

NPA 2016-02

Technical requirements and operational procedures for aeronautical information services and aeronautical information management

Commenter:	UK CAA
General	
<p>Comment: The UK CAA notes that the Part-AIS proposals do not include draft supporting AMC and/or GM, nor is it clear whether extant related equivalent material currently published by Eurocontrol (Data Origination (DO Vol I & II), Data Assurance Level (DAL), Data Quality Requirements (DQR), electronic AIP (eAIP), Data Exchange (AIX), Metadata Guidelines, and the ADQ Guide) will continue to apply.</p> <p>As confirmed by participants at the 26 Sep 2016 EASA-hosted Part-AIS thematic meeting, the Eurocontrol specification (in particular the Data Assurance Level), are vital in achieving the required levels of data quality in a consistent and harmonised manner. The implementation of concepts such as RNAV, A-SMGCS, DMEAN, SWIM, SESAR, EAD and CDM, all rely on aeronautical information of increasing quality in order to achieve common objectives for increased efficiency, capacity and safety.</p> <p>Also at the 26 Sep 2016 EASA-hosted Part-AIS thematic meeting, Eurocontrol representatives agreed to continue to support the ADQ IR specifications until such time as Part-AIS is adopted into EU law and the consequential repeal of the ADQ IR.</p> <p>The Agency is invited to clarify the status and future applicability of such material (without which the implementation of these SES objectives may be challenging), and how it intends communicating this to Member States, authorities and organisations.</p> <p>The Agency is also invited to clarify how and when it intends to develop AMC or GM to replace the current Eurocontrol material in order to facilitate compliance with Part-AIS.</p> <p>Justification: Clarification and the need for completeness of regulatory material</p>	

Commenter:	UK CAA
General	
<p>Comment: UK CAA is concerned that, having adopted Eurocontrol specifications as State-preferred AMC and GM to ADQ IR, these specifications will no longer be supported by EASA or Eurocontrol upon adoption of this NPA and subsequent repeal of the ADQ IR. It is essential that the Eurocontrol Specifications for DAL, DQR, AIX, eAIP, DO and Meta Data are maintained and recommended by EASA as Means of Compliance to Part-AIS, Part-ATM/ANS.OR and Part-ASD</p> <p>Justification: If Eurocontrol specifications are no longer supported by EASA or Eurocontrol, then further ICAO changes to Annex 15, Annex 14, PANS-AIM, etc., will not be accounted for. The specifications would soon become out of date and therefore unusable and leave States in a situation of having to adopt unique alternatives. UK CAA does not consider this a harmonised approach to achieving interoperable standards of data quality.</p>	

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Commenter:	UK CAA
General	
<p>Comment: UK CAA is concerned that SES Interoperability requirements originally referred to in Reg (EU) 73/2010 may no longer be required on the basis that EASA consider these to be satisfactorily covered by Reg (EU) 552/2004 alone. However, Reg (EU) 552/2004 is being transposed into SESII+ rules without the crucial conformity assessment requirements for ANSP. EASA is requested to clarify how SES interoperability requirements would be achieved in the context of the envisaged 'proportionate approach', when SES Safety assessment requirements (currently specified in Regs (EU) 552/2004 and 73/2010) are not retained and applied equally to Aviation Undertakings under Appendix 1 to Article 3, Annex VI (Part-AIS), Annex XI (Part-DAT), plus Reg (EU) 139/2014 (Aerodromes). Part-ASD alignment with these requirements may be necessary.</p> <p>Justification: Clarification. The introduction of new software or systems by AIS Providers and Aviation Undertakings without a standardised level of safety assessment for all involved in the origination, exchange, validation, and publication of aeronautical data, as originally required under ADQ IR, would appear to be inconsistent and introduces the potential for erroneous data within the EATMN system.</p>	

Commenter:	UK CAA
General	
<p>Comment: Similar to concerns regarding SES Interoperability, and although addressed consistently by the ADQ IR, EASA consider the manufacturers of systems used for the origination, exchange, storage, publication of aeronautical information and data to be outside the regulatory scope of EASA, and that the requirements on systems to be sufficiently covered by Reg (EU) 552/2004. However, Reg (EU) 552/2004 is undergoing transposition into EASA SES II + rules and much of the Interoperability requirements regarding Declaration of Suitability of Use (DSU) have been removed. A consequence of the removal of DSU requirements throughout the data chain, not just those under 552/2004, increases the possibility of erroneous information being introduced, with potential safety hazard/risk. The Agency is requested to clarify how the envisaged EASA 'proportionate approach' would ensure continued compliance with SES interoperability requirements if DSU for manufacturers are not retained.</p> <p>Justification: Clarification needed.</p>	

Commenter:	UK CAA
General	

Comment Although it can be ascertained at Basic Regulation level that the State is responsible for ensuring Military organisations comply with EASA rules, the CAA believes that greater enforcement in terms of Military obligations is necessary to ensure Military agencies meet the same data quality requirements as civilian organisations. Providing data for use in General Air Traffic is crucial to overall objectives for improved quality of data and information across all domains throughout the EU.

Justification: Data pertaining to airspace restrictions and other military airspace structures, TACAN routes, military airfields used by civil aviation, etc., and included in the State AIP, should meet the same data quality requirements as civil information. Equivalence in these cases is warranted: if the Part-AIS regulatory package does not clarify this requirement, and individual States are left to determine the need to enforce at State level, Military information may not meet EU quality standards. The requirement can be similar to that at Reg (EU) 2015/340 Article 3.3.

Proposed Text: Add the following:

APPENDIX 1 TO ARTICLE 3

AMC 1 to 3 ‘Formal arrangements’

Member States should apply this Regulation to military organisations providing aeronautical information that is to be included in a Member State’s AIP.

Commenter:	UK CAA
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General

Comment: The scope of the ADQ IR is clear in terms of aerodromes, i.e. those with published IFR/SVFR procedures in the AIP. UK CAA is concerned that throughout this NPA it describes the scope of the regulation as ‘AIP products’, including products for aerodromes regularly used by International Civil Aviation. The scope of this EASA NPA in terms of aerodromes does not appear to be aligned to ADQ IR and other Regulations, e.g. Reg (EU) 139/2014.

As all aerodromes are included in the AIP regardless of status (including EASA certified and non-EASA certified), the scope of this NPA being defined by the AIP ‘product’ would mean that non-EASA certified aerodromes will potentially need to comply with the same requirements as Reg (EU) 139/2014. It is questionable whether VFR-only aerodromes need to meet the same data quality and survey requirements as IFR aerodromes. The aerodrome scope should be limited to only those aerodromes with Instrument Flight Procedures published in the AIP.

Justification:

Proposed Text: Restrict aerodrome scope in Part-AIS and Appendix 1 to Article 3 (Aviation Undertakings) to only those aerodromes with Instrument Flight Procedures as published in the AIP.

Commenter:	UK CAA
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Paragraph No: 2.1 'Overview of the subject to be addressed'

Comment: The text suggests that this NPA upholds common SES safety and efficiency objectives, similar to that stated in (EU) 73/2010, and that data quality (integrity) is addressed by this proposed regulation. However, without supporting AMC Member States will interpret the regulation in a variety of ways which is likely to result in data of varying quality being used in the EATMN.

Justification: Data of insufficient quality will impact on States ability to meet SES objectives to support new concepts of ATM. Assured data of high accuracy is a foundation to increasing aircraft capacity and performance in EU airspace whilst simultaneously improving safety standards. E.g. implementation of RNAV/PRNAV would enable increased aircraft capacity by closer separation limits; in order to achieve this, it is imperative that flight data within aircraft and ATC systems is of increased accuracy and integrity than is currently available.

Proposed Text: Transpose/adopt Eurocontrol DAL/DQR/DO specifications as AMC and GM. This will need to be reflected in Appendix 1 to Article 3, and Annex VII (Part-ASD) for data originators, and Reg (EU) 139/2014 for aerodromes responsible for providing aeronautical data.

Commenter:	UK CAA
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Page No: 7/8

Paragraph No: 2.2 'The overall context' and 2.3.1 'The aeronautical information products and services'

Comment: Incorporating forthcoming ICAO Annex 15 and PANS-AIM in this NPA is subject to risk as ICAO has yet to formally adopt the text under development (the UK CAA believes that the material is far from mature enough to be transposed into EU law at this time). Although EASA's Part-AIS RMT has anticipated ICAO's development of Annex 15 and PANS-AIM, further changes to these ICAO documents cannot be discounted. Anticipating ICAO's amendments renders it likely that EASA will have to reassess Part-AIS and undertake further rulemaking in order to align it with Annex 15.

Justification: This NPA is complicated by the incorporation of anticipated amendments to ICAO SARP that have yet to be adopted by ICAO. States will not be invited by ICAO to comment on the revised Annex 15 and PANS-AIM until after the NPA consultation period. This is considered to be a disjointed approach - the UK CAA believes ICAO SARPs should be finalised first, with EU regulatory material based on the adopted amended Annex 15 and PANS-AIM text developed subsequently.

The approach brings the risk of causing much nugatory effort on the part of EASA, Member states, authorities and organisations in developing, responding to consultation on, and potentially implementing text that may yet not be adopted as SARPS. There is an additional risk of this text entering EU law, subsequently proving to be inconsistent with ICAO text, and becoming the subject of an amending rulemaking activity while authorities and organisations are endeavouring to implement (or have implemented) the currently proposed text. This is an unwelcome prospect. Furthermore, the approach being taken is considered to be inconsistent with that applied to other EASA rulemaking activities, and appears to contradict European Commission practice not to adopt speculative, yet-to-be-adopted ICAO text within its regulations.

The UK CAA requests clarity from EASA as to how it intends to incorporate/manage any changes to ICAO SARPs. In addition, the UK CAA recommends that EASA does not incorporate the draft ICAO text into Part-AIS, and instead waits until the revised Annex 15 and PANS-AIM amendments are adopted and then incorporate these into Part-AIS.

Commenter: UK CAA

Page No: 10

Paragraph No: 'Verification and Validation process'

Comment: UK CAA supports the removal of the requirement to impose CRC 32Q algorithm for the protection of data. However, further comment on the proposed approach is given in the UK CAA's response to GM1 ATM/ANS.OR.A.080(h) Aeronautical data and aeronautical information (b)(3)(i).

Justification: UK CAA recognises that application of CRC 32Q is impractical due to the unavailability and unsupported status of this CRC version. Subject to EASA's consideration of the UK CAA comment related to GM1 ATM/ANS.OR.A.080(h) Aeronautical data and aeronautical information (b)(3)(i), we support a consequential amendment to AMC1.ADR.OPS.A.010 'Data Quality Requirements' and AMC1.OPS.A.011 'Data error detection and authentication' to Regulation (EU) No 139/2014.

Commenter: UK CAA

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Paragraph No: 2.4 Table - Data Originators

Comment: UK CAA requests EASA to confirm whether the determination of data originator quality requirements is considered to be a State responsibility, and to provide rationale and how this could be achieved.

Justification: Whilst ICAO Annex 15 provides quality requirements, the lack of AMC to this NPA detailing how data originators demonstrate their compliance does not assist States ability to determine whether data originator quality requirements have been met. Eurocontrol DAL, DQR and DO specifications provide the means of achieving and demonstrating ICAO quality; without them, States will have to provide their own interpretation of what quality 'looks like', and it is highly likely that this interpretation will vary from State to State, i.e. an non-harmonised manner contrary to EASA and EU harmonisation principles. It is necessary for EASA to provide reference to, or adopt, Eurocontrol specifications as AMC to Appendix 1 to Article 3, Part-AIS, Part-DAT, Part-ASD and Reg (EU) 139/2014.

Proposed Text: Transpose/adopt Eurocontrol DAL/DQR/DO specifications as AMC and GM.

Commenter: UK CAA

Page No: 14

Paragraph No: 2.6. Applicability of the new proposed rules

Comment: Whilst the UK CAA acknowledges that this NPA essentially proposes refinements to existing requirements, it is of the view that the overall scope of the ATM/ANS Common Requirements regulation is such that more time is needed to facilitate safe implementation of its constituent parts (a number of which remain under development). There remains a considerable development and implementation burden to be borne by the limited resources available to authorities, organisations and indeed the Agency. With this in mind the UK advocates delaying the effective date of Part-AIS by at least one year later than the proposed date. In addition, the UK CAA invites the Agency to comment on this proposal and explain what safety-related issues would otherwise preclude delay to Part-AIS taking effect.

Justification: The introduction of recent ATM-related regulations has been marked by unforeseen delays (e.g. inter-service co-ordination and translation at European Commission level) that have in turn led to uncertainty regarding their intent and applicability. The recent ongoing issues associated with Rag (EU) 2016/1377 have particular resonance when considering Part-AIS.

Delaying the effective date of Part-AIS would build flexibility into its development programme that could absorb any future delays and avoid the uncertainties described above.

It would also allow time for the development of any supporting AMC/GM so that it could be published in such time as to better facilitate implementation of the Part-AIS text.

The challenges associated with implementing Part-AIS by 1 Jan 2019 as proposed are compounded by the coincidental demands placed upon the limited resources available to authorities and organisations by (inter alia):

- the ongoing uncertainty regarding the revision of Rag (EU) 2016/1377 and the need to respond to an impending written procedure on these;
- the continued development of AMC/GM to Rag (EU) 2016/1377, and also of the anticipated supporting 'technical publications';
- preparation for the implementation of Reg (EU) 2016/1377;
- the conclusion of the Part-AIS NPA and the need for any post-NPA/pre-Opinion engagement.
- development of responses to Part-ATS;
- the need to respond in the very near future to the impending Part-ASD NPA;
- continuing activity concerning RMT.0639 Implementation of PBN EATMN, RMT.0679 Revision of surveillance performance and interoperability and RMT.0692 ATM Performance Scheme SKPIs AMC/GM;
- the implementation of SERA Part C;
- the conclusion of implementation of Reg (EU) 2015/340;
- implementation of new ICAO provisions including Amendment 7 to PANS-ATM, the requirements of ICAO Doc 9966 (Fatigue Risk Management Systems) and the anticipated EASA rulemaking task associated with the latter (RMT.0486 ATCO Fatigue).

Proposed Text:

The concluding article of the regulation amending Reg (EU) 2016/1377 Annex VI Part-AIS to state that the effective date of said amendments will be 30 January 2020 (AIRAC 2/2020).

Commenter:	UK CAA
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Page No: 14

Paragraph No: 2.6, Applicability of the new proposed rules

Comment: UK CAA appreciates that compliance with Reg (EU) 73/2010 would be considered by EASA as compliance to Part-AIS as proposed. However, the UK CAA notes that no transitional provisions have been provided, even though this NPA intends to repeal Reg (EU) 73/2010 upon adoption.

Following the ADQ IR workshop in Brussels in June 2015, and subsequent LSSIP responses, the European Commission (EC) should be aware that although States are committed to the implementation of the ADQ IR, the planned dates for when the majority of compliance is expected are beyond those stated in Article 14 of the ADQ regulation.

The UK CAA understands that EASA and the EC expects States to continue to implement ADQ IR as currently planned. In order not to undermine State commitment, EASA should take account of Member States envisioned ADQ IR compliance dates and include these as Part-AIS transitional provisions.

Justification: The approach advocated above is considered necessary as this NPA appears to have lessened extant compliance requirements. Continued commitment to ADQ IR implementation should be taken into account by EASA and proposed Part-AIS, otherwise it is very likely that Member States would need to investigate a legal need to continue with ADQ IR if faced with a less stringent regulation in the future. In short, we believe Part-AIS transitional provisions based upon States' compliance plans for Reg (EU) 73/2010 are necessary, and ask EASA to clarify their position on this.

Proposed Text: Transpose/adopt Eurocontrol DAL/DQR/DO specifications as AMC and GM

Commenter:	UK CAA
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Paragraph No: 2.8, Summary of RIA

Comment: Whilst the UK CAA supports the principle of proportional approaches to regulation it is unclear how in the context of Part-AIS this approach supports the safety and efficiency objectives of SES. Achieving data of sufficient quality is challenging, but should not be compromised on the basis of a perceived inability of States. State commitment to ADQIR implementation requires EASA not to compromise on original SES objectives in this NPA. Should requirements be reduced on the basis of States inability to meet original ADQIR requirements, then Member States may need to consider the legal need to continue implementation of the ADQ IR.

Justification: The need for clarification.

Commenter:	UK CAA
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Paragraph No: 2.9.2 'Proposed amendments to Regulation (EU) No. 139/2014'

Comment: The proposed changes to Reg (EU) 139/2014 do not include reference to Aviation Undertakings. Given that Data Originators are likely to be considered to be Contracted Aerodrome Activities, then association of Reg (EU) 139/2014 with Appendix 1 to Article 3 is considered to be a reasonable expectation, along with some further clarification and specific examples of Aviation Undertaking types. EASA is asked to clarify whether the requirements for Aviation Undertakings and an Aerodrome Contracted Activity are the same.

Justification: Since EASA proposes that the Aviation Undertaking definition now includes Data Originators, clarification is required to establish the relationship between Aviation Undertakings and the term 'Contracted Aerodrome Activity' as is used in Reg (EU) 139/2014. Examples of non-aerodrome related activities for other 'Aviation Undertaking' types are necessary to clarify who falls under Appendix I to Article 3 requirements.

Proposed Text: Add the following:

GM1 to Annex 1 (34) Aviation Undertakings

Aviation Undertakings are considered to include (but not limited to) data originators providing data of a defined ICAO integrity, including air navigation service providers, public or private entities providing survey data, procedure design data, electronic terrain data, electronic obstacle data.

Commenter:	UK CAA
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Paragraph No: APPENDIX 1 TO ARTICLE 3, Requirements for Aviation Undertakings

Comment: To bring all data originators under the EASA regulatory framework, this NPA proposes including Appendix 1 to Article 3 for 'Aviation Undertakings'. However, many requirements such as QMS are not now perceived by EASA to be necessary requirements. The UK CAA has concerns with this approach. Without a QMS it will be impossible for Member States and competent authorities to discern whether a data originator is meeting data quality standards. In addition, by not providing AMC or GM to present explicit data format and direct electronic exchange of data requirements, ingestion of digital data-sets by the recipient AIS Provider is likely to prove challenging. If data originator tools and software cannot be demonstrated as not inducing errors, then the data they provide cannot then be assured. It is necessary for the regulatory package to include common data originator requirements. In addition, it is necessary to ensure alignment of Aviation Undertaking data origination requirements within Appendix 1 to Article 3, with similar data originator requirements in Part-ASD.

Justification: Data originators are at the very beginning of the data chain. Without harmonised requirements across all EASA regulations that assure the quality of the data being provided, it will be extremely challenging to assure that the data and information meets the quality standards at any given point from its origination to the point of its intended use. All States will therefore need to retain filed ICAO Difference against integrity, defeating the original objectives of the Single European Sky regulations and the objective of harmonisation.

Commenter:	UK CAA
Page No: 20	
Paragraph No: APPENDIX 1 TO ARTICLE 3, Sub-paragraph 6, Data verification and validation	
Comment: The term 'authoritative source' is used for the only time throughout the entire NPA, but without definition. It is unclear whether this is meant as Aviation Undertaking. A definition should be provided.	
Justification: Clarity required, the term 'Authoritative Source' is not understood.	

Commenter:	UK CAA
Page No: 20	
Paragraph No: APPENDIX 1 TO ARTICLE 3, Sub-paragraph 7, Metadata	
Comment: Only very basic metadata requirements are detailed in the NPA, and do not include the achieved data quality attributes. If the quality attributes of the data being provided to the AIS Provider is not apparent from the metadata, the AISP will not know whether it is compliant or not in order to annotate as such in the AIP. AMC providing concise metadata requirements is required to establish appropriate validity and quality standards through adoption of, or referral to, Eurocontrol metadata specifications to support Appendix 1 to Article 3, and Annex XI (Part DAT), and (EU) 139/2014.	
Justification: Without clearer indication of the metadata requirements and the attributes to be adopted, data originators, aerodromes, ANSP and AISP will be transferring ad hoc metadata which is unlikely to be compatible to the data-set specification used by the AISP. Given the uncertain future of Eurocontrol specifications upon repeal of the ADQ IR, common metadata requirements that support demonstrable levels of quality are essential.	

Commenter:	UK CAA
Page No: 19	
Paragraph No: APPENDIX 1 TO ARTICLE 3, Sub-paragraph 3, Formal arrangements	
Comment: Although the ADQ IR's minimum contents of a formal arrangement requirements have been transposed for ANSP/AISP in this NPA, those for Aviation Undertakings under Appendix 1 to Article 3 are not aligned to the same level. The formal arrangement requirements contained in AIS.OR.205 and ATM/ANS.OR.A.080 should also be included in Appendix 1 to Article 3, Sub-paragraph 3, 'Formal arrangements'.	
Justification: Without consistent Formal Arrangement requirements, CAA believes it will not be possible for those responsible for asserting compliance to establish and to hold to account those responsible for originating data that does not achieve the required ICAO quality standards for accuracy, resolution and integrity.	

Proposed Text: The formal arrangement requirements in AIS.OR.205 and ATM/ANS.OR.A.080 should also be included in Appendix 1 to Article 3, Sub-paragraph 3, 'Formal arrangements'.

Commenter: UK CAA

Page No: 20

Paragraph No: APPENDIX 1 TO ARTICLE 3, Sub-paragraph 6, Data verification and validation

Comment: It is unclear how data used to create other data can be verified first when many Aviation Undertaking requirements that demonstrate the quality of the data are no longer deemed necessary by EASA. AMC/GM is needed to demonstrate how data can be verified and validated when the original data has not been assessed as meeting ICAO quality standards. Additionally, it is unclear why data from an 'Authoritative Source' would be considered as being better quality. It is therefore necessary for EASA to provide consistent data originator requirements for Aviation Undertakings, Part-ASD originators, and Aerodromes that enables the determination of quality standards attained by the original data used as a basis to create new data. This should be achieved in the first instance by adopting or referring to, Eurocontrol Data Origination and Data Assurance Level specifications.

Justification: Using pre-existing non-compliant data to create new data automatically renders the new data non-compliant, regardless of its source and origin.

Commenter: UK CAA

Page No: 28

Paragraph No: AIS.OR.210, Exchange of aeronautical data and aeronautical information

Comment: The UK CAA believes that a definitive data-set specification similar to Article 4 of (EU) 73/2010 has not been specified for all entities involved in the data chain (other than the AISP), and is concerned that this will have significant operational impacts.

Without common data-set specifications and formats, providers of data could perceivably provide a dataset that is incompatible with an AISP production system yet still be regarded as compliant. The removal of a less specific dataset requirement from the NPA will result in States having to specify suitable data exchange formats. The consequence could result in data-set formats of varying types in use throughout the EATMN.

The UK CAA regards this as a retrograde, un-harmonised approach. A common digital exchange format AIXM would be the format that everybody understands.

Justification: XML/GML (AIXM) data-sets are a cornerstone of the SWIM concept and underpin AIM, MET (WIXM), & Flight Planning (FIXM) interoperability. If this is no longer a common objective, alternative AMC and GM will be required to facilitate the exchange of digital data-sets throughout these aviation domains.

Proposed Text: Include Reg (EU) 73/2010 Article 4 and Annex I Dataset requirements for Aviation Undertakings in Appendix 1 to Article 3, AIS.OR.210 and Reg (EU) 139/2014.

It will be necessary to ensure that Part-ASD is also suitably cross referenced to this requirement.

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Commenter:	UK CAA
Page No: 29	
Paragraph No: AIS.OR.240, Data limitations	
<p>Comment: The NPA states that establishing data conformity to be an AISP responsibility. However, without consistent Formal Arrangements and more specific requirements for Data Originators, it will be impossible for the AISP to determine if data quality has been met. Equally, the person or organisation contracting the services of a Data Originator will find it difficult to determine if the contractor meets data quality requirements without inherent data originator evidence.</p>	
<p>Justification: It is inappropriate for the AISP to be responsible for identifying data that is non-compliant with the requirements. Those responsible for oversight of data originators must be empowered by this NPA to perform the task underpinned by consistent Formal Arrangements and Data Originator requirements.</p>	
<p>Proposed Text: Remove the requirement for the AISP to identify non-compliant data. Ensure through AMC/GM Data Originator requirements enabling identification of errors by inclusion of QMS requirements that include error reporting and corrective functions as featured in ADQ IR Article 10. Such material should support Appendix 1 to Article 3 (Aviation Undertakings), Part-ASD and Reg (EU) 139/2014.</p>	

Commenter:	UK CAA
Page No: 29	
Paragraph No: AIS.OR.235, Error reporting and corrective actions	
<p>Comment: The responsibility for identifying errors throughout the data chain from origination through to end use should be applicable to all, not just the AISP. Merely requiring the AISP in isolation to perform this function as part of their QMS, on the assumption that a data originator is an Aviation Undertaking does not require a QMS under the current NPA requirements as they stand. UK CAA regards this as an inconsistent approach to the identification of errors. Error reporting should be included as a requirement of DO QMS in Appendix 1 to Article 3, Part-ASD, and Reg (EU) 139/2014</p>	
<p>Justification: Erroneous data produced by the data originator could be provided to the AISP, but not reported by the DO as there is no requirement to do so as part of a QMS. The consequence could be a 'bad data in, bad data out' scenario with highly regulated QMS activity in-between resulting in potentially erroneous data being used by operators, flight management systems, and nav data systems. However, this could be avoided by requiring the data originator to have a QMS, which would enable the determination of compliance upon audit.</p>	
<p>Proposed Text: Introduce DO QMS error reporting requirements into Appendix 1 to Article 3, Part-ASD, and Reg (EU) 139/2014.</p>	

Commenter:	UK CAA

Page No: 29

Paragraph No: AIS.OR.230, Authentication and data error detection

Comment: Whilst file corruption software is appropriate at the data exchange stage, it is not considered sufficient for the protection of data during storage. Protection of data from those not authorised re-enforces any achieved integrity. Unprotected data in storage cannot be assured to the same degree as data that is protected. Data in storage should be protected by personnel authentication techniques.

Justification: Reliance on digital error techniques alone does not protect data in storage from unauthorised access.

Proposed Text: Add as follows:

Appendix 1 to Article 3

8. Data error detection and authentication

(d) Aeronautical data shall be given an appropriate level of protection whilst in storage to ensure unauthorised access is not possible.

AIS.OR.230(c)

(c) Aeronautical data shall be given an appropriate level of protection whilst in storage to ensure unauthorised access is not possible.

Reg (EU) 139/2014 ADR.OPS.A.010

(c) Aeronautical data shall be given an appropriate level of protection whilst in storage to ensure unauthorised access is not possible.

Commenter:	UK CAA
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Paragraph No: AIS.OR.305, Aeronautical information publication (AIP)

Comment: The scope of this NPA seems to be determined by AIS product, for example in Chapter 1, it states the Aeronautical information products including AIC/SUPP. AIC/SUPP can potentially be originated by parties outside of the EASA regulatory framework. Consequently, it could be interpreted from this NPA that all originators of AIC are 'Aviation Undertakings' so will now need to meet EASA requirements regardless of the type of AIC content. This is an inconsistent and disproportionate approach to ensuring that data quality requirements are performance based. A large number of entities are potentially now within scope of the regulation if they produce information that is used in an AIP, AIC, SUPP and/or NOTAM. It is an unnecessary cost burden on many organisations to comply with this requirement.

It is recommended that Part-AIS defines within Appendix 1 to Article 3 what is within the scope of AIP products, rather than relying on definition by AIP product. The parties in scope could be defined as those publishing, originating or responsible for the provision of information and data with a defined ICAO integrity Data without a defined integrity level would therefore not need to comply.

Justification: A large number of entities are potentially now included in the regulation if they produce information that is used in AIP products. This is considered to be a disproportionate approach that will result in unnecessary cost burdens being placed upon on many organisations.

Proposed Text: The parties' in-scope should be defined in Appendix 1 to Article 3 by those publishing, originating or responsible for the provision of information and data of a defined ICAO quality i.e. critical, essential, and routine. For example those AIC/SUPP that do not contain critical or essential data should not be subject to this regulation.

Commenter: UK CAA

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Paragraph No: AIS.OR.350 'Terrain and obstacle data – general requirements' and AIS.OR.355 'Terrain data sets'

Comment: The UK CAA is concerned that eTOD, by inclusion in this NPA, is considered an AISP obligation. However an AISP is not responsible for eTOD provision, it is merely another ICAO Annex 15 AIS product. The State (eTOD area 1) and EASA certified aerodromes (ETOD areas 2-4) are responsible for providing eTOD data. eTOD is already included within AMC to (EU) 139/2014.

Justification: The AISP is not responsible for origination of eTOD data.

Proposed Text: Remove eTOD as a requirement. Include ICAO Annex 15 Chapter 10 eTOD Area 1 requirements as AMC/GM to Appendix 1 to Article 3 for Aviation undertakings.

Commenter: UK CAA

Page No: 35

Paragraph No: AIS.OR.350 'Terrain and obstacle data – general requirements' and AIS.OR.355 'Terrain data sets'

Comment: The UK CAA notes that current aerodrome safeguarding and Instrument Flight Procedure (IFP) design is currently based upon ICAO Annex 14 and Doc 8168 (PANS OPS) obstacle limitation surfaces (OLS). It is also required by (EU) 139/2014 Article 7, and not Annex 15 eTOD obstacle collection areas. It should be noted that eTOD areas are not fully comparable to Annex 14 OLS and may possibly not support IFP design criteria, nor safeguarding as performed today. eTOD Area 2b is considerably wider than the current Annex 14 Take-off flight path, and therefore introduces significantly more obstacles. EASA is invited to explain how it will achieve harmonisation between eTOD and ICAO OLS and PANS-OPS requirements. Mandating eTOD in EU law at this level will force implementation of eTOD (even those eTOD areas that are only ICAO recommendations) ahead of any ICAO Annex 14 and PANS-OPS consideration of the implications of ICAO Annex 15 Chapter 10 eTOD areas on safeguarding and Instrument Flight Procedures.

Justification:
Clarification is required by EASA as to how to achieve harmonisation between ICAO Annex 15 Ch 10 (eTOD), ICAO Annex 14 Obstacle Limitation Surfaces and ICAO Doc 8168 (PANS OPS) requirements.

Commenter: UK CAA

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Paragraph No: AIS.OR.600, General requirements

Comment: Although partly transposed, personnel requirements are not consistently aligned throughout EASA regulations e.g. Aviation Undertakings, Data Originators and the AISP. It is essential that personnel requirements are fully aligned within Appendix 1 to Article 3 (Aviation Undertakings), Part-AIS, Part-ATM/ANS.OR, Part-ASD and Reg (EU) 139/2014.

Justification: The quality (integrity) of aeronautical data cannot be compromised at any point of the data chain, particularly by those without the authority to perform operations on aeronautical information.

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Paragraph No: AIS.TR.200, General, Sub-paragraph (d)

Comment: The responsibility for ensuring the traceability of valid data to its origin is a universal requirement applicable to all, not just the AISP under this NPA. Therefore a minimum period of data retention is necessary to support this requirement.

Justification: It is imperative that NSAs have the ability to trace the origin of erroneous data which would allow appropriate regulatory action to be taken with those responsible. EASA should consistently state the minimum data retention period, i.e. 5 years as per the ADQIR - Article 9 (2).

Proposed Text: Include consistent minimum data retention period of 5 years in AIS.TR.200, Appendix 1 to Article 3, Annex XI (Part-ASD) and Reg (EU) 139/2014.

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Paragraph No: ATM/ANS.OR.A.080(f), Aeronautical data and aeronautical information – Tools and Software

Comment: Although the requirements for tools and software have been transposed from the ADQIR for service providers, they have not for Aviation Undertakings. This will mean that Aviation Undertakings do not have to prove that tools and software used in the origination process will not adversely impact the accuracy of the data concerned. This approach is inconsistent with the end-to-end data chain assurance approach of the ADQIR and associated AMC.

Justification: The result will mean that data originated by Aviation Undertakings cannot be proven to meet the data quality requirements for accuracy, resolution or integrity.

Proposed Text: Include the same Tool & Software requirements in ATM/ANS.OR.A.080 (f) for 'Aviation Undertakings' in Appendix 1 to Article 3. Ensure alignment within Annex-XI Part ASD.

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Paragraph No: GM1 ATM/ANS.OR.A.080(h), Aeronautical data and aeronautical information, sub-paragraph (b)(3)(i)	
<p>Comment: Whilst the UK CAA supports the removal of the requirement to impose CRC 32Q algorithm for the protection of data, the phrase ‘digital error detection’ technique is misleading, inferring automated means of detecting errors rather than the true intent of affirming the received data has not been corrupted in transit or during storage.</p> <p>By not providing specific security requirements for the protection of data will result in varying perceptions of what is considered adequate, placing the AISP in a potentially unmanageable position of having to facilitate many data protection means. AMC/GM to this NPA should recommend the application of the common industry standard ‘zip utility’ file compression software that applies cyclic redundancy checks in .zip file headers. This method avoids the requirement for specific CRC 32Q application, in favour of a definite, but non-supplier specific alternative.</p> <p>Justification: Errors cannot be identified by CRC, only <u>corruption</u> of data in storage and transit is possible with CRC. Variable interpretations of suitable protection methods will impact on the AISP as the recipient of data, having to facilitate many means of data protection.</p> <p>Proposed Text: Amend sub-paragraph (3)(i) by replacing ‘Digital error detection technique’ with ‘Digital security’. Include requirements for security of data during transit and storage and provide AMC for application of .zip as acceptable method of ‘data protection’, not as ‘validation’ aid. Ensure this is cross referenced to other EASA regulations (Appendix 1 to Article 3, Part-ASD plus Reg (EU) 139/2014 (ADR.OPS.A.010)</p>	

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Paragraph No: GM1 AIS.OR.210(b)	
<p>Comment: UK CAA seeks clarification as to how email or .pdf supports the digital exchange of common dataset specifications with all the associated quality & metadata attributes available from origination to the next intended user.</p> <p>The consequence of lessening the ADQIR requirement for exchange of data by direct electronic connection would require all those in the data chain to revert to manual processes for the exchange of data via e-mail or .pdf. The original intent of ADQIR was to eliminate human intervention from the data-chain as far as possible, and thereby maintaining the integrity of the data throughout.</p> <p>This NPA raises the risk and potential for error in safety critical/essential data. Although not the main justification, should this requirement remain as stated, then the UK’s proposed new ADQIR-compliant AISP system would not have been necessary, as the existing AISP systems use e-mail and PDF exchange and would have been compliant immediately, thus saving the AISP in excess of €5m.</p> <p>Justification: The consequential impact of this change in requirements from ADQ to those</p>	

proposed in the NPA would necessitate the need for the AISP to re-introduce manual processes and procedures in order to facilitate the manual input of received data into the ADQ compliant AISP system.

Proposed Text: Remove all references to e-mail and PDF in GM1 AIS.OR.210 (b) and reinstate ADQIR (Article 5 and Annex II) requirements for data exchange. If not, provide AMC/GM for how this will work in practice.

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Paragraph No: AMC1 AIS.OR.515, Digital data updates

Comment: Without inherent data quality metadata attributes embedded into the data-set itself, it would be impossible for data originators to know if the quality requirements of the original data have been met. This does not appear, then, to be a justifiable requirement unless a common aeronautical information exchange model that supports the exchange and visibility of the original data/metadata is utilised.

Justification: It is impossible to amend a data-set unless the format of the original is understood or known.

Proposed Text: Provide AMC at AMC1 AIS.TR.210 for the specific application of Eurocontrol's Aeronautical Exchange specification (AIX) to facilitate a standardised data exchange format. Include the same requirement in Appendix 1 to Article 3 (for Aviation Undertakings), Annex XI Part-ASD (for procedure/airspace designers), and Reg (EU) No.139/2014 (for EASA aerodromes).