

These activities are planned in the context of IST.0002.



7. References

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comment	<p>449 comment by: <i>SDM</i></p> <p>SDM comment: This Chapter should also have a reference to CP1 and the SESAR Deployment Programme 2022.</p> <p>SDM proposed text: Add a reference to CP1 and SESAR Deployment Programme 2022.</p>
response	<p><i>Noted</i></p> <p>The comment is duly noted.</p> <p>The commentator is invited to take into account that the EN to ED Decision 2023/015/R refers to the referenced material.</p>

7.3. Other references

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comment	<p>1004 comment by: <i>Romanian CAA</i></p> <p><i>References to ICAO Annexes need to be reviewed or explained. For example, the NPA references ICAO Annex 10 to a later amendment than R373/2017 CNS.TR.100, that is Amd 91 vs Amd 89 in the Regulation.</i></p>
response	<p><i>Noted</i></p> <p>This section provides references to documents that were duly considered.</p> <p>It should be considered that a reference laid down in Regulation would imply demonstration of compliance with the requirements in the referenced ICAO Annexes.</p> <p>Therefore, the commentator is invited to take into account the references in this Section and that references in EU regulations have a different nature.</p>