



European Aviation Safety Agency
Comment-Response Document 2016-02

Appendix
to Opinion No 02/2018

RELATED NPA 2016-02 — RMT.0477 — 7.3.2018

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1. Summary of the outcome of the consultation

NPA 2016-02 was publicly consulted from 28 April 2016 to 30 September 2016. In total, 1090 comments were submitted by 53 stakeholders: national aviation authorities (NAAs), air navigation service providers (ANSPs), aeronautical-information services (AIS) providers, aircraft manufacturers, aviation industry, professional associations, and individuals.

Although several comments were duplicates and of editorial nature, EASA concludes that the NPA 2016-02 public consultation contributed very positively to the development of this Opinion as stakeholders provided valuable comments to the NPA. The most commented issues during said consultation were the following:

- **Data origination:** the scope was considered unclear as the term ‘aviation undertakings’ does not identify precisely which entity is in or out of the scope of the data origination rules. In addition, the scope of aerodromes defined was also considered to be unclear. EASA acknowledged this and amended the related Article 3(5) of Regulation (EU) 373/2017.
- **Data catalogue:** some comments raised concerns about the fact that the data catalogue was not complete and that it was not clear how to handle data that was not included in said catalogue. EASA noted these concerns, but as the proposed European Union (EU) data catalogue is transposed from the International Civil Aviation Organization (ICAO), it decided to leave the approach as well as the data catalogue unchanged. Furthermore, the ICAO data catalogue is deemed to be complete. Indeed, some of its elements have no defined data quality requirements or no specific attributes or values. EASA added some explanation material to underline that the data catalogue only presents the scope of data that can be collected and maintained by the AIS providers as well as a common terminology to be used by parties originating data and service providers. It is not intended that all the elements of the data catalogue is complied with but only those specifications that are intended for the purpose of the data to be created or provided.
- **Data exchange:** in NPA 2016-02, it was proposed that parties exchange data through electronic means (e.g. through pdf or by email). Many stakeholders commented that such means are not considered suitable to fulfil the requirement. EASA took note of this although the above-mentioned means were only examples provided as guidance material (GM). Therefore, all similar references were removed from the revised text, which states that the transmission of aeronautical data and aeronautical information may be achieved by various electronic means without the need to manually interact with the data itself.
- **Data exchange model:** many comments raised concerns about the lack of specified requirements for the data exchange format, in particular for the use of the AIXM 5.1 model and its impact on the level of interoperability for data exchange with other stakeholders. The commenters stressed also the fact that without a particular data exchange model, it would be difficult to ensure interoperability between the different parties. EASA noted these concerns; however, it believes that a performance-based approach ensures interoperability. Indeed, in the revised rule text, it is required to select the most suitable model to exchange data, the AIXM model being only one of many means to comply with this requirement. Therefore, AIXM is not the only model that can be used as long as interoperability is ensured. However, it is the

recommended model to be used to meet the requirements. The version of this model is open to cater for future upgrades of the models used. GM has also been proposed to indicate that AIXM 5.1 is the baseline with regard to the exchange of data.

- **Data exchange and the reference to the cyclic redundancy check (CRC):** the majority of comments supported the NPA proposal to not impose the CRC32Q for the protection of data. Indeed, there are other measures (in lieu of the CRC) possible to allow for data protection as well as interoperable means of exchange. This flexible approach ensures that all parties are able to provide data protection and that a high level of data quality is maintained.
- **Reference to specific EUROCONTROL documents:** Many comments highlighted the need to take all the Eurocontrol specifications into account as they were developed within the framework of Regulation (EU) No 73/2010 (the ‘ADQ Regulation’)¹ and should be applied in the context of the Opinion No 02/2018 rules. In addition, many commentators requested clarification of the status of such specifications in the new framework. EASA replied that the NPA included only a first assessment of the Eurocontrol specifications as well as some proposed GM already developed in the framework of the ADQ Regulation. As the ADQ regulation is proposed to be repealed, EASA considered that not all existing GM needed to be kept: some GM were either too closely linked to the ADQ Regulation, or superseded by new GM, or were not fit for purpose in the context of the new draft regulation amending both Regulation (EU) 2017/373² and Regulation (EU) No 139/2014³. However, as said new draft regulation maintains the core objectives of the ADQ Regulation, it is necessary to build on the available material in order to create new comprehensive GM. Therefore, some Eurocontrol specifications or documents have been used as references in the draft GM (e.g. on data origination, aeronautical-data quality (ADQ) guide, etc.) and sometimes in the draft acceptable means of compliance (AMC) (e.g. on eAIP and OPPADD — the ‘Operating Procedures for AIS Dynamic Data’). Other Eurocontrol specifications, such as DAL, were not included in the Opinion, as they were considered not applicable any more. As for the AIX (aeronautical information exchange) specification, EASA believes that it is still relevant; however, appropriate guidance on AIX can be found elsewhere, e.g. in the aixm.aero website, which provides AIS providers with information on the exchange of data. Finally, with regard to data quality requirements (DQRs), they are considered as being superseded by the data catalogue. The available Eurocontrol specifications and documents were reviewed and included into the new requirements based on their relevance.
- **Transition period:** several commentators proposed that all aerodrome operators are afforded a transitional period for the full entry into force of the new requirements. In addition, as the applicability of the new rules is considered to be a challenge for all parties involved, some

¹ Commission Regulation (EU) No 73/2010 of 26 January 2010 laying down requirements on the quality of aeronautical data and aeronautical information for the single European sky (OJ L 23, 27.1.2010, p. 6) (<http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1512039088315&uri=CELEX:32010R0073>)

² Commission Implementing Regulation (EU) 2017/373 of 1 March 2017 laying down common requirements for providers of air traffic management/air navigation services and other air traffic management network functions and their oversight, repealing Regulation (EC) No 482/2008, Implementing Regulations (EU) No 1034/2011, (EU) No 1035/2011 and (EU) 2016/1377 and amending Regulation (EU) No 677/2011, (OJ L 62, 8.3.2017, p.1) (<http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1511968302703&uri=CELEX:32017R0373>).

³ Commission Regulation (EU) No 139/2014 of 12 February 2014 laying down requirements and administrative procedures related to aerodromes pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 44, 14.2.2014, p. 1) (<http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1511972494718&uri=CELEX:32014R0139>).



commentators requested a reachable transition requirement in order to be able to smoothly transition from ADQ Regulation compliance to compliance with the new framework. EASA agrees that affected parties should be allowed sufficient time to ensure compliance with the new rules. However, the NPA did not propose any specific transition measures as the overall approach towards increasing flexibility and proportionality compared to the ADQ Regulation was still subject to major changes. EASA explains in its responses that the transition period and the applicability date will finally be agreed and decided in coordination with the Member States and the European Commission once the new draft regulation is prepared. A related clarification is also included in the Opinion. The transition period should ensure that all affected stakeholders have sufficient time to prepare for the implementation of the new rules. The current approach is to make the AIS/aeronautical information management (AIM) rules applicable as from 2 January 2020 as provided for in Article 10 of Regulation (EU) 2017/373. During the Single Sky Committee meeting of October 2017, three options for the applicability date of the new AIS/AIM rules were discussed.

The distribution of the comments received on the various parts of NPA 2016-02, the distribution of the comments received per stakeholders' sectors, and the distribution of the EASA's responses to the comments are shown in Table 1 as well as Figures 1 and 2, respectively:

NPA 2016-02	Page(s)	Comments
General	N/a	60
Executive summary	1-5	10
Procedural information	5-6	2
Explanatory note	6-18	124
Implementing rules (IRs)	18-55	603
AMC/GM	55-93	211
Regulatory impact assessment (RIA)	94-102	23
References	103	2
Appendices	104	55
Total	104	1090

Table 1— Distribution of the comments received on the various parts of NPA 2016-02



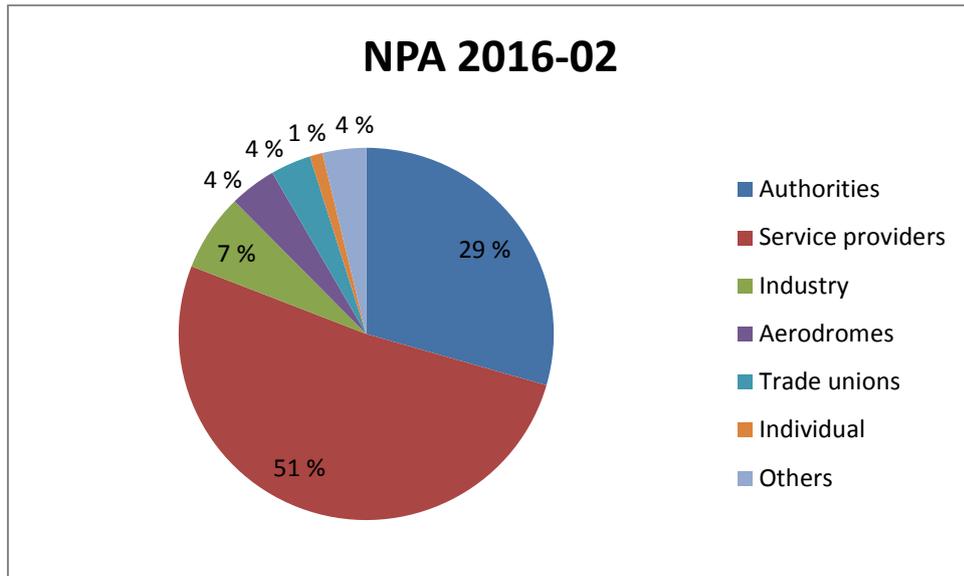


Figure 1 — Distribution of the comments received per stakeholders' sector

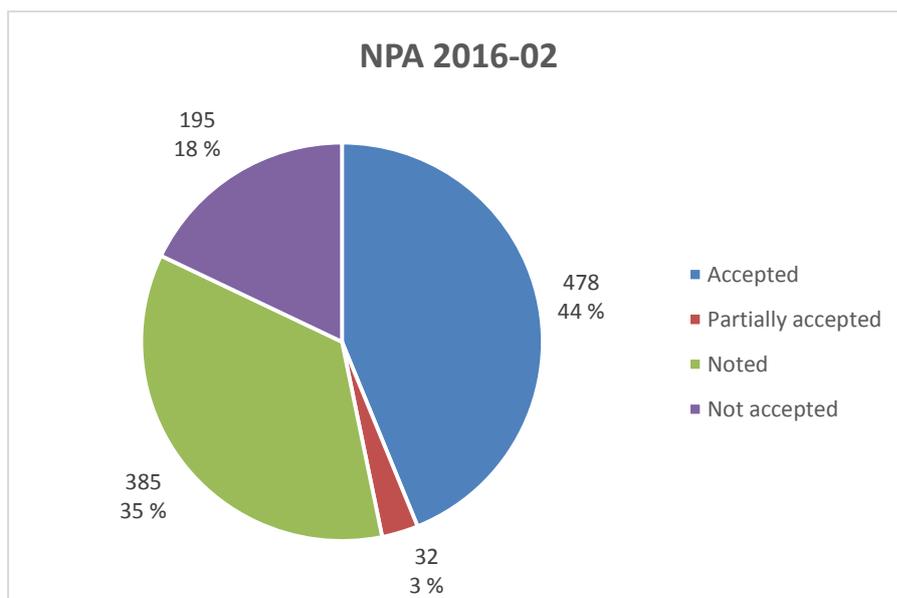


Figure 2 — Distribution of EASA's responses in CRD to NPA 2016-02

2. Individual comments (and responses)

In responding to comments, a standard terminology has been applied to attest EASA's position. This terminology is as follows:

- (a) **Accepted** — EASA agrees with the comment and any proposed amendment is wholly transferred to the revised text.
- (b) **Partially accepted** — EASA either agrees partially with the comment, or agrees with it but the proposed amendment is only partially transferred to the revised text.
- (c) **Noted** — EASA acknowledges the comment but no change to the existing text is considered necessary.
- (d) **Not accepted** — The comment or proposed amendment is not shared by EASA.



(General Comments)

comment

28

comment by: *BGA*

- The proposed text seeks to replace regulation 73/2010 laying down common rules on the quality of aeronautical data and aeronautical information for the single European sky. That regulation states that it applies to "operators of those aerodromes and heliports for which instrument flight rules (IFR) or Special-visual flight rules (VFR) procedures have been published in national aeronautical information publications;" This NPA does not explicitly make the same statement. We request that the proposed regulation has the same applicability as 73/2010.
- The NPA proposes that much information currently in the IAIP in human readable format be made available as datasets. In one place it implies that these data need only exist in the dataset format (which is not human readable). Most of GA would still want to be able to access the data in human readable format. The datasets potentially cover 15 areas including airspace, danger areas etc. We request that the states retain an obligation to provide these data in human readable forms as well as in dataset form.
- The aim is that all providers of data to go into national aeronautical information publications should meet the proposed quality standards and be able to submit data in the AIXM format. We propose that not-for-profit, self-funded air sport organisations are exempted from the cost/complexity of being subject to this regulation.

response

NOTED.

Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed. The requirements still cover VFR aerodromes but flexibility is left to States as to what extent these provisions shall apply, depending on each national context and the way such aerodromes are included (or not) in the AIP.

comment

208

comment by: *Slovenia Control, Ltd.*

The NPA is not considered to be less complex than Commission Regulation (EU) 73/2010.

response

NOTED.

The Agency does not share this view. The NPA does not only contain data quality requirements but also rules on aeronautical information products and services. Also, the 'transferred' data quality requirements into the EASA framework have been carefully assessed for simplification and performance-based approach. The complexity might be due to the fact that similar data quality requirements are reproduced in different places due to the fact that they apply differently according to the providers or entity affected (proportionality).



comment	209	comment by: <i>Slovenia Control, Ltd.</i>
	The NPA is considered to have many more technical requirements than Commission Regulation (EU) 73/2010 which is much more performance-based with a few technical requirements.	
response	NOTED. In terms of data quality requirements, the NPA does not have more technical requirements than the ADQIR. For data origination, there are less requirements. For service providers and AIS providers, there is not more than what is currently in the ADQIR. It is true that, due to the fact that this NPA is also based on the provisions stemming from ICAO Annex 15 and draft PANS-AIM, some more technical requirements are included for completeness and coherence.	
comment	211	comment by: <i>Slovenia Control, Ltd.</i>
	Many States have already spent money implementing Commission Regulation (EU) 73/2010 so the claim that the EASA regulation will save money is questionable. Slovenia Control has already invested a substantial amount of money and resources to comply with the ADQ requirements and some have now been dropped entirely.	
response	NOTED. The current proposal has the same essential requirements as the ADQ Regulation, therefore it is considered important that all parties achieve good progress with ADQ since it will establish the baseline for later EASA rule compliance. Thus, delaying or slowing down the ADQ implementation is not considered the best option, also taking into account the ADQ Regulation is still in force. The investment already made by Slovenia Control in the framework of the ADQIR should be maintained as it is not expected that its implementation from ADQIR would be in contradiction with the new regulation.	
comment	212	comment by: <i>Slovenia Control, Ltd.</i>
	Some of the reference documents referred to by the NPA, including AMC, are still draft and others are not available even in draft form to be able to fully assess the NPA in full context. This also brings quite a lot of risk to the process.	
response	NOTED. A careful analysis of all the proposed AMC has been conducted and all documents referred in the proposal are expected to facilitate the implementation of the rules.	
comment	213	comment by: <i>Slovenia Control, Ltd.</i>
	Reference to EUROCAE documents rather than existing standards already referred to by Commission Regulation 73/2010 which are free, brings additional costs to organisations.	
response	NOTED. The reference to the ISO series included in ADQIR Annex III are referenced in the draft rules: ISO series of standards for geographic information (spatial, temporal, metadata and feature	

cataloguing). Those not referenced were considered as not relevant in the context of the proposed rules.

comment	214	comment by: <i>Slovenia Control, Ltd.</i>
	<p>The scope of parties is larger than for Commission Regulation 73/2010 as a result of the inclusion of aviation undertakings which includes parties not addressed in Commission Regulation 73/2010.</p> <p>This results in additional workload and cost for the AIS, for example, it appears that the VFR Manual is now within the scope of the EASA regulation.</p> <p>The scope of the NPA should be more clearly defined.</p>	
response	<p>NOTED. The scope is now clearly defined, explaining who is under the scope of the rules. This NPA is an opportunity to extend the scope of parties, which is missing at origination level under the ADQ framework. It is considered important that all originators, having an impact on aviation, are included in the scope of the rules in a proportionate manner.</p>	
comment	215	comment by: <i>FAA</i>
	<p>Will this rule effect the ICAO and/or EuroControl AIRM? If so, how?</p>	
response	<p>No, the proposed rules will not affect the ICAO and/or Eurocontrol Reference Model. In the contrary, the EASA proposal will enable the seamless and interoperable exchange of information.</p>	
comment	255	comment by: <i>Slovenia Control, Ltd.</i>
	<p>There seems to be a lack of acknowledgement of the EUROCONTROL Specification for Data Quality Requirements and its intention. Too much emphasis is placed on parties understanding end-use rather than meeting defined DQRs that, when met, result in data meeting end-use needs. The Data Catalogue does not provide a complete replacement for this.</p>	
response	<p>NOTED. An analysis was made on the EUROCONTROL Specifications and</p>	
comment	257	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Some of the guidance material provided simply repeats ICAO SARPs and no value is seen in this.</p>	
response	<p>NOTED. The guidance material proposed in the NPA is expected to bring clarification for the affected parties on the intent of the rules. As for the AMC material, a careful review has been done to ensure that only appropriate guidance material is used with the set of rules.</p>	

comment	<p>258 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Other documents are inconsistently referred to throughout the regulation, i.e.,</p> <ul style="list-style-type: none"> • data catalogue in Appendix 1 to Subpart A of Annex III, • data catalogue • data catalogue, as specified in Appendix 1 to Annex III to Regulation EU .../...
response	<p>ACCEPTED. The reference to the data catalogue has been revised throughout the rules for consistency. However, please note that the reference is made according to the parts of the rules where the term is used. The term ‘aeronautical’ was inserted now for consistency as well.</p>
comment	<p>565 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Comparison Tables</p> <p>Page 48</p> <p>Req. (c)</p> <p>Aerodrome operators are no longer required to have operating manuals or configuration control.</p>
response	<p>NOTED. Requirement (c) of Article 13 of the ADQ IR is not transposed. ATM/ANS.OR.B.035 on operations manuals do not apply to aerodrome operators. Please note that aerodrome operators must comply with ADR.OR.E.005 Aerodrome Manual, which contains the operational procedures.</p>
comment	<p>566 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Comparison Tables</p> <p>Page 70</p> <p>Req. 7.</p> <p>This is wrong as this requirement does not only apply to aerodromes and is more likely to apply to aviation undertakings.</p>
response	<p>NOTED. Aviation undertakings (to be now replaced with parties originating data) include aerodrome operators when the latter originate data.</p>
comment	<p>567 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Comparison Tables</p> <p>Page 138</p> <p>Req. 5.2.5.3.</p>

	Some of the charts considered to be irrelevant are very much needed.
response	ACCEPTED. The charts to be made available are now those mentioned in ICAO Annex 15 (new).
comment	<p>568 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Comparison Tables</p> <p>Page 142</p> <p>Req. 5.3.3.1.3.</p> <p>This increases the cost of terrain and obstacle data implementation as the mandatory and recommended practices of ICAO have been merged.</p>
response	NOTED. The recommended practice was merged with the standard as it was considered by the experts that areas 2b/c/d for terrain data needed to be covered similarly to area 1.
comment	<p>569 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Comparison Tables</p> <p>Page 183</p> <p>Req. Note 3</p> <p>Why is reference made to ED-76 and not ED-77? ED-77 is considered appropriate for data origination.</p>
response	ED-76A is referenced as it contains the most recent update for processing aeronautical data while ED77 is still in old version (17 years old). The Agency will consider including it when EUROCAE WG44 updates the standard for aeronautical data.
comment	<p>581 comment by: <i>CAA-N</i></p> <p>NCAA has received general comments from Data providers (State Mapping Authority) that the NPA 2016 - 02 is difficult to access and obey for non-aviation organization.</p>
response	NOTED. The proposal of putting the responsibility for those non-aviation parties under the Member States should facilitate the overall compliance mechanism for those parties.
comment	<p>591 comment by: <i>CANSO</i></p> <p>CANSO has the following major issues on the NPA 2016-02:</p> <p>1. Need for clarification of the updated AIS certificate (Appendix 1 to Annex II)</p> <p>The new certificate allows for a more detailed indication of the different services an AISP is</p>

certified for. This raises a number of issues for which appropriate GM need to be added:

- Is any type of service mandatory for a State?
- As aeronautical information is strongly related to a geographical scope, is there a required minimum geographical scope for an AISP (e.g. an FIR)?
- Is the purpose of the certificate to allow for different service providers in the same geographical area and/or scope of service? If several AISPs can provide the same services in a shared geographical area, how is integrity and coherence of the information guaranteed?
- Are there specific requirements for specific certification items?
- If terrain or obstacle data are made available by a national geographical institute, do they need to be certified as AIS providers?

NOTED. Please refer to the proposed guidance material on Article 3.5 (GM1 Article 3) and on the AIS certificate (GM1/GM2/GM3 to ATM/ANS.OR.A.005).

2. Responsibility for terrain and obstacle data (AS.OR.350, AIS.OR.355 and AIS.OR.360)

The wording of the organisational requirements concerning eTOD datasets is confusing and can lead to the interpretation that the AIS has an obligation to provide these data, which is not in accordance with ICAO Annex 15. This needs to be clarified.

It is to be noted that this issue is also linked to the previous comment regarding the new certificate for provision of terrain or obstacle data.

NOTED. The NPA is strictly in line with ICAO. The AIS provider has to provide these data if those have been made available by the State. It is the responsibility of the State to decide whether or not to provide eToD.

3. Empty fields in the Data Catalogue (Appendix 1 to Annex III)

Although a number of fields in the Data Catalogue matrix are expected to remain empty (fields marked in grey), there are a lot of other data items for which quality requirements would be expected but are missing (e.g. Touchdown zone > Elevation on page 12). This needs to be reviewed.

NOTED. At the current time, the data catalogue is considered to contain the necessary elements. It is correct that some fields are not provided but this is because either the corresponding elements have no defined data quality requirements or because they do not have attributes. In some cases, some elements just do not have applicable values.

4. Data quality requirements for VFR aerodromes (Appendix 1 to Annex III)

The NPA requires data of VFR aerodromes to comply with the same data quality requirements as the data of IFR aerodromes. This requirement is considered disproportionate (cf. threshold coordinate resolution to 1/100 of a second) and will create a significant additional burden for operators of VFR aerodromes. The Data Catalogue should either provide tailored requirements for VFR aerodromes or provide for adequate exceptions.

ACCEPTED. The scope is now complemented by a paragraph specifying the level of enforcement of the provisions VFR aerodrome operators, which is now left to the discretion of each Member



State. The requirements still cover VFR aerodromes but flexibility is left to States as to what extent these provisions shall apply, depending on each national context and the way such aerodromes are included (or not) in the AIP.

5. Requirements for Aviation Undertakings (article 3)

The NPA requires Member States to ensure that Aviation Undertakings comply with Appendix 1 to article 3. As the requirements in this appendix remain relatively high level, an opportunity is created for the Member States to “personalise” the way they implement the requirements, which can lead to an inconsistent or even arbitrary approach.

It is requested to investigate the possibility to introduce AMC or GM on this subject, in order to promote a consistent, performance-based approach for the regulation of the Aviation Undertakings.

ACCEPTED. An AMC is added to specify how Member States should implement these requirements for originators.

6. Review of AMC

Various AMCs included in the NPA seem to be insufficient to ensure full compliance with the corresponding organisational or technical requirement. A general review of all proposed AMC is recommended, so as to verify they adequately cover the requirement they are associated to.

ACCEPTED. This situation is acknowledged and the rule text will be complemented by the necessary AMC/GM to ensure that full compliance can be met.

7. Synchronisation of the Regulation with ICAO updates

As with all European Regulations derived from ICAO SARPS, a lot of questions remain concerning the continued synchronisation of the Regulation with updates at ICAO level. Taking into account the importance of keeping aeronautical information and its formatting harmonized at a global level, the possibility of future ICAO Annex 15 updates that cannot be applied in Europe due to a delay in the related Regulation is daunting. Further clarification of this subject is required.

NOTED. Currently, proposals are discussed with the EC to ensure EU process for synchronisation of EU ATM legislation and ICAO SARPS evolutions, both upstream (before the ICAO SL is issued) and downstream (once the ICAO SL has been issued). This EU process should ensure that future ICAO Annex 15 updates can be integrated as soon as possible in the amended regulation.

response For easy reading, please see the response to the each comments above.

comment **640** comment by: DGAC

The use of the words “data item” has to be harmonized. In the NPA, both mentions of “data item” and “data element” can be found. Only one term has to be used (unless they have different meanings). The definition section lacks the definition of “data item” (to be taken from the ADQ regulation).

response **ACCEPTED. The definition of ‘data item’ is added. Consistency is applied throughout the rule text**



and refers only to data item.

comment	641	comment by: DGAC
	Some AMCs proposed in this NPA do not seem to correspond to the definition proposed in the project regulation on ATM/ANS providers (<i>“non-binding standards adopted by the Agency to illustrate means to establish compliance with Regulation (EC) No 216/2008 and its Implementing Rule”</i>). The application of several AMCs alone (the content of which is otherwise relevant) does not seem sufficient to comply with the whole associated IR. For instance: AMC1 ATM/ANS.OR.A.080(b) (only an AMC to (b), paragraph 2), AMC1 AIS.OR.355 Terrain data sets, AMC1 AIS.TR.400, AMC1 AIS.OR.200 General, etc. (non-exhaustive list).	
response	NOTED. An in-depth review of the AMCs was done and the necessary material has been added to ensure that AMC are really means to comply with the requirement.	
comment	642	comment by: DGAC
	The ADQ regulation does not apply to aeronautical information circulars. Yet this NPA does not provide any special treatment for AIC for the enforcement of the quality requirements. It means that a lot of provisions from the ADQ regulation that have been “transposed” in the NPA will apply to AICs. If the enforcement of some data quality provisions to AICs will do no harm, a little flexibility could be welcome when assessing the application of other provisions to this specific product.	
response	ACCEPTED. GM1 AIS.TR.320(c) explains that the data quality requirements are not applicable to AICs.	
comment	643	comment by: DGAC
	Attention should be given to the latest modifications made by ICAO to the projects of nex Annex 15 and PANS-AIM that were initially used by EASA to draft this NPA in order to maximize coherency and homogeneity with ICAO future publications.	
response	ACCEPTED. The NPA includes the latest adopted amendment 39. As explained in the Explanatory Note, in case of any amendment proposed before the ‘major’ amendment (which this NPA is based on), a careful review will be made before publishing the Opinion to ensure that all the proposed amendments, if deemed relevant, stemming from ICAO are reflected in the revised text.	
comment	644	comment by: DGAC
	France approves the objective-based strategy adopted by EASA for the drafting of the IR and AMC of this NPA. Guidance material seems to be the suitable level for describing the means to conform to the IRs and AMCs such as the existing Eurocontrol specifications and specific versions of the	

	aeronautical information exchange model.
response	NOTED.
comment	<p>645 comment by: DGAC</p> <p>One of the aims of the ADQ regulation is the provision of aeronautical data in a digital format (article 5.4.c and annex II). It is also one of the goals (if not the main goal) of the transition from AIS to AIM as described in the ICAO roadmap. However, this NPA does not contain mandatory requirements for providing digital data sets. The technical specifications for digital data sets are applicable “when made available”. An AISP could provide aeronautical information products only in paper or electronic format to conform to the regulation. However, this NPA also requires the AISP to provide data according to an aeronautical information exchange model designed to be globally interoperable, which seems to imply the provision of data in a digital format. Those aspects might need some clarification.</p>
response	NOTED. The provision of digital data sets proposed in the NPA follows the ICAO Annex 15 approach, leaving the provision of digital data sets applicable only when they are made available. When digital data sets are exchanged, there is a need to ensure that they are interoperable. It is considered too early to mandate the provisions of digital data set as many providers are technically not able to provide such data sets. Consideration will be given at the appropriate time, in agreement with the AIS-AIM community for a smooth transition to AIM.
comment	<p>731 comment by: IFAIMA</p> <p>IFAIMA supports this new regulation proposal. However we state it's urgent to establish rules for staff training and human factors in the sense to be conformant with the established in this NPA.</p> <p>Although ICAO at the moment does not provide a staff certification for AIS/AIM, in the scope of SES it makes complete sense that a common staff certification would be provided, certifying the KSA (Knowledge, Skills and Abilities) of such staff.</p>
response	NOTED. Rules on AIS/AIM personnel and human factors will be proposed at a later stage, once the rules on AIS/AIM services are known.
comment	<p>732 comment by: Union des Aéroports français - UAF</p> <p><u>UAF comments</u></p> <p>L’UAF soutient cette proposition d’alignement des différents textes avec l’annexe 15 de l’OACI ainsi que les souplesses apportées par les propositions mais propose quelques amendements pour une meilleure compréhension des textes.</p> <p>En réponse à la question posée aux parties prenantes (page 11 § 2.3.3), l’UAF considère que la protection des données par l’utilisation du processus CRC pour les exploitants d’aérodrome doit</p>

response	<p>être proposé au niveau GM plutôt qu'AMC, comme pour les Etats.</p> <p>NOTED. Necessary amendments to the proposal, with the support of experts, have been made to clarify the rules.</p>
comment	<p>737 comment by: ENAV</p> <p>ENAV has the following major issues on the NPA 2016-02:</p> <p>1. Need for clarification of the updated AIS certificate (Appendix 1 to Annex II)</p> <p>The new certificate allows for a more detailed indication of the different services an AISP is certified for. This raises a number of issues for which appropriate GM need to be added:</p> <ul style="list-style-type: none"> • Are there specific requirements for specific certification items? • If terrain or obstacle data are made available by a national geographical institute, do they need to be certified as AIS providers? <p>NOTED. Please refer to the proposed guidance material on Article 3.5 (GM1 Article 3) and on the AIS certificate (GM1/GM2/GM3 to ATM/ANS.OR.A.005).</p> <p>2. Responsibility for terrain and obstacle data (AIS.OR.225, AIS.OR.350, AIS.OR.355 and AIS.OR.360)</p> <p>The wording of the organisational requirements concerning eTOD datasets is confusing and can lead to the interpretation that the AIS has an obligation to provide these data, which is not in accordance with ICAO Annex 15. This needs to be clarified.</p> <p>It is to be noted that this issue is also linked to the previous comment regarding the new certificate for provision of terrain or obstacle data.</p> <p>NOTED. The NPA is strictly in line with ICAO. The AIS provider has to provide these data if those have been made available by the State. It is the responsibility of the State to decide whether or not to provide eToD.</p> <p>3. Empty fields in the Data Catalogue (Appendix 1 to Annex III)</p> <p>Although a number of fields in the Data Catalogue matrix are expected to remain empty (fields marked in grey), there are a lot of other data items for which quality requirements would be expected but are missing (e.g. Touchdown zone > Elevation on page 12). This needs to be reviewed.</p> <p>NOTED. At the current time, the data catalogue is considered to contain the necessary elements. It is correct that some fields are not provided but this is because either the corresponding elements have no defined data quality requirements or because they do not have attributes. In some cases, some elements just do not have applicable values.</p> <p>4. Data quality requirements for VFR aerodromes (Appendix 1 to Annex III)</p> <p>The NPA requires data to comply with the same data quality requirements for both IFR and VFR aerodromes. This requirement is considered disproportionate (cf. threshold coordinate resolution</p>

to 1/100 of a second and integrity level critical) and can create a significant additional burden both for operators of VFR aerodromes and/or for AISPs. The Data Catalogue should be tailored accordingly.

ACCEPTED. The scope of is now complemented by a paragraph specifying the level of enforcement of the provisions VFR aerodrome operators, which is now left to the discretion of each Member State. The requirements still cover VFR aerodromes but flexibility is left to States as to what extent these provisions shall apply, depending on each national context and the way such aerodromes are included (or not) in the AIP.

5. Scope of the Regulation

Following the discussion held during the EASA AIS/AIM Thematic meeting it seems that the scope of the Regulation does not include VFR only aerodromes related data. The draft document subject to consultation does not mention this limitation in scope. Please clarify how the NPA is planned to be integrated and which articles/parts will be amended accordingly. This comment is linked to the previous one.

Linked to the previous response above, the scope of the regulation could include VFR aerodromes depending on the discretion of the States. The scope now explicitly mention this limitation.

6. Requirements for Aviation Undertakings (article 3)

The NPA requires Member States to ensure that Aviation Undertakings comply with Appendix 1 to article 3. As the requirements in this appendix remain relatively high level, an opportunity is created for the Member States to “personalise” the way they implement the requirements, which can lead to an inconsistent or not standardized approach.

Future AMC or GM on this subject, in order to promote a consistent, performance-based approach for the regulation of the Aviation Undertakings should be envisaged.

ACCEPTED. An AMC is added to specify how Member States should implement these requirements for originators.

7. Review of AMC

A general review of all proposed AMC is recommended, so as to verify they adequately cover the requirement they are associated to.

ACCEPTED. This situation is acknowledged and the rule text will be complemented by the necessary AMC/GM to ensure that full compliance can be met.

8. Synchronisation of the Regulation with ICAO updates

As with all European Regulations derived from ICAO SARPS, a lot of questions remain concerning the continued synchronisation of the Regulation with updates at ICAO level. Taking into account the importance of keeping aeronautical information and its formatting harmonized at a global level, the possibility of future ICAO Annex 15 updates that cannot be applied in Europe due to a delay in the related Regulation is daunting. Further clarification of this subject is required.

NOTED. This subject is currently discussed with the EC to ensure EU process for synchronisation



of EU ATM legislation and ICAO SARPS evolutions, both upstream (before the ICAO SL is issued) and downstream (once the ICAO SL has been issued). A draft document is proposed. This EU process should ensure that future ICAO Annex 15 updates can be integrated as soon as possible in the amended regulation.

response For easy reading, please see the response to each comments above.

comment 771 comment by: *Slovenia Control, Ltd.*

It has to be taken in consideration that this NPA put a lot of requirements on AIS/AIM thus requiring substantial amount of new resources, knowledge that AIM currently does not have. AIM has difficulties achieving additional finances within ANSP for projects like that as we have got for ADQ more than in all last 20 years together.

Slovenia Control AIS does not see the need for NPA, but would rather suggest that EASA entirely copy ADQ IR and just modify the bits that proved to be too difficult to implement and too technical. It took 6 years to get Regulators, NSA and Data Originators on board and now we are changing the rules of the game again with new requirements, sometimes less stringent than ADQ IR, less clear and open to interpretation and additional burden on AIM.

An NPA as such does not improve the data quality in the whole data Chain as much ADQ IR does and may not achieve a data assurance required.

Please be aware of the slow intake of the ADQ IR and the same will happen with AIS-AIM NPA, as it may fail on technical ground, exchange of data, Formal Arrangements and responsibilities if they are not clearly regulated and too many room for interpretation is left and thus requiring AIM to invest even more in technical solutions to exchange data with all aviation undertakings in a way to preserve data quality requirements, integrity and safety of data.

Please listen to the voice of AISPs, as we are facing the problems of implementation daily on technical level.

response NOTED. The NPA is not considered as requiring more than what was required under the current regulation. For safety reasons, the scope of the parties is extended to all those who are taking part in the origination activities of AIS/AIM. The current EASA regulatory framework, supported by a flexible and tailored management system, is considered to ease the implementation. The proposal also provides for more flexibility of the requirements, allowing data originators, service providers and aerodrome operators to choose the best approach for their operations while maintaining the overall current level of safety. This will be beneficial for the entire data chain process and actors involved. The Agency recognises that some improvement can be brought to the current proposal and has worked on the text with the relevant experts to clarify the rules, to bring more proportionality where needed in order to avoid the risk of putting too much burden on the affected parties.

comment 788 comment by: *APTICA*



	<p>The Portuguese AIS and COM Association support this new regulation proposal.</p> <ul style="list-style-type: none"> - However we state it's urgent to establish rules for staff training and human factors in the sense to be conformant with the established in this NPA. - Although ICAO at the moment does not provide a staff certification for AIS/AIM, in the scope of SES it makes complete sense that a common staff certification would be provided, certifying the KSA (Knowledge, Skills and Abilities) of such staff.
response	<p>NOTED. Rules on AIS/AIM personnel and human factors will be proposed at a later stage, once the rules on AIS/AIM services are known.</p>
comment	<p>856 comment by: daa - Dublin & Cork airports</p> <p>Having reviewed the NPA proposal, daa as an aerodrome operator, would like to make the following general comments at the outset.</p> <p><u>Investment:</u></p> <p>What provision has EASA / European Commission made for the significant consequential and additional investment that is being imposed on aerodrome operators by the assignation of these complex requirements and responsibilities? It is clear that there will be substantial additional surveying requirements arising from these proposals, an investment required in relation to information technology and organisational resources to then manage and process the data. As aerodrome operators, in general, operate on a commercial footing, what steps have been put in place to ensure that the Airport Charges regulation regime across Europe and its Member States will take suitable account of this extra aeronautical investment and to allow aerodrome operators to recoup this investment into the future?</p> <p>Response: EASA proposal proposes less stringent requirements than those under the current ADQ framework. The rules on aeronautical data quality proposed in this NPA were developed with the objective of providing a proportionate approach and better understanding of the requirements to be met. The objective is to provide enough flexibility, taking into account the implementation difficulties experienced in complying with the ADQ Regulation. In addition, certain aspects of the Regulation can be better addressed through the AMC/GM material, which at the same time ensures that the investments made so far are not compromised.</p> <p><u>Guidance Material:</u></p> <p>To date, there has been no substantive guidance material made available specific to aerodrome operators at either the European or national level to address the implementation of the existing Aeronautical Data Quality Regulation or any of the other attendant responsibilities that have been assigned through EASA's Implementing Rules or previously through the ICAO Annexes. As this consultation clearly lays out, there is currently widespread non-compliance with regard to these requirements. As an aerodrome operator, we would be concerned that this NPA currently does not appear to address the lack of guidance material or what will be produced to ultimately support the implementation of these requirements.</p> <p>Response: NOT ACCEPTED. Guidance material is available in the ADQ framework. For the AIS</p>

rules, more guidance is now proposed.

This appears to risk continued non-compliance or indeed partial or faulty adoption and implementation of requirements which could have negative consequences for aviation safety and at a minimum result in a serious lack of confidence with regard to the promulgation of various data sets of aeronautical information.

Transition Period:

In line with the preceding points concerning investment, resources and guidance material and the reported reasons for delay in the implementation of the existing legislation as referenced in the NPA: “lack or late availability of guidance material and specifications; the high cost of implementation and the lack of available resources; furthermore unclear legal provisions (requiring further clarification) and the complexity of addressing data originators (both technical and institutional)”, daa would contend that an extended transitional period be afforded to Member States to allow for the implementation of these requirements. Aerodrome operators dependent on their own size and scale simply will not have the resources to implement these requirements to ensure full compliance. Given the depth and complexity of the requirements and the relative scale of resources available to aerodromes (both private and public), daa contends that there is a strong rationale for the first phase of implementation of these requirements be led and coordinated nationally by each Member State. This would ensure appropriate commonality in terms of the implementation of the requirements and allow for appropriate assurance as to the quality of the outputs developed and ultimately utilised. Given the experience to date and the widespread non-compliance referred to in the NPA, it is clear that without a specific action plan for implementation and appropriate support and resources made available at the European and Member State level that despite the intentions of this NPA to reduce complexity going forward that the current status quo will pertain and will likely be exacerbated through the partial and or faulty application / implementation of various requirements in divergent manners across the Member States. This runs counter to the goal of harmonising a high level of safety across Europe and must be avoided.

Response: the transition period and the applicability date are still to be agreed and decided in coordination with the Member States and the EC. A proposal will be made in the Opinion. The transition period will ensure that all affected stakeholders will be able to prepare for implementation of the new rules. Currently, the ‘normal’ approach is to make the AIS rules applicable as from 2 January 2020, as foreseen in Regulation 2017/373 in which Part-AIS will fit in.

response For easy reading, please see the response to each comments above.

comment 875 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

The Federal Office of Civil Aviation (FOCA) appreciates the opportunity to comment on this NPA.

Comment FOCA: For the ADQ Implementing Rule 73/2010 relevant guidance and implementation material was available (developed by Eurocontrol). We miss such material in this RMT.



	<p>Justification: Without appropriate and commonly accepted AMC and GM, disharmonized and varying interpretation will result in national implementations, which will hinder the high level objective of interoperability. Difficulty will arise in the implementations as e.g. for cross border issues or new concepts of operation linked with SESAR ATM Master plan. Increased data quality needs for safety and efficiency will most probably not be reached in reasonable time. The establishment of harmonized SES implementation objectives will be very difficult.</p> <p>Proposed Text: Mandate Eurocontrol to adjust existing guidance material to the NPA and to establish harmonized and comprehensive guidance material.</p>
response	<p>NOT ACCEPTED. Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.</p>
comment	<p>881 comment by: <i>BF</i></p> <p>There should be also a part about human factors and staff training in order to achieve the requirements of this NPA. Without staff with good knowledge, skills and abilities in less words without a good trained staff that won't be possible to achieve. That's why the certification of AIS/AIM staff is necessary.</p>
response	<p>NOTED. Rules on AIS/AIM personnel and human factors will be proposed at a later stage, once the rules on AIS/AIM services are known.</p>
comment	<p>926 comment by: <i>Estonian Civil Aviation Administration</i></p> <p>1. 1. It is unclear how this NPA addresses the issue of publishing nationally certified aerodromes information. It needs to be clear, that all certified aerodromes (e.g. certified under regulation (EU) nr 139/2012 or under national regulation) are published in national AIP. When there is an intent or a need to address these aerodromes differently regarding the requirements for publishing aerodrome information in AIP e.g. certified under regulation (EU) nr 139/2012 or under national regulation, it must be clearly stated in the NPA. All requirements should be harmonised and regulated by EASA in order to avoid inconsistencies and to provide clear understanding for operators.</p> <p>2. 2.Data originators quality requirements have to be regulated by EASA and can't be State's responsibility. When EASA regulates these requirements it insures the consistency of</p>

	implementation among Member States.
response	<p>1/ The NPA reproduces the AIP content. There is no obligation on the State to publish the data from nationally certified aerodromes.</p> <p>2/ Data originators that are not service providers in the scope of the EASA Basic regulation (Reg. 216/2008) cannot be regulated at European level. Therefore, in order to ensure that they follow minimum data quality requirements, the proposed approach is to put the responsibility on the States (but the requirements are based on European provisions).</p>
comment	<p>948 comment by: German NSA (BAF)</p> <p>The NPA covers common SES safety and efficiency objectives as well as quality of data. The German NSA (BAF) is concerned that Eurocontrol specifications to Reg. (EU) No. 73/2010 are no longer accepted by EC/ EASA because in NPA 2016-02 they have not been adopted resp. there is no reference to.</p> <p>But without the Eurocontrol DAL, DQR and DO specifications, Member States do not have harmonised principles within the meaning of quality. Therefore different interpretations are possible and the common aims cannot be achieved.</p> <p><u>Proposal:</u></p> <p>Refer to Eurocontrol DAL/DQR/DO specifications or adopt harmonised principles into AMC and GM.</p>
response	<p>NOT ACCEPTED. Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.</p>
comment	<p>949 comment by: CAA-N</p> <p>NCAA has a general concern about whether the new Rule-set preserves the ICAO core intention of the principle of being Data centric, and with a goal to digitalize the exchange and publication of Aeronautical Data.</p> <p>A performance driven approach must not weaken this core issue.</p>
response	<p>NOT ACCEPTED. The NPA has transposed all relevant (new) ICAO Annex 15 provisions, including those about digital data and exchange.</p>

comment	<p>950 comment by: CAA-N</p> <p>Existing Eurocontrol Guidance Material:</p> <p>NCAA suggest the use of Eurocontrols existing Guidance Material should be considered, in order to secure a more smooth transition from the ADQ requirements.</p>
response	<p>ACCEPTED. Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.</p>
comment	<p>983 comment by: CAA CZ</p> <p>CAA CZ would highly appreciate AMC and GM. We are concerned that the term data quality can be interpreted very differently by the States within EATMN without having specified any specific DQR/DO. Will Eurocontrol Specifications be still supported by EASA? If not, are other specifications for data quality expected?</p>
response	<p>ACCEPTED. Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.</p>
comment	<p>984 comment by: CAA CZ</p> <p>We would like to express our concern regarding alignment of this NPA to the next amendment of ICAO Annex 15 where big changes are to be expected. Because we didn't have so far the opportunity to comment on next amendment of ICAO Annex 15 or forthcoming PANS AIM Manual - in this case we truly hope in a strong content and scope alignment of these two prepared changes with respect to the amount of resources already spent.</p>

response ACCEPTED. The NPA includes the latest adopted amendment 39. As explained in the Explanatory Note, the NPA is based on the upcoming major ICAO amendment (including the new PANS-AIM) and any changes to the ICAO proposal will be taken into account before the publication of the Opinion. It is however anticipated that no big changes will occur from the initial ICAO proposal, proposed by the ICAO AIS-AIM study group.

comment 985 comment by: CAA CZ

We are missing exchange format and quality requirements concerning NOTAM? Will they be further specified?

response NOT ACCEPTED. The NPA contains the necessary ICAO provisions for the publication and exchange of NOTAM in the right format (AIS.TR.330(c), (f) and (g) and AIS.TR.400(c) and (d)). With regard to data quality requirements, AIS.OR.200 is applicable to NOTAM (without prejudice to the newly introduced provision foreseeing urgent distribution – AIS.OR.330(b)).

comment 986 comment by: CAA CZ

We are also concerned about data exchange format (AIXM 5.1). When in the NPA are no specified requirements for this issue, the level of interoperability for data exchange with other States or stakeholders can be deteriorated. Also according to the Performance Plan and its investment part our main the vast amount of resources was spent by ANSP to be ADQ IR fully compliant. But based on the NPA it seems that the investment could be very ineffective.

response NOTED. The AIXM model should be the model to be used to meet the requirements. The version of this model is open to cater for future upgrade of the models used. It is considered that investment made to meet AIXM 5.1 are not jeopardized. GM is provided to explain what is meant by global interoperability. A new GM1 AIS.OR.210(a) has been introduced to indicate that AIXM 5.1 is considered to be the minimum baseline for the exchange of data.

comment 1011 comment by: Federal Office of Civil Aviation (FOCA), Switzerland

Comment FOCA: We get the general perception that data quality assurance and interoperability has been weakened (e.g. the requirements on data originators as well as on data exchange).

Justification: The NPA includes less stringent requirements on data originators, especially on aviation undertakings. There is no specific requirement concerning data exchange format and no requirement for Aeronautical Information Services for the provision of digital data set.

Proposed Text: Aligned and harmonized as well as high level goal oriented requirements on all data originators, on digital data set and data exchange should be added to ensure required data quality and interoperability.



response NOTED. The objective is to ensure a proportionate approach for data originators without lowering data quality standards and interoperability. The high level objectives of ADQ remain.

comment 1012 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Comment FOCA: Eurocontrol Specifications, which have been accepted as means of compliance are not mentioned in the NPA and therefore they suit no longer as means of compliance. Relevant national legal baseline must be adjusted or national policy must be established to replace such material.

Justification: For a European harmonized and efficient approach of implementation such material (Eurocontrol Specifications) is crucial and very relevant for the national implementation.

Proposed Text: To support interoperability and national implementation programs as well as to reduce European implementation cost it is important that the harmonized specifications are updated and adopted.

response ACCEPTED. Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.

comment 1013 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Comment FOCA: Safety assessments for new software or systems are not required by the NPA. The repeal of the IR 73/2010 will weaken the interoperability (safety as well as the data quality) in this regard.

Justification: The NPA argues in this regard, that the coverage by EU Regulation 552/2004 would be suitable. However while Regulation 552/2004 is transformed into SESII+ rules, the mentioned assessment requirements are not any more required, meaning that the introduction of new software or systems by an AISP or any aviation undertakings would happen without a standardized level of safety assessment, potentially leading to erroneous data negatively influencing aviation safety.

A similar situation exists for manufacturers of systems used for the origination, exchange, storage, publication of aeronautical information as referred to in the IR 73/2010 Article 11 ('suitability of use') as these requirements are not any more covered in the NPA, neither by the future SESII+ rules.



response	<p>Proposed Text: SES Safety assessment requirements, as currently covered by EU Regulation 552/2004 and IR 73/2010 Article 11 should be taken over to the NPA and equally made applicable to aviation undertakings and aerodromes. The same should be applicable for manufacturers, aviation undertakings and aerodromes in regard to the term ‘suitability of use’ pursuant to IR 73/2010.</p> <p>NOTED. Safety assessment of changes is required for all service providers under the current Regulation (EU) No 2017/373. For originators, regulation 552/2004 is expected to be sufficient. With the upcoming new EASA Basic Regulation, this issue should be covered in a more formal way and a dedicated task will be initiated later on to cover the provisions of ADQ IR with regard to the conformity assessment, in line with Reg. 552/2004.</p>
comment	<p>1015 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA:</i> Data origination, collection, management and distribution by military organizations and used by civil aviation is not part of the regulations referred to in the NPA. Because the Basic Regulation delegates the responsibility to the state in general, we believe, that a stronger enforcement of the civil requirements towards military organizations is a must for safety reasons. Otherwise data which is originated, managed or provided by military could be erroneous and safety cannot be ensured.</p> <p>Justification: Amongst other data, an important number of aerodromes run by military organizations is used by civil traffic. A lot of restricted, danger and prohibited Areas are originated by military. Data quality as required for civil organizations must be required at least for the civil use of military data.</p> <p>Proposed Text: In other areas (e.g. ATCO Competence) EU is requiring states to apply the civil required level if services are provided to civil users – a similar set up should be established in regard of data quality if data is used by civil air traffic.</p>
response	<p>NOTED. Military parties cannot be regulated directly. However, if data originating from military parties are published by the AIS providers, they are subject to the proposed Article 3.5 of the Regulation (2017/373).</p>
comment	<p>1016 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA:</i> Establishing processes, technical systems as well as the training of personnel competences to ensure the required data quality will raise high cost. The NPA does not set any cost allocation principles especially on the data origination and collection side and does even leave data origination responsibilities unclarified or even in a mismatch to other regulations (e.g. EU Regulation 139/2014 where the data-responsibility seems to be limited for aerodromes to the aerodrome fence). Especially concerning terrains and obstacles data-origination and -collection this mismatch and the open cost allocation leaves states in legal problems, which have to be solved by national law.</p>

response	<p>Justification: Established ICAO principles as well as IR 73/2010 did not clarify above named responsibilities. Most state will need to establish national law to resolve these gaps. The established area of responsibility defined in the IR 139/2014 for aerodromes in regard of terrain and obstacle does even drive this problem worse.</p> <p>Proposed Text: Responsibilities in regard of data origination and the relevant cost allocation should be clarified and aligned across other regulations and the NPA to ensure clear responsibilities and to harmonize cost allocation across Europe. IR 139/2014 should be amended in regard of the aerodromes terrain and obstacle responsibilities.</p>
	<p>NOT ACCEPTED. The NPA does not impose additional requirements compared to ADQ IR.</p>
comment	<p>1017 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA:</i> The data-scope in the NPA is not clear compared to the scope definition of the IR 73/2010.</p> <p>Justification: The NPA defines the scope with ‘AIP Products’ and therefore includes all VFR only aerodromes, what in regard of safety and cost is questionable. This could lead to the situation, that states may exclude VFR Aerodromes of a publication in the AIP to avoid the application of the NPA for such aerodromes.</p> <p>Proposed Text: Limit the NPA application to data used for IFR Operation and to aerodromes that have published IFR procedures.</p>
response	<p>ACCEPTED. The scope covers the operators of aerodromes originating data which are not regulated by regulation n°139/2014, including especially the operators of aerodromes where no instrument approach or departure procedure is published (referred to as ‘VFR aerodromes’). It is deemed necessary to ensure a minimum level of quality for aeronautical data relating to VFR aerodromes, but not necessarily to enforce every detailed provision of the requirements, which could be considered as excessive for the considered data. The Agency proposes a pragmatic approach by specifying in “§1 Scope” that the level of enforcement of the provisions to VFR aerodrome operators is left to the discretion of each Member States. That way, the requirements still cover VFR aerodromes but flexibility is left to States as to what extent these provisions shall apply, depending on each national context and the way such aerodromes are included (or not) in the aeronautical information products.</p>
comment	<p>1018 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA:</i> The NPA will make the data quality requirements applicable for all data including legacy data.</p> <p>Justification: It is known that most of the States struggle with the implementation dates stated in Article 14 of IR 73/2010. Knowing that, clear priorities for the implementation should be set allowing a realistic implementation plan and ensuring interoperability and data quality assurance. We see no sense in pushing that hard the data quality for routine legacy data. On the other hand</p>

priority should be given to critical legacy data for safety reasons.

Proposed Text: We propose to set the application dates as follows:

- Critical legacy data: compliant by end 2019
- Essential legacy data: compliant by July 2021
- Routine legacy data: compliance to be established when data is amended but latest by end 2028 or even no end date.

response

NOTED. The proposed approach by FOCA is seen relevant, but needs to be further discussed and assessed. This will be addressed during the discussion on the cover regulation.

comment

1023

comment by: EUROCONTROL

The EUROCONTROL Agency has also comments on the content of documents relating to NPA 2016-02 or which are referred to in NPA 2016-02. These comments, however, do not always concern a particular section of the NPA document. They are therefore grouped below, that is under the 'General comments' part of the reply.

The mention 'Major comment' which can be found in several places of the reply of the EUROCONTROL Agency, denotes a comment where an action, of particular significance for the future EASA Opinion and regulatory material, has to be taken (e.g. substantial text correction, addition, deletion).

Comments on the Data Catalogue document (Appendix 1 to Annex III ATM/ANS.OR) - Major comment

The data catalogue does not contain "Terrain data numerical requirements". Terrain data numerical requirements are not specified but are indeed required.

Please add the table "8. Terrain data" to the "Appendix 1 to Annex III (ATM_ANS.OR) - Data catalogue" and update the Introduction (a) accordingly.

NOT ACCEPTED. As it was explained in the Explanatory Note, the NPA reproduces the ICAO data catalogue with no changes. In order to ensure consistency with the ICAO data catalogue, it is proposed that any update of the 'European' data catalogue follows that done at ICAO level.

Comments on the AIP Content document (Appendix 1 to Annex VI)

1/ Throughout the document, each time that the use is made of the expression 'Member State', it is not clear as to whether this refers to an ICAO or an EU Member State.

Please clarify the meaning of 'Member State'.

NOTED. 'Member States' in the document means EU Member States.

2/ Major comment - The entire Appendix 1 to Annex VI - AIP content - does not fully match the latest draft PANS-AIM from ICAO and needs consistency changes. Appendix 1 content has changed on the basis of the most recent draft PANS-AIM from ICAO. Please perform a consistency review for Appendix 1 (AIP content) in the light of the latest draft PANS-AIM from ICAO.



ACCEPTED. The Appendix 1 will be reviewed once the amendments are adopted (The NPA was aligned with Amendment 39-A.)

3/ GEN 3.1.6 Electronic terrain and obstacle data - Page 9 - Major comment

The section is missing the first part of the content in accordance with PANS-AIM Appendix 3 GEN 3.1.6, and does not have the same section title “Digital data sets”. Appendix 1 to Annex VI - Contents of the AIP corresponds in general with the PANS-AIM Appendix 3 content, and it is not clear why the title and the first part in GEN 3.1.6 differ.

Please change the title in Appendix 1 to Annex VI GEN 3.1.6 into “Digital data sets” and insert the description of the available data sets to correspond to PANS-AIM Appendix 3 GEN 3.1.6, or clarify the reason for the differences.

ACCEPTED and amended to align with the Appendix 2 GEN 3.1.6 to PANS-AIM.

4/ GEN 3.1.6 Electronic terrain and obstacle data - Page 9

A proposal for an additional requirement (Appendix to AIP) has been recognised on the basis of European implementation experience (AIM/SWIM Team). It has been recognised at the European level (AIM/SWIM Team) that the requirements of GEN 3.1.6 were insufficient for users to identify the availability of the dataset for specific Area, aerodrome, runway. Therefore additional guidance was added in the TOD manual. It is proposed to include them as requirements.

Please add a new item 8) identification of available terrain and/or obstacle datasets (Area of coverage, aerodrome name and/or runway identifier) (as applicable).

NOTED. It is suggested to follow the ICAO Appendix 1 to PANS-AIM (AIP content).

5/ ENR 5.4 Air navigation obstacles - Item (6) - Page 30

This text should correlate with the statement of GM2 AIS.TR.360. Obstacle data set, stating that ‘When the obstacle data set is provided, then ENR 5.4 may be left blank and a reference to the data set availability should be provided’.

Please align this text with GM2 AIS.TR.360 by adding a Note: ‘When the obstacle data set for Area 1 is provided, then ENR 5.4 may be left blank and a reference to the data set availability should be provided’.

NOT ACCEPTED. The item is covered by the GM (which is in the rule) and there is no need to duplicate it in the AIP content.

6/ GEN 3.5.3 (Page 14), AD 2.11 (Page 37) and AD 3.11 (Page 47)

Capital letters for the word ‘trend’ in the context ‘trend forecast’, differently from ICAO provisions (Annex 3, Annex 15, PANS-AIM). The usage of capital letters in this context gives the false impression that ‘TREND’ is a dedicated MET message type, which it is not.

Please change the word ‘TREND’ into small letters.

NOT ACCEPTED. The term ‘TREND’ in capital letter is used in Part-MET (Annex V of regulation 2017/373). Consistency should be ensured.

AD 2.10 Aerodrome obstacles - Page 36



7/ This text should correlate with the statement of GM2 AIS.TR.360. Obstacle data set, stating that ‘When the obstacle data set is provided, then AD 2.10 may be left blank and a reference to the data set availability should be provided’.

Please align this text with GM2 AIS.TR.360 by adding a Note: ‘When the obstacle data set for Area 2 is provided, then AD 2.10 may be left blank and a reference to the data set availability should be provided’.

NOT ACCEPTED. The item is covered by the GM (which is in the rule) and there is no need to duplicate it in the AIP content.

8/ Reference to ICAO

Chapter 10, 10.1.1, provides a description of Area 2 while Appendix 8, Figure A8-2

Annex 11, Appendix 5, Tables 1 and 2, and in Annex 14, Volume I, Appendix 5, Tables A5-1 and A5-2. Please change the reference in note 1 and note 2 to “Data Catalogue”.

ACCEPTED. ICAO references changed to data catalogue.

9/ Note 1

The text in note 1 “Chapter 10, 10.1.1” is missing to which *document* it refers.

“Chapter 10, 10.1.1” currently refers to Annex 15, which need to be included in Note 1. But since the same content as in Annex 15 is provided in EASA provision (Annex VI AIS.TR.350. ‘Terrain and obstacle data – general requirements’), it is recommended to consider also this reference.

Either, in Note 1, please add the reference “Annex 15” to the text “Chapter 10, 10.1.1” or, alternatively, please change the reference “Chapter 10, 10.1.1” to “AIS.TR.350 Terrain and obstacle data – general requirements”.

ACCEPTED. The ICAO reference and replaced with the AIS requirements reference AIS.TR.350.

10/ Note 1

The text in note 1 “Appendix 8, figure A8-2” is missing to which *document* it refers. “Appendix 8, figure A8-2” currently refers to Annex 15, which needs to be included in Note 1.

But since the same content as in Annex 15 is provided in EASA provision (Annex VI AIS.TR.360. ‘Obstacle data set’), it is recommended to consider also this reference.

ACCEPTED. The ICAO reference and replaced with the AIS requirements reference AIS.TR.360.

11/ Item 2b

The NPA, even if transposed correctly, still needs to correct a known Annex 15 inconsistency for item 2 b. Obstacle Identification Surface is a surface defined in PANS-OPS and has nothing to do with take-off flight path area defined in ICAO Annex 4. It has been a typo trailing in ICAO for many years and it is not worth introducing it in EUR regulations.

Please delete ‘obstacle identification surface’ in item 2 b.

NOT ACCEPTED. It is considered that ‘obstacle identification surface’ is linked with the requirement in AIS.OR.360(c)(2) and therefore cannot be deleted.

AD 2.10 Aerodrome obstacles - Page 37

12/ This text should correlate with the statement of GM2 AIS.TR.360. Obstacle data set, stating that ‘When the obstacle data set is provided, then AD 2.10 may be left blank and a reference to the data set availability should be provided’.

Please align this text with GM2 AIS.TR.360 by adding a Note: ‘When the obstacle data set for Area 3 is provided, then AD 2.10 may be left blank and a reference to the data set availability should be provided’.

NOT ACCEPTED. The item is covered by the GM (which is in the rule) and there is no need to duplicate it in the AIP content.

13/ Change the reference to Data Catalogue. Reference to ICAO: Chapter 10, 10.1.1, provides a description of Area 3 while Appendix 8, Figure A8-3 Annex 11, Appendix 5, Tables 1 and 2, and in Annex 14, Volume I, Appendix 5, Tables A5-1 and A5-2.

Please change the reference in note 1 and note 2 to “Data Catalogue”.

ACCEPTED. ICAO references changed to data catalogue.

ENR 5.4 item6 (Page 30), AD 2.10 items 1f) and 3f) (Page 36) and AD 3.10 item 6 (Page 46)

14/ The description ENR 5.4 (6), AD 2.10 and AD 3.10 with an indication that the list of obstacles is available ‘*in electronic form*’ should be changed into ‘*as digital data set*’. To comply with the EASA provision and guidance on digital data set, provision of obstacle data and to correspond to PANS- AIM Appendix 3, it is recommended that the mentioned AIP sections refer to ‘digital data sets’, instead of ‘electronic form’.

Please change the detailed description for AIP sections ENR 5.4 item6, AD 2.10 items 1f) and 3 f), AD 3.10 item 6 from "in electronic form" to “as digital data set”.

ACCEPTED and amended.

AD 3.10 Heliport obstacles - Page 46

15/ This text should correlate with the statement of GM2 AIS.TR.360. Obstacle data set, stating that ‘When the obstacle data set is provided, then AD 2.10 may be left blank and a reference to the data set availability should be provided’.

Please align this text with GM2 AIS.TR.360 by adding a Note: ‘When the obstacle data set for heliport is provided, then AD 3.10 may be left blank and a reference to the data set availability should be provided’.

NOT ACCEPTED. The item is covered by the GM (which is in the rule) and there is no need to duplicate it in the AIP content.

Comments on the NOTAM Format (Appendix 2 to Annex VI)

Instructions for the completion of NOTAM, Item 3. Qualifiers (item Q), 2) NOTAM CODE c) - Page 3

16/ The text “Appendix 4” and “Chapter 6” lacks the reference to which the *document* refers. The instructions for the completion of the NOTAM format is a copy/paste of current Annex 15 (ed. 14), Appendix 6), and this reference should be indicated. Since the same content is provided in EASA

provision (Annex VI AIS.OR. 505 “AIRAC”) it is recommended to consider using this reference.

Please, either add the reference to “Annex 15” to the text “Appendix 4” and “Chapter 6”, or, alternatively, change the reference “Appendix 4” to “AIS.OR.505 AIRAC”.

PARTIALLY ACCEPTED. The references to Appendix 4 and Chapter 6 are removed as requested. However, it is considered sufficient to remove them only and not to add any other references as the term ‘in accordance with’ would not provide any useful information to the reader.

General comment on the SNOWTAM Format (Appendix 3 to Annex VI)

17/ Adapt the time of applicability of the new SNOWTAM format in Appendix 3 to Annex VI (Part-AIS), to be aligned with the ICAO global applicability date (November 2020) of the new SNOWTAM format.

The new ICAO SNOWTAM format is considerably different from the current format and requires major system and operational changes by States to implement, and for users of the information to get accustomed to. The global applicability date is therefore set by ICAO to November 2020 in order to allow for required awareness and training activities, for system adaptation (e.g. NOTAM systems, local airport systems, the European AIS Database) and for relevant guidance material to be developed. It is therefore recommended that the European timing for adopting the new SNOWTAM format is adapted to the global application, to avoid different global formats for this information.

Please ensure the applicability date of Appendix 3 is synchronised with the ICAO applicability date of the new SNOWTAM format.

ACCEPTED.

Comments on the AIP Content document (Appendix 1 to Part AIS)

ENR 5.4 Air navigation obstacles - Note 2

18/ Reference to ‘Annex 11, Appendix 5, Tables 1 and 2, respectively.’ is not relevant in case of EUR regulation.

Please change the reference to Data Catalogue. Either, in Note 1, please add the reference “Annex 15” to the text “Appendix 8, figure A8-2” or, alternatively, please change the reference “Appendix 8, figure A8-2” into “AIS.TR.360 Obstacle data set”.

ACCEPTED. Amended to replace the ICAO reference with data catalogue.

response For easy reading, please see the responses to the comments above.

comment 1073 comment by: *European Transport Workers Federation - ETF*

ETF is satisfied with the effort so far to provide a European regulation to ensure ICAO compliance for all EU member states but in ETF’s view, AIS/AIM at least in Europe is more than what is reflected in this NPA. For example the ATS Reporting Office role is part of the functions of the AIS offices in most of the European ANSPs.



We urge EASA to further consider the integration of regulatory material into Part-AIS:

- - ATS reporting office
- - Flight planning (ETF thinks it is necessary to further clarify the responsibilities of the ANSPs around opening, closing and triggering alerts regarding flight plans. Consideration should also be given to how the adaptation of the flight plans to be operated by the technical systems used by ANSPs is dealt with, it includes tasks which should be part of AIS/AIM in our opinion)
- - Data quality management

The aviation industry is also introducing new views on the notion of pre-flight briefing and this should also be part of the elements to be taken into account for the next regulatory steps for AIS/AIM.

The interactions of Part AIS and Part CNS especially communications and navigation are also crucial to consider in view of the European context.

response NOT ACCEPTED. ARO and Flight planning are covered under the ATS rules. Data quality management is covered by Section 2 in Part-AIS.

comment *1090* comment by: UK CAA
Attachment [#1](#)

UK CAA comments on NPA 2016-02

response Please see the responses to the comments at the end of the document.

comment *1091* comment by: ANS CR
Attachments [#2](#) [#3](#)

ANS CR — comments on NPA 2016-02

response Please see the responses to the comments at the end of the document.

Executive summary

comment *1* comment by: Prof. Filippo Tomasello
Thanks for the opportunity to comment on AIS/M. I hope to see as soon as possible also the NPA for Part-ASD (Airspace Design)



response NOTED.

comment 12

comment by: *John Hamshare*

A review of the technical requirements and operational procedures for aeronautical information services is welcomed and it appears that the approach has been both pragmatic and reasonable.

The executive summary states that the role and importance of aeronautical information has changed significantly with the implementation of RNAV, PBN and airborne computer based navigation. This may well be true but the summary does not qualify how this affects the management of data quality. There is an inference that the importance of aeronautical information has increased and that there is an associated decrease in the quality of data when the opposite is probably the case.

We are not aware of any serious safety incidents caused by inaccurate or missing aeronautical data.

The only similar examples we are aware of are where 3rd party providers have made errors when transferring AIP information into cockpit data for airlines.

response NOTED.

comment 48

comment by: *NATS National Air Traffic Services Limited*

Page No: General/Various

Paragraph No: Not applicable

Comment: The NPA makes reference to EUROCONTROL SPECIFICATIONS for Data Originators and eAIP. It does not reference DAL, DQR or AIXM specifications. Can EASA confirm that all EUROCONTROL Specifications shall remain effective and how these Specifications will be maintained?

Justification: There is a need for States to achieve consistency in the application of such specifications for reasons of interoperability.

response

NOTED. Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.



comment	<p>49 comment by: NATS National Air Traffic Services Limited</p> <p>Page No: General/Various</p> <p>Paragraph No: Not applicable</p> <p>Comment: EUROCONTROL made a significant amount of guidance material available in support of the EC 73/2010. Notably EUROCONTROL Guidance for the implementation of safety management objectives and safety assessments falling within the scope of EU Regulation 73/2010. What plans are in place by EASA to ensure this bespoke material is managed and remains appropriate /applicable?</p> <p>Justification: The NPA indicates that Safety Management objectives are covered in ATM/ANS.OR.B.005 & 030. Shall States now ignore the guidance material constructed by EUROCONTROL describing Safety Management Objectives?</p>
response	<p>NOTED. The objective of the Agency is to keep all relevant and necessary material already developed under the ADQ framework and use it as far as possible. Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.</p>
comment	<p>50 comment by: NATS National Air Traffic Services Limited</p> <p>Page No: General/Various</p> <p>Paragraph No: Various</p> <p>Comment: What is the scope of the NPA – if only EASA Certified Aerodromes/Heliports, then consider amending all references to “aerodromes used for International civil aviation” to read “EASA certified Aerodromes”</p> <p>Justification: There is a need to be clear about the scope of the EASA Regulation</p>
response	<p>NOT ACCEPTED. The scope of the rules is intended to be all aerodromes used for International civil aviation regardless whether they are certified or not. The scope has been clarified with regard to VFR aerodromes, for which the Member States can decide of the applicability of the rules to such aerodromes.</p>
comment	<p>216 comment by: FAA</p>

	4th paragraph states ".....to allow smooth implementation of AIS." Should that not read ".....to allow smooth implementation of AIM."?	
response	ACCEPTED. This is correct. AIM should also be reflected in the sentence.	
comment	825	comment by: EUROCONTROL
	Executive Summary - Page 1 <u>Editorial comment</u> Unclear meaning for the sentence "the quality of the data shall be proportionate to the types of aeronautical actors involved;" The EUROCONTROL Agency does not see how a data property could be "proportionate" with the type of an actor. Maybe the intention was to say that the data quality should not exceed the actual or the foreseen future needs of the end users, in order to keep the cost under control? It may also have meant the proportionality of the quality process or the rigour applied through the relevant provisions. Certainly quality data needs to be met at the end. So, this needs clarification. Please clarify the real meaning of this sentence since the quality (attributes) of data cannot be themselves proportionate to the actors.	
response	NOTED. The intention of this sentence is to underline that data quality should be ensured taking into account the different kind of parties regulated under the regulation. Some data quality requirements may be slightly different depending on the affected party to take into account its nature and the type of service it provides.	
comment	835	comment by: Airport Operators Association (UK)
	The Airport Operators Association agrees in principle with the intention for safety improvement and identifies with the main objective, namely; " <i>The main objective of this NPA is to maintain a high level of safety, increase efficiency and provide for greater cost effectiveness of the air navigation system by achieving an uninterrupted aeronautical data chain with no loss or corruption in data and information and with guaranteed data quality</i> ".	
response	NOTED.	
comment	855	comment by: Irish Aviation Authority
	I suggest you replace AIS everywhere with AIM	
response	NOT ACCEPTED. Both terms are different concept, not synonyms. It is not considered possible to replace one by the other.	

comment	858	comment by: <i>Irish Aviation Authority</i>
	Where are the ICAO differences, the AMC, Guidance material and common understanding that are to be associated with this new rule?	
response	AMCs and GM are provided with the NPA. The revised text now includes the AMCs that were missing in the NPA and requested by commentators. As mentioned in the NPA, no ICAO differences table was provided as the rules are based on the ICAO amendment still to be adopted by the ICAO Council.	

1. Procedural information

comment	53	comment by: <i>NATS National Air Traffic Services Limited</i>
	Page No: 5	
	Paragraph No: 1.4 last Chapter	
	Comment: AMC and GM are required in order to complete full impact assessment of regulation	
	Justification: A full impact assessment cannot be conducted until AMC & GM are made available for consultation	
	Proposed Text: identify a period of time in order to enable full impact assessment to be conducted against AMC & GM.	
response	NOTED. The AMCs and GM are provided with the NPA. The revised text now includes the necessary AMCs and GM that were missing in the NPA and requested by commentators.	

comment	631	comment by: <i>Lufthansa Systems FlightNav</i>
	Note: Lufthansa Systems FlightNav (LSYFN) has consolidated many of the given comments with other DAT providers. Similarities in wording for proposed changes or amendments result from this consolidation.	
response	NOTED.	

2. Explanatory note (EN)

comment	733	comment by: <i>Union des Aéroports français - UAF</i>
	<u>UAF comments</u>	
	L'UAF ne comprend pas bien comment l'AESA compte rendre compatible les règles prévues dans le règlement 139/2014 et les règles issues du règlement 73/2010 sans faire de propositions	



concrètes sur ce dernier.

En effet, dans paragraphe 5.2 il est écrit que l'AESA considère qu'il n'est pas nécessaire de maintenir 2 textes et propose d'abroger le règlement 73/2010.

Cependant, dans le paragraphe suivant, l'agence propose d'abroger certaines parties du règlement. En résumé ce n'est pas clair, car la NPA aurait due intégrer les modifications proposées dans tous les textes relatifs au traitement de l'information aéronautique, y compris le règlement 73/2010.

response NOTED. When the NPA mentioned that it is not considered necessary to maintain two regulations with similar requirements, it was referring to Regulation 73/2010 and the new Regulation that will include the proposed rules. The reference to remove certain parts of the regulation is meant to refer to Regulation 139/2014, because some of the provisions in the new Regulation will supersede some provisions contained in the ADR Regulation.

2.1. Overview of the subject to be addressed

comment 109 comment by: ENAIRE

Paragraph: 2.1 - 1st paragraph

Reference text: *is still primarily focused on paper/electronic data management practices*

Type: typo

Comment: should it read manual where it says electronic?

response No. The term 'electronic' is correct. It is different to digital.

comment 857 comment by: Airport Operators Association (UK)

AOA supports safety improvement where EASA has identified that "Insufficient, corrupt or erroneous aeronautical information has the potential to adversely affect the safety of aircraft operations". A data centric era which is information driven, requires such assurances, specifically where the integrity and security of the data is an intrinsic component of safety.

response NOTED.

2.2. The overall context

comment 54 comment by: NATS National Air Traffic Services Limited



Page No: 7

Paragraph No: 2.2

Comment: ICAO/EU Synchronisation: It is not entirely clear to the reader that the NPA has changes brought about by the planned Amdt 39 to Annex 15 have been introduced into the NPA

Justification: Status of Amdt 39 is 'planned effective November 2016'

Proposed Text: Insert clarifying text to confirm that the NPA is aligned with changes proposed by Amdt 39. (or not)

response

ACCEPTED. The NPA rules include the adopted ICAO amendment 39. The Explanatory Note does not explicitly specify this because at the time of writing the NPA, it was not known if the major amendment will be the next one or if another intermediate amendment will be proposed (e.g. due to a consequential amendment to other ICAO annexes). Please refer to the footnote 6 on page 7 stating: 'At the time of publication of this NPA, the latest amendment adopted by ICAO (on 22 February 2016) is amendment 39.' However, such clarification will be inserted in the explanatory note of the Opinion.

comment

187

comment by: LPS SR

Comment ID: LPS01

Action proposed:

We propose to withdraw data quality criteria traceability and timeliness.

Reasoning:

- 1.Precise definition how to comply with the above mentioned criteria is missing.
- 2.Lack of definition how to quantify the level of degree of achievement.
- 3.Traceability and timeliness requirements are not defined in the data catalogue.

Comment ID: LPS02

Action proposed:

We propose to withdraw data quality criterion completeness.

Reasoning:

- 1.Precise definition how to comply with the above mentioned criteria is missing.
- 2.Lack of definition how to quantify the level of degree of achievement.
- 3.It is not clear if the completeness is defined on attribute level or entity level.
- 4.Completeness requirements are not defined in the data catalogue.

Comment ID: LPS03

Action proposed:

We propose to withdraw data quality criterion format.

Reasoning:



	<p>Our understanding is that format is not the data quality parameter. Data can be transformed between data formats without degrading their quality. Format is not feature of data entity as such.</p> <p>Comment ID: LPS04</p> <p>Action proposed:</p> <p>We propose to withdraw traceability and timeliness as new data quality criteria.</p> <p>Reasoning:</p> <p>Traceability and Timeliness are data quality requirements already been used in ADQ Regulation therefore we do not understand them as a new criteria.</p>
response	<p>The data quality criteria are based on the (new) ICAO Annex 15 provisions which has added four characteristics/criteria to define data quality requirements.</p>
comment	<p>193 comment by: John Hamshare</p> <p>This section states that there is no certainty that stakeholders can comply with the ADQ Regulation. We agree with replacing the ADQ IR and introducing compliance through a more pragmatic performance based approach.</p>
response	<p>NOTED.</p>
comment	<p>603 comment by: CANSO</p> <p>Clear reference to the relevant amendment of ICAO Annex 15 is missing</p> <p>Page No: 7</p> <p>Paragraph No: 2.2</p> <p>Comment: ICAO/EU Synchronisation: It is not entirely clear to the reader that the NPA has changes brought about by the planned Amdt 39 to Annex 15 have been introduced into the NPA</p> <p>Justification: Status of Amdt 39 is 'planned effective November 2016'</p> <p>Proposed Text: Insert clarifying text to confirm that the NPA is aligned with changes proposed by Amdt 39. (or not)</p>
response	<p>ACCEPTED. The NPA rules include the adopted ICAO amendment 39. The Explanatory Note does not explicitly specify this because at the time of writing the NPA, and still today, it is not known if the major amendment will be the next one or if another intermediate amendment will be proposed (e.g. due to a consequential amendment to other ICAO annexes). Please refer to the footnote 6 on page 7 stating: 'At the time of publication of this NPA, the latest amendment adopted by ICAO (on 22 February 2016) is amendment 39.' However, such clarification will be inserted in the explanatory note of the Opinion.</p>

comment	<p>627</p> <p style="text-align: right;">comment by: <i>John Hamshare</i></p> <p>ICAO anticipated changes and the upcoming major amendment to ICAO Annex 15 suggest that EASA ought to wait for the changes to be confirmed and published. Why are EASA not waiting for these changes before writing a new NPA?</p>
response	<p>NOTED. Waiting for the ICAO major amendment to be adopted was not seen as a pre-requisite to start developing the rules on AIS/AIM. As explained in the EN, the two working groups (ICAO and EASA) worked in parallel with an end date that was timely similar. The EASA rulemaking group included two members of the ICAO study group and therefore was informed of all the relevant changes and discussions occurring within the ICAO group and consequently was able to early align the European proposal to the ICAO one. Any changes stemming from the ICAO context can be introduced at EASA level before the publication of the Opinion.</p>
comment	<p>628</p> <p style="text-align: right;">comment by: <i>John Hamshare</i></p> <p>Lack of progress by EU member states as described by the surveys is noted and we believe that this is still the case.</p> <p>This NPA makes reference to this issue at the RIA on page 94 (4.1).</p> <p>We question the need and timeline of this NPA activity in light of the survey results.</p>
response	<p>NOTED.</p>
comment	<p>738</p> <p style="text-align: right;">comment by: <i>ENAV</i></p> <p>Clear reference to the relevant amendment of ICAO Annex 15 is missing</p> <p>Page No: 7</p> <p>Paragraph No: 2.2</p> <p>Comment: ICAO/EU Synchronisation: It is not entirely clear to the reader that the NPA has changes brought about by the planned Amdt 39 to Annex 15 have been introduced into the NPA</p> <p>Justification: Status of Amdt 39 is ‘planned effective November 2016’</p> <p>Proposed Text: Insert clarifying text to confirm that the NPA is aligned with changes proposed by Amdt 39. (or not)</p>
response	<p>ACCEPTED. The NPA rules include the adopted ICAO amendment 39. The Explanatory Note does not explicitly specify this because at the time of writing the NPA, it was not known if the major amendment will be the next one or if another intermediate amendment will be proposed (e.g. due to a consequential amendment to other ICAO annexes). Please refer to the footnote 6 on page 7 stating: ‘At the time of publication of this NPA, the latest amendment adopted by ICAO (on 22 February 2016) is amendment 39.’ However, such clarification will be inserted in the explanatory</p>

note of the Opinion.

comment 871 comment by: *Airport Operators Association (UK)*

ICAO is referenced a number of times and although the anticipation is for alignment with ICAO amendments, caution should be applied to finalising the next tranche of specifications until the outcomes are certain.

The "data catalogue" content should be available to those with accountability for delivering the next ADQ requirements.

response NOTED. Waiting for the ICAO major amendment to be adopted was not seen as a pre-requisite to start developing the rules on AIS/AIM. As explained in the EN, the two working groups (ICAO and EASA) worked in parallel with an end date that was timely similar. The EASA rulemaking group included two members of the ICAO study group and therefore was informed of all the relevant changes and discussions occurring within the ICAO group and consequently was able to early align the European proposal to the ICAO one. Continuous attention is made to follow-up the ICAO developments with regard to the next amendment (currently in preparation of notification to ICAO States). Any changes stemming from the ICAO context can be introduced at EASA level before the publication of the Opinion.

comment 892 comment by: *Finnish Transport Safety Agency*

As it has been noticed in the past years when ICAO Annexes have been amended, the EU process of adopting the new amendment to the existing law is lacking behind. There has been a lot of confusion on which one to use, new amendment to ICAO Annex or EU legislation, which might refer to older amendment of ICAO Annex. Finnish Transport Safety Agency is looking forward to see progress on this area when ICAO Annexes are adopted in EU legislation.

response NOTED. Progress has been made in that area. EASA has proposed a synchronisation mechanism paper on EU process for synchronisation of EU ATM legislation and ICAO SARPS evolutions, both upstream (before the ICAO SL is issued) and downstream (once the ICAO SL has been issued). This was well accepted by the ATM community and at the Single Sky Committee meetings. This EU process should ensure that future ICAO Annex 15 updates can be integrated as soon as possible in the amended regulation.

comment 1020 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Comment FOCA: The NPA is based and aligned to the expected fully revised ICAO Annex 15 and new PANS AIM Manual. These two documents are not yet released.

Justification: The revised ICAO Annex 15, the new ICAO PANS AIM and this NPA should be coordinated. Otherwise, some states will apply the text of the NPA while other states will apply ICAO Regulation. Those differences could lead to difficulties on e.g. Data handling, cross border

issues as well as on legal set up's.

Proposed Text: We suggest EASA to wait for the release of the revised ICAO Annex 15 and the new PANS AIM Manuel before publishing the opinion on this NPA. Hence, EASA could include the latest changes of the revised ICAO Annex 15 and PANS AIM in the NPA and ensure a coherence between European and Global Rules.

response

NOTED. The notification to ICAO Contracting States on the next amendment to ICAO Annex 15 has been sent. During the drafting phase, this situation was already acknowledged. The approach is that when the EASA Opinion is released, the content of both the Annex and the PANS-AIM will be stable and not changed. In the case, a change should happen at ICAO level and identified as having an impact on the EASA proposed rules, time will still allow to make the necessary change to the EASA text (when the Opinion is circulating at EC level and before the comitology process).

comment

1075

comment by: *European Transport Workers Federation - ETF*

Further consultation will be needed for stakeholders to comment on the proposed transposition of new ICAO material.

response

NOTED.

2.3. Summary of the proposal

comment

2

comment by: *Prof. Filippo Tomasello*

the principle is supported. ICAO often drafts "vertically" (i.e. driven by domain experts) and so one encounters provisions in an Annex which are not addressing the main involved organisation (e.g. Annex 3 addresses also pilots, in addition to MET SPs ... probably it would be easier for the readers to find provisions on pilot's tasks in Annex 6). Hence the rule proposed by this NPA should in fact focus on AIS/M provision and not on duties of other organisations.

response

NOTED.

comment

3

comment by: *Prof. Filippo Tomasello*

Indeed data originators may not be aviation organisations. But in this case the AIS/M should ensure that sufficient confidence can be put on the data originators, either because they are public organisations with long history and good reputation, or because, if subcontractors, they are under supervision by the AIS/M provider.

response

NOTED. The NPA proposes specific requirements for data originators to ensure sufficient



confidence that the data they create are of sufficient reliability and quality.

comment	4	comment by: <i>Prof. Filippo Tomasello</i>
	The principle of separating performance based rules from technical details (e.g. software tools) is supported, since able to easily accommodate technical evolution, without compromising safety.	
response	NOTED.	

comment	13	comment by: <i>John Hamshare</i>
	Overall the approach to ADQ management reflected in this NPA is welcome. It appears to be more practical and pragmatic than the ADQ IR.	
response	NOTED.	

comment	15	comment by: <i>John Hamshare</i>
	In the Verification and Validation Process, we support the performance-based approach suggested by this sentence: The verification and validation processes sufficiently ensure the necessary data protection and that the quality of the aeronautical data is not degraded or, if it is, that there is a suitably high degree of assurance that the degradation will be identified and corrected.	
response	NOTED.	

comment	16	comment by: <i>John Hamshare</i>
	In the Tools and Software section it is stated that the tools and software used by suppliers should not adversely impact on the quality of data. This statement is welcomed.	
response	NOTED.	

comment	20	comment by: <i>John Hamshare</i>
	The Verification and Validation section mentions guidance material relating to how to ensure data protection. Where is this guidance material please?	
response	NOTED. The guidance material can be found in the draft AMC/GM (draft decisions) starting on page 56 of the NPA document.	



comment	<p>55 comment by: <i>NATS National Air Traffic Services Limited</i></p> <p>Page No: 8</p> <p>Paragraph No: 2.3.1</p> <p>Comment: ICAO/EASA Synchronisation - How is alignment with ICAO SARPS going to be managed by EASA</p> <p>Justification: States are now required to manage alignment with both ICAO SARPS and EASA Regulations.</p>
response	<p>NOTED. Progress has been made in that area. EASA has proposed a synchronisation mechanism paper on EU process for synchronisation of EU ATM legislation and ICAO SARPS evolutions, both upstream (before the ICAO SL is issued) and downstream (once the ICAO SL has been issued). This was well accepted by the ATM community and at the Single Sky Committee meetings. This EU process should ensure that future ICAO Annex 15 updates can be integrated as soon as possible in the amended regulation.</p>
comment	<p>96 comment by: <i>Rockwell Collins, Inc.</i></p> <p>Page 10 regarding Section 2.3.2 under Verification and validation process:</p> <p>Comment: The proposed text states:</p> <p>“The way how to ensure this data protection is explained in guidance material,”...</p> <p>The word “how” is not necessary.</p> <p>Change/Rationale: Please consider eliminating “how” for readability; i.e., “The way to ensure this data protection is explained in guidance material,” ...</p>
response	<p>ACCEPTED.</p>
comment	<p>97 comment by: <i>Rockwell Collins, Inc.</i></p> <p>Page 11 regarding Section 2.3.3 Question to Stakeholders:</p> <p>Comment: It is our opinion as a service provider that the current this aspect remain unchanged; i.e., that a differential treatment could be kept.</p> <p>Change/Rationale: We believe that the cost of changing this outweighs the benefits.</p>
response	<p>NOTED.</p>
comment	<p>102 comment by: <i>John Hamshare</i></p> <p>Data Exchange</p>

	<p>A performance based approach for the purpose of exchanging aeronautical data is welcomed.</p> <p>We understand that AIXM will have to be used but that this NPA does not impose a specific version of this model. Please can EASA provide clarification of the scope of this requirement.</p> <p>We assume that survey companies and aerodrome operators have the opportunity to choose which version to use. We also assume that this will work with the national AIS providers.</p> <p>We support the idea that data may be exchanged by various electronic means.</p> <p>It is unclear, that if manual intervention becomes necessary, whether this restricts the exchange mechanisms that can be used.</p>
response	NOTED. The understanding is correct about the AIXM. It is not considered that when manual intervention is necessary that it will impact the exchange of data using the AIXM model.
comment	<p>103 comment by: <i>John Hamshare</i></p> <p>Verification and Validation</p> <p>We support removal of any requirement to impose a specific Cyclic Redundancy Check algorithm for the protection of data and the subsequent pragmatic, and objective based approach suggested.</p> <p>We support the amendment to the Aerodrome AMC1.ADR.OPS.A.010 – Data Quality Requirements – General Requirements.</p> <p>We support the new AMC1.OPS.A.011 Data error detection and authentication to provide an equivalent level of protection as 32-bit CRC. We support the idea of equivalence suggested by this part of the NPA.</p>
response	NOTED.
comment	<p>104 comment by: <i>John Hamshare</i></p> <p>Tools and Software</p> <p>We support the proposal which reflects a pragmatic, proportionate and flexible approach.</p>
response	NOTED.
comment	<p>105 comment by: <i>John Hamshare</i></p> <p>2.3.3 Aerodrome Operators</p> <p>We support an alignment regarding data quality requirements.</p>
response	NOTED.

comment	<p>110</p> <p style="text-align: right;">comment by: <i>ENAIRE</i></p> <p>Paragraph: 2.3.3</p> <p>Reference text: Question to stakeholders</p> <p>Type: answer</p> <p>Comment: It is considered better to align them following latest Annex 15 and NPA proposal. As this is the considered most up to date understanding of the problem and best solution. ICAO annex 14 will be updated sooner or latter.</p>
response	<p>NOTED.</p>
comment	<p>111</p> <p style="text-align: right;">comment by: <i>ENAIRE</i></p> <p>Paragraph: 2.3.5</p> <p>Reference text: AIS Certificate</p> <p>Type: clarification</p> <p>Comment: While considered a good approach, it opens also some issues. Can there exist more than one certified AIS provider for a certain State data? Under the same product/services/dataset?. If so, requirements on integrity and coherence between them shall be defined. Are there different responsibilities for each provider (layered approach)?</p> <p>What is really the difference in the scope of the certificate, only the provided datasets? Are there specific requirement for specific certification types?</p> <p>Clarification of differences between an AIS service provider and a DAT provider is needed, as it seems that this split in certification types leads more to the notion of DAT provider than of AISP.</p>
response	<p>NOTED. The principle is that any organisation/service provider providing aeronautical data and aeronautical information need to be certified and comply with the required rules. This can be only a sub-set of AIS provisions as specific entities providing for instance only NOTAM should then be certified proportionally to the type of service they provide.</p>
comment	<p>188</p> <p style="text-align: right;">comment by: <i>LPS SR</i></p> <p>Comment ID: LPS05</p> <p>Action proposed:</p> <p>Instead of field names, field types and field definitions we propose to use the terms attribute names, attribute types and attribute definitions.</p> <p>Reasoning:</p> <p>Proper terminology.</p>

response The Agency is not sure which part of the proposal is commented here. However, any proposal for better terminology is assessed and included if relevant.

comment 189 comment by: LPS SR

Comment ID: LPS06

Action proposed:
Clarify the role of Aviation undertakings.

Reasoning:

There is an ambiguity concerning Aviation undertakings responsibilities. This paragraph explicitly says that these subjects “cannot be regulated as such” whereas in paragraph 2.10 Overview of the proposed amendments in the ATM/ANS rule structure, Appendix 1 of Article 3 mentions “Requirements for aviation undertakings”.

response NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term ‘aviation undertaking’ has been removed.

comment 190 comment by: LPS SR

Comment ID: LPS07

Action proposed:
Do not explicitly require AIXM format.

Reasoning:

While NPA leaves free the choice of the most suitable model to exchange data, as long as it is globally interoperable, at the same time it strictly says AIXM model will have to be used. We find these 2 statements as contradictory.

response NOT ACCEPTED. The proposal puts the obligation on the most suitable model to exchange data and leaves the AIXM model as a mean to comply with this obligation. AIXM is therefore not the only model that can be used to ensure interoperability.

comment 194 comment by: John Hamshare

We support the option to leave free the choice of which is the most suitable model to exchange data. We take this to include transfer of data by email, pdf, or other similar means.

response NOTED.

comment 217 comment by: FAA



	In "The products and services" paragraph, 3rd line, recommend change "(NOTAM), digital sets," to "(NOTAM), digital data sets,".
response	ACCEPTED.
comment	<p>218 comment by: FAA</p> <p>Under "Tools and software" paragraph, 1st line, "providing proportionality". Language is not defined and adds no value. Recommend delete language, the sentence reads well with out this language.</p>
response	ACCEPTED.
comment	<p>219 comment by: FAA</p> <p>Grammar suggestion; "Aerodrome operators" paragraph, 5th line, recommend change "data exchange, metadata" to "data exchange and metadata"</p>
response	ACCEPTED.
comment	<p>563 comment by: skyguide Compliance Management</p> <p>Question to stakeholders</p> <p>One issue is related to data protection and the reference to the CRC as a mean of protection. Whereas for service providers, the proposed rules limit the protection of the data through the validation and verification process and refer to the CRC mechanism at guidance material level only (in line with the draft ICAO Annex 15), for aerodrome operators, this NPA proposes to keep the reference to the CRC at AMC level in order to be aligned with ICAO Annex 14.</p> <p>The Agency would like to have the opinion of stakeholders whether they consider that both provisions on data protection should be fully aligned, meaning that for both service providers and aerodrome operators the CRC should be either included at AMC level or at GM level, or if a differential treatment could be kept.</p> <p>Comment: <i>The CRC issue for aerodrome operators should also be moved to guidance material level (as for service providers).</i></p>
response	NOTED.
comment	<p>629 comment by: John Hamshare</p> <p>Aerodromes and other parts of the aviation industry are not aware of the proposed changes to Annex 15 or their status. Therefore we find it difficult to understand the need for this EASA NPA</p>

	activity at this time.
response	NOTED. The necessary data quality requirements for aerodromes operators have now been included as amendments to the ADR regulation and the related AMC/GM provisions. Therefore, they will not need to read the ATM/ANS regulation. The only exception is for the data catalogue, for which a specific reference to the ATM/ANS provisions is made.
comment	637 comment by: <i>SLC Associates</i> We support the proposal for 'tools and software', particularly that there will be no 'tools and software' requirements for aviation undertakings. Most tools and software used by surveyors are commercially available software packages and equipment which are unlikely to introduce errors. Any data errors arising from software or tools are likely to be due to user error, which can be minimised through strict adherence to operating procedures.
response	NOTED.
comment	646 comment by: <i>DGAC</i> With regards to the "Question to stakeholders" asked by the Agency : There is no reason to differentiate data integrity protection provisions for aerodrome operators from the ones for service providers. The objective remains the same: to guarantee the integrity of data items according to their safety relevance (and not their origin). Hence the provisions should be fully aligned. As the CRC is only mentioned as an example in the future edition of Annex 15/PANS-AIM, it would make sense to have it at GM level for both aerodrome operators and service providers.
response	NOTED.
comment	739 comment by: <i>ENAV</i> <u>2. EN - 2.3. Summary of the proposal</u> Page No: 8 Paragraph No: 2.3.1 Comment: ICAO/EASA Synchronisation - How is alignment with ICAO SARPS going to be managed by EASA Justification: States are now required to manage alignment with both ICAO SARPS and EASA Regulations.
response	NOTED. Progress has been made in that area. EASA has proposed a synchronisation mechanism paper on EU process for synchronisation of EU ATM legislation and ICAO SARPS evolutions, both

upstream (before the ICAO SL is issued) and downstream (once the ICAO SL has been issued). This was well accepted by the ATM community and at the Single Sky Committee meetings. This EU process should ensure that future ICAO Annex 15 updates can be integrated as soon as possible in the amended regulation.

comment	759	comment by: <i>DSNA</i>
	§2.3.3	
	Answer :	
	We support to have CRC provisions in GM. Other methods are available. That's in line with Annex 15.	
response	NOTED.	

comment	763	comment by: <i>DSNA</i>
	general comment on data exchange :	
	We support the flexible approach to use AIXM without a specific version of the exchange model. Experience shows that even 2 “versions” of AIXM 5.1 used by 2 ANSPs does not prevent major interoperability issues.	
response	NOTED.	

comment	765	comment by: <i>DSNA</i>
	<u>General comment on tool and software :</u>	
	We support the performance-based approach applied to provisions related to tool qualification, as the rule should not prescribe how the data quality requirements but only state the requirements themselves.	
response	NOTED.	

comment	789	comment by: <i>SLC Associates</i>
	We do not understand how Member States can be responsible for aviation undertakings involved in data origination without imposing some sort of regulation. This would incur additional cost for both Member States and data originators. Also, much of the data origination work carried out by aviation undertakings will be outside the competencies of civil aviation authorities and so it may be necessary to involve third party regulators from the relevant industries. We do agree that it is important to provide assurance to aerodrome operators and service providers that data originated by aviation undertakings is of suitable quality, and this may be best achieved through a	

form of official approval. It is unlikely that all aerodrome operators will have the ability to validate the quality of the data provided to them by aviation undertakings.

response NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term ‘aviation undertaking’ has been removed.

comment

790

comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
<p>Explanatory Note Section 2.3.1 <i>The aeronautical information products and services</i> <u>Transposition of ICAO SARPs</u></p>	<p>This section 2.3.1 states that "<i>in general, the provisions of (the new) Annex 15 have been transposed in the organisation requirements (AIS.OR) and those of the new PANS-AIM are reflected in the technical requirements (AIS.TR)</i>".</p> <p>Does this mean that ICAO Annex 15 is considered <u>fully transposed</u> into EU legislation, as was the case with ICAO Annex 2 and the SERA regulation?</p>	<p>It is important for the Member States to know the nature and legal status of this transposition in order to avoid national legislation developments for the transposition of this ICAO Annex 15.</p> <p>Further to this, if this is the case, a particular article should be developed stating the differences with ICAO that have to be notified (please refer to the complimentary comment on section 2.9.1 for further detail).</p>

response NOTED. Yes, it considered that ICAO Annex 15 is fully transposed into EU legislation.

comment

791

comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
<p>Explanatory Note Section 2.3.1 <i>The aeronautical information products and services</i> <u>Transposition of ICAO SARPs</u></p>	<p>Further to the previous comment, if it is the case that ICAO Annex 15 is fully transposed, what would happen with those parts (e.g. post-flight information services, recommended practices, notes) that have not been transposed, as detailed in the Cross-reference tables?</p>	<p>It is important for the Member States to know the nature and legal status of this transposition in order to avoid national legislation developments for the transposition of this ICAO Annex 15.</p> <p>Further to this, if this is the case, a particular article should be developed stating the differences with ICAO that have to be notified (please refer to the complimentary comment on section 2.9.1 for</p>

		further detail).
response	<p>NOTED. The transposition of ICAO provisions into EU legislation is done taking into account the European specificities of best practices and current AIS-AIM situation in Europe. Therefore some provisions were not transposed such as post-flight information which is not considered as being an obligation put on the AIS providers in Europe.</p> <p>The Agency will list the differences with ICAO that will have to be notified by EU Member States.</p>	

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response	ACCEPTED. The omitted definitions are added.							

comment	793	comment by: AESA / DSANA						
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<p>Explanatory Note</p> <p>Section 2.10</p> <p><i>Overview of the proposed amendments in the ATM/ANS rule structure</i></p> <p>Proposed Amendments</p> <p>Section 3.1.1 (1)</p> <p><i>Proposed amendments to Regulation (EU) ...</i></p> <p>Regulatory Impact Assessment (RIA)</p> <p>Section 4.4.4</p> <p><i>Economic impact</i></p> <p><i>Option 1</i></p>	<p>"postpones" the issue.</p> <p>Although it is acknowledged that this situation cannot be avoided, it must be observed that this will not solve the issue by itself.</p>	<p>these requirements in aviation undertakings involved in the origination of aeronautical data.</p>
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response

NOTED. This issue has been acknowledged at the early stage of the rule drafting and it is recognised that it is not simple to manage from the authorities' perspective. The proposed rules now suggest some guidance material to support Member States in their implementation of their obligations/responsibilities to ensure that data originators comply with relevant data quality requirements. It is expected that this approach would facilitate the handling of data originators compared to the current situation.

comment

794

comment by: CAA-NL

Page 11 - Question to stakeholders:

The Netherlands has no objection to a differential treatment of the provision on the CRC mechanism for data protection. The Netherlands considers it important that EASA regulation is aligned with the ICAO Annexes and therefore has a preference to keep the reference to the CRC for aerodrome operators at AMC level.

The concept laid down in this NPA for effective, practical and proportional requirements on AIM is supported.

In General The Netherlands can support the reduction of the level of detail, compared to the current rules on AIM, although this implies some practical data-exchange issues need to be solved at a local level. Specifically the data exchange between data originators and data provider still



	needs to be solved.
response	NOTED.
comment	854 comment by: <i>Irish Aviation Authority</i> At this stage Annex 15 Edition 15 (incorporating 1-39-A) but as of yet the revised draft Annex 15, Pans-AIM and Data Catalogue hasn't been sent to states for comment
response	NOTED.
comment	859 comment by: <i>Irish Aviation Authority</i> Shall all states be filing difference with ICAO on these charts
response	NOTED. The revised text version no longer contains requirements concerning the production of aeronautical charts.
comment	860 comment by: <i>Irish Aviation Authority</i> What about competency's for these AIM staff? Where shall that be covered?
response	NOTED. AIM staff/personnel will be covered under a separate rulemaking task on ATM/ANS personnel, at a later stage.
comment	877 comment by: <i>DFS Deutsche Flugsicherung GmbH</i> DFS prefers to have the content in line with ICAO Annex 15 (amendment) at GM level. There are currently more modern methods available, which may be mentioned as well, e.g. MD5.
response	NOTED.
comment	893 comment by: <i>Finnish Transport Safety Agency</i> Finnish Transport Safety Agency is in the opinion that CRC could be included at GM level for both entities.
response	NOTED.
comment	900 comment by: <i>daa - Dublin & Cork airports</i>



daa / Dublin & Cork airports broadly supports the principle of increasing clarity with regard to the requirements for aerodrome operators acting as data originators.

Including the requirements for data protection, data exchange, metadata and the reference to the data catalogue is helpful in terms of allowing aerodrome operators understand the scale of the requirements in this regard.

daa / Dublin & Cork airports must however state that the complexity of the requirements now being addressed to aerodrome operators in their capacity as data originators has not been adequately flagged heretofore and are not clearly understood in terms of their practical implementation within the industry as a whole and with regard to aerodrome operators in particular.

We would therefore suggest that a reasonable transitional period for the full entry into force of these requirements is afforded to all aerodrome operators. Additionally, we would request that practical guidance in terms of the implementation of these data requirements would also be prepared by EASA / EU Commission similar to the guidance material that has been previously issued for Regulation No. 376 of 2014: Reporting, Analysis and Follow Up of Occurrences in Civil Aviation.

response NOTED. A reasonable transitional period will be ensured for aerodrome operators. For service providers, by the time the regulation is published, they will have two years' time before the rules become applicable to them.

comment 902 comment by: daa - Dublin & Cork airports

daa / Dublin & Cork airports would strongly support the retention of requirements such as the Cyclic Redundancy Check at the Guidance Material level.

Again, without comprehensive additional guidance material, industry workshops, seminars, etc., we would contend that there will be high levels of non-compliance across the aerodromes industry with such specific requirements as such requirements have not been clearly signalled until now.

Additionally, adoption of new systems with regard to aeronautical information services and aeronautical information management are likely to entail requirements for information technology solutions with associated financial costs in terms of procurement and resourcing over time.

Again, daa would strongly make the call for a transitional period in this regard and keeping detailed requirements such as the CRC at the guidance material level for the time being.

response NOTED.

comment 952 comment by: German NSA (BAF)

2.3.2. Aeronautical data quality - Origination activities by aviation undertakings, p. 9



	<p>To avoid having differing interpretations and standards in the Member States the German NSA (BAF) does not support the EASA approach that the individual Member State is responsible for quality requirements aviation undertakings have to comply with.</p> <p><u>Proposal:</u></p> <p>Adopt harmonised principles into AMC and GM.</p>	
response	NOTED. The revised text now contains guidance for Member States to facilitate implementation and ensure harmonisation throughout Europe on how to handle data originators.	
comment	<p>953</p> <p>comment by: <i>German NSA (BAF)</i></p> <p>2.3.2. Aeronautical data quality - Data exchange, p. 10</p> <p>Without a particular data exchange model, it would be difficult to be interoperable between the different parties. Every data originator or supplier is allowed to use another format. It is not possible to phase the different kinds of data formats and to use, transfer, amend, etc., without costly and time consuming implementation. The costs are one of the reasons, wherefore a majority of the Member States are not fully compliant with Reg. (EU) No. 73/2010.</p> <p><u>Proposed Text:</u></p> <p>Maintain the requirements of Reg. (EU) No. 73/2010 regarding data exchange.</p>	
response	The AIXM model should be the model to be used to meet the requirements. The version of this model is open to cater for future upgrade of the models used. It is considered that investment made to meet AIXM 5.1 are not jeopardised. GM is provided to explain what is meant by global interoperability. A new GM1 AIS.OR.210(a) has been introduced to indicate that AIXM 5.1 is considered to be the minimum baseline for the exchange of data.	
comment	<p>954</p> <p>comment by: <i>German NSA (BAF)</i></p> <p>2.3.2. Aeronautical data quality - Data exchange, p. 10</p> <p>AIXM 5.1 enables to initiate eNOTAM. Without AIXM 5.1, the implementation of eNOTAMs could not be realized. Due to this, the data for aeronauts would not be current during the period of the flight (plan).</p> <p><u>Proposal:</u></p> <p>Maintain AIXM 5.1 so that eNOTAM could be implemented.</p>	
response	NOTED. AIXM 5.1 is not forbidden. However, it is considered that the exchange models used today ensures interoperability. A new GM1 AIS.OR.210(a) has been introduced to indicate that AIXM 5.1 is considered to be the minimum baseline for the exchange of data.	
comment	<p>955</p> <p>comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p>	

	<p>Please allow a question with regard to the compliance list, page 111:</p> <p>It is indicated that the NPA does not contain cost recovery requirements, which are subject to ICAO Annex 15 Point 2.5.</p> <p>It is understood that this requirement is not directly related to the technical AIS provision. However, as this information is relevant for the cost base of the AIS provider, isn't there any intention to transpose such requirements into other parts of ATM/ANS related regulation? What was the justification not to transpose this chapter?</p>
response	<p>NOTED. There is no intention to transpose the ICAO Annex 15 provision on the cost recovery as it is not considered to be within the scope of this regulation. Any rules related to cost recovery issues are deemed to be covered in the SES regulation, in particular in the charging scheme regulation.</p>
comment	<p>958 comment by: <i>German NSA (BAF)</i></p> <p>2.3.2. Aeronautical data quality - Data exchange, p. 10</p> <p>Some Member States have already implemented AIXM 5.1 to be compliant with the requirements of Reg. (EU) No. 73/2010 with a huge effort. According to the proposed changes the exchange of aeronautical data will be done by a number of electronic exchanges including email or pdf documents. This statement implicates that the data exchange model (AIXM) would not be necessary to ensure the data exchange. AIXM 5.1 should be implemented by reason that erroneous data by influence of human being should be decreased. The proposed rules increase the risk and the potential of errors in safety critical/essential data.</p> <p>It needs to be clarified, how the different parties are secure against prejudicial influences.</p> <p><u>Proposal:</u></p> <p>Remove all references to email or pdf and accept requirements for data exchange of Reg. (EU) No. 73/2010, Article 5 & Annex II</p>
response	<p>ACCEPTED and removed.</p>
comment	<p>959 comment by: <i>German NSA (BAF)</i></p> <p>2.3.2. Aeronautical data quality - Verification and validation process, p. 10</p> <p>Without common specific security requirements there will be differing interpretations and differing methods in the Member States will have negative impact on the AISP.</p> <p><u>Proposal:</u></p> <p>Refer to Eurocontrol DO specifications or adopt harmonised principles into AMC and GM.</p>
response	<p>NOT ACCEPTED. The rules contain harmonised principles in AMC and GM related to verification and validation process. It is considered that reference to the Eurocontrol specification on data</p>

origination is not relevant in the framework of the regulation because the specification is too closely related to the provisions of Regulation 73/2010, which is proposed to be repealed, and the does not seem to fit in the framework of the new regulation.

comment	960	comment by: <i>German NSA (BAF)</i>
	2.3.2. Aeronautical data quality - Tools and software, p. 10	
	According to the NPA 2016-02 aviation undertakings do not have to ensure that data will not be influenced negatively by the use of tools and software. Hence the originated data by aviation undertakings cannot be used in accordance with data quality requirements, because there are no possibilities to survey the data for accuracy, resolution or integrity.	
	<u>Proposal:</u>	
	Requirements of Reg. (EU) .../..., Appendix 1 to Art. Art.3, ATM/ANS.OR.A.080(f) regarding tools and software apply to aviation undertakings.	
response	NOT ACCEPTED. Data originators have to ensure that the data they create ensures a high level of quality assurance. But this is not necessarily ensured through the tools and software they use. The proportionality approach is considered important in the case of data originators. They need to reach the objective (assure data quality) but the way they reach this objective should not be regulated.	
comment	1021	comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i>
	2.3.1 The aeronautical information products and services	
	<i>Comment FOCA:</i> same remark as under comment 1020	
response	NOTED. The notification to ICAO Contracting States on the next amendment to ICAO Annex 15 has been sent. During the drafting phase, this situation was already acknowledged. The approach is that when the EASA Opinion is released, the content of both the Annex and the PANS-AIM will be stable and not changed. In the case, a change should happen at ICAO level and identified as having an impact on the EASA proposed rules, time will still allow to make the necessary change to the EASA text.	
comment	1030	comment by: <i>The Boeing Company</i>
	<p>Page: 9</p> <p>Paragraph: 2.3.2. Aeronautical data quality -</p> <p>Origination activities by aviation undertakings</p>	
	The proposed text states: Aviation undertakings are entities, persons or organisations, other than the organisations regulated by Regulation (EU) No .../... that are affected by or affect a	

service delivered by a service provider. They can also be non-aviation entities. They create, modify or delete aeronautical information and aeronautical data for the purpose of aviation. They are not service providers and can therefore not be regulated as such.

REQUESTED CHANGE:

Please be more specific in the definition of the term “Aviation undertaking.”

JUSTIFICATION: Term “Aviation undertaking” not clear. We would like a more specific definition to avoid different interpretations of readers.

response NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term ‘aviation undertaking’ has been removed.

comment 1031

comment by: *The Boeing Company*

Page: 10

Paragraph: 2.3.2. Aeronautical data quality -

Origination activities by service providers

The proposed text states: Origination activities can also be carried out by service providers. When this is the case, they need to comply with the requirements in ATM/ANS.OR.A.080 Subpart A of Annex III. These requirements are similar to those for aviation undertakings as they are performing the same activity. The scope of ATM/ANS.OR.A.080 is limited to the activity performed by service providers from origination, processing and distribution to the aeronautical services provider. Therefore, this requirement is not applicable to aeronautical information services providers that are covered in Annex VI (Part-AIS).

REQUESTED CHANGE:

Please explain who would be a “service provider” in this context.

JUSTIFICATION: Term “service provider” not clear in this context. We would like a more specific definition to avoid different interpretations of readers.

response NOTED. Please see the definition (2) of Article 2 of Regulation 2017/373:

A ‘service provider’ means any legal or natural person providing functions and/or services of ATM/ANS as defined in Article 3(q) of Regulation (EC) No 216/2008 and/or other ATM network functions, either individually or bundled for general air traffic;

In the context of this NPA, service providers are those that ATM/ANS services providers that are under the scope of Regulation 2017/373 mentioned above and to which the rules on AIS/AIM will be part of when adopted.



comment	<p>1032</p> <p style="text-align: right;">comment by: <i>The Boeing Company</i></p> <p>Page: 11</p> <p>Paragraph: 2.3.4 Aeronautical charts</p> <p><u>The proposed text states:</u> This NPA only reproduces the key elements of ICAO Annex 4. Firstly, some charts have not been included in the proposal: the Electronic Aeronautical Chart Display, the Plotting Chart, the Aeronautical Navigation Chart — ICAO Small Scale, and the Aerodrome Terrain and Obstacle Chart — ICAO (Electronic), mainly because they are effectively not produced in Europe.</p> <p><u>REQUESTED CHANGE:</u></p> <p>We do not have a specific text change request. However, we consider clarifications are needed.</p> <p><u>JUSTIFICATION:</u> Not clear – even if such charts are probably not produced in Europe, they will be part of the source data provided to the DAT providers for further data maintenance activities.</p>
response	<p>NOTED. The revised text now proposed to list the aeronautical charts to be provided by the AIS provider. The way they are produced should be done in accordance with ICAO Annex 4.</p>

comment	<p>1076</p> <p style="text-align: right;">comment by: <i>European Transport Workers Federation - ETF</i></p> <p>ETF's opinion is that requirements should be aligned for both service providers and aerodrome operators in terms of data protection/robustness, and discrepancies should be avoided.</p> <p>However, this only addresses data integrity through CRC requirements, when cybersecurity concerns are expanding.</p> <p>ETF think that certification, user authentication processes, encryption, data server resilience should also be addressed and supporting tools like SOC (Security Operations Center) and CERT (Computer Emergency Response Team) could also be referenced (at least as guidance or best practices for providers).</p>
response	<p>NOTED. Data quality requirements are now addressed for aerodrome operators in the same way they are for service providers. The amendment to Regulation 139/2014 now contains the similar requirements than for service providers, ensuring data error detection and authentication that includes security aspects.</p>

2.4. Overview of the main changes compared to the ADQ Regulation

comment	<p>5</p> <p style="text-align: right;">comment by: <i>Prof. Filippo Tomasello</i></p> <p>Indeed safety and quality rules could be covered in a single piece of regulation, since they span across all ATM/ANS branches. Even better would be to merge rules for ORG between aerodromes</p>
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	and ATM/ANS, since the same organisation could cover both roles and it is non economically efficient to oblige them to read two pieces of legislation and, even worse, to obtain and maintain two different certificates.
response	NOTED.
comment	6 comment by: <i>Prof. Filippo Tomasello</i> Accepted that for the time being the processes for verification of compliance and declaration of ATM/ANS systems and constituents are covered by 552/2004. But this Regulation is not consistent with the EASA system. The Agency should therefore develop and propose comprehensive rules in this field.
response	NOTED. The task on conformity assessment has been initiated and should be launched very soon.
comment	7 comment by: <i>Prof. Filippo Tomasello</i> Defining the data quality according to the same parameters used by ICAO is essential, and hence fully supported.
response	NOTED.
comment	80 comment by: <i>NATS National Air Traffic Services Limited</i> Page: 12 Section: Overview of main changes compared to the ADQ Regulation Comment: Under Tools and Software, the NPA column says 'Not applicable at Origination level...' but we are concerned that this is a pragmatic approach for only one set of stakeholders and loses the core intent of the legislation. Justification: The NPA should adopt the stated EASA approach but it needs to be consistent with the requirements of the overall rule Proposed Text: The approach for Data Originators should be the same as for all other parts of the data chain otherwise data integrity could be lost at the very start.
response	NOTED. The proposal for data originators with regard to tools and software was made to ensure an objective-based approach, putting the requirement on them to originate high quality of data while at the same time not putting requirements on how they will reach this objective. It is considered that this approach does not affect data integrity as data originators will be subject to other various requirements safeguarding the intent of the overall rule on data quality.
comment	196 comment by: <i>DFS Deutsche Flugsicherung GmbH</i>



The transition from Regulation 73/2010 to this new Part AIS should ensure investments already made and fit with current implementation works.

It is reasonable to assume that AIXM will become the data model of choice for aeronautical data.

It is understood and supported that the intent is to provide a more flexible approach compared to the ADQ Regulation by not imposing a particular technical solution, model and version.

As such the requirements are made at the appropriate regulatory level, i.e. the aeronautical information exchange model (AIXM) will have to be used principally (is AMC), whilst not imposing a specific version of this model (is GM).

Nevertheless DFS is concerned that in the current situation this rather increases cost, does not save investments made and does not provide any alleviation compared to Regulation 73/2010, mainly due to technical deficiencies of the AIXM data format.

Performance oriented requirements should be made at a time when availability of validated and compatible standards can be guaranteed.

The current deficiencies of this data model must therefore be addressed as a matter of priority, lying mainly in

- the lack of compatibility of AIXM 5.1 to AIXM 4.5.: current implementations would need to undergo costly upgrades to serve various interfaces or even investment in new means; and
- the lack of harmonized UUIDs as well as their creation and handling leading to inability to incrementally update AIXM data.

Furthermore, the means for electronic exchange between data originator and AISP allow for email and pdf-files. The AIXM format is not required at that end of the data chain. Given the current deficiencies of this solution, other means may provide alleviation for the data originator, whilst at the same time they impose an obligation on the AISP to stem investment and adapt to this particular interface.

Finally, keeping the status quo whilst requiring no manual interaction seems to be counterproductive to the grown philosophy to apply the standardized data format throughout the data chain.

response NOTED. The technical deficiencies of the AIXM data format are acknowledged.

comment 220 comment by: FAA
 In the table, Data exchange row, NPA colum, reccomend change "One mean" to One means"

response ACCEPTED.

comment 221 comment by: FAA
 In the table, Tools and softwear row, NPA colum, disagree with such requirement is not applicable at the origination stage. Such a requirement at the origination stage can prevent downstream

problems.

response NOTED. The proposal for data originators with regard to tools and software was made to ensure an objective-based approach, putting the requirement on them to originate high quality of data while at the same time not putting requirements on how they will reach this objective. It is considered that this approach does not affect data integrity as data originators will be subject to other various requirements safeguarding the intent of the overall rule on data quality.

comment 573 comment by: CAA-N

Data originators - Responsibility of States: It is not clear how States shall establish their own Data quality Requirements. Further AMC and GM would be appreciated.

response NOTED. The proposed rules now suggest some guidance material to support Member States in their implementation of their obligations/responsibilities to ensure that data originators comply with relevant data quality requirements. It is expected that this approach would facilitate the handling of data originators compared to the current situation.

comment 611 comment by: CANSO

AMC1 AIS.OR.200 is incorrectly indicated as “transposed” from ICAO Annex 15 as it is actually downgraded from standard to AMC (comparison table, p. 12)

response NOTED. It is considered that the transposition of the ICAO 3.5.2 is ensured. The level at which this provision is made is independent to the fact that it is reflected in the text proposal. This consideration is rather an ‘ICAO difference’ related comment.

comment 740 comment by: ENAV

AMC1 AIS.OR.200 is incorrectly indicated as “transposed” from ICAO Annex 15 as it is actually downgraded from standard to AMC (comparison table, p. 12)

response NOTED. It is considered that the transposition of the ICAO 3.5.2 is ensured. The level at which this provision is made is independent to the fact that it is reflected in the text proposal. This consideration is rather an ‘ICAO difference’ related comment.

comment 797 comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
Explanatory Note Section 2.4	The pragmatic approach taken by EASA in relation to the tools and software is fully supported. (“Not applicable at origination level	As declared in the NPA, <i>this eliminates burdensome requirements</i>

Overview of the main changes compared to the ADQ Regulation	as it is seen as a means to reach the data quality. This eliminates burdensome requirements on originators with no added value on safety".)	on originators with no added value on safety".
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response NOTED.

comment 836 comment by: *Airport Operators Association (UK)*
 Brining the ADQ requirement up to date, recognising the implementation challenges faced by airports within their respective States, is supported.

response NOTED.

comment 862 comment by: *Irish Aviation Authority*
 In relation to removing the tools and software at this level bring up the rubbish in and rubbish out

response NOTED. The proposal for data originators with regard to tools and software was made to ensure an objective-based approach, putting the requirement on them to originate high quality of data while at the same time not putting requirements on how they will reach this objective. It is considered that this approach does not affect data integrity as data originators will be subject to other various requirements safeguarding the intent of the overall rule on data quality.

comment 962 comment by: *German NSA (BAF)*
 Subject: Data originators
 To avoid having differing interpretations and standards in the Member States the German NSA (BAF) does not support the EASA approach that the Member State are responsible for quality requirements aviation undertakings have to comply with.

Proposal:

Place harmonised principles into AMC and GM.

response ACCEPTED. This issue has been acknowledged at the early stage of the rule drafting and it is recognised that it is not simple to manage from the authorities' perspective. The proposed rules now suggest some guidance material to support Member States in their implementation of their obligations/responsibilities to ensure that data originators comply with relevant data quality requirements. It is expected that this approach would facilitate the handling of data originators compared to the current situation.

comment 963 comment by: *German NSA (BAF)*



	<p>Subject: Conformity & suitability of constituents</p> <p>The conformity/suitability of constituents and the verification of systems is not covered by the new regulation. As Reg. (EC) No. 552/2004 is supposed to be repealed by the new basic regulation the reference to it is puzzling.</p> <p>The removal of the Declaration of Suitability of Use (DSU) bears the risks of incorrect information in the data chain.</p> <p><u>Proposal:</u></p> <p>Adopt the requirements of Reg. (EU) No. 73/2010 regarding conformity and suitability.</p>
response	<p>NOT ACCEPTED. For now, Regulation 552/2004 is expected to be sufficient. With the upcoming new EASA Basic Regulation, interoperability should be covered in a more formal way. A dedicated task on conformity assessment has been initiated to cover the provisions of ADQ IR with regard to the conformity assessment, in line with Reg. 552/2004.</p>
comment	<p>1010 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA:</i> Unlike the ADQIR 73/2010, this NPA does hand over the regulatory responsibility for data originators outside of the EASA Scope to states:</p> <p>a) leaving them in a regulatory and legal issue and</p> <p>b) weakening tremendously the data quality assurance.</p> <p>Justification:</p> <p>a) States, which do not have guidance material yet, will have to establish national regulation and assurance principles. This could lead to long national legal processes and different ways of application from state to state.</p> <p>b) While the ADQIR strictly defined clear requirements to Data originators, the NPA almost only leaves the responsibility of data quality with the originators not establishing appropriate guidance material.</p> <p>Proposed Text: Amend ADQIR to ensure applicability and clear requirements to non-aviation data originators or at least use the Eurocontrol guidance material to establish extended AMC and GM to support states in there demanding task.</p>
response	<p>ACCEPTED. The Agency believes the comment proposes to amend the EASA rule text and not the ADQIR. This issue has been acknowledged at the early stage of the rule drafting and it is recognised that it is not simple to manage from the authorities' perspective. The proposed rules now suggest some guidance material to support Member States in their implementation of their obligations/responsibilities to ensure that data originators comply with relevant data quality requirements. It is expected that this approach would facilitate the handling of data originators compared to the current situation. With regard to clear requirements for data originators, these are supported by a lot of guidance material.</p>

comment	<p>1033</p> <p style="text-align: right;">comment by: <i>The Boeing Company</i></p> <p>Page: 12</p> <p>Paragraph: 2.4. Overview of the main changes compared to the ADQ Regulation, Table, row 3, 4th column.</p> <p><u>The proposed text states:</u> Data exchange - Exchange model required that is globally interoperable.</p> <p><u>REQUESTED CHANGE:</u> Please specify “globally interoperable exchange model.”</p> <p><u>JUSTIFICATION:</u> Our recommendation is to provide clarity.</p>
response	<p>ACCEPTED. A GM is now added to clarify what is understood under ‘globally interoperable exchange model’.</p>

comment	<p>1034</p> <p style="text-align: right;">comment by: <i>The Boeing Company</i></p> <p>Page: 12</p> <p>Paragraph: 2.4. Overview of the main changes compared to the ADQ Regulation, Table, 5th row, 3rd and 4th columns.</p> <p><u>The proposed text states:</u> Quality, safety & security management -> Not transposed. Sufficiently covered in the ATM/ANS.OR (management system in Regulation ... // Not included. It ensures consistency through the upcoming Regulation.</p> <p><u>REQUESTED CHANGE:</u> We do not have a specific text change request. However, we consider clarifications are needed.</p> <p><u>JUSTIFICATION:</u> Question: why are the Quality, Safety and Security Management requirements excluded here and referenced, probably, to, Annex III, whilst detailed requirements are called out in Annex VII for the DAT Providers. This will create the risk of non-aligned requirements in the worst case and redundant requirements in the best case. Because of the intent and scope of the Cover Regulation which depicts the aeronautical data chain aspects as well, general requirements e.g. for Quality, Security, and Safety Management Systems should be laid down in the General Annex only, valid for all participants in the data chain.</p>
response	<p>NOTED. In Part-DAT.OR.110, the DAT providers shall comply with the management system referred to in Annex III (‘In addition to point ATM/ANS.OR.B.005’) which similarly applies to AIS providers. The additional requirements for DAT providers are exactly those in Part-AIS but in the latter they are more detailed and subject to specific separate requirements.</p>

comment	<p>1035</p> <p style="text-align: right;">comment by: <i>The Boeing Company</i></p>
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Page: 13

Paragraph: 2.4. Overview of the main changes compared to the ADQ Regulation, Table, 8th row, 4th column

The proposed text states: Tools and software -> Not applicable at origination level as it is seen as a means to reach the data quality. This eliminates burdensome requirements on the originators with no added value on safety.

REQUESTED CHANGE: Please explain what requirements there shall be AIS tools and software.

JUSTIFICATION: Because of the intent and scope of the Cover Regulation, which depicts the aeronautical data chain aspects as well, general requirements e.g. for Tools and software and its qualification should be laid down in the General Annex III only, valid for all participants in the data chain not only for downstream data chain participants. This ensures a secure data flow from the originator through the AIS, DAT provider, to the OEMs and Operators without data corruption and defects. Therefore, the applicable DO200B/ED-76A requirements shall be valid for the whole Cover Regulation participants and addressees.

In addition, in the Master draft AMC_GM to Commission Regulation (EU) NO .../.... in chapter GM2 ATM/ANS.OR.005 Management System all service providers are required to establish and maintain a certified management system.

response NOT ACCEPTED. The provisions for tools and software are included in both the part for all service providers and AIS providers because for all service providers, the provision is applicable until transmission to the AIS provider. Then this should also be ensured after that the AIS provider has received the data and transmit it to the next user. The tool requirement is applicable for DAT providers in DAT.OR.110.

2.5. Proposal to move the ADQ requirements to the EASA regulatory framework

comment 8 comment by: *Prof. Filippo Tomasello*

Aviation is one system and all organisation are always under economic pressures. They resources should be focused on safety and good value services for respective customers. Complying with different uncoordinated and overlapping legal acts, is a major diseconomy for the community. Repealing Regulation 73/2010 is fully supported. The expertise available in EUROCONTROL should be used by EASA, but never lead to overlapping uncoordinated rules.

response NOTED.

comment 17 comment by: *John Hamshare*

This proposal is very welcome:



2.5. Proposal to move the ADQ requirements to the EASA regulatory framework

This is very important as 2 surveys have already shown that EC member states have not implemented the ADQ IR due to cost and complexity. Therefore EASA should simplify and reduce this burden.

In particular this statement is very welcome:

The rules are expected to ease the overall AIS-AIM implementation.

response NOTED.

comment 106 comment by: John Hamshare

2.5 Proposal to move the ADQ requirements to EASA regulatory framework

We strongly believe that the ADQ Regulation (73/2010) must be repealed.

We think that the implementation of the EASA ADQ requirements must be simpler and less costly than what was required under the ADQ IR.

response NOTED.

comment 191 comment by: LPS SR

Comment ID: LPS08

Action proposed:

We propose to repeal of Evidence requirement.

Reasoning:

We understand this part of regulation as one of the most challenging and cost ineffective to achieve it.

Comment ID: LPS09

Action proposed:

Need of clarification of remaining provisions of the ADQ Regulation.

Reasoning:

There should be further clarification of precisely which parts of ADQ Regulation will be transposed and which will be withdrawn. (Example: Requirements in Article 9 Data protection are indicated to be deleted but its related ANNEX VI Data protection requirements referred to in Article 9 is planned to be transposed in the new Regulation).

response NOTED. Most of the articles are not transposed as they are only introductory provision to introduce the provisions in the annexes, which contain the core content of the provisions to be transferred in the EASA material. The entire ADQ Regulation will be repealed. The table indicates those parts that have been transferred and those that are not anymore reflected in the EASA

proposal.

comment 632 comment by: *John Hamshare*

The suggestion that investments made so far will not be compromised is a poor basis for EASA to develop this NPA and for organisations to follow new requirements.

Just because some organisations have made investments, this shouldn't mean that others ought to. This is a poor rationale which is not based upon safety or performance.

response NOTED. As it was explained in the impact assessment, the rules are not developed due to some safety issues but rather to enable more effective and efficient implementation of data quality requirements, thus ensuring the safety is maintain at all times, taking into account the transition from AIS to AIM.

comment 842 comment by: *Airport Operators Association (UK)*

This proposal is particularly welcomed. Specifically, allowing the application of a proportionate approach. It is well documented that a number of States, and individual organisations therein, have experienced some common barriers, namely cost and complexity, in trying to understand and apply the ADQ regulation to date.

Repealing the current EC Regulation is strongly supported.

Relevant, proportionate, achievable and realistic timescales must replace the demands of EC 73/2010 if ADQ is to be implemented successfully and nationally. This should take account of organisations of all dimensions as one size does not fit all. Commercial obligations to meet safety, security, regulation change, growth and the ability to compete, and many other factors, for UK airports, continues to be challenging. Airports of all sizes will deliver at a different pace.

Where the current ADQ regulation has been open to interpretation or unclear, as recognised in formal reports, reluctance by organisations historically to invest in uncertainty is understandable.

It is agreeable that two sets of provision with overlapping content would further complicate a process determined by regulation, which can be and should be much simpler than it has been portrayed in the current requirements.

The EASA approach is supported as it is seen as a logical.

All points in the 4. Regulatory Impact Assessment 4.1 "issues to be addressed", must be absorbed into the next tranche of regulation if it is to be implemented successfully.

response NOTED. The NPA is considered as being proportionate for the different types of affected parties. The text has been improved to ensure this approach.

comment 978 comment by: *LVNL Pro (ATC the Netherlands)*



response	The principle of providing an effective, practical and protortional rulemaking is highly appreciated. NOTED.
comment	<p>1036 comment by: <i>The Boeing Company</i></p> <div style="border: 1px solid black; padding: 5px;"> <p>Page: 14</p> <p>Paragraph: 2.5. Proposal to move the ADQ requirements to the EASA regulatory framework</p> <p>The proposed text states: Elimination of Article 10 Management requirements from Annex VII</p> <p>REQUESTED CHANGE: N/A</p> <p>JUSTIFICATION: Where will the Management requirements be defined now?</p> </div>
response	The management requirements (safety, quality and security) are now covered under Annex III subpart B (Management) of Regulation (EU) No 2017/373. These requirements are applicable to all service providers covered by this regulation (including AIS providers).

2.6. Applicability of the new proposed rules

comment	<p>18 comment by: <i>John Hamshare</i></p> <p>We welcome the repeal of the ADQ regulation which was seen as too onerous, time-consuming and disproportionate.</p>
response	NOTED.
comment	<p>112 comment by: <i>ENAIRE</i></p> <p>Paragraph: 2.6</p> <p>Reference text: Applicability</p> <p>Type: clarification</p> <p>Comment: (EU) No 73/2010 is fully applicable 30 June 2017 and will be repealed 1 January 2019. As stated in the NPA (section 2.2), 73/2010 has a number of implementation issues and some unclear legal provisions. What happens until 2019? More description on the applicability needed.</p>
response	NOTED. Regulation 2017/373 has an applicability date of 02/01/2020, date on which the ADQ Regulation will be repealed. Please be aware that, at the time of writing, the applicability provisions is still being discussed at EC level, in the context of the ICAO-EU synchronisation process.



comment	198	comment by: <i>DFS Deutsche Flugsicherung GmbH</i>
	Although chapter 2.6 informs about repeal of Regulation 73/2010 the proposal should contain the relevant amendment to Article 8 of the New Regulation (2016/1377) on common requirements and safety oversight.	
response	NOTED. Please note that Regulation 2016/1377 was repealed by Regulation 2017/373 in March 2017.	
comment	575	comment by: <i>CAA-N</i>
	There is a need for a defined transition time-line in order to clarify and support the implementation of a new regulation with lessened requirements. There is a element of ambiguity in this that could potentially delay implementation of both ADQIR and this new rule-set.	
response	NOTED. Regulation 2017/373 has an applicability date of 02/01/2020, date on which the ADQ Regulation will be repealed. Please be aware that, at the time of writing, the applicability provisions is still being discussed at EC level, in the context of the ICAO-EU synchronisation process.	
comment	850	comment by: <i>Airport Operators Association (UK)</i>
	Repeal of the Regulation as stated is strongly supported. Any progress which has been undertaken to date, which is demonstrated to be in compliance, in line with the proposed date, 1 January 2019, is welcomed.	
response	NOTED.	
comment	965	comment by: <i>German NSA (BAF)</i>
	The German NSA (BAF) appreciates that compliance to Reg. (EU) No. 73/2010 would be considered to be compliant with the new rulesAs the second EASA survey demonstrated most of the parties concerned are still not compliant, and there is no certainty that stakeholders can comply with Reg. (EU) No. 73/2010. With this proposal it is to assume that the ADQ-relevant parties will not continue working to become compliant with Reg. (EU) No. 73/2010. The German NSA (BAF) supports a continued commitment to Reg. (EU) No. 73/2010 to justify further efforts to be taken to comply with it. Furthermore, a transitional provision is missing for those who are not compliant at the end of June 2017. <u>Proposal:</u> Amend Reg. (EU) No. 73/2010 to provide transitional provisions regarding the dates of	

response	<p>compliance.</p> <p>NOTED. Regulation 2017/373 has an applicability date of 02/01/2020, date on which the ADQ Regulation will be repealed. Please be aware that, at the time of writing, the applicability provisions is still being discussed at EC level, in the context of the ICAO-EU synchronisation process.</p>
comment	<p>993 comment by: LVNL Pro (ATC the Netherlands)</p> <p>What is the legal relationship between this NPA and existing ADQ IR? Are national NSA's expected to enforce ADQ IR until 2020?</p>
response	<p>Regulation 73/2010 is a regulation which is still in force and applicable. Therefore, NSAs are expected to fulfil their obligations under the ADQ regulation until the latter is repealed.</p>
comment	<p>995 comment by: LVNL Pro (ATC the Netherlands)</p> <p>Are already realised parts of ADQ compliant systems automatically considered to be in full conformance with this NPA?</p>
response	<p>Yes, the NPA states that 'Aeronautical data and aeronautical information that are demonstrated to be in compliance with Regulation (EU) No 73/2010 before 1/01/2019 are deemed to be in compliance with the new proposed rules.' (please see page 14 of the NPA)</p>
comment	<p>1022 comment by: Federal Office of Civil Aviation (FOCA), Switzerland</p> <p><i>Comment FOCA:</i> The applicability of the new proposed rules will be a challenge for all parties involved.</p> <p>Justification: Following the discussions in different workshops and meetings most of the States struggle with the implementation dates in Article 14 of the EUIR 73/2010 and will not be able to implement the NPA provisions in time.</p> <p>Running implementation programs for years already, having legal changes based on the ADQIR 73/2010 prepared and in the legal process, the NPA changes several issues, such as data scope, requirements to originators and especially to non-aviation originators, loading additional responsibilities to State authorities, etc. It seems that expanded implementation dates and transitional provisions shall be established to ensure efficient and aligned implementation in Europe.</p> <p>Proposed Text: Provide aligned and reachable transition provisions for Compliance transition from ADQIR to NPA as well as for the implementation deadlines as stated above already. Switzerland proposes:</p> <ul style="list-style-type: none"> - Critical legacy data: compliant by End 2019

	<ul style="list-style-type: none"> - Essential legacy data: compliant by July 2021 - Routine legacy data: to be established compliant when data is amended but latest by end 2028 or even no end date.
response	NOTED. Regulation 2017/373 has an applicability date of 02/01/2020, date on which the ADQ Regulation will be repealed. Please be aware that, at the time of writing, the applicability provisions is still being discussed at EC level, in the context of the ICAO-EU synchronisation process. The proposal from Switzerland is well noted with regard to the three types of data.

2.7. Objectives

comment	222	comment by: FAA
	Objectives paragraph, 1st objective reads; "..provided at the required level of quality..", that level not yet defined at this point in the document. Recommend change to read "...formatted, published and provided to the...".	

response	ACCEPTED. It is proposed to amend to 'at sufficient quality level to the...'
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comment	851	comment by: Airport Operators Association (UK)
	The scope of the contents of Article 2, which remain the core objectives of EASA, are generally supported. It is the aforementioned application of a proportionate based implementation program with specific, measurable, achievable, realistic and timed delivery, which should be applied.	

response	NOTED.
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2.8. Summary of the regulatory impact assessment (RIA)

comment	19	comment by: John Hamshare
	In this section it is stated that the analysis of the impacts have focused mainly on economic impacts.	
	It cannot be stressed enough how important it is that ADQ regulation is proportionate and balanced. Aerodrome Operators have managed ADQ well over several decades and it is thought that there is actually greater incidence of errors in the unregulated products supplied by companies to flight decks.	

response	NOTED. The NPA proposes proportionate and balanced rules for the affected organisations and
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the revised text should reinforce this approach.

comment 107 comment by: John Hamshare
 We support the preferred Option (1) providing a pragmatic approach.

response NOTED.

comment 798 comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
<p>Explanatory Note Section 2.8 <i>Summary of the regulatory impact assessment (RIA)</i></p>	<p>The consideration of Option 2 is not necessarily so: it is not the prescriptive and technical provisions in themselves that are the matter with Option 0, it is their content.</p>	<p>Prescriptive and technical provisions are not an issue as such, it is the way they are used. A more pragmatic and proportional set of prescriptive and technical provisions might also be a sensible solution to the ADQ conundrum.</p>

response NOTED.

comment 852 comment by: Airport Operators Association (UK)
 Option 1 is supported.
 All previous statements referring to proportionate implementation apply to this comment also, the pragmatic approach is strongly supported.

response NOTED.

comment 1024 comment by: Federal Office of Civil Aviation (FOCA), Switzerland
Comment FOCA: In our opinion, the focus on the high level goals ‘Data quality assurance for the safety of Aviation’ and ‘interoperability across Europe’ has been lost in the NPA provisions.
Justification: The focus in the NPA provisions is in priority set to the ability of States for the implementation. We have the impression that the NPA provisions are in many ways less stringent than the provisions of the ADQIR while appreciating several technical changes on impossible implementation requirements such as e.g. CRC32Q.
 For that reason, we are concerned that poor data quality at the originators level (start of the data chain) could harm safety as the quality cannot be ensured at a later stage in the chain. The corner stone of interoperability is the requirements on data exchange and the provision of AIP Digital

Datasets, which have been reduced that way, that interoperability is harmed or in regard to dataset provisions are not at all required. This in contradiction with the provisions of the ADQIR and harming interoperability.

Reducing the requirements to make them better achievable by certain States is contrary to the Aeronautical Data Quality and Data Exchange requirements as driven from a safety perspective.

Proposed Text: EASA should reconsider the requirements based on the high level objectives and establish more safety-goal and interoperability-goal oriented NPA provisions. The requirement to exchange data in digital agreed form and to provide AIP Datasets e.g. as provides in future ICAO Annex 15 shall be considered and provided as a requirement. In example, the requirements on data originators as given in Appendix one to Art 3 of the NPA (e.g. not requiring an QMS by non-aviation originators) will harm data quality and load difficult tasks on States on data quality assurance.

Therefore we suggest to align common data originator requirements for all data originators. Ensuring alignment of Aviation Undertaking data origination requirements in Appendix 1 to Article 3, with similar data originator requirements in other areas of the EASA Framework will guarantee harmonized application and required data quality.

response

NOTED. It is considered that the flexibility proposed in the rule text does not decrease safety but rather increases it as many parties will be able to comply with the requirements, proportionally to the type of service they provide. The main objectives of ADQ remains. With regard to the interoperability objectives, there are other measures possible to cover data protection (in lieu of the CRC) and the interoperable means of exchange. This approach ensures that all parties are able to do what they need to do while keeping the high level quality assurance, this will have a positive impact on safety.

2.9. Overview of the proposed amendments

comment

21

comment by: *John Hamshare*

'Properly Trained' personnel is an ambiguous phrase and is not one which appears in EC139/2014.

response

NOTED. The provisions on AIS personnel will be further developed at a later stage.

comment

633

comment by: *SLC Associates*

The statement that the definition of 'aviation undertaking' is amended to encompass aerodrome operators could be understood to mean that aerodrome operators are considered to be aviation undertakings. This contradicts the proposed text on page 24 which states 'Aviation undertaking' means an entity, person or organisation, other than the service providers regulated by this Regulation or **other than the aerodrome operators regulated by Regulation (EU) No 139/2014** that is affected by or affects a service delivered by a service provider or an aerodrome operator. It should be clarified whether or not an aerodrome operator is an aviation undertaking.



response ACCEPTED. The revised text clarifies the scope with regard to aerodrome operators. However, aerodrome operators can be either aerodrome operators or parties originating data (when they act as such).

comment

793

comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
<p>Explanatory Note</p> <p>Section 2.3.2</p> <p><i>Aeronautical data quality</i></p> <p>Explanatory Note</p> <p>Section 2.9.1</p> <p><i>Proposed amendments to Regulation (EU)</i></p> <p>Explanatory Note</p> <p>Section 2.10</p> <p><i>Overview of the proposed amendments in the ATM/ANS rule structure</i></p> <p>Proposed Amendments</p> <p>Section 3.1.1 (1)</p> <p><i>Proposed amendments to Regulation (EU)</i></p> <p>Regulatory Impact Assessment (RIA)</p> <p>Section 4.4.4</p> <p><i>Economic impact</i></p> <p><i>Option 1</i></p>	<p>The proposal of this NPA that "Member States be responsible for aviation undertakings when they are involved in the origination of aeronautical data" is deemed to solve the problem faced with the implementation of the ADQ Regulation.</p> <p>However, this only passes the issue from the competent authorities to the Member States as such and really "postpones" the issue.</p> <p>Although it is acknowledged that this situation cannot be avoided, it must be observed that this will not solve the issue by itself.</p>	<p>The implementation of these requirements unto what has been called "aviation undertakings" is still at the heart of the matter for they are at the initiation of the data chain, a situation intrinsic to the system and which cannot be avoided.</p> <p>If the issue is left to the Member States, it would be interesting to explore the possibility of developing a Directive for the implementation of these requirements in aviation undertakings involved in the origination of aeronautical data.</p>

response NOTED. This issue has been acknowledged at the early stage of the rule drafting and it is recognised that it is not simple to manage from the authorities' perspective. The proposed rules

now suggest some guidance material to support Member States in their implementation of their obligations/responsibilities to ensure that data originators comply with relevant data quality requirements. It is expected that this approach would facilitate the handling of data originators compared to the current situation.

comment

799

comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
<p>Explanatory Note</p> <p>Section 2.9.1</p> <p><i>Proposed amendments to Regulation (EU) .../...</i></p>	<p>In relation to the transposition of ICAO Annexes into Annex VI (Part-AIS) of Regulation (EU) .../..., it is stated that <i>"there is, therefore, no need to make reference to relevant ICAO Annexes or to the ADQ Regulation anymore"</i>.</p> <p>This would imply that, once the relevant ICAO Annexes (namely, Annex 15) are transposed into the EU regulatory system, an article stating the differences to be communicated by the Member States should be produced and included in the cover regulation section of Regulation (EU) .../....</p>	<p>In the same manner as with Regulation (EU) No 923/2012 (SERA), which transposed ICAO Annex 2 and which details the list of commonly agreed differences to be notified to ICAO in accordance with its Article 5 'Differences'.</p>

response

ACCEPTED. A supplement to the Annex will contain a list of the differences to be filed by Member States against ICAO Annex 15 and PANs-AIM.

comment

903

comment by: daa - Dublin & Cork airports

daa / Dublin & Cork airports broadly supports the principle of increasing clarity with regard to the requirements for aerodrome operators acting as data originators.

Including the requirements for data protection, data exchange, metadata and the reference to the data catalogue is helpful in terms of allowing aerodrome operators understand the scale of the requirements in this regard.

daa / Dublin & Cork airports must however state that the complexity of the requirements now being addressed to aerodrome operators in their capacity as data originators has not been adequately flagged heretofore and are not clearly understood in terms of their practical implementation within the industry as a whole and with regard to aerodrome operators in particular.

We would therefore suggest that a transitional period for the full entry into force of these requirements is afforded to all aerodrome operators. Additionally, we would request that practical guidance in terms of the implementation of these data requirements would also be

	<p>prepared by EASA / EU Commission similar to the guidance material that has been previously issued for Regulation No. 376 of 2014: Reporting, Analysis and Follow Up of Occurrences in Civil Aviation.</p>
response	<p>NOTED. The regulation will only be applicable as from 02/01/2020. It thus leaves more than two years for aerodrome operators to organise themselves to be able to comply with the applicable requirements. Please note that, at the time of writing, the applicability of the rules is still under discussion at EC level, in the context of the EU-ICAO synchronisation.</p>
comment	<p>905 comment by: <i>daa - Dublin & Cork airports</i></p> <p>daa / Dublin & Cork airports broadly supports the principle of increasing clarity with regard to the requirements for aerodrome operators acting as data originators.</p> <p>Including the requirements for data protection, data exchange, metadata and the reference to the data catalogue is helpful in terms of allowing aerodrome operators understand the scale of the requirements in this regard.</p> <p>daa / Dublin & Cork airports must however state that the complexity of the requirements now being addressed to aerodrome operators in their capacity as data originators has not been adequately flagged heretofore and are not clearly understood in terms of their practical implementation within the industry as a whole and with regard to aerodrome operators in particular.</p> <p>We would therefore suggest that a transitional period for the full entry into force of these requirements is afforded to all aerodrome operators. Additionally, we would request that practical guidance in terms of the implementation of these data requirements would also be prepared by EASA / EU Commission similar to the guidance material that has been previously issued for Regulation No. 376 of 2014: Reporting, Analysis and Follow Up of Occurrences in Civil Aviation.</p>
response	<p>NOTED. The regulation will only be applicable as from 02/01/2020. It thus leaves more than two years for aerodrome operators to organise themselves to be able to comply with the applicable requirements. Please note that, at the time of writing, the applicability of the rules is still under discussion at EC level, in the context of the EU-ICAO synchronisation.</p>
comment	<p>966 comment by: <i>German NSA (BAF)</i></p> <p>2.9.2 Proposed amendments to Regulation (EU) No 139/2014, p. 16</p> <p>The proposed changes to (EU) 139/2014 do not refer to Aviation Undertakings. Given that Data Originators are likely to be a Contracted Aerodrome Activity, then some association of (EU) 139/2014 with Appendix 1 to Article 3 would be necessary.</p> <p>As the Aviation Undertaking definition according to the proposal includes Data Originators now, a clarification is needed between aviation undertakings and the term 'Contracted Aerodrome</p>

	Activity' which is used in (EU) 139/2014. Proposal: Reg. (EU) No. 139/2014 should refer to "Aviation Undertakings" as a "Contracted Aerodrome Activity"
response	NOT ACCEPTED. The revised text now includes all the necessary data quality requirements applicable to aerodrome operators with a clear identification that they need to be applied when aerodrome operators are acting as data originators.
comment	1025 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i> <i>Comment FOCA:</i> Clarification on 'aviation undertakings' used in the service provision regulation as well as in the NPA in relation with the provisions in EU Reg 139/2014 on Aerodrome contracted activities is needed. Proposed Text: The terminology 'aviation undertakings' used in EU Reg 139/2014 in ADR.OR.D.010 and in the current NPA should be harmonized. In addition, in Annex I to Article 3 of the current NPA, a definition of the meaning of 'aviation undertakings' including all organizations not covered by the service provision (e.g. all non-aviation originators) should be added.
response	NOTED. The revised text removed the term 'aviation undertaking' because it brought confusion with regard to the scope of the rules and is replaced with the term 'parties originating data' for which now it is clear that it only covers data originators outside ATM and ADR providers.

2.10. Overview of the proposed amendments in the ATM/ANS rule structure

comment	793 comment by: <i>AESA / DSANA</i>										
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">PART</th> <th style="width: 45%;">COMMENT</th> <th style="width: 30%;">JUSTIFICATION</th> </tr> </thead> <tbody> <tr> <td>Explanatory Note Section 2.3.2 <i>Aeronautical data quality</i></td> <td rowspan="2">The proposal of this NPA that "<i>Member States be responsible for aviation undertakings when they are involved in the origination of aeronautical data</i>" is deemed to solve the problem faced with the implementation of the ADQ Regulation. However, this only passes the issue from the competent authorities to the Member States as such and really</td> <td rowspan="2">The implementation of these requirements unto what has been called "<i>aviation undertakings</i>" is still at the heart of the matter for they are at the initiation of the data chain, a situation intrinsic to the system and which cannot be avoided. If the issue is left to the Member States, it would be interesting to explore the possibility of developing a Directive for the implementation of these requirements in aviation</td> </tr> <tr> <td>Explanatory Note Section 2.9.1 <i>Proposed amendments to Regulation (EU)</i></td> </tr> <tr> <td>Explanatory Note</td> <td></td> <td></td> </tr> </tbody> </table>	PART	COMMENT	JUSTIFICATION	Explanatory Note Section 2.3.2 <i>Aeronautical data quality</i>	The proposal of this NPA that " <i>Member States be responsible for aviation undertakings when they are involved in the origination of aeronautical data</i> " is deemed to solve the problem faced with the implementation of the ADQ Regulation. However, this only passes the issue from the competent authorities to the Member States as such and really	The implementation of these requirements unto what has been called " <i>aviation undertakings</i> " is still at the heart of the matter for they are at the initiation of the data chain, a situation intrinsic to the system and which cannot be avoided. If the issue is left to the Member States, it would be interesting to explore the possibility of developing a Directive for the implementation of these requirements in aviation	Explanatory Note Section 2.9.1 <i>Proposed amendments to Regulation (EU)</i>	Explanatory Note		
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Explanatory Note Section 2.9.1 <i>Proposed amendments to Regulation (EU)</i>											
Explanatory Note											

<p>Section 2.10 <i>Overview of the proposed amendments in the ATM/ANS rule structure</i></p> <p>Proposed Amendments</p> <p>Section 3.1.1 (1) <i>Proposed amendments to Regulation (EU)</i></p> <p>Regulatory Impact Assessment (RIA)</p> <p>Section 4.4.4 <i>Economic impact</i></p> <p><i>Option 1</i></p>	<p>"postpones" the issue.</p> <p>Although it is acknowledged that this situation cannot be avoided, it must be observed that this will not solve the issue by itself.</p>	<p>undertakings involved in the origination of aeronautical data.</p>
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response

NOTED. This issue has been acknowledged at the early stage of the rule drafting and it is recognised that it is not simple to manage from the authorities' perspective. The proposed rules now suggest some guidance material to support Member States in their implementation of their obligations/responsibilities to ensure that data originators comply with relevant data quality requirements.

comment

979

comment by: *LVNL Pro (ATC the Netherlands)*

This NPA is less concrete on some matters than the ADQ IR. This has both positive and negative sides. The largest drawback seems to be that many third and industrial parties now have a less clear picture of the technical requirements. This in turn affects the AISP's (cost) efficiency.

response

NOTED. The rule proposal opens for some mitigation measures with regard to the mentioned drawback. First at the level of the authorities, they must ensure that they are aware of all those parties involved in activities affecting aviation, then at the level of the AIS providers, specific arrangements need to be put in place when they originate aviation data for them. So, they should be known by the aviation actors and therefore aware of the specific requirements applicable to them. Yet, it is acknowledged that for some of them, it could be more difficult than for others.

comment

1037

comment by: *The Boeing Company*

Page: 18



Paragraph: 2.10. Overview of the proposed amendments in the ATM/ANS rule structure

The proposed text states:

REQUESTED CHANGE: The proposed amendments regarding Article 3 and Annex III depicted in the overview table and described in the following chapters should be discussed and agreed with all participants, involved in RMTs of the Cover Regulation. This means as well that all relevant standards and regulations should be referenced in the general annex valid for all data chain participants.

It is not beneficial that RMTs defining their own requirements for their applicable annex based on relevant standards detached from the other up- and/or downstream partners.

JUSTIFICATION: We recommend harmonization of the requirements would be better and more beneficial to industry.

response NOT ACCEPTED. The requirements for data originators (formerly ‘aviation undertakings’) have been included in Article 3 and not in the general annex (III) as they are not considered as service providers. The general Annex contains harmonised requirements applicable to all service providers covered under the regulation; however specific requirements for AIS providers and data originators need to be taken into account and ‘treated’ separately. This is the case for AIS providers and DAT providers for instance. This does not affect the main objective of the entire regulation to cover the entire data chain from origination to the end user.

3. Proposed amendments

comment 197 comment by: *DFS Deutsche Flugsicherung GmbH*
Throughout the NPA the term “Aeronautical Information Services Provider” is applied. Is it by intent to use plural “services”? ICAO uses singular; we suggest to make it singular, too.

response NOT ACCEPTED. Generally speaking ICAO Annex 15 uses the term ‘aeronautical information service’ (singular) to cover the entity who is providing such information. The term ‘aeronautical information service provider’ is only used once in the text of Annex 15 (in point 1.4 Language proficiency) – therefore it is also not consistent with ‘aeronautical information service’ in the rest of the text Annex 15. In the EASA regulatory context, ‘services’ is in plural form as it is the term used to describe the provision of services (MET services, ATS services, etc.). To be consistent with the rest of the Annexes in Reg. 2017/373 it is suggested to keep services in plural form as well. It is also noted that the title of ICAO Annex 15 is ‘Aeronautical information services’ (plural).

comment 259 comment by: *Slovenia Control, Ltd.*
Page 19



response	<p>Req. 3</p> <p>This increases the workload of the State and the AIS as there are additional parties to CR 73/2010 under the definition of aviation undertakings which have to be overseen and with whom relationships have to be formally managed.</p> <p>NOTED. At the same time it is recognised that such parties are acting during the most important/critical phase of the data chain as they are originating data. Reg. 73/2010 was therefore not covering requirements for an essential part at data origination level.</p>
comment	<p>826 comment by: <i>EUROCONTROL</i></p> <p>Chapter 3 - All pages</p> <p>The draft rule uses different terms for aeronautical data and aeronautical information such as ‘aeronautical data’ or ‘data’ or other mixed forms. Consistency review is therefore required. For example, ICAO Annex 15 in all contexts uses only one form: ‘aeronautical data and aeronautical information’. Please review for consistency</p> <p>all occurrences of ‘aeronautical data’ and ‘data’ and ‘aeronautical data and aeronautical information’ and agree on consistent use of terms.</p>
response	<p>NOTED. However, in some case the use of aeronautical data is more appropriate. A consistency review has been performed.</p>
comment	<p>1038 comment by: <i>The Boeing Company</i></p> <p>Page: 19</p> <p>Paragraph 3. Proposed amendments (and following chapters)</p> <p><u>The proposed text states:</u></p> <p><u>REQUESTED CHANGE:</u> Is it ensured that the proposed amendments especially to Annex III are considered and agreed by the RMTs for other Cover regulation Annexes and applicable stakeholders?</p> <p><u>JUSTIFICATION:</u> We recommend a harmonization effort. It would be better and more beneficial to industry to have harmonize requirements.</p>
response	<p>NOTED. This NPA and especially Part-AIS has been drafted taking into considerations the other Annexes, especially Annex III applicable to all providers. Any inconsistency identified during the review process has been removed.</p>

3.1. Draft regulation - Article 3

comment 199 comment by: DFS Deutsche Flugsicherung GmbH

Enforcement date or transitional measures are missing. The enforcement date of these rules should earliest be at the same date as the New Regulation (xxx) on common requirements and safety oversight, i.e. applicable from 1. January 2019.

response NOTED. Regulation 2017/373 has an applicability date of 02/01/2020, date on which the ADQ Regulation will be repealed. Please be aware that, at the time of writing, the applicability provisions is still being discussed at EC level, in the context of the ICAO-EU synchronisation process.

comment 647 comment by: DGAC

The text of the provisions and underlying principles are relevant. However, the title of article 3 (“provision of services”) is not coherent with the content of the added provisions (data origination). This might be misleading.

response ACCEPTED. The title of Article 3 was amended when adopting Reg. 2017/373 and is considered to be more coherent with the content of the data origination provisions.

comment 793 ❖ comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
Explanatory Note Section 2.3.2 <i>Aeronautical data quality</i>	The proposal of this NPA that " <i>Member States be responsible for aviation undertakings when they are involved in the origination of aeronautical data</i> " is deemed to solve the problem faced with the implementation of the ADQ Regulation.	The implementation of these requirements unto what has been called " <i>aviation undertakings</i> " is still at the heart of the matter for they are at the initiation of the data chain, a situation intrinsic to the system and which cannot be avoided.
Explanatory Note Section 2.9.1 <i>Proposed amendments to Regulation (EU) .../...</i>	However, this only passes the issue from the competent authorities to the Member States as such and really " <i>postpones</i> " the issue.	
Explanatory Note Section 2.10 <i>Overview of the proposed</i>	Although it is acknowledged that this situation cannot be avoided, it must be observed that this will not solve the issue by itself.	If the issue is left to the Member States, it would be interesting to explore the possibility of developing a Directive for the implementation of these requirements in aviation undertakings involved in the origination of aeronautical data.



<p><i>amendments in the ATM/ANS rule structure</i></p> <p>Proposed Amendments</p> <p>Section 3.1.1 (1)</p> <p><i>Proposed amendments to Regulation (EU) .../...</i></p> <p>Regulatory Impact Assessment (RIA)</p> <p>Section 4.4.4</p> <p><i>Economic impact</i></p> <p><i>Option 1</i></p>		
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response NOTED. This issue has been acknowledged at the early stage of the rule drafting and it is recognised that it is not simple to manage from the authorities’ perspective. The proposed rules now suggest some guidance material to support Member States in their implementation of their obligations/responsibilities to ensure that data originators comply with relevant data quality requirements.

comment 800 comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
<p>Proposed amendments</p> <p>Section 3.1.1 (1)</p> <p><i>Proposed amendments to Regulation (EU) .../...</i></p> <p><i>Article 3</i></p>	<p>Consider the harmonization of the text of the requirements included in Appendix 1 to Article 3 point 5, ATM/ANS.OR.A.080 and AIS.TR.200.</p>	<p>The requirements are transposed from the same source (new Annex 15 point 3.2), and the wording should be the same to avoid misunderstandings.</p>

response ACCEPTED. The Appendix 1 is removed and the data origination requirements are those referred to in Article 3 and are therefore aligned with the other parts covering data origination.

comment 827 comment by: EUROCONTROL



Article 3 - 3.Major comment

States are therefore required to take complementary legal actions to address aviation undertakings to ensure compliance.

There may be a number of uncertainties in this approach impacting compliance. First, for States the way to address such a quite global requirement may not be obvious how. Second, there may be risk that States take very different, uncoordinated, perhaps even incomplete actions. Third, some of those actions may need quite substantial time which may hamper timely compliance.

It is proposed therefore to provide specific, additional GM how the states could address this challenging provision as to ensure a harmonised and synchronised implementation.

response NOTED. It is considered that the proposed GM is sufficient to guide Member States on how they should address data originators.

comment 838 comment by: ENAV

Comment

If possible put more emphasis on the wording to stress the importance of the applicability of Appendix 1 for “aviation undertakings”.

This new article is crucial to guarantee the integrity of the data chain from the origination to the final distribution by the AIS.

response PARTIALLY ACCEPTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 895 comment by: Finnish Transport Safety Agency

It is not clearly enough defined which parties shall be considered as aviation undertakings. Interpretation is made on state level which may not lead to a harmonized treatment. More detailed guidance material on the matter would be appreciated.

response NOTED. The new proposed Article 3.5 clearly defines who are considered as being data originators.

comment 924 comment by: Finavia Corporation

Which parties shall be considered as aviation undertakings is not clearly defined. Interpretation is made on state level which may not lead to a harmonized treatment. More detailed guidance material is needed.



response NOTED. The new proposed Article 3.5 clearly defines who are considered as being data originators.

comment 968 comment by: *German NSA (BAF)*

To avoid differing interpretations and standards in the Member States the German NSA (BAF) does not support the EASA approach that the Member States are responsible for quality requirements aviation undertakings have to comply with.

Proposal:

Adopt harmonised principles into AMC and GM.

response NOT ACCEPTED. For the purpose of aeronautical data and aeronautical information, data originators are not service providers and can therefore not be covered under the framework of EASA rules. As they are playing a crucial role in the aeronautical data chain, being the first step, they need to be 'regulated' somehow to ensure that the created data meet the appropriate quality and confidence level before going to the AIS providers. The responsibility under the umbrella of the State will ensure that these parties are formally identified (even non-aviation parties) and also that they can provide services which is recognised by the entire aviation community. To avoid different interpretations in the Member States, relevant guidance material has now be proposed to ensure maximum of harmonisation.

comment 1001 comment by: *Danish Transport and Construction Agency*

Article 3 (and appendix 1) refers to "aviation undertakings", which covers all the operators of aerodromes for which aeronautical information is published. This includes VFR aerodromes, which are not included in the ADQ regulation, extending the scope significantly.

response NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed. The requirements still cover VFR aerodromes but flexibility is left to States as to what extent these provisions shall apply, depending on each national context and the way such aerodromes are included (or not) in the aeronautical information publication.

comment 1002 comment by: *Danish Transport and Construction Agency*

Article 3 (and appendix 1) make no reference to the ADR-regulation. If aerodromes that are regulated by the ADR-regulation are meant to meet the requirements in Appendix 1, this should be made clearer. If not, is it then reasonable that "non-ADR-aerodromes" have more requirements placed directly on them than the aerodromes that are regulated by the ADR-regulation?

response NOTED. The revised text now includes all the necessary data quality requirements applicable to



aerodrome operators with a clear identification that they need to be applied when aerodrome operators are acting as data originators.

comment	<p>1003</p> <p style="text-align: right;">comment by: <i>Danish Transport and Construction Agency</i></p> <p>The use of 'aviation undertakings' is problematic, as many, if not most, of the undertakings will not have aviation as their primary business area. It has already proven difficult for aviation regulators to handle non-aviation actors such as obstacle owners, geodetic institutes etc. during implementation of the ADQ regulation.</p> <p>While aviation regulators can regulate this area, it is not possible for the NSA to conduct oversight of non-aviation parties. This requires Appendix 1 to be transposed into national law. In many cases the CAA will not be the appropriate competent authority.</p>
response	<p>NOTED. The draft rule proposes some mitigation measures with regard to entities involved in data origination activities. First, the authorities must ensure that they are aware of all those parties involved in activities affecting aviation. Then at the level of the AIS providers, specific arrangements need to be put in place when they originate aviation data for them. So non-aviation data originators should be known by the aviation actors and therefore aware of the specific requirements applicable to them. Yet, it is acknowledged that for some of them, it could be more difficult than for others. The NSA does not conduct oversight of non-aviation parties but will check that the receiving party (the AIS provider or the aerodrome operator) has made the appropriate arrangements with non-aviation entities to ensure that the latter meet the required level of data quality.</p>

3.1. Appendix 1 to Article 3

comment	<p>648</p> <p style="text-align: right;">comment by: <i>DGAC</i></p> <p><u>General consideration 1 on Appendix 1 to Article 3 :</u></p> <p>Article 3 and its appendix 1 extend the scope of the stakeholders concerned by the application of the AIS/AIM rules compared with the scope of the ADQ regulation. For instance, the ADQ regulation only applies to the operators of aerodromes with instrument flight procedures. However, the new definition of “aviation undertakings” seems to include the operators of aerodromes “which are not regulated by regulation n°139/2014”. The aerodromes with no IFR approach or departure procedure will then be concerned by article 3 and appendix 1. In France, that will impact an important number of “VFR” aerodromes (several hundreds). That will put an important burden on member States, especially if oversight has to be organised and formalised for all these entities. Appendix 1 requirements are not necessary for “VFR only” aerodromes.</p> <p>For aerodromes, it is proposed to limit the scope of appendix 1 to those in the scope of the ADQ regulation: the ones with instrument flight procedures. A high level requirement for member States could cover the quality of aeronautical data stemming from VFR aerodrome operators</p>
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	<p>(“Member States shall ensure that aeronautical data originated by operators of aerodromes for which there is no instrument approach or arrival procedure are provided with sufficient quality to meet the intended use”).</p>
response	<p>NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term ‘aviation undertaking’ has been removed. The draft rules propose that the applicability to VFR aerodrome operators is left to the discretion of each member States. That way, the draft rules still cover VFR aerodromes but flexibility is left to States as to what extent these provisions shall apply, depending on each national context and the way such aerodromes are included (or not) in the aeronautical information products.</p>
comment	<p>649 comment by: DGAC</p> <p><u>General consideration 2 on appendix 1 to article 3 :</u></p> <p>Under the ADQ regulation, data originators shall establish a QMS (including safety and security aspects). This NPA does not include QMS provisions for aviation undertakings originating data. An intermediate solution could be to require aviation undertakings originating data to establish documented procedures covering their data origination activities, especially their working methods and operating procedures. That would ease the State’s task to ensure these entities comply with the ATM/ANS regulation.</p>
response	<p>PARTIALLY ACCEPTED. A new GM has been added to article 3 stating that Member States may ensure that, at national level, parties originating data can document data origination activities especially their working methods and operating procedures. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>
comment	<p>70 comment by: NATS National Air Traffic Services Limited</p> <p>Page No: 19</p> <p>Paragraph No: Requirements for “Aviation Undertakings”</p> <p>Comment: The NPA identifies that the Member State shall ensure that “Aviation Undertakings” comply with Article 3 Appendix 1. Is there a plan to introduce MOC and GM to enable States to regulate “aviation Undertakings” to promote a consistent, performance based approach?</p> <p>Justification: The NPA provides the opportunity for States to ‘personalise’ the manner by which they regulate ‘Aviation undertakings”. This has the potential to create inconsistency and restricted, possibly even monopolistic practices.</p>
response	<p>ACCEPTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. Some guidance material related to MS</p>

responsibility for data originators have been added.

comment	29	comment by: <i>MB-MITC</i>
	<p>aviation undertaking: <i>misleading term. Surveyor regards himself probably not as such.</i></p> <p>every (data) service provider contributing to the aeronautical data origination (process)</p> <p><i>The term service provider is used in this doc as ATM service provider (ANSP) only. This may cause confusions.</i></p>	
response	<p>NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed.</p>	
comment	113	comment by: <i>ENAIRE</i>
	<p>Paragraph: 5</p> <p>Reference text: publication to the next intended user</p> <p>Type: amendment proposal</p> <p>Comment: As this is a requirement for aviation undertakings the requirement should only be up to the point of exchange with the AISP.</p>	
response	<p>ACCEPTED. Parties originating data may not be required to supply information directly to the AISP. It may be that it delivers the data to the aerodrome operator requesting the origination activity. It is the role of the latter to forward for onward publication. Also, it is recognised that the requirement on data exchange bring some confusion. What should be considered at origination level is the transmission of data rather than the exchange of data. Therefore, the title of the requirement has been amended to reflect the transmission of data. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>	
comment	223	comment by: <i>FAA</i>
	<p>Page 20, general comment; terms "routine data", "essential data", "critical data", "completeness" and "authoritative source" are not defined at this point in the document. Will definitions be added to the document or will the definitions in Annex 15 stand as the standard definitions?</p>	
response	<p>NOTED. All the terms mentioned are defined in Regulation 2017/373 (the proposed AIS-AIM rules will amend this regulation):</p> <p>32. 'Authoritative source' means:</p> <p>(a) a State authority(-ies), or</p>	

(b) an organisation formally recognised by the State authority to originate and/or publish data which meets the Data Quality Requirements (DQRs) as specified by that State;

'routine data', 'essential data', 'critical data', these terms are explained in GM1 to Definition XX 'Integrity classification (aeronautical data) (see page 56 of the NPA document)

'completeness', this term is included in the list of definitions (see Annex I of the NPA on page 21): 'Completeness (of data)' means the degree of confidence that all of the data needed to support the intended use is provided;

Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment	<p>260</p> <p>Page 19</p> <p>Appendix 1</p> <p>2. Common reference systems</p> <p>a) It is not understood why the reference systems used for data origination is constrained to WGS 84. Surveyors often use local systems during survey as these can be more accurate for local surveys and then the data is transformed to WGS 84 for provision to the AIS, with transformation parameters used also being provided.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	ACCEPTED. The paragraph is amended to reflect the fact that the WGS-84 is reported and not used (there are different systems available). Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	
comment	<p>90</p> <p>The text states that "The latest available frame is called 'WGS-84 (G873)". We believe that this could lead to some confusion, since ICAO Annex 15 refers to GPS week 1150.</p>	comment by: <i>Avinor AS</i>
response	ACCEPTED. The text is deleted. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	
comment	<p>249</p> <p>General comment pages 57 and 58: The US is currently collecting a new geo-centric geoid for domestic use which will technically be a redefinition of NAD83 and NAVD 88. Since it will be geo-centric, it should be more congruent to WGS84 which is not currently used in the US. Estimated</p>	comment by: <i>FAA</i>

	roll out is 2022.	
response	NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	
comment	584	comment by: CAA-N
	GM1 to 2 (a) Common reference system for air navigation: It is important that GPS-week number referred to in the regulation is aligned with ICAO Annex 15.	
response	ACCEPTED. The text is deleted. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	
comment	484	comment by: Slovenia Control, Ltd.
	AMC/GM To Appendix1 to Article 3(3) Requirements for Aviaton Undertakings GM2 to 2(a). Common reference systems for air navigation TEMPORARY NON-COMPLIANCE OF GEOGRAPHICAL CO-ORDINATES This should apply to all coordinate data, not just transformed data.	
response	NOTED. However, the GM covers only these particular cases where geographical coordinates have been transformed into WGS-84. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	
comment	964	comment by: EUROCONTROL
	AMC/GM to Appendix 1 to Article 3 (3) - Page 57 GM1 to 2(a) 3 rd para There is a misleading reference "...[30]..." in the text. Also, the term WGS-84 is redundant. A text correction is required for clarity. Please modify text as follows: "...WGS-84, [RD 30] , WGS-84 is characterised ...".	
response	NOTED. The text is deleted. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination	



requirements laid down in Part-ATM/ANS.OR.

comment	<p>265</p> <p>Page 19</p> <p>Appendix 1</p> <p>2. Common reference systems</p> <p>b) Same comment as a) applies. See comment 11.(260)</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	ACCEPTED and amended. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	

comment	<p>485</p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviation Undertakings</p> <p>AMC1 to 2(b) Common reference systems for air navigation</p> <p>VERTICAL REFERENCE SYSTEM</p> <p>(a) This requirement mentions service provider but this section is for aviation undertakings.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	ACCEPTED. The text is amended. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	

comment	<p>709</p> <p>AMC1 to 2(b) Common reference systems for air navigation</p> <p>Should also apply to aerodrome operators and aviation undertakings originating data.</p>	comment by: <i>DGAC</i>
response	ACCEPTED. This AMC is now included for the aerodrome rules. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	

comment	<p>486</p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p>	comment by: <i>Slovenia Control, Ltd.</i>
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	<p>Requirements for Aviaton Undertakings</p> <p>AMC1 to 2(b) Common reference systems for air navigation</p> <p>MEAN SEA LEVEL</p> <p>This restricts the reference system to a mean sea level one. Is this appropriate?</p>	
response	<p>NOTED. It is considered as being appropriate. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>	
comment	<p>487</p> <p>comment by: <i>Slovenia Control, Ltd.</i></p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviaton Undertakings</p> <p>AMC1 to 2(b) Common reference systems for air navigation</p> <p>MEAN SEA LEVEL</p> <p>The sentence ‘The geoid globally most closely approximates MSL’ needs to be clarified.</p>	
response	<p>NOT ACCEPTED. The text is considered clear when reading the entire paragraph. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>	
comment	<p>266</p> <p>comment by: <i>Slovenia Control, Ltd.</i></p> <p>Page 19</p> <p>Appendix 1</p> <p>2. Common reference systems</p> <p>c) We agree with this requirement but would comment that if the scope of the regulation is wider than international aerodromes, as for CR 73/2010, then this requirement may have some significant impact on some parties.</p>	
response	<p>NOTED. The impact is not clearly obvious. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>	
comment	<p>650</p> <p>comment by: <i>DGAC</i></p> <p><u>§3.b</u>: Formal arrangements referred to in 3.b shall at least contain the data quality requirements</p>	

to be met at origination level (especially the accuracy, if applicable). They shall also include the (electronic) transmissions means agreed by the two entities between which data will be transferred. At last, it is important that the formal arrangement specifies which metadata have to be collected during the origination process and transferred along with the data.

It is important that §3.a.1 and §3.b requirements also directly apply to the aerodrome operators in the scope of 216/2008 that request data to be originated by the aviation undertakings.

response

NOTED.

On the data quality requirements, they are already covered by the data catalogue.

On the electronic means, the requirement has been amended accordingly.

On the metadata, the amended requirement already covers the comment.

For aerodrome operators, similar provisions are contained in the aerodromes rules.

Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment

559

comment by: *skyguide Compliance Management*

3. Formal arrangements

(2) confirmation of the entity to which the data is to be provided;

Comment: *We propose to change the word "confirmation" by "name" in order to avoid misunderstandings.*

response

PARTIALLY ACCEPTED. Deletion of the term ‘confirmation’. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment

30

comment by: *MB-MITC*

~~3. Formal arrangements.....~~

3. Data provision by sub-organisations

(a) Organisations who manage aeronautical data shall ensure that all internal and external parties providing such data will conform to the below minimum requirements.

(b) Formal agreements shall be established for this, which shall include as a minimum

.....

response

NOT ACCEPTED. Requirements for ‘sub-organisations’ are already covered under ATM/ANS.OR.B.015 ‘Contracted activities’: the final responsibility remains with the service



provider. The same applies for aerodrome operators in ADR.OR.D.010 'Contracted activities'.

comment	<p>267</p> <p>Page 19</p> <p>Appendix 1</p> <p>3. Formal Arrangements</p> <p>This requirement refers to organisations rather than aviation undertakings.</p> <p>Does this mean that aviation undertakings do not need a formal arrangement as they are not a 'party'? We assume that aviation undertakings was intended?</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	<p>ACCEPTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>	

comment	<p>268</p> <p>Page 19</p> <p>Appendix 1</p> <p>3. Formal Arrangements</p> <p>Sometimes there will not be a formal arrangement in place as an aviation undertaking is not known in advance of the party to which it delivers the data or not known with sufficient time to establish a formal arrangement prior to providing the data.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	<p>NOTED. A GM is added to underline that the purpose of a NOTAM is primarily to provide the information and not to establish a formal arrangement. There are cases where no formal arrangements will be possible (urgent NOTAM for instance). Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>	

comment	<p>269</p> <p>Page 19</p> <p>Appendix1</p> <p>3. Formal Arrangements</p> <p>A large number of the requirements of Commission Regulation 73/2010 are missing from this requirement and we consider that it is essential for these to be included in the formal arrangement, such as reference to the data quality requirements, metadata and error reporting.</p>	comment by: <i>Slovenia Control, Ltd.</i>
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response PARTIALLY ACCEPTED. The text has been revised to include the transmission of data. The DQR and metadata requirements are already covered. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 270 comment by: *Slovenia Control, Ltd.*
 Page 19
 Appendix 1
 3. Formal Arrangements
 (a) (1) The wording should be amended to ‘parties requesting the data origination; and’

response NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 271 comment by: *Slovenia Control, Ltd.*
 Page 19
 Appendix 1
 3. Formal Arrangements
 (b) (2) Reword to ‘entity to which the data is to be provided’, removing ‘confirmation of’ as this is not needed.

response ACCEPTED and changed. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 272 comment by: *Slovenia Control, Ltd.*
 Page 19
 Appendix 1
 3. Formal Arrangements
 (b)(4) It is not clear what is meant by ‘data origination report format’. We propose that this is reworded to ‘the format in which the data is to be provided’. The word report infers that a written document be provided which is not necessary.

response NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.



comment	<p>488 comment by: <i>Slovenia Control, Ltd.</i></p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviaton Undertakings</p> <p>GM1 to 3. Formal arrangements</p> <p>DATA EXCHANGE</p> <p>This is an essential requirement so should be at the regulation level not guidance level.</p>
response	<p>NOT ACCEPTED. Data exchange is foreseen at origination level but the further specifics are left to the agreement of the parties involved. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>
comment	<p>967 comment by: <i>EUROCONTROL</i></p> <p>AMC/GM to Appendix 1 to Article 3 (3) - Page 57</p> <p><u>GM1 to 3</u></p> <p>1/ States would require concrete reference material to be used when enacting the related provisions. Supplementing the current GM with additional, specific GM may be very helpful for states to ensure a consistent and harmonised approach.</p> <p>It is proposed to add/establish specific GM based on the existing “EUROCONTROL Formal Arrangement Template” which is currently widely exploited through ADQ implementation.</p> <p>2/ ...should is used for GM... Since this is GM, “may” is to be used according to the (usual) drafting conventions.</p>
response	<p>1/ ACCEPTED. The template is included in GM.</p> <p>2/ should is more suitable to be used here.</p> <p>Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>
comment	<p>651 comment by: <i>DGAC</i></p> <p>§4: The sentence should be replaced by: “<i>Aeronautical data shall be originated in accordance with the data catalogue specifications depicted in Appendix 1 to Subpart A of Annex III.</i>” Indeed, the data catalogue is not a requirement on data. Its specifications, expressed in terms of “subject”, “property”, “sub-property”, “type” or “quality requirements”, are.</p>

	<p>Moreover, some data will not be depicted in the data catalogue. For instance: textual data, procedures, rules, descriptions etc. Therefore they cannot be originated “in accordance with the data catalogue”. This requirement should be limited to data that is described in the catalogue.</p> <p>Therefore, the final proposition for this paragraph would be: <i>“Aeronautical data described in the data catalogue depicted in Appendix 1 to Subpart A of Annex III shall be originated in accordance with the catalogue specifications.”</i></p>
response	ACCEPTED and amended. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	<p>273 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Page 20</p> <p>Appendix 1</p> <p>4. Data Catalogue</p> <p>This requirement does not allow for the increase or decrease of the data quality requirements specified in the data catalogue for example, accuracy requirements for VFR aerodromes. It has addressed one intended purpose only. Data should be provided to meet its intended use and no more or no less as this is costly.</p>
response	NOTED. The data quality requirements stand from the operational use but many of them exist. The accuracy is therefore not always the same. A balance between the stringent data and less stringent data should be made. The ICAO Data Catalogue proposes accepted data quality requirements. The comment related to VFR aerodromes is already covered in the amendment made in the scope. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	<p>31 comment by: <i>MB-MITC</i></p> <p>4. Data catalogue</p> <p>The data catalogue as specified in Appendix 1 to Subpart A of Annex III describe the minimum requirements for all data origination processes.</p>
response	NOT ACCEPTED. Although the data catalogue contains minimum requirements, it does not address origination processes. Furthermore, GM1 to 4 ‘Data catalogue’ specifies the purpose of the data catalogue. The parties do not have to comply with all the specifications of the data catalogue which only presents the scope of data that can be collected and maintained by the aeronautical information services providers and provides a common terminology that can be used by data originators and service providers. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data

origination requirements laid down in Part-ATM/ANS.OR.

comment 274 comment by: *Slovenia Control, Ltd.*

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Appendix 1

4. Data Catalogue

The data catalogue is incomplete and there are errors in it, for example, the publication resolution for procedures is incorrect. See Supporting Material.

It is hard to agree the NPA without having sight of the necessary data requirements (and therefore costs incurred)

response NOTED. There is no new data quality requirements imposed through the data catalogue. The data catalogue presents the scope of data that can be collected and maintained by the aeronautical information services providers and provides a common terminology that can be used by data originators and service providers. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 275 comment by: *Slovenia Control, Ltd.*

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Appendix 1

4. Data Catalogue

As the data catalogue stands at the current time, it does not contain all the information that is required to fully assess it.

response NOTED. At the current time, the data catalogue is considered to contain the necessary elements. It is correct that some fields are not provided but this is because either the corresponding elements have no defined data quality requirements or because they do not have attributes. In some cases, some elements just do not have applicable values. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 480 comment by: *Slovenia Control, Ltd.*

AMC/GM

To Appendix1 to Article 3(3)

Requirements for Aviation Undertakings



	GM1 to 4. Data catalogue This definition does not mention data quality requirements at all which is the essence of the data catalogue.
response	NOT ACCEPTED. This GM is not a definition of the data catalogue itself but rather a clarification on the data scope. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	481 comment by: <i>Slovenia Control, Ltd.</i> AMC/GM To Appendix1 to Article 3(3) Requirements for Aviaton Undertakings GM1 to 4. Data catalogue What is meant by ‘common terminology’ when referring to the data catalogue is unclear. Would “common definition” be better?
response	NOT ACCEPTED. The term ‘common terminology’ is considered to be more appropriate. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	482 comment by: <i>Slovenia Control, Ltd.</i> AMC/GM To Appendix1 to Article 3(3) Requirements for Aviaton Undertakings GM1 to 4. Data catalogue Data originator should be added to the list of definitions.
response	NOT ACCEPTED. The term ‘data originator’ is not used in the rule text. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	483 comment by: <i>Slovenia Control, Ltd.</i> AMC/GM To Appendix1 to Article 3(3)

	Requirements for Aviation Undertakings GM1 to 4. Data catalogue Aviation undertakings and other parties should be mentioned in the definition, not only data originators and service providers as this defines the data quality requirements that they must achieve, even if they are not a party to the regulation.
response	NOT ACCEPTED. The term ‘aviation undertakings’ is removed. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	829 comment by: EUROCONTROL 5. Data quality requirements - Page 20 <u>Major comment</u> Concerning item (e): a requirement appears missing namely that Aviation Undertakings originating data need to comply with the Timeliness aspects. Timeliness (ref. the NPA definition) reflects the status of data elements in time. However, another important element of data quality is the timely delivery of data, which is not found in the data quality requirements for aviation undertakings. Please add a requirement for aviation undertakings: “Data originators (aviation undertakings) shall ensure that information mentioned in AIS.OR.505 is provided in due time to the aeronautical information services, in accordance with the Formal Arrangements”.
response	ACCEPTED. Text amended to include timeliness as timely delivery of the data. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	652 comment by: DGAC §5: Rewording proposal: “Data quality requirements shall be complied with at data origination level and maintained through the whole process leading to distribution to the next intended user”. The use of “distribution” is more coherent when used before “to the next intended user”.
response	NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	653 comment by: DGAC §5.a: it is proposed to delete “order” which does not seem to have added value in the sentence and might be misleading.

response ACCEPTED and deleted. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 654 comment by: DGAC
§5.e: replace “with” by “of” (“...*the effective period of the data elements*”.)

response NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 32 comment by: MB-MITC
 5. Data quality requirements
 Data quality requirements as specified below shall be applied for the entire aeronautical data management flow, i.e. from the data origination through its publication for the user of the aeronautical data.

response NOT ACCEPTED. The requirements at origination level only apply up to the delivery of the data to the next user of the data, meaning the service provider or the aerodrome operator. The entire aeronautical data management flow would cover the phases beyond that. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 276 comment by: Slovenia Control, Ltd.
 Page 20
 Appendix 1
 5. Data Quality Requirements
 The data quality requirements are referred to in 4. Data Catalogue but no reference is made to this section of the regulation from the first sentence of 5. We would recommend that 4. and 5. are combined under the title ‘Data Quality Requirements’. They are combined for service providers on page 25.

response NOT ACCEPTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 605 comment by: CANSO



	<u>Appendix 1 to Article 3 – Requirements for Aviation Undertakings Point 5.(c)</u>	
	The requirement that “the resolution of aeronautical data shall be commensurate with the actual data accuracy” needs clarification	
response	ACCEPTED. GM is provided. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	
comment	277	comment by: <i>Slovenia Control, Ltd.</i>
	Page 20	
	Appendix 1	
	5. Data Quality Requirements	
	How should data not included in the Data Catalogue be addressed?	
response	All the necessary data are considered to be included in the data catalogue. Currently, there is no identification of missing data.	
comment	278	comment by: <i>Slovenia Control, Ltd.</i>
	Page 20	
	Appendix 1	
	5. Data Quality Requirements	
	The confidence level of the data is not addressed. This is essential for all measured / surveyed data.	
response	NOT ACCEPTED. The confidence level of the data is addressed.	
comment	279	comment by: <i>Slovenia Control, Ltd.</i>
	Page 20	
	Appendix 1	
	5. Data Quality Requirements	
	As this section is part of the requirements for aviation undertakings, the scope in the first sentence should be ‘...through to distribution to the next user’. In the definition, ‘next intended user’ is the user that the AIS provides data to.	
response	ACCEPTED. However, the sentence was amended accordingly. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in	

Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 280 comment by: *Slovenia Control, Ltd.*

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Appendix 1

5. Data Quality Requirements

There is a mixture of ‘processes’ and ‘procedures’ used in this requirement. We recommend that the use of these terms is checked throughout the regulation. The use of process is preferred to avoid confusion with flight procedures.

response NOT ACCEPTED. Both terms are used in different context. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 281 comment by: *Slovenia Control, Ltd.*

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Appendix 1

5. Data Quality Requirements

(b) (2) and (3) These definitions do not allow for any data errors at all. This is unachievable – regulation must be achievable.

response NOTED. It is considered that it is not possible to quantify acceptable error rates in the regulation. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 282 comment by: *Slovenia Control, Ltd.*

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Appendix 1

5. Data Quality Requirements

(b)(2) and (3) ‘Next intended user’ needs to be changed in the introductory sentence to b) as control of data integrity to the next intended user is beyond the scope of the capabilities of aviation undertakings

response ACCEPTED. However, the sentence was amended accordingly. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in



Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 839 comment by: ENAV

Ref.

Appendix 1 to Article 3 – Requirements for Aviation Undertakings

Point 5.(c)

Page 20 of 104

Comment:

The wording regarding the “resolution” commensurate with the actual data accuracy is not clear. Please clarify the meaning of the sentence.

response ACCEPTED. Guidance material provided to clarify the intention. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 283 comment by: Slovenia Control, Ltd.

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Appendix 1

5. Data Quality Requirements

(e) The meaning of the phrase ‘with the data elements’ is not clear. This requirement does not make sense as timeliness is not about the effective period but about its timely provision. We think the requirement is referring to the recording of limitations in the metadata but has mixed this with timeliness.

response ACCEPTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 285 comment by: Slovenia Control, Ltd.

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Appendix 1

5. Data Quality Requirements

(f) These requirements are for aviation undertakings that do not know what the intended use of the data they originate / provide is. Also, aviation undertakings cannot always provide complete data as the data they provide is used as the basis for other data and/or combined with other data,



	for example, SIDs and STARs.	
response	NOTED. The reference to ‘next intended user’ has been removed. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	
comment	<p>114</p> <p>Paragraph: 5.f</p> <p>Reference text: shall be ensured in order to support the intended use</p> <p>Type: amendment proposal</p> <p>Comment: Either guidance material is needed or the paragraph should be removed, as it is not considered a responsibility of the aviation undertakings to provide what the AISP and the Regulation (data catalogue) specify. Do aviation undertaking have to make an analysis of the intended uses and define what data is needed?</p>	comment by: <i>ENAIRE</i>
response	ACCEPTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. Therefore, the text proposed now is “Completeness of the aeronautical data shall be ensured” in ATM/ANS.OR.085(b)(6).	
comment	<p>115</p> <p>Paragraph: 5.g</p> <p>Type: clarification</p> <p>Comment: GM needed. Is it not enough/valid as far as the data format is defined and documented?</p>	comment by: <i>ENAIRE</i>
response	ACCEPTED. GM added ‘the format of the delivered data should meet the requirements of the requesting party as specified in the formal arrangements’. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	
comment	<p>286</p> <p>Page 20</p> <p>Appendix 1</p> <p>5. Data Quality Requirements</p> <p>(g) This requirement is not clear. We believe that it should read “data shall be originated to achieve its data quality requirements and its integrity preserved through to delivery to the next</p>	comment by: <i>Slovenia Control, Ltd.</i>

	recipient in the data chain”.	
response	NOT ACCEPTED. This paragraph is related to the format and not the integrity. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	
comment	<p>489</p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviaton Undertakings</p> <p>GM1 to 5. Data quality requirements</p> <p>CONCEPT</p> <p>EUROCAE documents do not apply to ANSPs. We already have a EUROCONTROL Specification that addresses data processing and was specifically developed to address CR 73/2010. Although the specification would benefit from some refinement, it would be more appropriate to reference it from here as many States have already spent time and effort to comply with it.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	NOTED. Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.	
comment	<p>490</p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviaton Undertakings</p> <p>GM1 to 5(e). Data quality requirements</p> <p>TRACEABILITY</p> <p>We propose that this definition is rewritten as it is not clear enough or consistent with ICAO Annex 15.</p>	comment by: <i>Slovenia Control, Ltd.</i>



response NOT ACCEPTED. The text provides guidance on how to achieve traceability. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 655 comment by: DGAC

§6: The verification and validation mentioned in this paragraph apply to the already existing aeronautical data. What about verification and validation of data that is originated? It is important to ensure that the originated (created or modified) data is verified and validated before distribution.

The provisions of this §6 should not only apply to aviation undertakings but also to ATM/ANS providers and to aerodrome operators in the scope of regulation 216/2008 (when they originate data).

response Paragraph #1: NOT ACCEPTED. It is considered not necessary to have V&V activities for data that is originated.

Paragraph #2: ACCEPTED. Extend applicability to aerodrome operators and all ATM/ANS providers when acting as originator.

comment 116 comment by: ENAIRE

Paragraph: 6

Reference text: authoritative source

Type: clarification

Comment: definition required

response The definition of authoritative source is contained Regulation (EU) No 2017/373 (the proposed AIS-AIM rules will amend this regulation):

32. 'Authoritative source' means:

(a) a State authority(ies), or

(b) an organisation formally recognised by the State authority to originate and/or publish data which meets the Data Quality Requirements (DQRs) as specified by that State;

comment 68 comment by: NATS National Air Traffic Services Limited

Page No: 20

Paragraph No: 6. "Aviation Undertaking" - verification and validation

Comment: Can any organisation responsible for supplying aeronautical data in the role of

	<p>“Aviation Undertaking” become an “Authoritative source”?</p> <p>Justification: Provide the opportunity for <u>all</u> organisations involved in the data chain to become an “authoritative source” (determined by the State) therefore giving the opportunity for the recipient of the Data to manage it according to DQR requirements specified by the State, e.g. without the need to conduct V&V.</p> <p>Proposed Text: Remove paragraph 6 from this section. Insert a statement in the regulation recognising that any organisations may originate/publish aeronautical data (not just ‘aviation undertakings’) may become an ‘authoritative source’</p>
response	NOT ACCEPTED. It is considered that the definition of ‘authoritative source’ (included in Regulation (EU) No 2017/373) already captures this proposal.
comment	<p>195 comment by: <i>John Hamshare</i></p> <p>There is no definition of what is meant by the term ‘authoritative source’. It appears as if this is the one and only use of this term.</p>
response	<p>The definition of authoritative source is contained in Regulation (EU) No 2017/373 (the proposed AIS-AIM rules will amend this regulation):</p> <p>32. ‘Authoritative source’ means:</p> <p>(a) a State authority(ies), or</p> <p>(b) an organisation formally recognised by the State authority to originate and/or publish data which meets the Data Quality Requirements (DQRs) as specified by that State;</p>
comment	<p>577 comment by: <i>CAA-N</i></p> <p><u>Appendix 1 to Article 3 - Requirements for Aviation undertakings:</u></p> <p>Para 6 Data verification and validation: The term "Authoritative Source" needs further clarification/definition.</p>
response	<p>The definition of authoritative source is contained in Regulation (EU) No 2017/373 (the proposed AIS-AIM rules will amend this regulation):</p> <p>32. ‘Authoritative source’ means:</p> <p>(a) a State authority(ies), or</p> <p>(b) an organisation formally recognised by the State authority to originate and/or publish data which meets the Data Quality Requirements (DQRs) as specified by that State;</p>
comment	<p>287 comment by: <i>Slovenia Control, Ltd.</i></p>

	<p>Page 20</p> <p>Appendix 1</p> <p>6. Data Validation and Verification</p> <p>The definition of an authoritative source is not clear and therefore it would be difficult to achieve consistency across States with regards to data validation and verification and, ultimately, data of consistent quality.</p>
response	<p>The definition of authoritative source is contained in Regulation (EU) No 2017/373 (the proposed AIS-AIM rules will amend this regulation):</p> <p>32. ‘Authoritative source’ means:</p> <p>(a) a State authority(ies), or</p> <p>(b) an organisation formally recognised by the State authority to originate and/or publish data which meets the Data Quality Requirements (DQRs) as specified by that State;</p>
comment	<p>491 comment by: <i>Slovenia Control, Ltd.</i></p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviaton Undertakings</p> <p>GM1 to 6. Data verification and validation</p> <p>DATA PROCESSING</p> <p>There is inconsistent terminology used in this section, i.e., ‘method’, ‘technique’.</p>
response	<p>ACCEPTED and amended (using the term ‘techniques’). Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>
comment	<p>492 comment by: <i>Slovenia Control, Ltd.</i></p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviaton Undertakings</p> <p>GM1 to 6. Data verification and validation</p> <p>DATA PROCESSING</p> <p>(a)(1) This is a definition. A different definition has already been provided on page 24 so we would propose that this is removed or at least that the definitions are consistent within the regulation.</p>

response NOT ACCEPTED. The GM is considered to be complementary to the definition of ‘validation’ (in the list of definitions). Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 493 comment by: *Slovenia Control, Ltd.*

AMC/GM

To Appendix1 to Article 3(3)

Requirements for Aviaton Undertakings

GM1 to 6. Data verification and validation

DATA PROCESSING

(a)(2) This is not clear and we would propose that it is rewritten as follows: ‘When performing data validation, any data validation that has already taken place prior to this may also be considered. Providing data integrity has been assured, there is no need to repeat earlier validations as a matter of course.’.

response NOT ACCEPTED. The paragraph is based on the wording used in industry standards (ED-76) and it is proposed to keep it as it is. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 494 comment by: *Slovenia Control, Ltd.*

AMC/GM

To Appendix1 to Article 3(3)

Requirements for Aviaton Undertakings

GM1 to 6. Data verification and validation

DATA PROCESSING

(b)(1) This is a definition. A different definition has already been provided on page 24 so we would propose that this is removed or at least that the definitions are consistent within the regulation as this does not seem to be in line with the previous definition.

response NOT ACCEPTED. The GM is considered to be complementary to the definition of ‘verification’ (in the list of definitions). Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 495 comment by: *Slovenia Control, Ltd.*



	<p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviaton Undertakings</p> <p>GM1 to 6. Data verification and validation</p> <p>DATA PROCESSING</p> <p>(b)(1) This only covers integrity and so is not a complete description of what needs to be done.</p>
response	NOTED. This GM considers the definition of 'verification' which deals with integrity.
comment	<p>879 comment by: THALES AVIONICS</p> <p>The content of this guidance is redundant with ED-76A, section C.2, then it should be replaced by a reference to ED-76A Section C.2</p>
response	NOT ACCEPTED. For verification and validation process, it was considered that a transcription of the text of ED-76, section C.2, was more appropriate than a mere reference, in order to provide the readers direct access to its content.
comment	<p>496 comment by: Slovenia Control, Ltd.</p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviaton Undertakings</p> <p>GM2 to 6. Data verification and validation</p> <p>TECHNIQUES</p> <p>We are not sure why this is separate to GM1 to 6. Data verification and validation DATA PROCESSING as GM1 to 6. Data verification and validation DATA PROCESSING covers techniques.</p>
response	NOTED. The second GM is meant to provide the relevant reference regarding verification and validation techniques. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	<p>497 comment by: Slovenia Control, Ltd.</p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviaton Undertakings</p>



	GM2 to 6. Data verification and validation TECHNIQUES EUROCAE documents do not apply to ANSPs. We already have a EUROCONTROL Specification that addresses data processing and was specifically developed to address CR 73/2010. Although the specification would benefit from some refinement, it would be more appropriate to reference it from here as many States have already spent time and effort to comply with it.
response	NOTED. Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	656 comment by: DGAC §7.b: The actual (achieved) accuracy of the data shall be added as mandatory metadata in the event when the regulatory accuracy requirement in the data catalogue is not met. In that case, the metadata shall be provided along with the data to the end user. It will allow the next intended user to: 1- identify the data items which do not meet the accuracy requirement, and 2- take into consideration the achieved accuracy of the data.
response	NOT ACCEPTED. This is addressed in the formal arrangements. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	830 comment by: EUROCONTROL 7. Metadata - Page 20 Concerning item (a): the use of the term “next intended user” seems inappropriate. According to the NPA definition of the “next-intended user”, it is an entity receiving aeronautical information from the AIS. This is not the case and not the task of the Aviation Undertakings. Please remove the text ‘next intended user’.
response	ACCEPTED and amended. Please note that Appendix 1 (data origination) is now removed but the

data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment	288 Page 20 Appendix 1 7. Metadata (a) Should be reworded as follows 'Metadata shall be collected and maintained up to the provision to the next user'.	comment by: <i>Slovenia Control, Ltd.</i>
response	PARTIALLY ACCEPTED. The sentence was amended with the deletion of 'up to the next intended user'. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	

comment	289 Page 20 Appendix 1 7. Metadata (b)(1) Information about the individual should be captured and retained but anonymised for provision to the next user.	comment by: <i>Slovenia Control, Ltd.</i>
response	NOTED. The applicability of the requirement is limited to organisations and entities, not individuals. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	

comment	290 Page 20 Appendix 1 7. Metadata The metadata captured in this requirement is very generic and does not cover d) onwards from the CR 73/2010 metadata requirements in Annex I Part C which are considered essential items to be recorded.	comment by: <i>Slovenia Control, Ltd.</i>
response	NOT ACCEPTED. The metadata in the ADQ Regulation, Annex I Part C, relates to data sets only and not to individual data elements (as provided by data originators). Please note that Appendix 1	



(data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment	<p>831 comment by: EUROCONTROL</p> <p>8. Data error detection and authentication - Page 21</p> <p>1/ The regulation should not make any reference inside Aviation Undertakings requirements to Data Products i.e. digital data sets or data sets. The Aviation Undertakings should be responsible only for ‘aeronautical data and aeronautical information’ which would only later take the form of a data set. so, in sub-item a) please delete ‘and digital data sets’ and in sub-item b) please delete ‘sets’.</p> <p>2/ Verification is requested for section 8 as to whether it could be merged with item 6 on 'Data verification and validation'. The techniques described in this section seem to be part of Verification and Validation techniques. In addition, as described later in AMC/GM, verification techniques contain data error detection.</p>
response	<p>1/ ACCEPTED. ‘Digital data set’ deleted.</p> <p>2/ PARTIALLY ACCEPTED. The need to restructure the sequence of the requirements is acknowledged. Re-structuring proposed.</p> <p>Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>
comment	<p>657 comment by: DGAC</p> <p>§8: Is “<i>data error detection</i>” considered an equivalent of “<i>data integrity protection</i>”? If it is the case, it shall be added in §8 that “<i>data error detection</i>” should aim at preventing the loss or alteration of data during transfer or storage (it would be consistent in a regulation aiming at being “objective-based”).</p>
response	<p>It is considered that data error detection is a part of data integrity protection. The protection of the integrity of data are ensured by other means throughout the rules.</p>
comment	<p>658 comment by: DGAC</p> <p>§8.b: Error detection techniques do not apply to an integrity level. They apply to data, in order to maintain (or guarantee) integrity. Rewording proposal: “<i>Digital data error detection techniques shall be applied in order to maintain integrity</i>”.</p>
response	<p>NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid</p>

down in Part-ATM/ANS.OR.

comment 291 comment by: *Slovenia Control, Ltd.*

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Appendix 1

8. Data Error Detection and Authentication

It is not clear how digital data error detection techniques can be applied to data provided by email or in PDF and how these can be checked for errors. For aviation undertakings only providing data very occasionally (perhaps even only once), this requirement may not be practical and may be expensive to comply with.

response NOTED. What should be considered at origination level is the transmission of data (rather than the exchange of data). Therefore, the title of the requirement has been amended to reflect the transmission of data. The related guidance material has been amended to highlight that 'electronic means' consist of transmitting data without intervention of a manual act by a person. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 292 comment by: *Slovenia Control, Ltd.*

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Appendix 1

8. Data Error Detection and Authentication

This requirement uses the term 'authorised source' whereas 6. Uses 'authoritative source'. Are these the same and, if so, please use the same terminology.

response NOTED. Both terms are different. In this paragraph, 'authorised source' is not an 'authoritative source'. It can be a source which is not recognised by the State that it meets the data quality requirements for instance. The purpose here is different. 'Authorised source' in this paragraph can mean that the data has been authorised to be transferred either via human or system authorisation. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 293 comment by: *Slovenia Control, Ltd.*

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Appendix 1



	8. Data Error Detection and Authentication (b) This requirement should be reworded to ‘Digital data error detection techniques shall apply to all integrity levels of data’.
response	NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	498 comment by: <i>Slovenia Control, Ltd.</i> AMC/GM To Appendix1 to Article 3(3) Requirements for Aviaton Undertakings GM1 to 8. Data error detection and authentication DEFINING DATA SECURITY REQUIREMENTS ‘organisational construct’ should be replaced by ‘infrastructure’
response	NOT ACCEPTED. This term is stemming from industry standards (ED-76) and it is therefore considered suitable to keep the wording, which exists in the English language.
comment	884 comment by: <i>THALES AVIONICS</i> The content of this guidance is redundant with ED-76A, section 2.4.6, then it should be replaced by a reference to ED-76A Section 2.4.6
response	NOT ACCEPTED. It was considered that a transcription of the text of ED-76, was more appropriate than a mere reference, in order to provide the readers direct access to its content.
comment	499 comment by: <i>Slovenia Control, Ltd.</i> AMC/GM To Appendix1 to Article 3(3) Requirements for Aviaton Undertakings GM1 to 8. Data error detection and authentication DATA PROCESSING EUROCAE documents do not apply to ANSPs. We already have a EUROCONTROL Specification that addresses data processing and was specifically developed to address CR 73/2010. Although the specification would benefit from some refinement, it would be more appropriate to reference it

	from here as many States have already spent time and effort to comply with it.
response	NOTED. Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.
comment	<p>224 comment by: FAA</p> <p>Under "8. Data error detection and authentican" paragraph, line (b), reccomend change "integrity levels" to "integrity classification levels".</p> <p>Under "8. Data error detection and authentican" paragraph, line (c), terms "suitable" and "authorised source" not defined at this point in the document.</p> <p>Under "10. Error handling requirements" paragraph, line (b), reccomend change "...essential aeronautical data." to "...essential integriy classifications of aeronautical data."</p>
response	<p>Recommendation #1: PARTIALLY ACCEPTED. It is suggested to remove the terms 'levels' and 'sets'</p> <p>Recommendation #2: NOT ACCEPTED. These are considered as being standard terms, not necessary to define to understand the meaning of the requirement.</p> <p>Recommendation #3: NOT ACCEPTED. It does not apply to integrity class levels.</p>
comment	<p>294 comment by: Slovenia Control, Ltd.</p> <p>Page 21</p> <p>Appendix 1</p> <p>9. Data Exchange</p> <p>The wording of this requirement is very vague and is not a performance requirement as it stands. In addition, it should be address 'Digital aeronautical data' rather than just 'aeronautical data'.</p>
response	ACCEPTED. The paragraph has been amended to include the notion of 'transmission' instead of 'exchange'. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment	<p>205 comment by: DFS Deutsche Flugsicherung GmbH</p> <p>We lack interpretation of “the exchange of aeronautical data may be done by a number of electronic exchanges including email or pdf documents, without any manual interaction with data itself”.</p> <p>System-to-system connections are a big step towards digitalisation of the data chain. Current investments and processes would be made in vain. The prevention of manual interaction only at the level of data is regarded as a step backwards.</p>
response	<p>NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>
comment	<p>33 comment by: MB-MITC</p> <p>Data exchange is described quite vague in this document. Wide room for interpretation.</p> <p>Possible conflicts with coherence requirements for data flow from origination to ADuser.</p> <p>Problems with media breaks, cut and paste. Possible loss or alteration of (meta)data.</p> <p>What needs to be considered when leaving a coherent ADQ workflow (system), e.g. with Email and pdf.</p> <p>Interface (AIXM): The lack of a working solution of such interface is one of the key problems for the proliferation of ADQ.</p>
response	<p>NOTED. What should be considered at origination level is the transmission of data rather than the exchange of data. Therefore, the title of the requirement has been amended to reflect the transmission of data. The related guidance material has been amended to highlight that ‘electronic means’ consist of transmitting data without intervention of a manual act by a person. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>
comment	<p>84 comment by: Avinor AS</p> <p>Pdf format is not a suitable electronic format for the exchange of aeronautical data and information and should be removed from this GM.</p>
response	<p>ACCEPTED. And removed. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>
comment	<p>204 comment by: DFS Deutsche Flugsicherung GmbH</p>

	<p>We lack interpretation of “the exchange of aeronautical data may be done by a number of electronic exchanges including email or pdf documents, without any manual interaction with data itself”.</p> <p>System-to-system connections are a big step towards digitalisation of the data chain. Current investments and processes would be made in vain. The prevention of manual interaction only at the level of data is regarded as a step backwards.</p>
response	<p>NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>
comment	<p>500 comment by: <i>Slovenia Control, Ltd.</i></p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviaton Undertakings</p> <p>GM1 to 9. Data exchange</p> <p>ELECTRONIC MEANS</p> <p>There is no guidance in this at all. There are other means of exchanging data that are not mentioned. There is no cost saving if we resort to email and PDF as many States have invested in direct electronic and the longer-term costs of extracting data from such media would outweigh any implementation saving.</p>
response	<p>NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>
comment	<p>760 comment by: <i>DSNA</i></p> <p>We support the flexible approach for different means for electronic exchange.</p> <p>Direct electronic connection is not realistic with all data originators, but different means could be considered with minimal manual interaction.</p>
response	<p>NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>
comment	<p>980 comment by: <i>EUROCONTROL</i></p> <p>AMC/GM to Appendix 1 to Article 3 (3) - Page 57</p>

AMC / GM Subpart A - Annex III - Page 62

AMC / GM - Annex VI - Page 71

GM1 to 9 - Page 62; and

GM1 ATM/ANS.OR.A.080 - Page 62; and

GM1 AIS.OR.210(b) - Page 73

Major comment

It appears that the Data Exchange description under the three quoted GMs could give a wrong impression by suggesting that the use of email or pdf seems good enough to achieve compliance with the provisions. This is considered not to be clear enough for the parties to understand what the provision intends to achieve.

All data originators and especially those that are not regularly submitting data to AIS, may not be motivated to ensure the proper means for digital data exchanges are in place in order to meet the essential requirement of “digital data supply”. The quoted GMs may misguide parties and are, therefore, considered as not sufficiently facilitating the need for enhanced interoperability. The GM shall be more specific on these aspects and shall not leave it to chance or good-will at the level of implementation.

It is first proposed to simply remove in the quoted GM the words: “including email or pdf documents”.

Second, the GM needs to explain in more detail the real needs for digital data exchange by not hiding the fact that direct electronic connection and digital data supply is the preferred method to apply in order to ensure consistent compliance with data quality requirements by all parties in the data supply chain.

For that purpose, EUROCONTROL proposes to exploit the text of the ARWG Common Understanding Nr 8/2014 since it covers this aspect in a well balanced and practical manner.

response 1/ ACCEPTED. Text amended.

2/ NOT ACCEPTED. The referred Common Understanding relates to the ‘direct electronic connection’ (mentioned in ADQ IR), term that is not used anymore in the rule text. Furthermore, the revised text proposed is aligned with the ARWG Common Understanding Nr 8/2014.

comment 832

comment by: *EUROCONTROL*

10. Error handling requirements - Page 21

The wording is unclear for “priority is given to errors in critical and essential aeronautical data”. What does “give priority” mean? Would that mean that no other issues should be addressed before the priority issues are solved? Or that such priority issues should be solved within certain deadlines? It is preferred to align the provision with the initial text of ADQ since it is much clearer.

Please remove “priority is given” and replace by “errors in critical and essential aeronautical data



	are urgently resolved”.
response	PARTIALLY ACCEPTED. Text amended to include the notion of ‘management’ of the data. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	659 comment by: DGAC §10.b: Formulation can be misinterpreted. Rewording proposal: “(b) <i>priority is given to deal with errors in critical and essential aeronautical data.</i> ”
response	ACCEPTED and amended to include the notion of ‘management of errors’. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	295 comment by: Slovenia Control, Ltd. Page 21 Appendix 1 10. Error Handling Requirements This requirement does not address preventative action at all which is a very important part of managing errors. Data delivery needs to be clarified as ‘after the data is provided to the next user’.
response	NOTED. The data quality requirements is considered as covering the preventive action mechanisms already. The paragraph is amended and ‘corrective action’ is removed. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	296 comment by: Slovenia Control, Ltd. Page 21 Appendix 1 10. Error Handling Requirements The requirement needs to be broadened to cover the part of the process between origination and provision to the next user.
response	NOT ACCEPTED. Similar provisions are contained in other parts of the rules. Please note that

Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment

297

comment by: *Slovenia Control, Ltd.*

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Appendix 1

10. Error Handling Requirements

(b) This requirement should be reworded to 'errors in critical and essential data are urgently addressed'.

response

NOT ACCEPTED. The revised text sufficiently covers the proposal. It is considered that the initial text is equivalent to the proposal. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment

501

comment by: *Slovenia Control, Ltd.*

AMC/GM

To Appendix1 to Article 3(3)

Requirements for Aviation Undertakings

GM1 to 10. Error handling requirements

GENERAL

EUROCAE documents do not apply to ANSPs. We already have a EUROCONTROL Specification that addresses data processing and was specifically developed to address CR 73/2010. Although the specification would benefit from some refinement, it would be more appropriate to reference it from here as many States have already spent time and effort to comply with it.

response

NOTED. Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.



comment	<p>502</p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviaton Undertakings</p> <p>GM1 to 10. Error handling requirements</p> <p>GENERAL</p> <p>Error handling in the regulation is inadequate in the regulation and far less is required than by CR 73/2010 and than what is actually needed. Investigation and preventative action are not sufficiently covered so as it stands, errors just have to be fixed but may happen again if the appropriate action is not taken to prevent them again in the future. The requirements need to support going back to the data originators and requesting that they investigate the errors. Safety / incident management should also be part of the error process, where appropriate.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	<p>NOT ACCEPTED. The error handling provisions for data originators are meant to be proportionate to their activity. Data verification and validation process apply to them. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>	
comment	<p>503</p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviaton Undertakings</p> <p>GM1 to 10. Error handling requirements</p> <p>GENERAL</p> <p>(a) This should be in the definitions.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	<p>NOT ACCEPTED. It is considered more appropriate to maintain this sentence in guidance material rather than in a definition. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>	
comment	<p>504</p> <p>AMC/GM</p> <p>To Appendix1 to Article 3(3)</p> <p>Requirements for Aviaton Undertakings</p> <p>GM1 to 10. Error handling requirements</p>	comment by: <i>Slovenia Control, Ltd.</i>

	GENERAL	
	Why is Data Catalogue not included in the ANS guidance material?	
response	The comment is not well understood. The data catalogue is included as part of the mandatory provisions.	
comment	117	comment by: ENAIRE
	Paragraph: 11	
	Reference text: adequately trained, competent	
	Type: clarification	
	Comment: GM needed	
response	NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	
comment	606	comment by: CANSO
	Page No: 19	
	Paragraph No: Requirements for “Aviation Undertakings”	
	Comment: The NPA identifies that the Member State shall ensure that “Aviation Undertakings” comply with Article 3 Appendix 1. Is there a plan to introduce MOC and GM to enable States to regulate “aviation Undertakings” to promote a consistent, performance based approach?	
	Justification: The NPA provides the opportunity for States to ‘personalise’ the manner by which they regulate ‘Aviation undertakings’. This has the potential to create inconsistency and restricted, possibly even monopolistic practices.	
response	ACCEPTED. An AMC is added to provide guidance on how Member States may deal with data originators. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	
comment	634	comment by: SLC Associates
	As surveyors we broadly support the proposed text of Appendix 1 to Article 3 'Requirements for Aviation Undertakings' as we consider the level of requirements to be appropriate to the service we provide.	
response	NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid	



down in Part-ATM/ANS.OR.

comment	635	comment by: <i>SLC Associates</i>
	<p>It is proposed that aviation undertakings originating data shall establish formal arrangements with parties requesting the data and parties to which it is delivered. The minimum contents required for these formal arrangements has been kept brief, which we support. However, the data will almost always be requested by and delivered to an aerodrome operator or the AISP, both of which will be required to put into place more detailed formal arrangements. Will the aviation undertakings supplying data to these parties not have to work to the more detailed formal arrangements anyway, therefore negating the intent to ease requirements placed upon them?</p>	
response	<p>NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed.</p>	

comment	636	comment by: <i>SLC Associates</i>
	<p>We support the proposal that aviation undertakings are only required to exchange data through electronic means, without any specific reference to AIXM. We think that data should be exchanged between the originator and requestor in a format that is simple for both parties to understand where one or both may not be experienced in using AIXM. However, as data originators we expect to be contracted by aerodrome operators to provide data services for any aspect in the data origination and exchange process where they do not hold competency. Therefore we expect to exchange data with the AISP on behalf of the Aerodrome Operators. It is not clear whether aerodrome operators will be required to exchange data in AIXM format, but if they are will that mean that an aviation undertaking will also be required to use AIXM if exchanging data on behalf of an aerodrome operator?</p>	
response	<p>NOTED. AIXM related provisions do not apply at this stage of the data chain (originators' level).</p>	

comment	766	comment by: <i>DSNA</i>
	<p><u>General comment</u> :</p> <p>We support the pragmatic approach to not impose a QMS to data originators.</p>	
response	<p>NOTED.</p>	

comment	828	comment by: <i>EUROCONTROL</i>
	<p>Item 2 - Common reference systems - Page 19</p> <p><u>Major comment</u></p>	

1/ This requirement “The World Geodetic System WGS-84 shall be used as the horizontal reference system for data origination” goes beyond current Annex 15, which requires WGS-84 only for published coordinates (1.2.1.1).

It could be misinterpreted that the survey should be performed in WGS-84, whereas it would be done in local coordinate systems, which are more accurate. Only the output of those would then be converted to WGS-84.

Please change the requirement to use WGS-84 by Aviation Undertakings to “deliver the relevant aeronautical data/information in WGS-84”.

ACCEPTED and text amended accordingly.

Other comments

1/ EGM-96 model is not listed. The Earth Gravitational Model - 1996 (EGM-96), shall be used by international air navigation as the global gravity model. Please clarify why the EGM-96 is not listed as requirement on page 19.

NOTED. The reference to EGM-96 is at AMC level.

2/ Concerning Formal arrangements (a): the complete requirement “(a) Organisations originating data shall establish formal arrangements with: (1) parties requesting the data; and (2) when different, those to which the data is delivered” seems to go beyond what is required by Annex 15. In fact, Annex 15 requires Data Originators to have arrangements with AIS only (Annex 15, ch. 2.1.5). A clarification is therefore required on whether this requirement should not be aligned with Annex 15, i.e. the establishment of formal arrangements between AIS and data originators only.

NOTED. The text proposes to be more stringent than ICAO Annex 15. Not only formal arrangements have to be made with AISP but with other users as well.

3/ Concerning Formal arrangements (a) (1): the wording of the text “(1) parties requesting the data...” may be misread and needs to be clarified. DAT providers and airlines could directly request data from an aerodrome or another Aviation Undertaking. This will then require a prior establishment of a formal arrangement. This requirement should therefore be revised to avoid any other non-intended interpretation e.g. “parties commissioning the origination of data/survey...”.

ACCEPTED and text amended accordingly.

4/ Concerning Formal arrangements (a) (2): the text “(2) when different, those to which the data is delivered” needs to be clarified. It is not clear why there’s a need to create a formal arrangement with someone to whom the product is delivered, instead of someone who commissioned it. A clarification is therefore requested on the need to require Aviation Undertakings to have formal arrangements with a party to whom the data is delivered, instead of a party who commissioned the data origination.

ACCEPTED and text amended accordingly.

5/ Concerning Formal arrangements (b) (2): the use of “confirmation of the entity” is unclear. What seems to be required by this provision is the identification of the name of the entity. The minimum requirements in a formal arrangement should be to have the name of the entity to



which the data should be provided, but not to confirm the entity. Please change 'confirmation of the entity' to 'identification of the name of the entity...'

ACCEPTED and 'confirmation' deleted.

6/ Concerning Formal arrangements (b) (4): the expression "data origination report format" would need to be reviewed and clarified. The point is that 'data origination report format' is not found in the minimum content for formal arrangements in the AMC for Aviation Undertakings: AMC1ATM/ANS.OR.A.080(d) Aeronautical data and aeronautical information FORMAL ARRANGEMENTS — CONTENT. Moreover, it may be confused with data or exchange formats. Therefore, please clarify the need for 'data origination report format' and whether the word format serves any specific purpose. If it does, please add relevant explanations in the AMC/GM.

ACCEPTED and text amended accordingly to clarify.

response Please see response above under each comment. Please note that Appendix 1 (data origination) is now removed but the common reference system requirements remain through a reference in Article 3 to the common reference requirements laid down in Part-ATM/ANS.OR.90.

comment **863** comment by: *Irish Aviation Authority*
Will the definitions for "routine, essential and critical" be the same as ICAO?

response The definitions for 'routine, essential and critical' (data) are the same as the ones under ICAO Annex 15 and are, in the NPA, contained in GM1 to Definition XX 'Integrity classification (aeronautical data)' on page 56 of the NPA.

comment **874** comment by: *Airport Operators Association (UK)*
The data catalogue specifies that data shall be originated in accordance with it. Further 5 (b) (1,2 & 3) outline a hierarchy of data by classification. The elements of this classification is unclear, if available in the data catalogue as suggested, this should be made available to organisations responsible.

response ACCEPTED. Added to the Appendix containing the data catalogue.

comment **889** comment by: *SLC Associates*
We recognise the requirement for the data catalogue to ensure consistent provision of data at all aerodromes. However, there are feature properties included in the data catalogue that are not currently included in any other ICAO, EASA or National aviation survey requirements. Provision of all properties included in the data catalogue is likely to necessitate full re-surveys at many airports.

response NOTED. It is considered that there are no new elements in the data catalogue that would



necessitate a full re-survey. Hence, the rules are only applicable to new data as from 2020.

comment 917 comment by: Marcus Andersson, LfV
 2 (a): This definition should also include the specific epoch (datum) for WGS-84 (most probably G1150). Not specifying this will lead to small scale errors and uncertainties.

response NOTED. EASA is aware of this situation but there is no consensus at EU nor at ICAO level. This issue is considered not mature enough to be solved at this stage and it needs to be covered within the update of the WGS84. Parts of the GM related to the horizontal reference is removed to avoid confusion. Please note that Appendix 1 (data origination) is now removed but the common reference system requirements remain through a reference in Article 3 to the common reference requirements laid down in Part-ATM/ANS.OR.90.

comment 990 comment by: LVNL Pro (ATC the Netherlands)
 Our navigation systems department supports the more realistic approach of interfacing with geodetic surveyors. They would like to implement these requirements as soon as possible instead of adhering to current ADQ IR in force.

response NOTED.

comment 1004 comment by: Danish Transport and Construction Agency
 Point 6: Further guidance to what 'authoritative source' means, and how such a source is authorised, is needed.

response The definition of 'authoritative source' is provided in Regulation 2017/373:
 32. 'Authoritative source' means:
 (a) a State authority(ies), or
 (b) an organisation formally recognised by the State authority to originate and/or publish data which meets the Data Quality Requirements (DQRs) as specified by that State;

comment 1026 comment by: Federal Office of Civil Aviation (FOCA), Switzerland
Comment FOCA: The approach taken on Metadata is limiting the metadata exchange as metadata exchange is left to the decision of the parties involved. There is a risk that relevant metadata on data quality achievement are not exchanged and that meta data with time elapsed will get lost. In addition, traceability will be limited and become very difficult.

Justification: Clearer and more stringent requirements on metadata are needed. If not, there could be a metadata exchange on a case to case basis reducing traceability and assurance of data

quality and leaving the AISP in a difficult situation receiving non-harmonized metadata. In addition, as not all relevant metadata may be transmitted and especially non-aviation originators, such as surveillor- organizations may disappear, metadata may will get lost and traceability will become impossible.

Proposed Text: The NPA should provide very clear metadata requirements ensuring the required validity and quality requirements. The requirement to retain metadata at the AISP for the lifetime of the data should be added. For such provisions to Appendix 1 to article 3 of the NPA, the Eurocontrol metadata specification could be used as a reference.

response NOTED. Metadata requirements for data originators have been developed taking into account their specificities. AIS.OR.225 covers the requirement to retain data.

comment 1027 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Appendix 1 to Article 3, Paragraph 6

Comment FOCA: Terminology ‘authoritative source’ is used here but there is no definition or closer description available in the NPA.

Proposed Text: There is a base for the definition and function of an authoritative source in the future ICAO annex 15 and PANS AIM provisions. If this base should be taken over to EU Regulation framework, which we believe to be a relevant thing to do, appropriate regulations and definition shall be added.

response The definition of ‘authoritative source’ is provided in Regulation 2017/373:

32. ‘Authoritative source’ means:

(a) a State authority(ies), or

(b) an organisation formally recognised by the State authority to originate and/or publish data which meets the Data Quality Requirements (DQRs) as specified by that State;

comment 1039 comment by: *The Boeing Company*

Page: 19

Paragraph: Appendix 1 to Article 3 ‘Requirements for Aviation Undertakings’

The proposed text states:

REQUESTED CHANGE: The applicable standards (general and industry) should be referenced, e.g. to 5, Data Quality Requirements, and 6, Data verification and validation, DO200B/ED-76A.

JUSTIFICATION: We recommend referencing the applicable standards.

response NOTED. ED76 is referenced in the NPA at GM level.



comment	<p>1040</p> <p>Page: 21</p> <p>Paragraph: 10. Error handling requirements</p> <p>The proposed text states: The error handling and corrective action mechanisms shall ensure that:</p> <p>(a) errors identified during data origination and after data delivery are addressed or resolved;</p> <p>(b) priority is given to errors in critical and essential aeronautical data.</p> <p>REQUESTED CHANGE: We would recommend to be more specific. For instance consider these questions: What type of errors shall be reported to whom? What are the timelines?, etc.</p> <p>JUSTIFICATION: Our recommendation is to provide clarity on the requirements. We would like to have clear requirements in addition, we believe as written this requirement is not harmonized with the DAT-Provider regulation.</p>	comment by: <i>The Boeing Company</i>
response	NOT ACCEPTED. It is considered that there are too many specific scenario to describe, which is not appropriate to detail at the level of these requirements.	

comment	<p>1066</p> <p>Appendix 1 to Article 3 paragraph 6 Data Verification</p> <p><i>Comment FOCA:</i> We observe that especially when data is delivered by aviation undertaking for the provisions of aeronautical information products, they fulfill lower quality assurance requirements. When no assurance for data quality compliance is in place, the validation and verification becomes very demanding if not impossible.</p> <p>Justification: No matter who the originator is, the use of non-compliant data to create aeronautical information products directly leads to non-compliant aeronautical information products.</p> <p>Proposed Text: Referring to Eurocontrol data origination and data assurance level specifications, provisions/ requirements on data originators (regardless if Aerodrome, Aviation undertakings, ANSP or other) should be consistent and harmonized (e.g with respect to tools, software, QMS, Personnel Competence, etc).</p>	comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i>
response	NOTED. It is considered that the Eurocontrol specification on data assurance level is not applicable anymore as it is too much related to ADQIR (which is proposed to be repealed); For the specifications on data origination, a reference is already made in guidance material and is considered sufficient.	

3.1. Draft regulation - Annex I (Definitions)

comment	34	comment by: <i>Belgium Civil Aviation Authority</i>
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1) The proposed definition 34. of aviation undertaking is ambiguous. The insertion of "OR other than the aerodrome operators regulated by Regulation (EU) No 139/2014" could imply that a regulated ANSP is also an aviation undertaking since is "other than the aerodrom operators regulated by Regulation (EU No 139/2014).

New definition proposed for clarification:

'Aviation undertaking' means an entity, person, organisation, other than the service providers regulated by this regulation AND other than the aerodrome operators regulated by Regulation (EU) No 139/2014 that is affected or affects a service delivered by a service provider or an aerodrome operator.

2) Please note the following spill-over effect. The proposed definition of "aviation undertaking" excludes now operators regulated by Regulation (EU) No 139/2014. Therefore requirements ATM/ANS.OR.A.045 *Changes to a functional system* and ATM/ANS.OR.B.005 *Management Systems f) (formal interfaces)* should also be updated to include again aerodrome operators.

response NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 73 comment by: *Swedish Transport Agency, Civil Aviation Department*
The definition of 'Route stage' is repeated.

response NOTED and deleted.

comment 74 comment by: *Swedish Transport Agency, Civil Aviation Department*
Proposed new text for the definition 'Validation' means the process of ensuring that applicable standards, rules and conventions produce data the meet the requirements for the specified application or intended use;

response NOT ACCEPTED. The proposed definition of 'validation' in the NPA is considered to better reflect the intent. Furthermore, it is a term commonly defined and accepted by industry.

comment 98 comment by: *Rockwell Collins, Inc.*
Page 23 regarding ANNEX 1 - DEFINITIONS FOR TERMS
Comment: 'Route stage' definition is repeated; i.e., before and after "Resolution ..."
Change/Rationale: Delete redundant definition of 'Route stage'

response NOTED and deleted.

comment	225	comment by: <i>FAA</i>
	<p>Three general comments this page,</p> <p>1) Term "ellipsoid" is used twice on this page. Reccomend add definition of ellipsoid.</p> <p>2) 'Route stage' definition repeted this page. Reccomend delete one.</p> <p>3) 'Next intended user'; if this NPA applies from origination to the receiver of data from the AISP, then it is possible ther are mulitple next intended users (ie; surveyor, to airport authority, to AISP to consumption). Reccomend create a data flow diagram indicating "next intened user" similar to that found in ED76/DO200B.</p>	
response	<p>1) NOT ACCEPTED. There is a standard definition.</p> <p>2) NOTED and deleted.</p> <p>3) NOT ACCEPTED. The definition is considered as self-sufficient.</p>	
comment	298	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Aeronautical Information Product</p> <p>SNOWTAM is missing from the list of products.</p>	
response	<p>NOT ACCEPTED. A SNOWTAM is a NOTAM.</p>	
comment	299	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Page 22</p> <p>Aeronautical Information Publication (AIP)</p> <p>As it stands, this definition would include the VFR Manual. Is this what is intended by AIP or did it mean to convey the ICAO IAIP?</p>	
response	<p>NOTED. The definition does not include the VFR manual. However, the possibility is open to each MS to decide of their inclusion.</p>	
comment	300	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Page 22</p> <p>Aeronautical Information Service</p> <p>This definition should be 'Aeronautical Information Services' (plural).</p>	
response	<p>ACCEPTED and changed.</p>	

comment	301 Page 22 Completeness of Data Completeness of data, as well as origination of data, is impossible for aviation undertakings to achieve completeness of data against intended use. Completeness of data should be achieved against a requirement. To explain, data for end use may only be complete when the requirements of several originators have been met. Each party should only be required to provide that which is under their responsibility.	comment by: <i>Slovenia Control, Ltd.</i>
response	NOTED. The definition remains unchanged as it is more about the degree of confidence rather than to ensure completeness of the data.	
comment	302 Page 23 International NOTAM Office (NOF) This use of this definition should be checked as it is not found in the amendments to the regulation.	comment by: <i>Slovenia Control, Ltd.</i>
response	This term is used in AIS.OR.330(c), AIS.OR.400(d), AMC1 AIS.TR.400 and GM1 AIS.TR.400(b).	
comment	303 Page 23 Next Intended User The use of this term needs to be checked as it is applied to parties whose scope of capabilities and responsibilities do not extend to this.	comment by: <i>Slovenia Control, Ltd.</i>
response	NOTED. This term is removed in Appendix 1.	
comment	304 Page 23 Route Stage This abbreviation is listed twice.	comment by: <i>Slovenia Control, Ltd.</i>
response	ACCEPTED.	
comment	305	comment by: <i>Slovenia Control, Ltd.</i>

	<p>Page 23</p> <p>Resolution</p> <p>This definition should cover derived data also.</p>	
response	NOT ACCEPTED. Derived data is considered to be covered with the term calculated.	
comment	<p>306</p> <p>Page 23</p> <p>Timeliness</p> <p>This requirement does not make sense as timeliness is not about the effective period but about its timely provision.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	ACCEPTED. The definition remains unchanged, however the amendment is made in the relevant rule text, which is amended to include timeliness as timely delivery of the data.	
comment	<p>307</p> <p>Page 23</p> <p>Traceability of data</p> <p>We recommend that this definition is reworded to 'A record of the changes made to a system or data product providing an audit trail between the data originator and end-user.'</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	NOT ACCEPTED. The initial definition is considered as being clearer.	
comment	<p>308</p> <p>Page 24</p> <p>Validation</p> <p>Should this be referred to as Data Validation?</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	ACCEPTED and changed.	
comment	<p>309</p> <p>Page 24</p> <p>Verification</p> <p>Should this be referred to as Data Verification?</p>	comment by: <i>Slovenia Control, Ltd.</i>

response ACCEPTED and changed.

comment 310 comment by: Slovenia Control, Ltd.

Page 24

Req (34)

The definition of aviation undertaking is ambiguous. The wording 'affected by' is very vague. Should products be mentioned as well as services? Does an aerodrome operator fit into this definition as there seems to be a legal loophole caused by four sentence elements separated by the word "or"? By removing three (as is permissible in English as "or" introduces options) it may be read as "'Aviation undertaking' means an entity, person or organisation, other than an aerodrome operator;"

Whilst we appreciate that the use of punctuation is not common in regulation, its lack in this definition is problematic.

response NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed.

comment 579 comment by: CAA-N

P24: Amended definition of "Aviation undertaking":

There is a need for a more clear and precise definition of Aviation undertakings.

response NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed.

comment 660 comment by: DGAC

This annex lacks the definitions of:

- "data item" from the ADQ regulation: *"a single attribute of a complete data set, which is allocated a value that defines its current status"*.

Data item is used several times in the NPA.

- "data originator" from the ADQ regulation : *"an entity responsible for data origination"*

It is used in the NPA as well.

response Comment #1: ACCEPTED and added

Comment #2: NOT ACCEPTED. This term is not use anymore in the rules.



comment	661	comment by: DGAC
	<p>Data origination: Deleting a data item should not be considered as “data origination” (even if it is already the case in the present ADQ regulation definition). Deletion can be done by any entity/person/organism having sufficient authority over the data to do so.</p> <p>Origination necessitates technical skills that only a “data originator” has and therefore should be restricted to creation or modification of a data item and its associated value.</p> <p>The origination requirements of appendix 1 to article 3 here above do not apply to data deletion.</p>	
response	NOTED. It is considered that data deletion can be sometimes part of the originators activities.	
comment	662	comment by: DGAC
	<p>SNOWTAM: The proposed definition for SNOWTAM stems from amendment 39b to ICAO Annex 15 which will only be applicable worldwide 5th November 2020 (and not 1st January 2019). The risk of interoperability issue if Europe implements this before the rest of the world has to be assessed.</p>	
response	ACCEPTED. It will be made clear in the regulation that the applicability date for SNOWTAM will be aligned with the ICAO applicability date of 2020.	
comment	663	comment by: DGAC
	<p>Traceability of data:</p> <p>Traceability is presently defined in Annex 15 (stemming from ISO 9000 apparently) and is not only about recording “changes”. It also encompasses “history, application and location”.</p> <p>Moreover, the term “traceability” that is defined is about data, why mention “system” or “data product” in the definition? It might be confusing.</p> <p>The definition of data traceability shall be completely reworded as follows: “<i>the degree to which a record of the changes made to a data item can be provided in order to enable an audit trail to be followed from the end-user to the data originator</i>”.</p>	
response	The definition is in line with ICAO Annex 15.	
comment	664	comment by: DGAC
	<p>Aviation undertaking</p> <p>Should not it be “...or other than the aerodrome operators regulated by Regulation (EU) No 216/2008...” ?</p> <p>It seems that the scope of the aerodromes regulated by regulation n°139/2014 is described in the basic regulation (article 4, §3bis).</p>	

response NOTED. The definition of ‘aviation undertakings’ is not being amended and is now kept as currently in Regulation (EU) No 2017/373 and will not cover specifically AIS-AIM domain. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term ‘aviation undertaking’ has been removed.

comment 764 comment by: DSNA
 It is DSNA understanding that the definition of “aviation undertakings” include VFR airports operators. We believe those operators shouldn’t concerned by this regulation – this would go beyond the existing 73/2010 rules without supporting rationale on the benefits of such an additional constraint.

response NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term ‘aviation undertaking’ has been removed. The requirements still cover VFR aerodromes but flexibility is left to States as to what extent these provisions shall apply, depending on each national context and the way such aerodromes are included (or not) in the aeronautical information products.

comment 772 comment by: Solitec Software Solutions GesmbH
 Definition for 'Route stage' is duplicated.

response ACCEPTED and deleted.

comment 786 comment by: Solitec Software Solutions GesmbH
 The term "Data type" should be defined in Annex I.

response ACCEPTED. It is already defined in Appendix 1 to Annex III.

comment 801 comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
Proposed Amendments Section 3.1.1 (2) <i>Proposed amendments to Regulation (EU) .../... ANNEX I</i>	Consider the inclusion of the following definition of the new ICAO Annex 15: <ul style="list-style-type: none"> • “Confidence Level” • “Data product” 	These terms are used in different parts of the proposed regulation and AMC/GMs. Their definition would ensure a clear understanding of the requirements introduced and,

<p><i>DEFINITIONS FOR TERMS USED IN ANNEXES II TO XIII</i></p>	<ul style="list-style-type: none"> • “Data set series” • “Geodesic distance” • “Logon address” • “Portrayal” • “VOLMET” • “Data link-VOLMET (D-VOLMET)” • “Data item” 	<p>thus, avoid future misunderstandings and difficulties in the actual implementation of the resulting regulation.</p>
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response

- ‘Confidence Level: in AMC only
- ‘Data product: check, mainly we used this term with ‘specification’, 2x we use only data product (in definition of traceability and for AMD)
- ‘Data set series’: included
- ‘Geodesic distance’: not used in the NPA
- ‘Logon address’: not used in the NPA
- ‘Portrayal’: only in GM
- ‘VOLMET’: not used in NPA
- ‘Data link-VOLMET (D-VOLMET)’: not used in the rules
- ‘Data item’: accepted and added

comment

comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
<p>Proposed Amendments</p> <p>Section 3.1.1 (2)</p> <p><i>Proposed amendments to Regulation (EU) .../... ANNEX I</i></p> <p><i>DEFINITIONS FOR TERMS USED IN ANNEXES II TO XIII</i></p>	<p>The definition of ‘Aeronautical Information Management (AIM)’ includes the term defined as part of the definition.</p>	<p>This might not be avoided but results in a circular definition that amplifies (...dynamic, integrated (...)) through the provision... the basic meaning of the term.</p>

response

NOTED.

comment

comment by: AESA / DSANA

803

PART	COMMENT	JUSTIFICATION
Proposed Amendments Section 3.1.1 (2) <i>Proposed amendments to Regulation (EU) .../... ANNEX I DEFINITIONS FOR TERMS USED IN ANNEXES II TO XIII</i>	The definition of 'data origination' includes the deletion of an existing data item as origination.	This may be technically correct but is not intuitive and may lead in the future to misapplication of the regulation. The explicit treatment of this in a GM would be beneficial for the avoidance of doubt.

response NOTED. Indeed, it is considered that data deletion can be sometimes part of the originators activities. It is considered that there is no need for explanatory material to clarify.

comment 804 comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
Proposed Amendments Section 3.1.1 (2) <i>Proposed amendments to Regulation (EU) .../... ANNEX I DEFINITIONS FOR TERMS USED IN ANNEXES II TO XIII</i>	The definition of 'feature' feels incomplete and is, thus, not clear. The following wording is proposed: " <u>Feature' means the representation of an abstraction of real world phenomena</u> ".	As already said, the definition of 'feature' feels incomplete and is, thus, not clear. The wording proposed intends to bring more clarity to the definition and, thus, facilitate the implementation of the regulation.

response NOT ACCEPTED. Consistent with ICAO Annex 15 definition. It is considered that changing it would bring less clarity.

comment 805 comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
Proposed Amendments Section 3.1.1 (2) <i>Proposed</i>	The definition of 'next intended user' states that the AISP is the limit between Part-AIS and Part-DAT . This might be made explicit in the definition itself as follows: " <i>Next intended user' means</i>	The wording proposed intends to bring more clarity to the definition and, thus, facilitate the

<p>amendments to Regulation (EU) .../... ANNEX I DEFINITIONS FOR TERMS USED IN ANNEXES II TO XIII</p>	<p>the entity that receives the aeronautical information from the AISPAeronautical information services provider <u>to proceed with this aeronautical information according to the requirements set in Annex VII (Part-DAT)</u>".</p>	<p>implementation of the regulation.</p>
<p>response</p>	<p>NOT ACCEPTED. Not all next intended users will be in scope of Part-DAT. E.g. single/private pilot.</p>	

comment

<p>806</p>	<p>comment by: AESA / DSANA</p>	
<p>Proposed Amendments Section 3.1.1 (2) <i>Proposed amendments to Regulation (EU) .../... ANNEX I DEFINITIONS FOR TERMS USED IN ANNEXES II TO XIII</i></p>	<p>The definition of 'SNOWTAM' includes a repetition of the terms "snow, slush, ice, or frost" (but, curiously, not 'water') that might be avoided as follows: "<i>SNOWTAM' means a special series NOTAM given in a standard format providing a surface condition report notifying the presence or cessation of hazardous conditions due to snow, ice, slush, frost or water associated with snow, slush, ice, or frost</i><u>the presence of those elements on the movement area</u>".</p>	<p>The wording proposed intends to simplify the definition and, thus, facilitate the implementation of the regulation.</p>
<p>response</p>	<p>NOT ACCEPTED. Aligned with ICAO Annex 15.</p>	

comment

<p>807</p>	<p>comment by: AESA / DSANA</p>	
<p>Proposed Amendments Section 3.1.1 (2) <i>Proposed amendments to Regulation (EU) .../... ANNEX I DEFINITIONS FOR TERMS USED IN ANNEXES II TO XIII</i></p>	<p>The definition of 'Route stage' is included twice in Annex I. The instance which appears between 'Position (geographical)' and 'Resolution (of data)' should be removed.</p>	<p>As already said, the definition of 'Route stage' is included twice in Annex I.</p>

response NOTED. And removed.

comment 809

comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
<p>Proposed Amendments</p> <p>Section 3.1.1 (2)</p> <p><i>Proposed amendments to Regulation (EU) .../... ANNEX I DEFINITIONS FOR TERMS USED IN ANNEXES II TO XIII</i></p>	<p>The definitions of 'Validation' and 'Verification', although clearly differentiated, are still quite close.</p> <p>A link between both terms and their possible relationship (e.g. <i>validation</i> requires <i>verification</i>) might be included in this section or as part of the GM to Annex I.</p>	<p>As already said, although both terms are clearly differentiated, they are still quite close.</p> <p>Making their relationship explicit would avoid misunderstandings when applying the regulation.</p>

response NOTED. However, extensive guidance material is proposed to ensure the distinction between both terms.

comment 833

comment by: EUROCONTROL

ANNEX I - Page 21

Definition missing

The definition of 'Aeronautical information' is missing. Since 'AIS' and 'aeronautical data' definitions appear as new definitions, it seems that the definition for 'aeronautical information' was overlooked. Please consider the addition of the proposed definition for aeronautical information: 'Information resulting from the assembly, analysis and formatting of aeronautical data.'

Definition of 'metadata' to be adapted

The Annex 15 explanatory note from the ICAO definition should be added to the NPA definition for "metadata" since it is considered important for the description and full understanding of the term metadata. It is therefore proposed to insert the note from ICAO Annex 15 (Definitions): "A structured description of the content, quality, condition or other characteristics of data".

Editorial comment

The definition of 'Route stage' appears twice in the list. Please delete the first definition.

response NOT ACCEPTED. The definition of 'aeronautical information' is already covered under Annex I of Regulation 2017/373 in definition 13, which is the same than the one proposed in the comment.

ACCEPTED. GM added to the definition.
ACCEPTED. The definition of 'route stage' is now deleted.

comment	864	comment by: <i>Irish Aviation Authority</i>
	Where did the definition of Aeronautical Information Product come from?	
response	This definition comes from the proposed amendment to ICAO Annex 15 (PANS-AIM), based on the proposal of the ICAO AIS-AIM Study group.	
comment	865	comment by: <i>Irish Aviation Authority</i>
	The definition of Aeronautical Information Service differs from ICAO - where did it come from and shall we have to file a difference with ICAO?	
response	The definition of 'aeronautical information service' is based on Reg. 549/2004 (Framework Regulation) and, in content, the same as the ICAO one. The additional text 'by or on behalf of a Member State' was added by the rulemaking group experts to underline that AIS is the responsibility of the States. The difference is not considered as being a difference to ICAO definition.	
comment	866	comment by: <i>Irish Aviation Authority</i>
	Where did the definition of Aeronautical Information Service Provider come from?	
response	The definition of 'aeronautical information services provider' comes from Regulation (EU) No 73/2010, in Article 3 – 13.	
comment	867	comment by: <i>Irish Aviation Authority</i>
	The definition of AIP Supplement differs from the ICAO version - Why?	
response	NOTED. The definition of 'AIP Supplement' is in line with the upcoming amendment of ICAO Annex 15-PANS-AIM. It is explained in the NPA that the rules are based on the said upcoming major amendment.	
comment	868	comment by: <i>Irish Aviation Authority</i>
	For Assemble - do you need the note to comply with ICAO - <i>Note.— The assemble phase includes checking the data and ensuring that detected errors and omissions are rectified.</i>	

response There is no need to include the note to comply with ICAO.
ACCEPTED. The Note is added as GM to the definition.

comment 869 comment by: *Irish Aviation Authority*
Data product specification should have the following added
(ISO 19131*).
*Note.— A data product specification provides a description of the universe of discourse and a specification for mapping
the universe of discourse to a data set. It may be used for production, sales, end-use or other purpose.*

response ACCEPTED and included.

comment 870 comment by: *Irish Aviation Authority*
Data set should have the following added
(ISO 19101*).

response ACCEPTED and included.

comment 872 comment by: *Irish Aviation Authority*
Datum need to add the following
(ISO 19104*).

response ACCEPTED and included.

comment 873 comment by: *Irish Aviation Authority*
Feature needs to add the following
(ISO 19101*).

response ACCEPTED and included.

comment 906 comment by: *daa - Dublin & Cork airports*
daa / Dublin and Cork airports welcome the clarification of the definition of: “aviation undertaking” to clearly indicate that aerodrome operators are dealt with separately under Regulation No. 139/2014 and equally that they are not considered as a specialist: “aeronautical



	information services provider” regulated by Regulation .../... (Regulation laying down common requirements for service providers and oversight in air traffic management and air navigation services and other air traffic management network functions).
response	NOTED. However, this term is no longer used, but the new term ‘parties originating data’ does not affect the principle.
comment	1028 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i> <i>Comment FOCA:</i> The definition of – ‘data item’ as well as the definition of ‘data originator’ are missing and are used at several places in the NPA. Proposed Text: The following definitions (taken from the ADQIR) to be added in Annex 1: - <i>Data item: ‘a single attribute of a complete data set, which is allocated a value that defines its current status’.</i> - <i>Data originator: “an entity responsible for data origination”.</i> This definition should be expanded or a definition on origination should be added.
response	Data item: ACCEPTED and added as proposed. Data originator: NOT ACCEPTED. This term is not used anymore in the rule text.
comment	479 comment by: <i>Slovenia Control, Ltd.</i> Annex 1 Definitions of terms used in Annexes II to XIII GM1 to Definition XX ‘Data product specification’ What is the metadata model this definition is referring to? This is the only mention of it found.
response	ACCEPTED. The text is amended.

3.1. Draft regulation – Annex II – Appendix 1

comment	81 comment by: <i>Avinor AS</i> The definition of 'aviation undertaking' is unclear. Are aerodrome operators included or not? Also ref. to page 16 in explanatory notes where it is stated "- the definition of 'aviation undertaking' is amended to encompass aerodrome operators".
response	NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term ‘aviation undertaking’ has been removed.

comment	<p>118</p> <p style="text-align: right;">comment by: <i>ENAIRE</i></p> <p>Paragraph: Annex II</p> <p>Reference text: certificate table</p> <p>Type: clarification</p> <p>Comment: While considered a good approach, it opens also some issues. Can there exist more than one certified AIS provider for a certain State data? Under the same product/services/dataset?. If so, requirements on integrity and coherence between them shall be defined. Are there different responsibilities for each provider (layered approach)?</p> <p>What is really the difference in the scope of the certificate, only the provided datasets? Are there specific requirement for specific certification types?</p> <p>Clarification of differences between an AIS service provider and a DAT provider is needed, as it seems that this split is certification types leads more to the notion of DAT provider than of AISP.</p> <p>Is there any type of service mandatory for a State?</p> <p>Are the types of services interrelated?</p> <p>Can a company be certified for isolated services ie be AIP and not charts or NOTAM?</p>
response	<p>NOTED. Guidance material on Article 3.5 (GM1 Article 3) and on the AIS certificate (GM1/GM2/GM3 to ATM/ANS.OR.A.005) have been added for clarification.</p>
comment	<p>119</p> <p style="text-align: right;">comment by: <i>ENAIRE</i></p> <p>Paragraph: Annex II</p> <p>Reference text: certificate table</p> <p>Type: clarification</p> <p>Comment: AIP dataset. Clarification is needed on the different datasets split. Is not obstacle data part of AIP data? Why a different dataset? Why not split of AIP dataset in its different elements like the others?</p>
response	<p>Obstacle data sets are not part of the AIP data set because they have different requirements. See also ICAO Annex 15, chapter 5.</p>
comment	<p>311</p> <p style="text-align: right;">comment by: <i>Slovenia Control, Ltd.</i></p> <p>Page 24</p> <p>'Service Provider Certificate' (Part-ATM/ANS.AR)</p> <p>SNOWTAM is missing from the list of aeronautical information products.</p>

response A SNOWTAM is a NOTAM, which is listed in the certificate template.

comment 743 comment by: ENAV

Annex II – Appendix 1 ‘SERVICE PROVIDER CERTIFICATE ‘

According to the revised table, in case of Terrain and/or Obstacle data distributed by a national geographic institute, shall this entity be certificated as AIS provider?

Need to be clarified for specific entities.

response National geographic institutes are not considered as being AIS providers. The revised text now proposes that Regulation (EU) No 2017/373 does not require the provision of terrain data to be AIS certified. Terrain data sets are typically originated and maintained by non-aviation entities for general purposes. The provision of terrain data sets for the purpose of air navigation is consequently limited to the mere distribution of a finished product or even only the provision of information on how the product can be obtained. As such, the provision of terrain data, is not subject to an AIS certificate.

comment 769 comment by: DSNA

Does EASA want to permit more than one AISP per state, per scope of services (AIP, AIC, Charts, NOTAM, different Data sets) and in a same geographical scope ? The provision of services, products, and datasets is closely linked in a same geographical scope.

DSNA would propose a FIR as a minimal unit scope for one “scope AIS” provider.

It’s an organisational issue for states but at least some GM should be proposed on this subject.

response NOTED. Please refer to the proposed guidance material on Article 3.5 (GM1 Article 3) and on the AIS certificate (GM1/GM2/GM3 to ATM/ANS.OR.A.005).

comment 812 comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
Proposed Amendments Section 3.1.1 (3) <i>Proposed amendments to Regulation (EU) .../... ANNEX II - Appendix 1 ‘Service Provider certificate’ (Part-ATM/ANS.AR)</i>	Different products/services to be provided by AIS are specified according to a 'new' type of certificate, but: a) there are no particular requirements included into this proposal for each product/service; b) some of the requirements of this proposal have not been adapted to	Although we do not object to the subdivision of the AIS certificate into the products and services detailed, it is important to develop a coherent regulation in order to avoid future misunderstandings and difficulties in the actual implementation of the resulting

	<p>this new structure, for example:</p> <ul style="list-style-type: none"> - AIS.OP.105 “Responsibilities of aeronautical information services providers”: no limitation by type of service - Section 3 “Aeronautical information products” and Section 4 “Distribution and pre-flight information services”: there is no link between products and certificates (in particular in AIS.OR.305). 	<p>regulation.</p> <p>This coherence should then be reviewed and a proposal addressing the particular requirements of the different products and services should be developed for a meaningful implementation of the resulting regulation.</p>
<p>response</p>	<p>NOTED. Please refer to the proposed guidance material on the AIS certificate (GM1 to ATM/ANS.OR.A.005).</p>	

3.1. Draft regulation – Annex III – Part-ATM/ANS.OR

comment

814

comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
<p>Proposed Amendments Section 3.2.1 (4) <i>Proposed amendments to Regulation (EU) .../... Annex III (Part-ATM/ANS.OR) General introduction</i></p>	<p>Only some ICAO PANS-AIM points such as 5.2.2.4 and 5.2.3.15, also contained in ICAO Doc 8126 (such as points 7.3.1 and 5.9.10 respectively), have been transposed into the NPA 2016-02. Which has been the criterion to decide which points should be transposed?</p>	<p>It is important for the Member States to know the nature and legal status of this transposition in order to avoid national legislation developments for the transposition of this ICAO Annex 15 and the PANS-AIM associated to it.</p> <p>Further to this, if this is the case, a particular article should be developed stating the differences with ICAO that have to be notified (please refer to the complimentary comment on section 2.9.1 for further detail).</p>

response

NOTED. Most of the future PANS-AIM provisions has been transposed. The remaining ones were decided on a case-by-case basis, in agreement with the experts of the rulemaking group. The comparison table provided by the Agency show (as from page 179 to 249) the provisions which were transposed or not. Once the regulation is adopted, the ICAO compliance checklist will be

initiated.

comment 815 comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
<p>Proposed Amendments Section 3.2.1 (4) <i>Proposed amendments to Regulation (EU) .../... Annex III (Part-ATM/ANS.OR)</i> <u>Generic Question</u></p>	<p>Are EUROCONTROL Specifications, developed to comply with ADQ Regulation, going to be reviewed?</p>	<p>Following the implementation of the regulation resulting from this NPA 2016-02, some ADQ Regulation requirements will be withdrawn. A review of such EUROCONTROL Specifications should be considered.</p>

response ACCEPTED. Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.

comment 312 comment by: Slovenia Control, Ltd.

ATM/ANS.OR.A.080 Aeronautical data and aeronautical information

The structure of this section of requirements is different to those for aviation undertakings. A common presentation would aid understanding of the regulation, particularly for oversight authorities.

response NOTED. The text structure has been revised as much as possible to align between the two parts. However, differences remain due to the structure of each parts (ATM/ANS.OR.080 does not contain many sub paragraphs as in Appendix 1 – the Agency would like to structure the rules avoiding too many sub-sub paragraphs which make the rule not reader friendly).

comment 888 comment by: THALES AVIONICS

In order to facilitate and accelerate further updates, the data catalogue (Appendix 1 to Annex III (Part-ATM/ANS.OR)) should not be introduced as requirement but as AMC. In this way, further

updates will be on the EASA hand and will not require EU commission validation.

Then all references to "data catalogue form Appendix 1 to this Annex" in the requirement should be replaced to a reference to "ICAO data catalogue" and an AMC to ATM/ANS.OR.A.080 should be added to detail the content of data catalogue.

response NOT ACCEPTED. The Data Catalogue is a standard that shall be complied with and not left to different compliance. No other way of compliance should be allowed. When changes are required, it will go through the normal regulatory process.

comment 916 comment by: Marcus Andersson, LfV

The use of the term "service provider" is not clear here, and is not described above in the terms section.

If the "service provider" means the AISP, then the (a) becomes very unlikely with the "ensure that...". AISP cannot assure that something previously in the supply chain is done, but we can claim to attach evidence.

response The term 'Service providers' is defined in Article 2 of Reg. 2017/373. In this case, service providers only apply to AISP when originating, processing or transmitting data.

comment 918 comment by: Marcus Andersson, LfV

Epoc (datum) to be added.

response ACCEPTED. However, it is considered not to be mentioned at IR or AMC level but rather at guidance level.

comment 1041 comment by: The Boeing Company

Page: 25

Paragraph: Annex III in Subpart A:

ATM/ANS.OR.A.080 Aeronautical data and aeronautical information

The proposed text states:

REQUESTED CHANGE: The applicable standards (general and industry) should be referenced, e.g. to 5 Data Quality Requirements and 6. Data verification and validation, DO200B/ED-76A.

JUSTIFICATION: We recommend referencing the applicable standards.

response NOTED. The applicable standards are referenced in 5 Data Quality Requirements and 6. Data



verification and validation.

ATM/ANS.OR.A.080(a)

comment	313	comment by: <i>Slovenia Control, Ltd.</i>
	ATM/ANS.OR.A.080 Aeronautical data and aeronautical information	
	(a) The word ‘determined’ should be replaced by ‘originated’	
response	NOT ACCEPTED. The Data Catalogue is not only about data origination. However, the sentence is revised for clarity purposes.	
comment	314	comment by: <i>Slovenia Control, Ltd.</i>
	ATM/ANS.OR.A.080 Aeronautical data and aeronautical information	
	(a) How should data not included in the Data Catalogue be addressed?	
response	NOTED. All the necessary data are considered to be included in the data catalogue. Currently, there is no identification of missing data. In case it is identified that a data is missing, the data catalogue would be update, if deemed necessary.	
comment	665	comment by: <i>DGAC</i>
	<p><u>ATM/ANS.OR.A.080 (a)</u>: As previously highlighted, the data catalogue is not a requirement on data. Its specifications, expressed in terms of “subject”, “property”, “sub-property”, “type” or quality requirements, are. Some “textual” data (procedures, rules, descriptions) that can be found in the AIP might not be in the scope of the data catalogue and hence cannot conform to its specifications.</p> <p>Moreover, the verb “determine” is not coherent with the act of “originating, processing or transmitting” data.</p> <p>The sentence should then be replaced by: “ensure that aeronautical data described in the data catalogue depicted in Appendix 1 to this Annex conforms to the catalogue specifications.”</p>	
response	ACCEPTED and amended.	
comment	91	comment by: <i>Avinor AS</i>
	The text states that "The latest available frame is called 'WGS-84 (G873)". We believe that this could lead to some confusion, since ICAO Annex 15 refers to GPS week 1150.	
response	NOTED. The referred text is removed from the ‘GM1 to 2(a) Common reference systems for air	



navigation’.

comment	587	comment by: CAA-N
	It is important that GPS-week number referred to in the regulation is aligned with ICAO Annex 15.	
response	NOTED. The referred text is removed from the ‘GM1 to 2(a) Common reference systems for air navigation’.	

ATM/ANS.OR.A.080(b)

comment	315	comment by: Slovenia Control, Ltd.
	ATM/ANS.OR.A.080 Aeronautical data and aeronautical information	
	(b) As this section is part of the requirements for service providers, the scope in the first sentence should be ‘...through to distribution to the next user’. In the definition, ‘next <u>intended</u> user’ is the user that the AIS provides data to.	
response	PARTIALLY ACCEPTED. The sentence is amended.	

comment	666	comment by: DGAC
	<u>ATM/ANS.OR.A.080 (b):</u>	
	It is not granted that the verb “ <i>maintain through</i> ” will be understood...	
	“ <i>Publication</i> ” should be replaced by “ <i>distribution</i> ” when followed by “to the next intended user”.	
	Rewording proposal so that the whole sentence makes sense (quality requirements apply to data and not to service providers): “ <i>ensure the following data quality requirements <u>are met</u> from origination and maintained <u>until distribution</u> to the next intended user:</i> ”.	
response	PARTIALLY ACCEPTED. The sentence is amended.	

comment	317	comment by: Slovenia Control, Ltd.
	ATM/ANS.OR.A.080 Aeronautical data and aeronautical information	
	(b)(1) On page 20, 5. Data Quality Requirements for aviation undertakings, the wording of this requirement was different, i.e., ‘The order of accuracy...’	
	Consistency is needed.	
response	ACCEPTED. The term ‘order’ is deleted and aligned for consistency.	



comment	<p>120</p> <p>Paragraph: ATM/ANS.OR.A.080 b</p> <p>Reference text: next intended user</p> <p>Type: amendment proposal</p> <p>Comment: As this is a requirement for data originators, the requirement should only be up to the point of exchange with the AISP.</p>	comment by: ENAIRE
response	PARTIALLY ACCEPTED. The sentence is amended.	

comment	<p>316</p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(b) The confidence level of the data is not addressed.</p>	comment by: Slovenia Control, Ltd.
response	ACCEPTED. The proposed term is added to the definitions.	

comment	<p>816</p> <p>Proposed Amendments Section 3.1.1 (4)</p> <p><i>Proposed amendments to Regulation (EU) .../... Annex III (Part-ATM/ANS.OR) ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</i></p>	comment by: AESA / DSANA						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">PART</th> <th style="width: 50%;">COMMENT</th> <th style="width: 25%;">JUSTIFICATION</th> </tr> </thead> <tbody> <tr> <td></td> <td> <p>The following wording is proposed for ATM/ANS.OR.A.080(b):</p> <p>"(b) meet the following data quality requirements from origination <u>to distribution to the next intended user</u> and <u>ensure they are</u> maintained through to publication to the next intended user:</p> <p>(1) The accuracy for aeronautical data, <u>which</u> shall be as specified in the data catalogue.</p> <p>(2) The integrity of aeronautical data, <u>which</u> shall be maintained throughout the data process from origination to distribution to the next intended user.</p> <p>(3) The resolution of aeronautical data, <u>which</u> shall be commensurate with the actual data accuracy.</p> <p>(4) Traceability of aeronautical data.</p> <p>(5) Timeliness of the data, by including any limits on the effective period with the data elements.</p> <p>(6) Completeness of the aeronautical data, in order to support the intended use.</p> </td> <td> <p>In order to bring clarity and consistency to the whole section.</p> </td> </tr> </tbody> </table>	PART	COMMENT	JUSTIFICATION		<p>The following wording is proposed for ATM/ANS.OR.A.080(b):</p> <p>"(b) meet the following data quality requirements from origination <u>to distribution to the next intended user</u> and <u>ensure they are</u> maintained through to publication to the next intended user:</p> <p>(1) The accuracy for aeronautical data, <u>which</u> shall be as specified in the data catalogue.</p> <p>(2) The integrity of aeronautical data, <u>which</u> shall be maintained throughout the data process from origination to distribution to the next intended user.</p> <p>(3) The resolution of aeronautical data, <u>which</u> shall be commensurate with the actual data accuracy.</p> <p>(4) Traceability of aeronautical data.</p> <p>(5) Timeliness of the data, by including any limits on the effective period with the data elements.</p> <p>(6) Completeness of the aeronautical data, in order to support the intended use.</p>	<p>In order to bring clarity and consistency to the whole section.</p>	
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	(7) The format of delivered data, which shall be adequate to ensure that the data is interpreted in a manner that is consistent with the intent of the data;"	
response	NOT ACCEPTED. However, the introductory sentence is amended to avoid confusion.	
comment	507	comment by: <i>Slovenia Control, Ltd.</i>
	AMC1 ATM/ANS.OR.A.080(b) Aeronautical data and aeronautical information PROCEDURES Why is this guidance material whereas for aviation undertakings and AIS it was part of the technical requirements?	
response	ACCEPTED. The integrity classification is elevated to IR level.	
comment	508	comment by: <i>Slovenia Control, Ltd.</i>
	AMC1 ATM/ANS.OR.A.080(b) Aeronautical data and aeronautical information PROCEDURES This cannot be considered guidance material for ANS.OR.A.080(b) as it only covers integrity. As GM is must cover the whole of the requirement.	
response	ACCEPTED. The integrity classification is elevated to IR.	
comment	121	comment by: <i>ENAIRE</i>
	Paragraph: ATM/ANS.OR.A.080 b (1) Reference text: accuracy Type: amendment proposal Comment: Use the same term as on aviation undertakings; order of accuracy.	
response	NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed.	
comment	122	comment by: <i>ENAIRE</i>
	Paragraph: ATM/ANS.OR.A.080 b (2) Type: clarification	

	Comment: very different in written and extent to the similar aviation undertakings requirements (page 20, 5.b). Please clarify why in this case some text is at AMC level.
response	ACCEPTED. The integrity classification is elevated to IR.
comment	123 comment by: ENAIRE Paragraph: ATM/ANS.OR.A.080 b (2) Reference text: next intended user Type: amendment proposal Comment: As this is a requirement for data originators, the requirement should only be up to the point of exchange with the AISP.
response	PARTIALLY ACCEPTED. This paragraph is amended.
comment	226 comment by: FAA Aeronautical data and aeronautical information paragraph, (b), (2); recommend change "data process" to "data chain". General comment for (b), add reference to Annex 15 or is this understood? (d) "between themselves" reads funny, recommend clarify language "establish formal arrangements between originators and the AISP when exchanging....". (f) "ensure that..." by what means? Perhaps point to the methods to ensure. Also in (f), recommend change "...impacting on the quality..." to "...impacting the quality...". (g), (2), (i), "an unambiguous description....". Language is vague, is this metadata? Perhaps be more specific.
response	NOT ACCEPTED for (b)(2) to change 'data process' to 'data chain'; ACCEPTED for (d) on the term 'between themselves', the paragraph is amended; NOTED for (f), the current proposed AMC1 covers the means by which this can be ensured; ACCEPTED. For (f) editorial, it is now amended; NOTED for (g)(2)(i), it is not metadata.
comment	639 comment by: AIRBUS The comment is related to ATM/ANS.OR.A.080 (b) (2) page 25 PROPOSED TEXT / COMMENT:

	<p>Airbus proposes to add the following sentence:</p> <p>Integrity Assurance Processes shall be put in place according to the Integrity classification for aeronautical data specified in the data catalogue. The integrity of aeronautical data shall be maintained throughout the data process from origination to distribution to the next intended user</p> <p>JUSTIFICATION</p> <p>For homogeneity in Integrity and Accuracy</p> <p>For coherence with current EASA CRI related to data base</p>
response	ACCEPTED. However, provisions on procedures for integrity levels are already covered: The AMC1 ATM/ANS.OR.A.080(b) Aeronautical data and aeronautical information is now upgraded to IR level.
comment	<p>667 comment by: DGAC</p> <p><u>ATM/ANS.OR.A.080 (b)(2)</u> : this same requirement is completed by additional provisions in appendix 1 to article 3. There is no reason these provisions should not apply to service providers: <i>“Based on the integrity classification specified in the data catalogue, procedures shall be put in place so that:</i></p> <p><i>(1) for routine data, corruption is avoided throughout the processing of the data;</i></p> <p><i>(2) for essential data, it is assured that corruption does not occur at any stage of the entire process and additional processes are included, as needed, to address potential risks in the overall system architecture to further assure data integrity at this level; and</i></p> <p><i>(3) for critical data, it is assured that corruption does not occur at any stage of the entire process and additional integrity assurance processes are included to fully mitigate the effects of faults identified by thorough analysis of the overall system architecture as potential data integrity risks. “</i></p>
response	ACCEPTED and upgraded to IR level.
comment	<p>318 comment by: Slovenia Control, Ltd.</p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(b)(2) ‘Next intended user’ needs to be changed as control of data integrity to the next intended user is beyond the scope of the capabilities of some service providers – only the AIS has this interaction. See comment 61. (315)</p>
response	PARTIALLY ACCEPTED. The paragraph is amended.
comment	<p>668 comment by: DGAC</p> <p><u>ATM/ANS.OR.A.080 (b)(4), (5) and (6)</u> : rewording is necessary for proper comprehension and</p>

	coherency with the previous requirements on the same level (b.1, b.2, b.3). It is proposed to add a verb to the sentences such as “ <i>shall be ensured</i> ”.
response	ACCEPTED. The relevant paragraphs are amended.
comment	124 comment by: ENAIRE Paragraph: ATM/ANS.OR.A.080 b (4) Type: typo Comment: is there some text missing? Maybe should it read: Traceability of aeronautical data shall be ensured.
response	ACCEPTED. The paragraph is amended.
comment	206 comment by: DFS Deutsche Flugsicherung GmbH (b) (4) “traceability of aeronautical data”: no AMC/GM is provided. Suggestion to copy GM1 to Appendix 1 5 e): “Traceability is supported by maintaining the metadata.”
response	ACCEPTED. The paragraph is amended.
comment	319 comment by: Slovenia Control, Ltd. ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (b)(4) This sentence is not complete. It should be ‘Traceability of data shall be ensured’ in order for it to be consistent with page 20, 5. Data Quality Requirements for aviation undertakings.
response	ACCEPTED. The paragraph is amended.
comment	320 comment by: Slovenia Control, Ltd. ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (b)(5) This sentence is not complete and inconsistent with the wording on page 20, 5. Data Quality Requirements for aviation undertakings.
response	ACCEPTED. The paragraph is amended.
comment	321 comment by: Slovenia Control, Ltd.

	ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (b)(5) The meaning of the phrase ‘with the data elements’ is not clear. This requirement does not make sense as timeliness is not about the effective period but about its timely provision. We think the requirement is referring to the recording of limitations in the metadata but has mixed this with timeliness.
response	ACCEPTED: data elements is deleted. NOTED: the paragraph is amended. It is considered that the timely provision is included in the definition.
comment	322 comment by: <i>Slovenia Control, Ltd.</i> ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (b)(6) This sentence is not complete and inconsistent with the wording on page 20, 5. Data Quality Requirements for aviation undertakings.
response	ACCEPTED. The paragraph is amended.
comment	323 comment by: <i>Slovenia Control, Ltd.</i> ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (b)(6) These requirements are for service providers who do not know what the intended use of the data they originate / provide is. Also, aviation undertakings cannot always provide complete data as the data they provide is used as the basis for other data and/or combined with other data, for example, SIDs and STARS.
response	NOTED. Please see the change made related to the comments on ‘next intended user’, for which the sentence was amended accordingly. With regard to the completeness, the paragraph was amended accordingly.
comment	125 comment by: <i>ENAIRE</i> Paragraph: ATM/ANS.OR.A.080 b (6) Type: typo Comment: is there some text missing? Maybe should it read: Completeness of the aeronautical data shall be ensured in order to support the intended use.
response	NOT ACCEPTED. The text is amended to clarify the meaning.
comment	126 comment by: <i>ENAIRE</i>

	<p>Paragraph: ATM/ANS.OR.A.080 b (6)</p> <p>Type: amendment proposal</p> <p>Comment: Either guidance material is needed or the paragraph should be removed, as it is not considered a responsibility of the data originator to provide what the AISP and the Regulation (data catalogue) specify. Do ANS have to make an analysis of the intended uses and define what data is needed?</p>
response	NOTED. The text is amended to clarify the meaning.
comment	<p>324 comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(b)(7) The word ‘which’ needs to be removed so that it is consistent with page 20, 5. Data Quality Requirements for aviation undertakings.</p>
response	ACCEPTED. The word ‘which’ is removed.
comment	<p>325 comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(b)(7) This requirement is not clear at all and is cannot be met by a service provider if it is referring to the end-use format which they do not know.</p>
response	NOTED. The text is amended for clarity.
comment	<p>669 comment by: <i>DGAC</i></p> <p><u>ATM/ANS.OR.A.080 (b)(7)</u> : delete “which” .</p>
response	ACCEPTED. The word ‘which’ is removed.
comment	<p>127 comment by: <i>ENAIRE</i></p> <p>Paragraph: ATM/ANS.OR.A.080 b (7)</p> <p>Type: clarification</p> <p>Comment: GM needed. Is it not enough/valid as far as the data format is defined and documented?</p>
response	The text is amended for clarification.

ATM/ANS.OR.A.080(c)

comment	<p>326 comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(c) The wording of this requirement is very vague and is not a performance requirement as it stands. In addition, it should be address 'Digital aeronautical data' rather than just 'aeronautical data'.</p>
response	<p>NOTED. GM1 ATM/ANS.OR.A.080(c) is amended and clarifies the intent of the requirement.</p> <p>NOT ACCEPTED. It is considered that Aeronautical data is a generic term that refers both to electronic and digital data</p>
comment	<p>72 comment by: <i>NATS National Air Traffic Services Limited</i></p> <p>Page No: 25</p> <p>Paragraph No: ATM/ANS.OR.A.080 (c)</p> <p>Comment: The use of email and pdf by data originators such as Aviation Undertakings, weakens the requirement on Data Originators to comply with the Data Quality Requirements.</p> <p>Justification: This weakening introduces the need for the recipient (notably the AISP) to conduct manual handling techniques upon the data it receives; thereby undermining the ability for the State to declare compliance to the regulation.</p> <p>Proposed Text: Specify use of an globally exchange model for Data Originators.</p>
response	<p>PARTIALLY ACCEPTED. The amended GM now clarifies that the transmission of aeronautical data and aeronautical information may be done by different electronic means avoiding the need of manual interaction with the data itself.</p>
comment	<p>59 comment by: <i>NATS National Air Traffic Services Limited</i></p> <p>Page No: 62</p> <p>Paragraph No: GM1 ATM/ANS.OR.A.080 DATA EXCHANGE</p> <p>Comment: Data delivery to the AISP - The exchange of digital data sets and associated metadata cannot be met by 'pdf'</p> <p>Justification: The use of 'pdf' introduces the need for the recipient (next intended user) to introduce manual handling techniques in order to process the information and data being supplied within the pdf.</p> <p>Proposed Text: Remove 'pdf' from this paragraph. Add reference to use of AIXM to satisfy the requirements of an 'aeronautical information exchange model designed to be globally</p>

	interoperable'	
response	ACCEPTED. The amended GM now clarifies that the transmission of aeronautical data and aeronautical information may be done by different electronic means avoiding the need of manual interaction with the data itself. The reference to AIXM is made at AMC level.	
comment	506	comment by: <i>Slovenia Control, Ltd.</i>
	GM1 ATM/ANS.OR.A.080 Data exchange ELECTRONIC MEANS There is no guidance in this at all. There are other means of exchanging data that are not mentioned. There is no cost saving if we resort to email and PDF as many States have invested in direct electronic connection and the longer-term costs of extracting data from such media would outweigh any implementation saving.	
response	ACCEPTED. The reference to pdf and email is removed. The amended GM clarifies that the transmission of aeronautical data and aeronautical information may be done by different electronic means avoiding the need of manual interaction with the data itself.	
comment	203	comment by: <i>DFS Deutsche Flugsicherung GmbH</i>
	We lack interpretation of “the exchange of aeronautical data may be done by a number of electronic exchanges including email or pdf documents, without any manual interaction with data itself”. System-to-system connections are a big step towards digitalisation of the data chain. Current investments and processes would be made in vain. The prevention of manual interaction only at the level of data is regarded as a step backwards.	
response	NOTED. ATM/ANS.OR.A.080(c) does not prevent the system-to-system connections.	
comment	505	comment by: <i>Slovenia Control, Ltd.</i>
	GM1 ATM/ANS.OR.A.080 Data exchange ELECTRONIC MEANS The title should be ‘GM1 ATM/ANS.OR.A.080 c) DATA EXCHANGE ELECTRONIC MEANS’	
response	NOT ACCEPTED. The amended title is ‘DATA TRANSMISSION’ – Service Providers transmit data but do not exchange data as it implies bi-directional level.	
comment	585	comment by: <i>CAA-N</i>



	NCAA disagree that Pdf is a suitable electronic format for the exchange of aeronautical Data and information.
response	NOTED. The amended GM clarifies that the transmission of aeronautical data and aeronautical information may be done by different electronic means avoiding the need of manual interaction with the data itself.
comment	761 comment by: DSNA We support the flexible approach for different means for electronic exchange. Direct electronic connection is not realistic with all data originators, but different means could be considered with minimal manual interaction.
response	NOTED.

ATM/ANS.OR.A.080(d)

comment	670 comment by: DGAC <u>ATM/ANS.OR.A.080 (d) :</u> Formal arrangements not only have to be established between service providers. They also have to be established between : - service providers and aerodrome operators (in the scope of 216/2008 or not), - service providers and aviation undertakings, when they exchange data. Rewording proposal: <i>“establish formal arrangements <u>with other service providers, aerodrome operators or aviation undertakings with which they exchange aeronautical data and aeronautical information</u>”.</i>
response	PARTIALLY ACCEPTED. The paragraph is amended in order not to limit the formal arrangements between service providers.
comment	328 comment by: Slovenia Control, Ltd. ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (d) None of the content that the formal arrangements need to cover is included in this requirement.
response	NOTED. The content of the formal arrangements are contained at AMC level. Please see: AMC1 ATM/ANS.OR.A.080(d)



comment	160	comment by: ENAIRE
	<p>Paragraph: AMC1 ATM/ANS.OR.A.080 (d) (c)</p> <p>Type: amendment proposal</p> <p>Comment: ANS are supervised by their corresponding authority with regards their obligations. It is considered not necessary and even counter productive to include the demonstration to the AISP in a formal arrangement.</p>	
response	NOTED. It is considered that this text brings added value in the relationship between service providers and should be maintained.	
comment	509	comment by: Slovenia Control, Ltd.
	<p>AMC1 ATM/ANS.OR.A.080(d) Aeronautical data and aeronautical information</p> <p>FORMAL ARRANGEMENTS - CONTENT</p> <p>Why is this not at the regulation level? Where formal arrangements are covered elsewhere in the regulation, there is a much more limited content list. This list is far more comprehensive and should be reflected elsewhere in the regulation, at the level of ORs or TRs.</p>	
response	NOTED. Flexibility is provided here for service providers to take into account the type of information and data they want to exchange between themselves.	
comment	327	comment by: Slovenia Control, Ltd.
	<p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(d) This requirement is not clear and it needs to explicitly state with which parties formal arrangements need to be established as 'between themselves' is incorrect.</p>	
response	ACCEPTED. The text is amended to specify service providers and aerodrome operators.	
comment	710	comment by: DGAC
	<p><u>AMC1 ATM/ANS.OR.A.080(d) Aeronautical data and aeronautical information (j)</u></p> <p>The formal arrangements do not have to contain "requirements" on metadata. It is more likely they should state which metadata items are expected to be transferred along with the data.</p> <p>Rewording proposal: "<i>the metadata to be provided with the data</i>".</p>	
response	ACCEPTED and replaced with 'metadata to be provided'.	
comment	711	comment by: DGAC

AMC1 ATM/ANS.OR.A.080(d) Aeronautical data and aeronautical information (j)

The words “*metadata requirements*” are not very explicit and do not define precisely what is expected. Rewording proposal: “(j) the metadata to be collected for each data item mentioned in (a)”.

response ACCEPTED and replaced with ‘metadata to be provided’.

comment 982

comment by: EUROCONTROL

AMC/GM - Subpart A of Annex III - Page 62

AMC1 to ATM/ANS.OR.A.080(d) - Page 62

Specific GM seems missing to support the implementation at SP level of the relevant provision and AMC. The addition of specific GM should help service providers to implement this AMC to enable an efficient and harmonised approach.

It is proposed to add/establish specific GM based on the existing “EUROCONTROL Formal Arrangement Template” which is currently widely exploited through ADQ implementation.

response ACCEPTED. A GM is added referring to the formal arrangements template.

ATM/ANS.OR.A.080(e)

comment 671

comment by: DGAC

ATM/ANS.OR.A.080 (e):

The actual (achieved) accuracy of the data shall be added as mandatory metadata in the event when the regulatory accuracy requirement in the data catalogue is not met. In that case, the metadata shall be provided along with the data to the end user. It will allow the next intended user to:

- 1- identify the data items which do not meet the accuracy requirement, and
- 2- take into consideration the achieved accuracy of the data.

response NOT ACCEPTED. This is addressed in the formal arrangements.

comment 128

comment by: ENAIRE

Paragraph: ATM/ANS.OR.A.080 e

Reference text: next intended user

Type: amendment proposal

Comment: As this is a requirement for data originators, the requirement should only be up to the



	point of exchange with the AISP.
response	NOTED. The text is amended and an AMC is added on the retention period for AISPs only.
comment	329 comment by: <i>Slovenia Control, Ltd.</i> ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (e) This is actually two requirements and should be split as it is on page 20, 5. Data Quality Requirements for aviation undertakings.
response	NOT ACCEPTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	330 comment by: <i>Slovenia Control, Ltd.</i> ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (e) This requirement does not support the fact that the service provider will also receive metadata.
response	ACCEPTED. The paragraph is revised and the term 'transmit' is used.
comment	331 comment by: <i>Slovenia Control, Ltd.</i> ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (e) The metadata captured in this requirement is very generic and does not cover d) onwards from the CR 73/2010 metadata requirements in Annex I Part C which are considered essential items to be recorded.
response	NOTED. The elements to be collected have been selected to ensure a pragmatic approach.
comment	332 comment by: <i>Slovenia Control, Ltd.</i> ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (e) The introductory sentence repeats some of what is covered in 1). It should be reworded, as follows: 'Metadata shall be collected and maintained up to the provision to the next user'.
response	ACCEPTED. The text is amended for simplification.
comment	333 comment by: <i>Slovenia Control, Ltd.</i>

ATM/ANS.OR.A.080 Aeronautical data and aeronautical information

(e)(1) Information about the individual should be captured and retained but anonymised for provision to the next user.

response

NOT ACCEPTED. The current text only specifies organisations or entities. Anonymity is ensured.

ATM/ANS.OR.A.080(f)

comment

510

comment by: *Slovenia Control, Ltd.*

AMC1 ATM/ANS.OR.A.080(f) Aeronautical data and aeronautical information

TOOLS

This is incorrect and does not make sense as it stands. We propose that it should be amended, as follows:

The software requirements for tools used to support or automate aeronautical data and aeronautical information processes which are implemented fully or partially in software, should:

(a) correctly state what is required by the software in order to satisfy the tool requirements; and

(b) be traceable to the tool requirements referred to in point 2.

response

PARTIALLY ACCEPTED. This AMC is removed as it is considered as not bringing added value to the requirement.

comment

511

comment by: *Slovenia Control, Ltd.*

Pages 63-68

This text is a simple cut and paste from EUROCAE documentation and contains reference to other EUROCAE material which is not included.

response

NOTED.

comment

586

comment by: *CAA-N*

AMC1 ATM/ANS.OR.A.080(f)

(b) Please identify which point 2 this is referring to

response

NOTED. It is a typo error in the NPA. The provision is removed.

comment

712

comment by: *DGAC*



AMC1 ATM/ANS.OR.A.080(f) Aeronautical data and aeronautical information

In the ADQ regulation, Annex V proposes a different sentence structure. Indeed, the provisions in (a) and (b) initially apply to the “software requirements” and not to the “tools”. Were these provisions modified intentionally? This new wording in (a) and (b) is difficult to understand.

A “tool” cannot “state” anything. “Tool requirements” or “tool specifications” can.

response NOTED. This AMC is removed as it is considered as not bringing added value to the requirement.

comment 713 comment by: DGAC

AMC1 ATM/ANS.OR.A.080(f) Aeronautical data and aeronautical information (b)

What is referred to by “point 2”? It has to be specified.

response NOTED. It is a typo error in the NPA. The provision is removed.

comment 876 comment by: AIRBUS

(b) be traceable to the tool requirements referred to **in point 2**.

Comment: please clarify the location of the point 2

response NOTED. It is a typo error in the NPA. The provision is removed.

comment 250 comment by: FAA

page 63. AMC2 ATM/ANS.OR.A.080(f), paragraph (a), grammar correction, "impact on the quality" recommend change to "impact the quality".

response ACCEPTED.

comment 714 comment by: DGAC

AMC2 ATM/ANS.OR.A.080(f) Aeronautical data and aeronautical information (c)

What is the “software requirements phase”? Does that mean “*software requirements definition phase*”?

response ACCEPTED. The term ‘requirement’ is now replaced with ‘development’ phase.

comment 92 comment by: Avinor AS

in (b), please specify which 'point 2' you are referring to



response NOTED. It is a typo error in the NPA. The provision is removed.

comment 894 comment by: Finnish Transport Safety Agency
 Reference to ATM/ANS.OR.A.095 is not clear, since ATM/ANS.OR.A.095 is missing from the document.

response NOTED. The correct reference is 080(f) and included.

comment 99 comment by: Rockwell Collins, Inc.
 Page 66 regarding GM2 ATM/ANS.OR.A.080(f) Aeronautical data and aeronautical information item (c) Tools previously qualified under EUROCAE ED-76/RTCA DO-200A
 Comment: The currently proposed text does not include a provision that tools developed and qualified under EUROCAE ED-76/RTCA DO-200A that undergo minor changes do not need to certify to EUROCAE ED-76A/RTCA DO-200B processes.
 Change: We request that you modify the statement:
 “Tools previously qualified under EUROCAE ED-76/RTCA DO-200A that have changed and require requalification after a data supplier has transitioned to meet ED-76A/RTCA DO-200B process standards, shall perform that new qualification based on the following guidelines”
 to provision for tools to continue to use EUROCAE ED-76/RTCA DO-200A guidelines when the tool update supports legacy fielded systems.
 Rationale: In some cases, costs would be prohibitive to upgrade tools developed and certified under EUROCAE ED-76/RTCA DO-200A to EUROCAE ED-76A/RTCA DO-200B standards. These tools may need changes in order to support legacy fielded equipment.

response NOT ACCEPTED. Although the comment is correct, it is considered that it should not be in the rule. It is the responsibility of the service provider to prove if the change conforms to the requirement.

comment 811 comment by: AESA / DSA

PART	COMMENT	JUSTIFICATION
Proposed Amendments Section 3.2.1 (3) Proposed amendments to AMC and GM to Regulation .../...	Requirements for tools qualification have changed. EUROCONTROL Specification for Data Assurance Levels (ADQ EUROCONTROL-SPEC-0148) seems not to be applicable because it is not mentioned within the content of the NPA.	Duplication of efforts should be avoided as it increases costs and workload.
GM2 ATM/ANS.OR.A.080(f)	What happens with tools previously qualified under ADQ EUROCONTROL-SPEC-0148 ? Is the qualification	



Aeronautical data and aeronautical information	still valid?	
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response NOTED. The EUROCONTROL Specification for Data Assurance Levels is considered not anymore valid as framework of the rules on data quality has changed. However, a re-assessment of DAL will be done before the applicability of the new regulation.

comment 885 comment by: THALES AVIONICS
 The content of this guidance is redundant with ED-76A, section 2.4.5, then it should be replaced by a reference to ED-76A Section 2.4.5

response NOT ACCEPTED. It was considered that a transcription of the text of ED-76, was more appropriate than a mere reference, in order to provide the readers direct access to its content.

comment 886 comment by: THALES AVIONICS
 The content of this guidance is redundant with ED-76A, Appendix D1, then it should be replaced by a reference to ED-76A Appendix D1

response NOT ACCEPTED. It was considered that a transcription of the text of ED-76, was more appropriate than a mere reference, in order to provide the readers direct access to its content.

ATM/ANS.OR.A.080(g)

comment 672 comment by: DGAC
ATM/ANS.OR.A.080 (g)(1): It is not clear how a “formal arrangement” can be an efficient means to ensure that data is created/modified in compliance with one’s instructions.

response NOTED. The paragraph is amended and clarifies that the formal arrangements in this para is different from the one referred to in (d).

comment 673 comment by: DGAC
ATM/ANS.OR.A.080 (g)(2): The instructions should at least contain the data accuracy

	<p>requirements to be met (when applicable).</p> <p>Besides, it is important that these instructions specify which metadata have to be collected during the origination process and transferred along with the data.</p>
response	NOT ACCEPTED. Accuracy is covered for data origination through the data catalogue.
comment	<p>334 comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(g) This includes requirements which were listed under formal arrangements on page 19, 3. Formal Arrangements for aviation undertakings so should they be included under d) in ATM/ANS.OR.A.080 (this section)?</p>
response	NOT ACCEPTED. The split between the formal arrangements in (d) and (g) is made in purpose to differentiate the 2 situations.
comment	<p>335 comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(g) A large number of the requirements of CR 73/2010 are missing from this requirement and we consider that it is essential for these to be included in the formal arrangement/request for data origination, such as reference to the data quality requirements, metadata and error reporting.</p>
response	NOTED. These requirements are included throughout the rules for data originators.
comment	<p>336 comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(g) (2) (ii) Reword to ‘entity to which the data is to be provided’, removing ‘confirmation of’ as this is not needed and may cause confusion.</p>
response	ACCEPTED and removed.
comment	<p>337 comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(g) (2) (iv) It is not clear what is meant by ‘data origination report format’. We propose that this is reworded to ‘the format in which the data is to be provided’.</p>
response	NOT ACCEPTED. It is considered that the proposal refers to 2 different situations, which should not be the case. The data format is covered in the quality requirements in (b).

ATM/ANS.OR.A.080(h)

comment	674	comment by: DGAC
	<p><u>ATM/ANS.OR.A.080 (h):</u></p> <p>Adding new subdivisions (h)(1) and (h)(2) makes the whole requirements quite difficult to read. It should be considered to end this paragraph after “...data quality requirements” and having (h)(1) and (h)(2) as separate requirements.</p> <p>Moreover, in appendix 1 to article 3, there is an additional verification and validation requirement on the use of already existing aeronautical data in order to create new one:</p> <p>“When using aeronautical data to derive or calculate new aeronautical data, the initial data shall be verified and validated, except when provided by an authoritative source.”</p> <p>This provision should equally apply to service providers.</p>	
response	ACCEPTED and inserted.	
comment	129	comment by: ENAIRE
	<p>Paragraph: ATM/ANS.OR.A.080 h (1)</p> <p>Type: clarification</p> <p>Comment: This paragraph seems to deal with the data received to be used. Why validation is not included as it is for aviation undertakings in page 20 bullet 6?</p>	
response	ACCEPTED. The paragraph is amended.	
comment	130	comment by: ENAIRE
	<p>Paragraph: ATM/ANS.OR.A.080 h (1)</p> <p>Type: clarification</p> <p>Comment: This paragraph seems to deal with the data received to be used. Why the same exclusion as for aviation undertakings in page 20 bullet 6 is not included (i.e. except when provided by an authoritative source)?</p>	
response	ACCEPTED. The paragraph is amended.	
comment	131	comment by: ENAIRE
	<p>Paragraph: ATM/ANS.OR.A.080 h (1)</p> <p>Type: amendment proposal</p>	

response	<p>Comment: It is missed a more clear statement related to the needed verification and validation of data originated by the ANS prior it is sent to the AISP for publication.</p> <p>NOT ACCEPTED. The introductory paragraph already clarifies that the process is up to transmission to the AISP.</p>
comment	<p>227 comment by: <i>FAA</i></p> <p>Grammer coments:</p> <p>(h), (1), "...data processes does..." could/should read "...data processes do...".</p> <p>(j), "...subject to a suitable authentication process..." could/should read "...subject to suitable authentication processes...." since there is more than one way to authenticate.</p>
response	<p>NOT ACCEPTED for (h)(1): process is in singular</p> <p>NOT ACCEPTED for (j): using the plural form implies that there would need more than one, which is not the intent of the requirement.</p>
comment	<p>100 comment by: <i>Rockwell Collins, Inc.</i></p> <p>Page 68 regarding GM1 ATM/ANS.OR.A.080(h) Aeronautical data and aeronautical information VALIDATION AND VERIFICATION (a) (2)</p> <p>Comment: The currently proposed text:</p> <p>“The application of validation techniques considers the entire aeronautical data chain. This includes the validation performed by prior chain participants and any requirements levied on the data supplier.”</p> <p>Does not emphasize validation is closely aligned to the aeronautical data chain controlled by the organization (like specified in the verification section of this document).</p> <p>Change: Please consider adding the following clarifying text:</p> <p>“Most of the validation activities will be tailored to assuring correctness of the aeronautical data chain controlled by the organization performing validation.”</p> <p>Rationale: It is expected that prior chain participants have done due diligence in validating requirements leveraged on them.</p>
response	<p>NOT ACCEPTED. The GM is based on ED76-A. The proposed amendment is not considered as clarifying the validation process.</p>
comment	<p>512 comment by: <i>Slovenia Control, Ltd.</i></p> <p>GM1 ATM/ANS.OR.A.080(h) Aeronautical data and aeronautical information</p>

	VALIDATION AND VERIFICATION There is inconsistent terminology used in this section, i.e., ‘method’, ‘technique’
response	ACCEPTED. The term ‘method’ is replaced with ‘techniques’ throughout the document.
comment	513 comment by: <i>Slovenia Control, Ltd.</i> GM1 ATM/ANS.OR.A.080(h) Aeronautical data and aeronautical information VALIDATION AND VERIFICATION (a)(1) This is a definition. A different definition has already been provided on page 24 so we would propose that this is removed or at least that the definitions are consistent within the regulation.
response	NOT ACCEPTED. It is considered that it is guidance to the definition, it complements it.
comment	514 comment by: <i>Slovenia Control, Ltd.</i> GM1 ATM/ANS.OR.A.080(h) Aeronautical data and aeronautical information VALIDATION AND VERIFICATION (a)(2) This is not clear and we would propose that it is rewritten as follows: ‘When performing data validation, any data validation that has already taken place prior to this may also be considered. Providing data integrity has been assured, there is no need to repeat earlier validations as a matter of course.’.
response	NOT ACCEPTED. The text is stemming from ED76-A and should remain unmodified.
comment	515 comment by: <i>Slovenia Control, Ltd.</i> GM1 ATM/ANS.OR.A.080(h) Aeronautical data and aeronautical information VALIDATION AND VERIFICATION (b)(1) This is a definition. A different definition has already been provided on page 24 so we would propose that this is removed or at least that the definitions are consistent within the regulation as this does not seem to be in line with the previous definition.
response	NOT ACCEPTED. It is considered that it is guidance to the definition, it complements it.
comment	516 comment by: <i>Slovenia Control, Ltd.</i> AMC/GM GM1 ATM/ANS.OR.A.080(h) Aeronautical data and aeronautical information

	VALIDATION AND VERIFICATION (b)(1) This only covers integrity and so is not a complete description of what needs to be done to meet ATM/ANS.OR.A.080(h).
response	NOT ACCEPTED. This GM is stemming from ED76-A. Guidance material is not intended to provide a complete description of how the rule should be met. However, the Agency welcomes any proposal that can improve the guidance material.
comment	887 comment by: THALES AVIONICS The content of this guidance is redundant with ED76-A, section C.2, then it should be replaced by a reference to ED-76A Section C.2
response	NOT ACCEPTED. The transposition of a part of this document (ED76-A) was agreed during the drafting phase.
comment	912 comment by: Federal Office of Civil Aviation (FOCA), Switzerland ATM/ANS.OR.A.080 h; b, 3, i <i>Comment FOCA:</i> ‘The terminology used, i.e. ‘digital error detection technique’, seems to be wrongly interpreted meaning a data corruption mechanism. Justification: According to the ADQ IR (with CRC32Q), the described, expected effect is to ensure that the received data has not been corrupted in transit and storage. Hence, this is not a digital error protection (safety and data quality measure) as such but a data corruption measure (data security measure). Proposed Text: Change the named ‘error technique’ to ‘security-measure’. Appropriate AMC would be helpful and enable harmonized interpretation.
response	NOTED. EASA is not sure about the intent of this comment. The change of terminology does not change the content of this GM. The term is a well-known term in use and it is considered not appropriate to change it.
comment	981 comment by: LVNL Pro (ATC the Netherlands) Replacement of CRC check by alternative and more modern methods is appreciated.
response	NOTED.
comment	101 comment by: Rockwell Collins, Inc. Page 69 regarding GM2 ATM/ANS.OR.A.080(h) Aeronautical data and aeronautical information

	<p>VALIDATION AND VERIFICATION</p> <p>Comment: The currently proposed text:</p> <p>“Validation and verification techniques are employed throughout the data processing chain to ensure that the data meets the associated DQRs. “</p> <p>Does not clearly limit these activities to data delivered as specified in DQR.</p> <p>Change: Please consider restating this statement such that the user of the data delivered will perform validation and verification techniques to ensure correctness of data delivered as specified in the DQR.</p> <p>Rationale: The user of the data should not be expected to validate or verify data that the DQR has clearly stated should not be delivered to the user.</p>
response	NOTED. EASA is not sure about the intent of this comment. Further information/rationale about this comment is welcome.
comment	<p>517 comment by: <i>Slovenia Control, Ltd.</i></p> <p>GM2 ATM/ANS.OR.A.080(h) Aeronautical data and aeronautical information VALIDATION AND VERIFICATION TECHNIQUES</p> <p>We are not sure why this is separate to GM1 to 6. Data verification and validation DATA PROCESSING as GM1 to 6. Data verification and validation DATA PROCESSING covers techniques.</p>
response	NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	<p>338 comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(h) The scope of this requirement is beyond that over which service providers have control, i.e., ‘throughout the data chain’.</p>
response	ACCEPTED and removed.
comment	<p>339 comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(h) (1) and (2) Only refers to validation of data, despite the introductory sentence of h).</p>
response	ACCEPTED. It is now covered by the introduction of ‘in addition’.

ATM/ANS.OR.A.080(i)

comment	340	<p style="text-align: right;">comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(i) It is not clear how digital data error detection techniques can be applied to data provided by email or in PDF and how these can be checked for errors.</p>
response		<p>NOTED. The reference to pdf and email has been removed. However, it is considered that digital data error detection techniques can be applied to pdf or email.</p>
comment	341	<p style="text-align: right;">comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(i) This requirement uses the term ‘authorised source’ whereas ‘authoritative source’ is used elsewhere in the regulation. Consistency is needed.</p>
response		<p>NOT ACCEPTED. The term ‘authorised source’, in this context, is meant to be different from the concept of ‘authoritative source’.</p>
comment	342	<p style="text-align: right;">comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(i) This requirement should be reworded to ‘Digital data error detection techniques shall apply to all integrity levels of data’.</p>
response		<p>ACCEPTED and included.</p>
comment	343	<p style="text-align: right;">comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(i) The structure of this requirements is different to the equivalent requirement in the aviation undertakings section.</p>
response		<p>NOTED. The structure of the parts are different for clarity purposes – in ATM/ANS.OR.080, it is to avoid having a paragraph with a very long sentence, thus difficult to depict immediately.</p>
comment	675	<p style="text-align: right;">comment by: <i>DGAC</i></p> <p><u>ATM/ANS.OR.A.080 (i)</u>: Error detection techniques do not apply to an “integrity level”. They apply to data, in order to maintain (or guarantee) integrity. Rewording proposal: “ensure that digital data error detection techniques are used during the transmission and/or storage of aeronautical</p>

	<i>data and digital data sets in order to maintain/guarantee the applicable data integrity levels”.</i>
response	ACCEPTED and amended.

ATM/ANS.OR.A.080(k)

comment	344 comment by: <i>Slovenia Control, Ltd.</i> ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (k) This should be separated into two requirements, as it is for the equivalent requirement in the aviation undertakings section.
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response	NOT ACCEPTED. The structure of this Annex (with alphabetical numbering) makes it difficult to separate the requirements in two. The Agency recognises that, ideally, for easier reading, it should have been separated.
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comment	345 comment by: <i>Slovenia Control, Ltd.</i> ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (k) This requirement does not address preventative action at all which is a very important part of managing errors.
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response	NOTED. The comment is relevant but it is not intended to address the prevention action in this rule, whereas it should be part of the QMS. Furthermore, it is already ensured throughout other rules in the current text.
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comment	346 comment by: <i>Slovenia Control, Ltd.</i> ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (k) Data delivery needs to be clarified as ‘after the data is provided to the next user’.
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response	NOT ACCEPTED. The current text is self-explanatory and simpler.
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comment	347 comment by: <i>Slovenia Control, Ltd.</i> ATM/ANS.OR.A.080 Aeronautical data and aeronautical information (k) The requirement needs to be broadened to cover the part of the process between origination and provision to the next user.
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response	NOTED. The comment is relevant but it is not intended to address the prevention action in this rule, whereas it should be part of the QMS. Furthermore, it is already ensured throughout other
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rules in the current text.

comment	<p>348 comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.080 Aeronautical data and aeronautical information</p> <p>(k) This requirement should be reworded to ‘errors in critical and essential data are urgently addressed’.</p>
response	<p>NOT ACCEPTED. It is considered that the concept of ‘priority’ is more appropriate in this case.</p>

comment	<p>676 comment by: <i>DGAC</i></p> <p>ATM/ANS.OR.A.080 (k): Formulation can be misinterpreted. Rewording proposal: “...and that priority is given <u>to deal with errors in critical and essential aeronautical data.</u>”</p>
response	<p>NOTED. The current wording is considered clear enough.</p>

ATM/ANS.OR.A.085

comment	<p>349 comment by: <i>Slovenia Control, Ltd.</i></p> <p>ATM/ANS.OR.A.085 Common Reference Systems for Air Navigation</p> <p>Instead of ‘use’ should this requirement be worded as ‘For the purpose of air navigation, service providers shall provide data to the AIS using: ‘</p>
response	<p>NOT ACCEPTED. It is considered more appropriate to keep the word used in ICAO annexes. Furthermore, the proposal may also limit the scope of this provision.</p>

comment	<p>834 comment by: <i>EUROCONTROL</i></p> <p>Annex III - Page 26</p> <p><u>Major comment</u></p> <p>ATM/ANS.OR.A.080 - Item (b) (5)</p> <p>A requirement appears missing, namely that service provider originating data need to comply with the timeliness aspects. Timeliness, ref. the NPA definition, reflects the status of data elements in time. However, another important element of data quality is the timely delivery of data, which is not found in the data quality requirements for service providers. Please add therefore a requirement for service providers: “Data originators (service providers) shall ensure that information mentioned in AIS.OR.505 is provided in due time to the aeronautical information services, in accordance with the Formal Arrangements”. ACCEPTED and added in 080.</p>
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Other comments

ATM/ANS.OR.A.080 - Item (b)

1/ The wording in item (b) “...from origination and maintained through to publication to the next intended user” does not seem appropriate for (ATM/ANS) Service Providers. According to the definition of the next-intended user, it is an entity receiving aeronautical information from the AIS. This is not the case and not the task of the (ATM/ANS) Service Provider. Please replace the text ‘maintained through to publication to the next intended user’ by something like ‘...maintained until the data is delivered to the AISP.’ **ACCEPTED. The text is removed.**

ATM/ANS.OR.A.080 - Item (b) (2)

2/ Text in (b) and in (b) (2) duplicates the same text parts. A revision would enhance the readability of the provision. In sub-item (2) the text ‘from origination to distribution to the next intended user’ could be deleted. **ACCEPTED. The text is removed.**

ATM/ANS.OR.A.080 - Item (d)

3/ Point d) overlaps with the introductory text to this provision. The duplicated text confuses the requirement. Please consider removing in point d) “when exchanging aeronautical data and aeronautical information”. **PARTIALLY ACCEPTED. The text is amended.**

ATM/ANS.OR.A.080 - Item (g)

4/ The ‘when’ inside item (g) duplicates the ‘when’ in the introductory text. A revision would enhance the readability of the provision. Please rephrase ‘when’ in (g) to avoid repetition of the condition e.g. to use “if requesting...”. **NOT ACCEPTED. The term ‘when’ is considered as being clearer.**

ATM/ANS.OR.A.080 - Item (e)

5/ “maintain them up to the next intended user.” is an unclear provision requirement. When reading the definition, the term “next intended user” does not apply to data originators. Please remove the words “to the next intended user”. **ACCEPTED and amended**

ATM/ANS.OR.A.080 - Item (h)

6/ It appears that the requirements to Service Providers for validation and verification techniques are much stricter than the requirements for Aviation Undertakings even if all parties ultimately need to meet the data quality requirements. Both Service Providers and Aviation Undertakings originate aeronautical data/information which affects the safety. Nevertheless the Service Providers are required to employ more stringent validation and verification techniques, compared to the Aviation Undertakings.

Please clarify why the requirements to Service Providers for validation and verification techniques are much stricter than the requirements for Aviation Undertakings, when they perform the similar function during data origination requiring similar level of quality. **ACCEPTED. Text added to introduce V&V for data originators in IR and AMC.**

ATM/ANS.OR.A.080 - Item (i)

7/ The regulation should not make any reference in ATM/ANS Service Provider requirements to



Data Products i.e. digital data sets or data sets. The ATM/ANS Service Provider, here being the data originator, should be responsible only for ‘aeronautical data and aeronautical information’ which would, but only later on, take the form of data set, NOTAM, Amendment etc. Please delete ‘and digital data sets’ and ‘sets’ within item (i). **PARTIALLY ACCEPTED. The text is amended.**

ATM/ANS.OR.A.085 - Common reference systems for air navigation - Major comment

8/ This requirement goes beyond Annex 15 current requirements and an exception is needed for the survey function. Annex 15 currently requires WGS-84 only for published coordinates (1.2.1.1). It could be misinterpreted that surveys should be performed in WGS-84 only, whereas they are in fact done in local coordinate systems which are more accurate. Only the output of those surveys would then be converted to WGS-84. Please add text to highlight this exclusion for surveys, saying: “...horizontal reference system, except during survey”. **ACCEPTED. The text is amended.**

ATM/ANS.OR.A.085 - Common reference systems for air navigation

9/EGM-96 model is not listed. The Earth Gravitational Model - 1996 (EGM-96), shall be used by international air navigation as the global gravity model. Please clarify why EGM-96 is not listed as requirement on page 26. **NOT ACCEPTED. It is considered that it should remain in AMC.**

ATM/ANS.OR.A.xxx - Missing requirement - Major comment

10/ A requirement on personnel competence seems to be missing for Service Provider staff if they originate relevant data. All other providers which originate data (AISP, ADR and even AU) need to ensure that staff who is doing so, are trained and competent. This would equally apply to all ATM-ANS staff being data originator. It is proposed to add a requirement similar to the text used in article 3.3 and ADR.OR.D.015, as follows: “Service providers shall ensure that the personnel responsible for originating aeronautical data and aeronautical information are adequately trained, competent and authorised to perform this task.” **NOT ACCEPTED. A similar requirement is already included in ATM/ANS.OR.B.005, for all personnel of service providers.**

response For easier reading, please see the responses in bold above.

comment 519 comment by: *Slovenia Control, Ltd.*

GM1 ATM/ANS.OR.A.085(b) Common reference systems for air navigation

MEAN SEA LEVEL

This restricts the reference system to a mean sea level one. Is this appropriate?

response NOTED. Yes, it is considered as appropriate. Also because this is the one applied at ICAO level.

comment 520 comment by: *Slovenia Control, Ltd.*

GM1 ATM/ANS.OR.A.085(b) Common reference systems for air navigation

MEAN SEA LEVEL



	(a) The sentence ‘The geoid globally most closely approximates MSL’ needs to be clarified.
response	NOTED. The reference made to Annex C (Vertical reference systems) to EUROCONTROL Specifications for the Origination of Aeronautical Data, Volume 2: Guidance material (EUROCONTROL-SPEC-154, Edition 1.0 of 04/02/2013) is considered to provide the necessary clarification.
comment	861 comment by: <i>Airport Operators Association (UK)</i>
response	There is no text related to this comment.
comment	988 comment by: <i>EUROCONTROL</i> AMC/GM - Subpart A of Annex III - Page 62 <u>GM1 ATM/ANS.OR.A.085(a)</u> - Page 69 There is a misleading reference in third para “...[RD30]...” shown in the text. Also, the term WGS-84 is redundant. A text correction is required. Please modify text as follows: “...WGS-84, [RD 30] , WGS 84 is characterised ...”.
response	NOTED. The mentioned text is removed from the GM1 ATM/ANS.OR.A.085(a) Common reference systems for air navigation
comment	518 comment by: <i>Slovenia Control, Ltd.</i> AMC/GM To Appendix1 to Article 3(3) Requirements for Aviaton Undertakings GM2 ATM/ANS.OR.A.085(a) Common reference systems for air navigation TEMPORARY NON-COMPLIANCE OF GEOGRAPHICAL COORDINATES This should apply to all coordinate data, not just transformed data.
response	NOT ACCEPTED. This GM is purposed to cover a particular situation, in this case when the data is transformed.

3.1. Draft regulation – Annex VI (Part-AIS) & related AMC/GM

AIS.OR.105



comment	<p>132 comment by: ENAIRE</p> <p>Paragraph: AIS.OR.105 (a)</p> <p>Reference text: necessary</p> <p>Type: clarification</p> <p>Comment: Is the AISP the one to decide what information is necessary? If so, GM is needed. If not, the sentence should be rephrased keeping clear that the AISP makes available the information that is established to be provided.</p>
response	<p>NOTED. The paragraph is a general provision clarifying the scope of AIS and is based on an ICAO standard wording.</p>
comment	<p>570 comment by: Lufthansa Systems FlightNav</p> <p>AIS.OR.105, (a):</p> <p>This paragraph should also point out that the information provided shall be available for operational use without limitations.</p> <p>It is suggested to add "with no limitations for operational use" at the end of the sentence.</p> <p>This to ensure that AIS providers do not restrict the usage of its published content, for example by a disclaimer.</p>
response	<p>NOT ACCEPTED. The proposal is considered as being already covered in paragraph (c) below.</p>
comment	<p>1043 comment by: The Boeing Company</p> <p>Page: 27</p> <p>Paragraph: AIS.OR.105 Responsibilities of aeronautical information services providers</p> <p>The proposed text states:</p> <p>(a) An aeronautical information services provider shall ensure the provision of aeronautical data and aeronautical information necessary for the safety, regularity and efficiency of air navigation.</p> <p>REQUESTED CHANGE: Please add at the end of the sentence: “, with no limitations for operational use.”</p> <p>(a) An aeronautical information services provider shall ensure the provision of aeronautical data and aeronautical information necessary for the safety, regularity and efficiency of air navigation, <i>with no limitations for operational use.</i></p> <p>JUSTIFICATION: For example, AIPs with disclaimers like “Not for operational use” do exist in Europe and cannot be used for operational purposes.</p>
response	<p>NOT ACCEPTED. The proposal is considered as being already covered in paragraph (c) below.</p>

comment	<p>1067 comment by: EUROCONTROL</p> <p>ANNEX VI - Page 27</p> <p>AIS.OR.105 Item (b)</p> <p>1/ One AIS function appears to be missing in this provision based on ICAO Annex 15, even if it is noted there as an optional element. Annex 15 includes a Note assigning AIS the origination function: ‘Note.— An AIS may include origination functions.’ Please clarify why the note from ICAO Annex 15 requirements was not considered as an AIS function.</p> <p>AIS.OR.105 Item (c) - <u>Major comment</u></p> <p>2/ The NPA is missing the text from both current and future Annex 15 for responsibilities of the AISP. The identical Annex 15 requirement contains ‘...in a form suitable for the operational requirements of the air traffic management (ATM) community, including...’. It is proposed to add the text from Annex 15: ‘...in a form suitable for the operational requirements of the air traffic management (ATM) community’.</p>
response	<p>1/ NOTED. The AIS function is considered as being covered by the provisions under ATM/ANS.080.</p> <p>2/ NOT ACCEPTED. The form is clarified in the rule text.</p>
comment	<p>571 comment by: Lufthansa Systems FlightNav</p> <p>AIS.OR.105, (c):</p> <p>The NPA 2016-02 is not mentioning the downstream parties involved, and this may have been defined like this by purpose. To a certain extent, at least the DAT providers should be mentioned in the document, to assure that respective requirements are taken into consideration.</p> <p>For thereto, subpara (c) should be amended by an additional point (3) as follows:</p> <p>"(3) DAT providers and others."</p>
response	<p>NOT ACCEPTED. DAT providers use the data provided by the AISP.</p>
comment	<p>795 comment by: CAA-NL</p> <p>AIS.OR.105 Responsibilities of aeronautical information services providers</p> <p>Under (c) it is stated that “an aeronautical information services provider shall ensure that aeronautical data and aeronautical information are available for:</p> <p>(1) personnel involved in flight operations.</p> <p>Next to personnel this information should also be available to individuals involved in flight operations. Specifically in General Aviation people are flying as individuals without support of an organization</p>

	We suggest the following change: (1) persons and personnel involved in flight operations...
response	NOT ACCEPTED. Personnel includes persons.

comment 818 comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
<p>Proposed Amendments</p> <p>Section 3.1.1 (5)</p> <p><i>Proposed amendments to Regulation (EU) .../... Annex VI (Part-AIS)</i></p> <p>AIS.OR.105(c)(2)</p>	<p>This requirement AIS.OR.105(c)(2) states that "<i>air traffic services providers responsible for flight information service, and the services responsible for pre-flight information</i>". This list makes no reference to the air traffic control services which are indeed part of the services that ATSPs may provide.</p> <p>Is the assumption made that all ATSPs will provide FIS and thus there is no need to include the ATCPs as a separate item in the list?</p> <p>If not, the following wording is proposed: "<i>air traffic services providers responsible for flight information service, air traffic control services and the services responsible for pre-flight information</i>".</p>	<p>The wording proposed intends to bring more clarity to requirement AIS.OR.105(c)(2) and, thus, facilitate the implementation of the regulation.</p>

response	NOT ACCEPTED. The term ‘air traffic control services’ is considered to be already included in the definition of the term ‘ATS’.
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comment	<p>1044 comment by: <i>The Boeing Company</i></p> <p>Page: 27/28</p> <p>Paragraph: AIS.OR.105 Responsibilities of aeronautical information services providers</p> <p>The proposed text states:</p> <p>(c) An aeronautical information services provider shall ensure that aeronautical data and aeronautical information are available for:</p> <p>(1) personnel involved in flight operations, including flight crews, flight planning, and flight simulators; and</p> <p>(2) air traffic services providers responsible for flight information service, and the services responsible for pre-flight information.</p> <p>REQUESTED CHANGE: Please add a new item</p> <p><i>(3): Data Service Providers and others.</i></p> <p>JUSTIFICATION: We would see this as the perfect place to acknowledge the role of the downstream parties and to make sure that they will get the aeronautical data and information mentioned in AIS.OR.105. It would also emphasize the fact that the AIS-Provider and the DAT-Provider Regulation should be seen as a whole to regulate aeronautical data provision from beginning to end, without any gaps.</p>
response	<p>NOT ACCEPTED. DAT providers use the data provided by the AISP.</p>
comment	<p>351 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart A</p> <p>Section 1</p> <p>General Requirements</p> <p>AIS.OR.105 Responsibilities of Aeronautical Information Services Providers</p> <p>(d) This requirement is for the provision of a 24 hour NOTAM and pre-flight service, however, the pre-flight service may only be available during the day time for some aerodromes. This may place an unnecessary burden (and hence cost) on some States.</p>
response	<p>NOT ACCEPTED. It is not considered necessary to have personnel 24 hours at each aerodrome although it needs to be covered 24h.</p>
comment	<p>352 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart A</p> <p>Section 1</p>

	<p>General Requirements</p> <p>AIS.OR.105 Responsibilities of Aeronautical Information Services Providers</p> <p>(d) In some States, ARO and briefing services are not part of the AIS and so the requirement should not force a change on the organisational structure of States.</p>
response	NOT ACCEPTED. ARO is not covered by this rule while briefing service is. No change on the organisational structure is necessary.
comment	<p>353 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Section 1</p> <p>General Requirements</p> <p>AIS.OR.105 Responsibilities of Aeronautical Information Services Providers</p> <p>The use of the word 'any' is not acceptable as they may be requested to provide data that they would not normally be expected to and so there are political and cost implications for a requirement that states that the AISP shall make any data that another AISP requires.</p>
response	NOT ACCEPTED. A GM is added to explain that AISPs provide only data that are available.
comment	<p>354 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Section 1</p> <p>General Requirements</p> <p>AIS.OR.105 Responsibilities of Aeronautical Information Services Providers</p> <p>(f) The term 'procedure' is used here whereas 'processes' has been used more commonly. We recommend that the use of these terms is checked throughout the regulation. The use of process is preferred to avoid confusion with flight procedures.</p>
response	NOT ACCEPTED. Both terms are used in different context.
comment	<p>355 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Section 1</p> <p>General Requirements</p> <p>AIS.OR.105 Responsibilities of Aeronautical Information Services Providers</p> <p>(g) It is not clear how this requirement can be achieved for NOTAM.</p>
response	The general statement in the AIPs is considered sufficient.

comment	356	comment by: <i>Slovenia Control, Ltd.</i>
	Section 1	
	General Requirements	
	AIS.OR.105 Responsibilities of Aeronautical Information Services Providers	
	(g) The use of 'irrespective of the format' is considered to be an issue, for example, with AIXM data sets, this information would have to be included in metadata and is then not considered to be "clearly indicated".	
response	NOT ACCEPTED. The general statement in the AIPs is considered sufficient.	

comment	919	comment by: <i>Marcus Andersson, LfV</i>
	Should reflect FAB AIS collaborations as well.	
response	NOT ACCEPTED. It is not considered to be needed.	

AMC/GM AIS.OR.105

comment	9	comment by: <i>Prof. Filippo Tomasello</i>
	probably a reference to the obligation of supervising subcontractors could be appropriate	
response	NOT ACCEPTED. Such reference is already catered for in Annex III (OR ATM/ANS.OR.B.015 – 'Contracted activities') of Regulation 2017/373.	

AIS.OR.200

comment	677	comment by: <i>DGAC</i>
	<u>AIS.OR.200 General (a)</u>	
	It should be considered to reword the second part of the sentence. Data are not "provided" in accordance with applicable data quality requirements. Data just "meet" quality requirements.	
	Rewording proposal : " <i>aeronautical data and aeronautical information are provided in accordance with the specifications laid down in the data catalogue, as specified in Appendix 1 to Annex III to Regulation EU .../... , and <u>meet</u> the applicable data quality requirements, as specified in AIS.TR.200; and</i> "	
response	ACCEPTED and included.	

comment	<p>228 comment by: FAA</p> <p>General comment/question this page, Section 2, first paragrph (a), Will/does "Appendix ! to Annex III to Regulation EU.../... and AIS.TR.200" exceed the requirements of Annex 15?</p> <p>Formal arrangements paragraph, (b); "between themselves", similar to prevoius comment, language reads funny. For your consideration, it is possible to revise language into one sentence: "Aeronautical information service providers shall ensure that formal arrangements are established between all parties exchanging data."</p>
response	<p>1/ No, it is transposed from ICAO PANS-AIM.</p> <p>2/ ACCEPTED and amended.</p>
comment	<p>357 comment by: Slovenia Control, Ltd.</p> <p>Subpart A</p> <p>Section 2</p> <p>Data Quality Requirements</p> <p>This section is not only about data quality requirements as it contains requirements about formal arrangements and data exchange within it.</p> <p>A consistent structure for these types of requirements for aviation undertakings, service providers and AIS is needed. For AIS, the data quality requirements are expanded as TRs but for aviation undertakings, they are ORs.</p>
response	<p>ACCEPTED. Title changed to 'Data quality management'.</p>
comment	<p>358 comment by: Slovenia Control, Ltd.</p> <p>Subpart A</p> <p>Section 2</p> <p>Data Quality Requirements</p> <p>AIS.OR.200 General</p> <p>(b) This requirement should be reworded to 'data meeting the data quality requirements is maintained from reception through to distribution to the next intended user'.</p>
response	<p>NOT ACCEPTED. It is not the data but the DQR that need to be maintained.</p>
comment	<p>359 comment by: Slovenia Control, Ltd.</p> <p>Subpart A</p>

	<p>Section 2</p> <p>Data Quality Requirements</p> <p>AIS.OR.200 General</p> <p>(b) What an AIS should do with data not meeting the data quality requirements is not clear. If an AIS is unable to check the integrity of the data it receives which needs to be published urgently, in reality, it performs reasonableness checks on the data and then publishes it.</p> <p>It appears that the proposed regulation does not mandate the provision of necessary metadata to the AIS to allow the confirmation that data meets its requirements. This seems to result in significant liability issues for the AIS.</p>
response	<p>NOTED. All data should meet the DQR. However data limitations provision exist in AIS.OR.240. Through the formal arrangements, non-compliant data with DQR needs to be indicated.</p>
comment	<p>678 comment by: DGAC</p> <p><u>AIS.OR.200 General (b)</u></p> <p>The sentence “<i>from reception through to distribution to the next intended user</i>” could be simplified into “<i>from reception to distribution to the next intended user</i>”.</p>
response	<p>ACCEPTED. The text is changed.</p>
comment	<p>360 comment by: Slovenia Control, Ltd.</p> <p>Subpart A</p> <p>Section 2</p> <p>Data Quality Requirements</p> <p>AIS.OR.200 General</p> <p>ICAO Annex 15 requires that AIS to make available the aeronautical data and aeronautical information whereas this requirement places a requirement on the AIS to ensure the provision of the data. This is beyond the responsibilities of the AIS and should be a requirement for the member State. In some cases, the information is provided by other bodies, such as the geodetic agencies. This is particularly true for terrain data.</p>
response	<p>NOTED. It is considered that the AIS providers must only provide aeronautical data and aeronautical information when the latter is made available to them.</p>
comment	<p>361 comment by: Slovenia Control, Ltd.</p> <p>Subpart A</p>

	<p>Section 2</p> <p>Data Quality Requirements</p> <p>AIS.OR.200 General</p> <p>The requirement refers to the Data Catalogue in a different way to the aviation undertakings and service provider requirements.</p>
response	ACCEPTED. It is amended to align with the other parts.

AMC/GM AIS.OR.200

comment	<p>51 comment by: <i>NATS National Air Traffic Services Limited</i></p> <p>Page No: 72 Section 2 (a) (See also page 121 of comparison table)</p> <p>Paragraph No: AMC1 AIS.OR.200 General/Automation</p> <p>Comment: The comparison table incorrectly indicates that this is a transposition from Annex 15</p> <p>Justification: Annex 15, Section 3.5.2. states that automation SHALL enable exchange between parties involved in data chain. Whereas the NPA text indicates that automation should take place between AISPs.</p>
response	ACCEPTED. Text moved to AMC level and is now consistent with ICAO.

comment	<p>521 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart A</p> <p>Section 2 Data Quality requirements</p> <p>GM1 AIS.OR.200 General</p> <p>DATA CATALOGUE</p> <p>What is meant by 'common terminology' when referring to the data catalogue is unclear.</p>
response	'Common terminology' is considered to mean common expert languages used to avoid different interpretations.

comment	<p>523 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart A</p> <p>Section 2 Data Quality requirements</p> <p>AMC1 AIS.OR.200 General</p>
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	<p>AUTOMATION</p> <p>Why only AIS? Where other parties have such facilities this should also be undertaken.</p>	
response	<p>NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.</p>	
comment	<p>715</p> <p><u>AMC1 AIS.OR.200 General (a)</u></p> <p>Rewording: “In order to meet the data quality requirements, automation should <u>be used in order to</u> enable digital aeronautical data exchange between aeronautical information services providers.”</p>	<p>comment by: DGAC</p>
response	<p>ACCEPTED.</p>	
comment	<p>781</p> <p>Section 1 and Section 2 have the same title.</p>	<p>comment by: Solitec Software Solutions GesmbH</p>
response	<p>ACCEPTED and changed.</p>	
comment	<p>782</p> <p>"AMC1 AIS.OR.200" is used twice.</p>	<p>comment by: Solitec Software Solutions GesmbH</p>
response	<p>NOTED.</p>	
comment	<p>524</p> <p>Subpart A</p> <p>Section 2 Data Quality requirements</p> <p>GM1 AIS.OR.200 General</p> <p>DATA CATALOGUE</p> <p>What is meant by ‘common terminology’ when referring to the data catalogue is unclear. Would “common definition” be better?</p>	<p>comment by: Slovenia Control, Ltd.</p>
response	<p>‘Common terminology’ is considered to mean common expert languages used to avoid different interpretations.</p>	

AMC/GM to Section 2

comment	<p>254</p> <p>page 79. GM1 to Section 2 - General requirements paragraph, last stand alone line "Reference is made to EUROCAE...." is repete language in main paragraph above. Reccomend delete stand alone line.</p>	comment by: <i>FAA</i>
response	Accepted.	

comment	<p>533</p> <p>Subpart B</p> <p>Section 2 General requirements</p> <p>GM1 to Section 2 General requirements</p> <p>ED-76A</p> <p>EUROCAE documents do not apply to ANSPs. We already have a EUROCONTROL Specification that addresses data processing and was specifically developed to address CR 73/2010. Although the specification would benefit from some refinement, it would be more appropriate to reference it from here as many States have already spent time and effort to comply with it.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	<p>NOTED. Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.</p>	

AIS.TR.200

comment	<p>149</p> <p>Paragraph: AIS.TR.200 (b)</p> <p>Reference text: commensurate</p> <p>Type: amendment proposal</p> <p>Comment: Seems to vague for a TR, at least GM or AMC needed.</p>	comment by: <i>ENAIRE</i>
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response ACCEPTED. GM is added.

comment 150 comment by: ENAIRE

Paragraph: AIS.TR.200

Type: amendment proposal

Comment: Seems strange that this is at TR level and for ATM/ANS is at OR level (ATM/ANS.OR.A.080).

response NOTED. This is because there are no technical requirements (TR) related to Part ATM/ANS.OR.O80.

comment 202 comment by: DFS Deutsche Flugsicherung GmbH

(d) Some AMC/GM would be helpful to guide how and which traceability mechanisms could be applied, in particular at the interface to DAT providers.

response NOTED. Please refer to AMC1 ATM/ANS.OR.B.030 Record-keeping in ATM/ANS.OR (applicable to all service providers including AIS providers) where mechanism to record the data is proposed.

comment 236 comment by: FAA

Data quality requirements paragraph, (c) ..."Based on the integrity classification...", NOTE: I failed to mention something earlier in the document because the major Annex 15 update is fluid and I recently learned of a possible change: ICAO intends to add language referring to "risk" associated with term integrity classification. This change may have a material affect on this document.

response NOTED.

comment 419 comment by: Slovenia Control, Ltd.

Subpart B

Section 2 Data quality requirements

AIS.TR.200 General

How should data not included in the Data Catalogue be addressed?

response NOTED. All the necessary data are considered to be included in the data catalogue. Currently, there is no identification of missing data.

comment 420 comment by: Slovenia Control, Ltd.



response	<p>Subpart B</p> <p>Section 2 Data quality requirements</p> <p>AIS.TR.200 General</p> <p>The confidence level of the data is not addressed.</p> <p>The confidence level of the data only applies to eTOD.</p>
comment	<p>421 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart B</p> <p>Section 2 Data quality requirements</p> <p>AIS.TR.200 General</p> <p>(a) This requirement does not allow for the increase or decrease of the data quality requirements specified in the data catalogue for example, accuracy requirements for VFR aerodromes. It has addressed one intended purpose only.</p>
response	<p>NOTED. However, it is considered to be covered by this task; it is up to ICAO to decide if a sub category for VFR ADR should be proposed.</p>
comment	<p>422 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart B</p> <p>Section 2 Data quality requirements</p> <p>AIS.TR.200 General</p> <p>(a) Requirement with this same intent are worded differently throughout the regulation.</p>
response	<p>NOTED. When possible, the same wording has been used now.</p>
comment	<p>691 comment by: <i>DGAC</i></p> <p><u>AIS.TR.200 General (a)</u></p> <p>Rewording proposal : “The accuracy for aeronautical data shall be as <u>specified</u> in the data catalogue <u>depicted</u> in Appendix 1 to Annex III”</p> <p><u>AIS.TR.200 General (d)</u></p> <p>Given the definition of “traceability”, the use of the word “retained” in that sentence is redundant. It is proposed to delete “retained”.</p>
response	<p>ACCEPTED.</p>

comment	423 Subpart B Section 2 Data quality requirements AIS.TR.200 General (b) There is a mixture of ‘processes’ and ‘procedures’ used in this requirement. We recommend that the use of these terms is checked throughout the regulation. The use of process is preferred to avoid confusion with flight procedures.	comment by: <i>Slovenia Control, Ltd.</i>
response	NOT ACCEPTED. Both terms are used in different context.	
comment	609 <u>AIS.TR.200 General Item (b)</u> The wording regarding the “resolution” commensurate with the actual data accuracy is not clear. Please clarify the meaning of the sentence.	comment by: <i>CANSO</i>
response	ACCEPTED. GM is provided.	
comment	747 <u>AIS.TR.200 General Item (b)</u> The wording regarding the “resolution” commensurate with the actual data accuracy is not clear. Please clarify the meaning of the sentence.	comment by: <i>ENAV</i>
response	ACCEPTED. GM is provided.	
comment	424 Subpart B Section 2 Data quality requirements AIS.TR.200 General (c)(2) and (3) These definitions do not allow for any data errors at all. This is unachievable – regulation must be achievable.	comment by: <i>Slovenia Control, Ltd.</i>
response	NOTED. It is considered that it is not possible to quantify acceptable error rates.	
comment	911	comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i>

AIS.TR.200 d

Comment FOCA: Ensuring the traceability of active data is a task, which belongs to all organizations in the full data chain and is not limited to the AISP. In addition, the current definition of traceability is too limited as only linked to record changes.

Justification: We believe that traceability must be a requirement on all involved parties in the data chain. The definition of traceability should be amended to be aligned with ICAO Annex 15, which is in accordance with ISO 9000 and includes ‘application and locations and history’.

Proposed Text: We propose to allocate responsibility on traceability to all parties involved in the data chain and to add a requirement to AISP to maintain full received metadata for all active resp. valid data.

Definition of traceability in the Annex 1 shall be aligned to ICAO Annex 15, stating

‘the degree to which a record of the changes made to a data item can be provided in order to enable an audit trail to be followed from the end-user to the data originator’.

response ACCEPTED. The text is adjusted to cover all parties.

comment 425

comment by: *Slovenia Control, Ltd.*

Subpart B

Section 2 Data quality requirements

AIS.TR.200 General

(e) The meaning of the phrase ‘with the data elements’ is not clear. This requirement does not make sense as timeliness is not about the effective period but about its timely provision. We think the requirement is referring to the recording of limitations in the metadata but has mixed this with timeliness.

response ACCEPTED and deleted.

comment 1056

comment by: *The Boeing Company*

Page: 39

Paragraph: AIS.TR.200 General

The proposed text states:

(e) Timeliness shall be ensured by including any limits on the effective period with the data elements.

REQUESTED CHANGE:

Please add a new sub-paragraph about on-time delivery such as:



(h) On-time delivery of aeronautical data shall be ensured according to the ICAO AIRAC system.

JUSTIFICATION: The best-quality data is of no use if it is not delivered on time.

response ACCEPTED. The text has been amended to include timeliness as timely delivery of the data.

comment 426 comment by: *Slovenia Control, Ltd.*

Subpart B

Section 2 Data quality requirements

AIS.TR.200 General

(f) The AIS does not know what the intended use of the data they originate / provide is. The regulation lacks a basic understanding of data meeting DQRs and these DQRs being fit for purpose.

response ACCEPTED. The provision is amended.

comment 427 comment by: *Slovenia Control, Ltd.*

Subpart B

Section 2 Data quality requirements

AIS.TR.200 General

(g) This requirement is not clear at all. Is an AIS expected to know all end-use formats of the data it provides? For example, is the AIS expected to have knowledge of the digital delivery of flight procedures and that this is suitable for FMS? In our opinion this is excessive and costly to meet.

response It is considered and NOTED.

comment 989 comment by: *LVNL Pro (ATC the Netherlands)*

It should be considered to prescribe a standard (SWIM) format for the provision of critical (and essential) data to the AISP's.

response NOTED.

AIS.OR.205

comment 362 comment by: *Slovenia Control, Ltd.*

Subpart A



	<p>Section 2</p> <p>Data Quality Requirements</p> <p>AIS.OR.205 Formal arrangements</p> <p>There is inconsistent use of ‘aeronautical data and aeronautical information’ and ‘aeronautical data and information’ throughout the regulation. We would recommend that the use of these terms is checked.</p>
response	ACCEPTED. The correct term used should be ‘aeronautical data and aeronautical information’ and is now consistent throughout the rules.
comment	<p>363 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart A</p> <p>Section 2</p> <p>Data Quality Requirements</p> <p>AIS.OR.205 Formal arrangements</p> <p>This requirement does not support the AIS providing data to another party but not it receiving any in return from the same party.</p> <p>Therefore, we would recommend that a) and b) are combined and reworded as ‘An aeronautical information services provider shall ensure that formal arrangements are established with parties with which it exchanges data, with the exception of the next intended user’.</p>
response	PARTIALLY ACCEPTED. The text is amended to capture the proposal.
comment	<p>364 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart A</p> <p>Section 2</p> <p>Data Quality Requirements</p> <p>AIS.OR.205 Formal arrangements</p> <p>It is recommended that the wording of this requirement is consistent with any rewording made to ATM/ANS.OR.A.080 resulting from comments made.</p>
response	NOTED.
comment	<p>679 comment by: <i>DGAC</i></p> <p><u>AIS.OR.205 Formal arrangements</u></p>

“Services provider” should be in the plural form in the beginning of the sentence as “them/themselves” is then used in (a) and (b).

response NOTED. The sentence was amended.

comment 821 comment by: AESA / DSANA

PART	COMMENT	JUSTIFICATION
<p>Proposed Amendments</p> <p>Section 3.1.1 (5) AIS.OR.205(b)</p> <p><i>Proposed amendments to Regulation (EU) .../... Annex VI (Part-AIS)</i></p> <p>AIS.OR.205(b)</p>	<p>The wording of this requirement AIS.OR.205(b) is not consistent.</p> <p>The following wording is proposed: "with other AISPsbetween themselves when exchanging aeronautical information and data with them".</p>	<p>In order to bring clarity and consistency to requirement AIS.OR.205(b).</p>

response ACCEPTED and amended accordingly.

comment 969 comment by: German NSA (BAF)

In Reg. (EU) .../... AIS.OR.205 the formal arrangements for the ANSP stipulated. For the aviation formal arrangements are laid down in Reg. (EU) .../... Appendix 1 to Art. 3.

For accomplishment of quality standards, consistent formal arrangement requirements are necessary. hold data originators, suppliers, etc. responsible. Proposal:

Adjust the requirements relating to formal arrangements for ANSP and aviation undertaking

.

response ACCEPTED. Now aligned throughout the rule.

AMC/GM AIS.OR.205

comment 161 comment by: ENAIRE

Paragraph: AMC1 AIS.OR.205 (c)

Type: amendment proposal

Comment: ANS are supervised by their corresponding authority with regards their obligations. It is considered not necessary and even counter productive to include the demonstration to the AISP

	in a formal arrangement.
response	ACCEPTED and removed.
comment	251 comment by: FAA Page 73. paragraph (b), recommend change passage from "...requirements for each data item..." to "...requirements for each data element...".
response	NOT ACCEPTED. The term 'item' is used preferably in the rules.
comment	522 comment by: Slovenia Control, Ltd. Subpart A Section 2 Data Quality requirements AMC1 AIS.OR.205 Formal arrangements CONTENT Why is this not at the regulation level? Where formal arrangements are covered elsewhere in the regulation, there is a much more limited content list. This list is far more comprehensive and should be reflected elsewhere in the regulation, at the level of ORs or TRs.
response	NOT ACCEPTED. The key requirement is the rules, while the need for flexibility is recognised and therefore in AMC.
comment	525 comment by: Slovenia Control, Ltd. Subpart A Section 2 Data Quality requirements AMC1 AIS.OR.205 Formal arrangements CONTENT Why is this not at the regulation level? Where formal arrangements are covered elsewhere in the regulation, there is a much more limited content list. This list is far more comprehensive and should be reflected elsewhere in the regulation, at the level of ORs or TRs.
response	NOT ACCEPTED. The key requirement is the rules, while the need for flexibility is recognised and therefore in AMC.
comment	716 comment by: DGAC

AMC1 AIS.OR.205 Formal arrangements (j)

Rewording proposal: “(j) the metadata to be collected for each data item mentioned in (a)”.

response NOT ACCEPTED. The comment proposal restrict the metadata to be provided whereas it should stay more general.

comment 819

comment by: CAA-NL

AMC1 AIS.OR.205

The proposed new AMC's for AIS and ADR (AMC1 AIS.OR.205 *Formal arrangements* and AMC2 ADR.OPS.A.010 *Data quality requirements*) require the formal arrangements between AIS providers and Data Originators to include ‘*the aeronautical data to be provided*’.

The above mentioned AMC's suggests that the formal agreement is the basis for determination which data elements are transmitted and supplied. Together with the deletion of tables 1 through 5 of AMC1 ADR.OPS.A.010 *Data quality requirements* from the current version of the ADR AMC's, the mandatory data elements are not defined anymore. This creates flexibility for the parties to the arrangement. We wonder with the deletion of mandatory data elements whether it would be possible that the situation could develop that one party will not transmit all relevant data under an agreement or even refuse to sign an agreement?

response NOTED. The mandatory data elements are those contained in the data catalogue (ADR.OPS.A.012). They are therefore not considered to be missing.

AIS.OR.210

comment 365

comment by: Slovenia Control, Ltd.

Subpart A

Section 2

Data Quality Requirements

AIS.OR.210 Exchange of aeronautical data and aeronautical information

This requirement does not allow for the provision of the paper AIP.

response NOTED. It is considered that the requirement cannot apply to paper AIP. Aeronautical data only is covered here (not aeronautical information).

comment 366

comment by: Slovenia Control, Ltd.

Subpart A



	<p>Section 2</p> <p>Data Quality Requirements</p> <p>AIS.OR.210 Exchange of aeronautical data and aeronautical information</p> <p>Inconsistent use of 'aeronautical data' and 'aeronautical information' in the title and main requirement.</p>
response	<p>ACCEPTED. Now consistent throughout the rule text. However, in some cases for instance, only aeronautical data applies.</p>
comment	<p>368 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart A</p> <p>Section 2</p> <p>Data Quality Requirements</p> <p>AIS.OR.210 Exchange of aeronautical data and aeronautical information</p> <p>AIXM 4.5 and AIXM 5.1 are both globally interoperable. Our understanding was that AIXM 5.1 would indirectly be the only model that could possibly meet the requirement so please could you confirm whether this is the case. OR.515 and TR.515 indicate the need for full temporality which is only supported by AIXM 5.1.</p> <p>In our opinion the use of a single model must be achieved to meet this requirement and many States, including Slovenia, have invested significant investment in systems supporting AIXM 5.1.</p> <p>When is the term "globally" achieved? The term shall be more precise as we cannot afford to have AIXM 4.5 and 5.1 capable systems at the same time.</p>
response	<p>The AIXM model should be the model to be used to meet the requirements. The version of this model is open to cater for future upgrade of the models used. It is considered that investment made to meet AIXM 5.1 are not jeopardized. GM is provided to explain what is meant by global interoperability.</p>
comment	<p>680 comment by: <i>DGAC</i></p> <p><u>AIS.OR.210 Exchange of aeronautical data and aeronautical information (a)</u></p> <p>Does the requirement in (a) apply to the <u>exchange format</u> of the data or to the <u>format of the data</u> (the structure of the database)?</p>
response	<p>The requirement is considered to apply to the format of the data but is directly linked to the exchange.</p>
comment	<p>773 comment by: <i>Solitec Software Solutions GesmbH</i></p>

response	<p>The term "globally interoperable" should be defined. Otherwise it gives room for interpretation.</p> <p>ACCEPTED. Guidance material is now provided.</p>
comment	<p>369 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart A</p> <p>Section 2</p> <p>Data Quality Requirements</p> <p>AIS.OR.210 Exchange of aeronautical data and aeronautical information</p> <p>(b) This should be reworded to 'Digital aeronautical data is exchanged through electronic means'.</p>
response	<p>NOT ACCEPTED. The intent of the requirement is to prevent any data to be transmit through non-electronic means.</p>
comment	<p>796 comment by: <i>CAA-NL</i></p> <p>AIS. OR. 210</p> <p>Could EASA provide GM related to this requirement, with examples for a common European format for Data Exchange.</p>
response	<p>ACCEPTED. The NPA already provides some guidance material for the European format for data exchange, specifically pointing at AIXM.</p>
comment	<p>878 comment by: <i>DFS Deutsche Flugsicherung GmbH</i></p> <p>Data conversion from Version 4.5 to 5.1 and vice versa is not properly feasible.</p> <p>Another factor is the current inability to incrementally update AIXM data in particular due to the lack of harmonized UUIDs.</p> <p>Without (preferably globally) harmonized UUIDs in AIXM this requirement cannot be met. The NPA however does neither take into account the shortcomings of AIXM nor the creation and handling of UUIDs.</p> <p>De facto, AIXM is a largely unstandardized format, which has to be massively improved. AIXM data created with a solution built by one vendor cannot be seamlessly exchanged with the AIXM implementation of another vendor, inter alia due to the lack of harmonized business rules, extensions, etc. Global interoperability cannot be ensured with such technical shortcomings.</p> <p>In addition to that, interoperability should not be the only requirement. The exchange format must be capable of representing all elements and metadata required to comply with the data quality requirements.</p>

For example, terrain data are explicitly excluded from the AIXM. As such, it is not a comprehensive format.

response NOTED. It is considered that AIXM format is the format to be used today but it is recognised that this exchange model is also not always considered to be the most perfect one.

comment 896 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*

Comment FOCA: we are concerned that, contrary to EU Reg. 73/2010, Article 4, no provisions of data-set specification are established and no Data exchange format has been defined for Europe.

Justification: We are concerned, that the EU does not intend to establish any defined data Exchange format and leaves it open to the states. Hence, interoperability is harmed and the ICAO and SWIM strategy as well as the SESAR ATM Master Plan are not met.

Proposed Text: Data Set provisions as well as the exchange format must be prescribed in standardized form to enable interoperability and to support SWIM development (AIXM, FIXM, WIXM). We suggest the EU Reg. 73/2010, Article 4 and Annex I data set requirements for Aviation Undertakings being included in the NPA.

response NOTED. Data set specification is now covered by the data catalogue. The rule text reflects a performance based approach regarding the exchange.

comment 922 comment by: *Marcus Andersson, LfV*

LfV does not agree upon this relaxation since it will not cater for global interoperability. Currently 3 version of AIXM is still used (3.3, 4.5 and 5.1). This is also contradictory to the SWIM fundamentals and the parallel activity "SWIM Standardisation" run by Eurocontrol, mandated by EC.

response NOTED. The rule text reflects a performance based approach regarding the exchange.

AMC/GM AIS.OR.210

comment 162 comment by: *ENAIRE*

Paragraph: AMC1 AIS.OR.210 (a)

Reference text: an xml schema

Type: amendment proposal

Comment: Proposal to remove the xml word, keeping "an schema" restricting to a XML schema prevents other technological implementations like JSON, etc.



response NOT ACCEPTED. This provision leaves the choice for other technology implementations.

comment 717 comment by: DGAC
AMC1 AIS.OR.210(a) Exchange of aeronautical data and aeronautical information
 Is the enforcement of this AMC alone sufficient to comply with AIS.OR.210? That comment seems to apply to other AMCs as well.

response ACCEPTED. An overall assessment of AMC has been performed.

comment 783 comment by: Solitec Software Solutions GesmbH
 The term "property" is not used consistently in the document. In this sentence property is defined as (attributes and associations).
 See for example AIS.TR.210 where the terms "property" and "association" are used mutually exclusive.

response ACCEPTED and amended.

comment 944 comment by: DFS Deutsche Flugsicherung GmbH
 Data conversion from Version 4.5 to 5.1 and vice versa is not properly feasible.
 Another factor is the current inability to incrementally update AIXM data in particular due to the lack of harmonized UUIDs.
 Without (preferably globally) harmonized UUIDs in AIXM this requirement cannot be met. The NPA however does neither take into account the shortcomings of AIXM nor the creation and handling of UUIDs.
 De facto, AIXM is a largely unstandardized format, which has to be massively improved. AIXM data created with a solution built by one vendor cannot be seamlessly exchanged with the AIXM implementation of another vendor, inter alia due to the lack of harmonized business rules, extensions, etc. Global interoperability cannot be ensured with such technical shortcomings.
 In addition to that, interoperability should not be the only requirement. The exchange format must be capable of representing all elements and metadata required to comply with the data quality requirements.
 For example, terrain data are explicitly excluded from the AIXM. As such, it is not a comprehensive format.

response NOTED. It is considered that AIXM format is the format to be used today but it is recognised that this exchange model is also not always considered to be the most perfect one.



comment	<p>994</p> <p>AMC/GM to Annex VI - Page 71</p> <p><u>AMC1 AIS.OR.210(a) - Page 73 - Major comment</u></p> <p>There are missing requirements for the use of the Geography Markup Language (GML). GML has emerged in the last 10 years as the industry standard for the encoding of geographical information. It is an ISO standard, also referred by the ICAO Annex 15. It provides a standardised approach to geographical data encoding. It is supported by a wide range of solution providers (industry).</p> <p>The ADQ regulation required that a GML compliant data exchange format is used. Abandoning this requirement through the EASA rule will have a detrimental effect on interoperability and will probably rise the cost for AIS clients. Investments in GML-compliant systems have already been made by the majority of European states that have local systems. Similar investments were made by Eurocontrol in the EAD, for the benefit of States that use directly the EAD terminals. These States would consequently have to develop capabilities to deal in the long term with non-GML data, coming from States which elect to use non-GML based exchange formats. Further, it also impacts the interoperability with other information domains such as MET, where ICAO Annex 3 imposes the use of iWXXM being a GML based format.</p> <p>These potential impacts could be clearly avoided if GML would be required through the future EASA rule.</p> <p>It is therefore proposed to include GML under AMC1 AIS.OR.210(a), as a requirement for the data exchange format, in addition to XML.</p>	comment by: <i>EUROCONTROL</i>
response	PARTIALLY ACCEPTED. GML is now added at GM level. Approach to AIXM model agreed, no change to it.	
comment	<p>85</p> <p>Pdf format is not a suitable electronic format for the exchange of aeronautical data and information and should be removed from this GM.</p>	comment by: <i>Avinor AS</i>
response	ACCEPTED. Removed.	
comment	<p>526</p> <p>Subpart A</p> <p>Section 2 Data Quality requirements</p> <p>GM1 AIS.OR.210(b) Exchange of aeronautical data and aeronautical information</p> <p>ELECTRONIC MEANS</p> <p>There is no guidance in this at all. There are other means of exchanging data that are not</p>	comment by: <i>Slovenia Control, Ltd.</i>

	mentioned. There is no cost saving if we resort to email and PDF as many States have invested in direct electronic connection	
response	ACCEPTED. References to PDF and e-mail are removed.	
comment	527 Subpart A Section 2 Data Quality requirements GM1 AIS.OR.210(b) Exchange of aeronautical data and aeronautical information ELECTRONIC MEANS There is no guidance provided here. Please elaborate and explain how this may be achieved.	comment by: <i>Slovenia Control, Ltd.</i>
response	ACCEPTED. Guidance amended.	
comment	588 NCAA disagree that Pdf is a suitable electronic format for the exchange of aeronautical Data and information.	comment by: <i>CAA-N</i>
response	ACCEPTED. The references to PDF and e-mail are removed.	
comment	718 <u>GM1 AIS.OR.210(b) Exchange of aeronautical data and information</u> Rewording proposal: <i>“The exchange of aeronautical data and aeronautical information may be done <u>by different means</u>, including email or pdf documents, without any manual interaction with the data itself.”</i>	comment by: <i>DGAC</i>
response	ACCEPTED. The references to PDF and e-mail are removed.	
comment	762 We support the flexible approach for different means for electronic exchange. Direct electronic connection is not realistic with all data originators, but different means could be considered with minimal manual interaction.	comment by: <i>DSNA</i>
response	ACCEPTED. GM amended to reflect the proposal.	
comment	822	comment by: <i>CAA-NL</i>

	<p>Data Exchange</p> <p>Whilst in the ADQ IR the means for electronic data exchange was prescribed in detail, mainly focusing on the AIXM5.1 model, the current NPA leaves this issue almost completely open. It is feared that this will lead to a proliferation of different data formats that cannot be efficiently handled by the AISP. The burden on the AISP to accept and decode a great variety of exchange formats will lead to unacceptable costs. This will not be solved by the simple rule that formal arrangements shall exist. It will also lead to a large variety of proprietary, local and national solutions which will add to confusion and risk for errors with an impact on safety.</p> <p>Although it is understood that unreasonably prescriptive demands on data exchange which are not feasible using current state of the art technology are highly unwanted, there is a definite need for guidance on the data interchange formats to be used. EASA should as a minimum provide clear examples of best practices of exchange methods and formats that have proven to be efficient and at the meantime fully comply with ADQ requirements.</p>
response	<p>NOTED. Currently work is on-going on identifying best practices of exchange methods and formats (ECTRL AIXM coding focus group). This NPA proposes a performance-based approach. For the purpose of exchanging aeronautical data, the NPA leaves the choice of the most suitable model to exchange data, as long as it is globally interoperable between the relevant parties. The aeronautical information exchange model (AIXM) should be used, whilst not imposing a specific version of this model.</p>
comment	<p>913 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p>AIS.OR.210 b and GM 1 to 9</p> <p><i>Comment FOCA:</i> The requirement allows the use of Email and PDF for the exchange of data. In our opinion, this will neither ensure data quality nor support digitalization.</p> <p><i>Justification:</i> The main reason in the EU IR 73/2010 to state ‘direct electronic connection’ was the exclusion of manual interaction with data and so to avoid human error. The prescribed way of exchanging data via Email, PDF, etc. would make already spent investments for extensive data collection interfaces and systems inappropriate and useless.</p> <p><i>Proposed Text:</i> The established requirement referring to Email and PDF should be changed according to Article 5 and Annex II to ensure data quality on data exchange. In addition, the NPA does not contain any clear explanation, how the exchange via Email and PDF should be established and how it should maintain quality requirement compliance.</p>
response	<p>NOTED. GM amended to remove PDF and e-mail references.</p>
comment	<p>973 comment by: <i>German NSA (BAF)</i></p> <p>The EASA approach that the exchange of aeronautical data will be done by a number of electronic exchanges including email or pdf documents is not supported by the German NSA (BAF). This</p>

approach increases the risk and the potential of errors in safety critical/ essential data.

Proposal:

Remove all references to email or pdf and accept requirements for data exchange of Reg. (EU) No. 73/2010, Article 5 & Annex II

response ACCEPTED. GM amended to remove PDF and e-mail references.

AIS.TR.210

comment 428 comment by: *Slovenia Control, Ltd.*

Subpart B

Section 2 Data quality requirements

AIS.TR.210 Exchange of aeronautical data and aeronautical information

This requirement does not provide any requirement regarding data updates.

response NOTED. Data updates requirements are covered in AIS.OR.515 'Digital data updates'.

comment 932 comment by: *Marcus Andersson, LfV*

Does (b) mean baseline (snapshot) or permanent change only (delta)? Unclear, please clarify.

response (b) means a new baseline as a result of permanent change and not only the delta.

comment 429 comment by: *Slovenia Control, Ltd.*

Subpart B

Section 2 Data quality requirements

AIS.TR.210 Exchange of aeronautical data and aeronautical information

(c) Please confirm if associations are included in the Data Catalogue. We do not see them included.

response ACCEPTED. 'Associations' is now removed from the paragraph.

comment 430 comment by: *Slovenia Control, Ltd.*

Subpart B

Section 2 Data quality requirements

AIS.TR.210 Exchange of aeronautical data and aeronautical information



	(c) What are the mapping rules referred to in this requirement? What mappings are expected? Is the AIS required to provide the mapping to any format asked by a user?
response	'Mapping' is understood as being the mapping between the data catalogue and the format of data exchange.
comment	692 comment by: DGAC <u>AIS.TR.210 Exchange of aeronautical data and aeronautical information (c)</u> Rewording proposal: " <i>be structured in accordance with the subjects, properties...</i> "
response	ACCEPTED and amended.
comment	775 comment by: Solitec Software Solutions GesmbH We propose to rephrase item (c) for the sake of clarity as follows: "be in accordance with the subjects, properties and associations of the data catalogue, and be documented through a mapping between the exchange format and the data catalogue."
response	ACCEPTED.
comment	776 comment by: Solitec Software Solutions GesmbH Item (c): The terms "property" and "association" are not used consistently through the document. They should be defined in Annex I.
response	ACCEPTED. The term 'association' has been removed.
comment	921 comment by: EUROCONTROL ANNEX VI - Page 39 AIS.TR.210 - Item (c) The data catalogue does not contain "associations". The sentence "be in accordance with the subjects, properties and associations of the data catalogue" is technically incorrect. The data catalogue contained in the ICAO PANS-AIM does not include "associations". They are implicit through the inclusion of certain properties or through the structure of the data catalogue. In a data model, properties are represented as either attributes or associations with other features. Please rephrase into "...cover the subjects, properties and sub-properties of the data catalogue" ...

response ACCEPTED and removed.

AMC/GM AIS.TR.210

comment 172 comment by: ENAIRE

Paragraph: AMC1 AIS.TR.210 (c) (1)

Type: amendment proposal

Comment: Seems to vague for a AMC. What does commonly used mean? How many is commonly? From our point of view, as far as the encoding format is agreed between the partners that exchange data, it should be enough.

response NOTED. The text is aligned with ICAO although it is not certain what would be the best term to use.

comment 722 comment by: DGAC

AMC1 AIS.TR.210 Exchange of aeronautical data and aeronautical information

Are the words "*aeronautical information model*" a short version for "*aeronautical information exchange model*"? If they refer to something else, it has to be defined somewhere.

If it is a shortcut, it would make more sense to abbreviate "*aeronautical information exchange model*" by "*exchange model*" rather than "*aeronautical information model*".

response ACCEPTED. The provision follows ICAO Annex 15 but the text is amended to refer to the exchange model only.

comment 785 comment by: Solitec Software Solutions GesmbH

The terms "feature", "class", "property", "attribute" and "association" are not used consistently in the document.

If "class" is used it should be defined in "Annex I".

response NOTED. 'Class' deleted and replaced with 'features'.

comment 173 comment by: ENAIRE

Paragraph: AMC2 AIS.TR.210

Type: amendment proposal

Comment: Restricting terrain exchange to GML prevents the use of commonly industry standard



	formats like GeoTIFF. See ADR WG Common Understanding 04/2013.
response	ACCEPTED. AMC replaced with GM to address GeoTIFF format in accordance with the outcome of the ARWG CU 4-2013.
comment	723 comment by: DGAC <u>AMC2 AIS.TR.210 Exchange of aeronautical data and aeronautical information</u> Replace “ <i>electronic</i> ” by “ <i>digital</i> ” (whole document to be checked).
response	ACCEPTED.
comment	987 comment by: LVNL Pro (ATC the Netherlands) No longer prescribing AIXM data interchange between parties may lead to many different data formats. There are risks and costs associated to the translation. This should not lead to additional tasks or costs for the AISPs.
response	The NPA proposes a performance-based approach. The proposal puts the obligation on the most suitable model to exchange data and leaves the AIXM model as a mean to comply with this obligation. AIXM is therefore not the only model that can be used as far as interoperability is ensured. The AIXM model should be the model to be used to meet the requirements. The version of this model is open to cater for future upgrade of the models used. It is considered that investment made to meet AIXM 5.1 are not jeopardized. GM is provided to explain what is meant by global interoperability. For the purpose of exchanging aeronautical data, the NPA leaves free the choice of the most suitable model to exchange data, as long as it is globally interoperable between the relevant parties. Practically, this means that the aeronautical information exchange model (AIXM) will have to be used, whilst not imposing a specific version of this model.
comment	1014 comment by: EUROCONTROL AMC/GM to Annex VI - Page 71 <u>GM2 AIS.TR.210 - Page 80 - Major comment</u> This GM text should become an AMC. There it should also clearly indicate which version of the data exchange model to be used. The NPA does not indicate any AMC for data exchange formats, a reason for which stakeholders may choose a disharmonised approach when implementing this rule. Other ICAO regions (e.g. NAM, SAM) are currently implementing a common exchange format based on AIXM 5.1. ICAO Annex 3 requires the use of iWXXM which uses AIXM 5.1. Having an AMC (including version) would enable to align the European implementation with the other ICAO regions and other data domains. This would ensure optimum basis for interoperability

and enable future evolution, particularly in the context of SWIM and other global initiatives.
It is therefore proposed 1/ that this GM text becomes an AMC and 2/ to add the version indication "AIXM 5.1 (or later)".

response ACCEPTED. GM is added to refer to the model version 5.1, and GML + ECTRL specification AIX, AIXM guidance material.

AIS.OR.215

p. 29

comment 133 comment by: ENAIRE

Paragraph: AIS.OR.215

Type: clarification

Comment: GM and AMC needed. Clarify if the ones for ATM/ANS.OR.A.080 (f) are applicable.

response ACCEPTED. GM now provided.

comment 229 comment by: FAA

Tool and software paragraph reads "...shall ensure that all tools...", to what specification, ED76/DO200B?

Metadata requirements paragraph, to what specification shall metadata be collected?

response The Specification related to the tools are EUROCAE ED-215/RTCA DO-330 with adaptations provided in EUROCAE ED-76A/RTCA DO-200B, Appendix D.

Metadata shall be collected in accordance with AIS.TR.225.

comment 572 comment by: Lufthansa Systems FlightNav

AIS.OR.215:

The paragraph gives a brief outline about how AIS provider shall assure tools and software to be adequate.

On DAT provider level, tool qualification has a distinct level of attention, especially when following the requirements of RTCA DO-200B, including relations to RTCA DO-330.

Questions:

Does EASA intend to give any advice to AIS providers on how to assure tool and software adequacy?

Is EASA going to apply similar requirements for tool qualification to AIS providers as they would do



	with certified DAT providers?
response	NOTED. The rule text already provide a GM on tool qualification in AIS.OR.
comment	<p>1045 comment by: <i>The Boeing Company</i></p>
	<div style="border: 1px solid black; padding: 5px;"> <p>Page: 29</p> <p>Paragraph: AIS.OR.215 Tools and software</p> <p>The proposed text states: An aeronautical information services provider shall ensure that all tools and software used to support or automate aeronautical data and aeronautical information processes perform their functions without adversely impacting on the quality of aeronautical data and aeronautical information.</p> <p>REQUESTED CHANGE: Boeing would like to understand the intention. Is it intended to provide AMC and GM for tool qualification for AIS Providers, so that downstream parties could get any information about the required AIS tool qualification?</p> <p>JUSTIFICATION: There should not be a gap in tool qualification throughout the data supply chain.</p> </div>
response	NOTED. The rule text already provide a GM on tool qualification in AIS.OR.

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comment	<p>67 comment by: <i>NATS National Air Traffic Services Limited</i></p>
	<p>Page No: 29</p> <p>Paragraph No: AIS.OR.220</p> <p>Comment: Editorial – incorrect reference to AIS.TR.200</p> <p>Justification:</p> <p>Proposed Text: amend AIS.TR.200 to read AIS.TR.220</p>
response	NOT ACCEPTED. The correct reference is AIS.TR.200 which covers the data quality requirements.

comment	<p>134 comment by: <i>ENAIRE</i></p>
	<p>Paragraph: AIS.OR.220</p> <p>Type: clarification</p> <p>Comment: GM and AMC needed. Please clarify if the ones defined for Annex I bullets 6 and 7 are applicable (on page 60 and 61) or the ones for ATM/ANS.OR.A.080 (h).</p>



response AMC1 AIS.TR.220 and GM1 AIS.TR.220 'Verification and validation process' are included in the set of rules (page 80-81).

comment 370 comment by: *Slovenia Control, Ltd.*

Subpart A
Section 2
Data Quality Requirements
AIS.OR.220 Verification and validation process

This requirement is impossible to achieve. No validation and verification technique can entirely guarantee that the data is 100% correct. This requirement is placed upon the AIS and would require skills that are not available in most AIS, are beyond their current remit to ensure that data meets all its data quality requirements and would incur significant cost to meet.

response NOT ACCEPTED. This requirement can be achieved as the objective of the requirement is for AIS provider to ensure that the process has been met but cannot ensure that the data provided by the originator is 100% correct.

comment 607 comment by: *CANSO*

3. Proposed amendments - 3.1. Draft regulation - Annex VI (Part-AIS) - AIS.OR.220

Page No: 29
Paragraph No: AIS.OR.220
Comment: Editorial – incorrect reference to AIS.TR.200
Proposed Text: amend AIS.TR.200 to read AIS.TR.220

response NOT ACCEPTED. The correct reference is AIS.TR.200 which covers the data quality requirements.

comment 744 comment by: *ENAV*

3. Proposed amendments - 3.1. Draft regulation - Annex VI (Part-AIS) - AIS.OR.220

Page No: 29
Paragraph No: AIS.OR.220
Comment: Editorial – incorrect reference to AIS.TR.200
Proposed Text: amend AIS.TR.200 to read AIS.TR.220

response NOT ACCEPTED. The correct reference is AIS.TR.200 which covers the data quality requirements.



comment	1046	comment by: <i>The Boeing Company</i>
	<p>Page: 29</p> <p>Paragraph: AIS.OR.220 Verification and validation process</p> <p>The proposed text states: An aeronautical information services provider shall ensure that verification and validation techniques are employed so that the aeronautical data meets the associated data quality requirements specified in AIS.TR.200.</p> <p>REQUESTED CHANGE: Boeing would like to better understand this. Explain how this shall be ensured.</p> <p>JUSTIFICATION: Verification and validation techniques should be established and made known throughout the data supply chain.</p>	
response	AMC1 AIS.TR.220 and GM1 AIS.TR.220 ‘Verification and validation process’ are included in the set of rules (page 80-81) and detail how this may be ensured.	

AIS.TR.220

comment	151	comment by: <i>ENAIRE</i>
	<p>Paragraph: AIS.TR.220</p> <p>Type: amendment proposal</p> <p>Comment: Why do not merge with AIS.OR.220?</p>	
response	NOTED. The structure of the rules in the proposal separates the ‘what’ and the ‘how’. This is the reason why Part-AIS is divided in organisation requirements (what they shall do) and technical requirements (how they shall do it).	
comment	431	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart B</p> <p>Section 2 Data quality requirements</p> <p>AIS.TR.220 Verification and validation process</p> <p>This requirement does not refer to validation despite the title.</p>	
response	NOTED. This is correct. However the title of the AIS.OR is ‘verification and validation’, so it is necessary to keep the same title for the related AIS.TR even though the latter would not contain technical requirements for validation. The related GM provides explanation on ‘validation’.	

comment	432 Subpart B Section 2 Data quality requirements AIS.TR.220 Verification and validation process (a)(1) and (3) The difference between these requirements is not clear.	comment by: <i>Slovenia Control, Ltd.</i>
response	ACCEPTED. The integrity check of the data is seen as redundant and is covered by the two first paragraphs.	

comment	433 Subpart B Section 2 Data quality requirements AIS.TR.220 Verification and validation process (a)(2) Is this verifying the process or verifying that the data was not corrupted? Please clarify.	comment by: <i>Slovenia Control, Ltd.</i>
response	It is verifying that data is not corrupted by the process.	

comment	693 <u>AIS.TR.220 Verification and validation process (a)</u> In that provision, we miss two main objectives of verification. 1-Verification (associated to a process) shall ensure that the data was processed in conformity with the input specifications of that process. 2- Verification shall ensure that the specified data quality requirements are met.	comment by: <i>DGAC</i>
response	NOT ACCEPTED. The quality requirements are enforced by other parts in the rule. AIS.OR.220 goes beyond the integrity verification, complemented by GM.	

AMC/GM AIS.TR.220

comment	261 page 80, AMC1 AIS.TR.220 Verification and validation process, (b), (1), recommend change "action" to "actions" and (5), recommend change "methoid" to "methodoids".	comment by: <i>FAA</i>
response	ACCEPTED.	



comment	724 <u>AMC1 AIS.TR.220 Verification and validation process</u> Verification and validation are two different processes with different aims and techniques. Process has to be used in the plural form in the title. Moreover, in the subsequent provisions, it has to be specified to which process it is referred to: the “verification process” or the “validation process”, or both if it is the case.	comment by: DGAC
response	ACCEPTED and amended (refers to both).	
comment	725 <u>AMC1 AIS.TR.220 Verification and validation process (b)</u> Consider rewording. Can a process “define” anything? It seems that a “process” just does things.	comment by: DGAC
response	NOT ACCEPTED.	
comment	534 Subpart B Section 2 General requirements GM1 AIS.TR.220 Verification and validation process GENERAL There is inconsistent terminology used in this section, i.e., ‘method’, ‘technique’	comment by: Slovenia Control, Ltd.
response	NOTED (text extracted from ED- 76). An overall review was performed and consistency ensured (e.g. ‘method’ replaced by ‘technique’).	
comment	535 Subpart B Section 2 General requirements GM1 AIS.TR.220 Verification and validation process GENERAL (a)The first paragraph is a definition. A different definition has already been provided on page 24 so we would propose that this is removed or at least that the definitions are consistent within the regulation.	comment by: Slovenia Control, Ltd.
response	NOT ACCEPTED. This paragraph is considered to be of explanation/description nature and not a definition.	

comment	<p>536</p> <p>Subpart B</p> <p>Section 2 General requirements</p> <p>GM1 AIS.TR.220 Verification and validation process</p> <p>GENERAL</p> <p>This is not clear and we would propose that it is rewritten as follows: ‘When performing data validation, any data validation that has already taken place prior to this may also be considered. Providing data integrity has been assured, there is no need to repeat earlier validations as a matter of course.’</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	PARTIALLY ACCEPTED. Second sentence added.	
comment	<p>537</p> <p>Subpart B</p> <p>Section 2 General requirements</p> <p>GM1 AIS.TR.220 Verification and validation process</p> <p>GENERAL</p> <p>(b) The first paragraph is a definition. A different definition has already been provided on page 24 so we would propose that this is removed or at least that the definitions are consistent within the regulation as this does not seem to be in line with the previous definition.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	NOT ACCEPTED. This paragraph is considered to be of explanation/description nature and not a definition.	
comment	<p>538</p> <p>Subpart B</p> <p>Section 2 General requirements</p> <p>GM1 AIS.TR.220 Verification and validation process</p> <p>GENERAL</p> <p>(b) The first paragraph only covers integrity and so is not a complete description of what needs to be done to meet GM1 AIS.TR.220.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	NOT ACCEPTED. GM is intended to be complementary information to support the understanding of the related requirement.	

AIS.OR.225

comment	135	comment by: <i>ENAIRE</i>
	<p>Paragraph: AIS.OR.225</p> <p>Reference text: shall collect</p> <p>Type: amendment proposal</p> <p>Comment: There should be similar mandatory statements for the different data originators. They shall provide the metadata to the AISP.</p>	
response	ACCEPTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	
comment	371	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart A</p> <p>Section 2</p> <p>Data Quality Requirements</p> <p>AIS.OR.225 Metadata requirements</p> <p>Reference should be made to what metadata needs to be provided.</p>	
response	NOTED. The content of the metadata is included in AIS.TR.225.	
comment	681	comment by: <i>DGAC</i>
	<p><u>AIS.OR.225 Metadata requirements</u></p> <p>If the regulatory data accuracy stated in the data catalogue (when applicable) is not met, the achieved accuracy should be added as metadata and transmitted to the end user along with the data. Moreover, the AIS provider should transmit metadata when requested to do so by the next intended users.</p>	
response	NOTED. It is not considered possible to provide the accuracy, although the proposal is seen beneficial it is not considered as practical.	
comment	840	comment by: <i>ENAV</i>
	<p>Comment:</p> <p>What is the meaning of the wording? Is the AIS provider relieved of metadata distribution?</p>	

	Please clarify this point.
response	The distribution by the AIS provider of metadata is covered by the formal arrangements in AIS.OR.205 and the related AMC listing metadata in the minimum content.
comment	<p>1068 comment by: EUROCONTROL</p> <p>ANNEX VI - Page 29</p> <p>AIS.OR.225 - Metadata requirements</p> <p>3/ 'Requirements' in title repeats section title 'Section 2 — Data quality requirements'. A text revision would enhance the readability of the provision. Please delete 'requirements' to read 'Metadata'.</p> <p>There is a possible ambiguity in understanding the AIS function of receiving or collecting metadata. The word 'collect' could be misinterpreted: either it means collected upon the reception of AI as a passive use (which is logical); or to be actively gathered by the AISP from the data originators whenever missing.</p> <p>4/ Please consider replacing the word "collect" by "receive".</p> <p>5/ It is also proposed to add a new GM for AU and SP to highlight the fact that existing data (old data) may not currently have metadata. Hence, DO should be required to supply those metadata.</p>
response	<p>3/ ACCEPTED and deleted.</p> <p>4/ NOT ACCEPTED. It is considered that the term 'collect' is more appropriate.</p> <p>5/ NOT ACCEPTED. Metadata does not necessarily apply to old data. Annotation may be applied for such data when not meeting the data quality requirements.</p>

AIS.TR.225

comment	<p>434 comment by: Slovenia Control, Ltd.</p> <p>Subpart B</p> <p>Section 2 Data quality requirements</p> <p>AIS.TR.225 Metadata</p> <p>(a) The metadata captured in this requirement is very generic and does not cover d) onwards from the CR 73/2010 metadata requirements in Annex I Part C which are considered essential items to be recorded.</p>
response	NOTED. The text is aligned with the ADQ IR, no differences as it is the minimum required (based on ICAO). Most of the elements are part of the data set.

comment	694	comment by: DGAC
	<u>AIS.TR.225 Metadata</u>	
	The actual (achieved) accuracy of the data shall be added as mandatory metadata in the event when the regulatory accuracy requirement in the data catalogue is not met. In that case, the metadata shall be provided along with the data to the end user. It will allow the next intended user to:	
	1- identify the data items which do not meet the accuracy requirement, and	
	2- take into consideration the achieved accuracy of the data.	
response	NOT ACCEPTED. This is addressed in the formal arrangements.	

AIS.OR.230

comment	136	comment by: ENAIRE
	Paragraph: AIS.OR.230(a)(1)	
	Reference text: digital data error detection techniques	
	Type: clarification	
	Comment: AMC and GM needed. Is page 61 (first paragraph) applicable?	
response	ACCEPTED. The referred provisions on page 61 are added for Part-AIS.	

comment	372	comment by: Slovenia Control, Ltd.
	Subpart A	
	Section 2	
	Data Quality Requirements	
	AIS.OR.230 Authentication and data error detection	
	(a)(2) Should this requirement not cover data not just data sets?	
response	ACCEPTED. The requirement is amended to make it apply to data and not only data sets.	

comment	682	comment by: DGAC
	<u>AIS.OR.230 Authentication and data error detection (a)(2)</u>	
	Error detection applies to data and not to an integrity level.	
response	ACCEPTED and amended.	



comment	373	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart A</p> <p>Section 2</p> <p>Data Quality Requirements</p> <p>AIS.OR.230 Authentication and data error detection</p> <p>It is not clear how digital data error detection techniques can be applied to data provided by email or in PDF and how these can be checked for errors.</p>	
response	NOTED. The reference to PDF and e-mail has been removed. Furthermore, digital data error detection techniques could be applied to PDF or e-mail.	

comment	374	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart A</p> <p>Section 2</p> <p>Data Quality Requirements</p> <p>AIS.OR.230 Authentication and data error detection</p> <p>Error detection for data that it is not digital is not covered.</p>	
response	NOTED. This is correct.	

comment	576	comment by: <i>Lufthansa Systems FlightNav</i>
	<p>AIS.OR.230, (b):</p> <p>This paragraph should also point out that the information provided shall be available for operational use without limitations.</p> <p>It is suggested to add "with no limitations for operational use" at the end of the sentence.</p> <p>This to ensure that AIS providers do not restrict the usage of its published content, for example by a disclaimer.</p>	
response	NOT ACCEPTED. The proposal is considered as being already covered in paragraph (c) below.	

comment	1047	comment by: <i>The Boeing Company</i>
	<p>Page: 29</p> <p>Paragraph: AIS.OR.230 Authentication and data error detection</p>	

The proposed text states:

(b) The transfer of aeronautical data shall be subject to a suitable authentication process such that recipients are able to confirm that the data or information has been transmitted by an authorised source.

REQUESTED CHANGE: Please add at the end of the sentence: “, with no limitations for operational use.”

(b) The transfer of aeronautical data shall be subject to a suitable authentication process such that recipients are able to confirm that the data or information has been transmitted by an authorised source, *with no limitations for operational use*.

JUSTIFICATION: For example, AIPs with disclaimers like “Not for operational use” do exist in Europe and cannot be used for operational purposes.

response NOT ACCEPTED. The proposal is considered as being already covered in paragraph (c) below.

AIS.OR.235

comment	375	comment by: <i>Slovenia Control, Ltd.</i>
	Subpart A Section 2 Data Quality Requirements AIS.OR.235 Error reporting and corrective actions This requirement does not address preventative action at all which is a very important part of managing errors.	
response	NOTED. It is not intended to address the prevention action in this rule, whereas it should be part of the QMS. Furthermore, it is already ensured throughout other rules in the current text.	

comment	376	comment by: <i>Slovenia Control, Ltd.</i>
	Subpart A Section 2 Data Quality Requirements AIS.OR.235 Error reporting and corrective actions Unlike the requirements for aviation undertakings and service providers, this requirement does not address urgently addressing errors in essential and critical data.	



response	NOTED. It is considered that AIS.TR.235 (c) addresses urgent errors in essential and critical data.
comment	<p>578 comment by: <i>Lufthansa Systems FlightNav</i></p> <p>AIS.OR.235:</p> <p>The paragraph gives a brief outline about how AIS provider shall ensure measures for handling of errors.</p> <p>It should also be assured that the way how to communicate errors is described. It would also be recommended to install guidance on when and how to inform a competent authority about certain errors.</p> <p>Note: As per today, DAT providers are obliged to report certain AIP errors to EASA. It seems logical to harmonize this on an AIS provider level.</p>
response	NOT ACCEPTED. It is not considered appropriate to address the errors communication in this rule as the competent authority need to be informed in a systematic way.
comment	<p>683 comment by: <i>DGAC</i></p> <p><u>AIS.OR.235 Error reporting and corrective actions</u></p> <p>It is proposed to replace “measurement” by “assessment”.</p> <p>It is proposed to add “<i>established, <u>applied (or operated)</u> and maintained.</i>”</p>
response	<p>NOT ACCEPTED.</p> <p>1/ ‘Measurement’ is a specific ADQ term and should be used;</p> <p>2/ It is considered that this paragraph is self-explanatory as it is.</p>
comment	<p>970 comment by: <i>German NSA (BAF)</i></p> <p>It has to be ensured, that erroneous data are detected from the beginning to the end in the data chain. As part of their QMS, only ANSP claim to ensure this for their systems. But erroneous data could be produced by the data originator and could be distributed by aviation undertakings to ANSP, without any information about incorrect data. According to this, it is inconsistent that aviation undertakings do not need a QMS or corresponding means.</p> <p><u>Proposal:</u> Include error reporting as requirement of QMS in Reg. (EU) No. 139/2014, Annex XI as well as in Appendix 1 to Art. 3.</p>
response	PARTIALLY ACCEPTED. Error reporting is included for aerodrome operators when acting as data originators. It is considered that the requirements in point 8 of the Appendix relating to data origination sufficiently address the obligation for data originators to report erroneous data.

comment	<p>1048</p> <p style="text-align: right;">comment by: <i>The Boeing Company</i></p> <div style="border: 1px solid black; padding: 5px;"> <p>Page: 29</p> <p>Paragraph: AIS.OR.235 Error reporting and corrective actions</p> <p>The proposed text states:</p> <p>An aeronautical information services provider shall ensure that error reporting, measurement and corrective mechanisms are established and maintained.</p> <p>REQUESTED CHANGE: We would recommend to be more specific. For instance consider these questions: What type of errors shall be reported to whom? What are the timelines?, etc.</p> <p>JUSTIFICATION: Our recommendation is to provide clarity on the requirements. We would like to have clear requirements in addition, we believe as written this requirement is not harmonized with the DAT-Provider regulation.</p> </div>
response	<p>NOT ACCEPTED. There would be too many specific scenarios to describe at the level of these requirements, which is considered not to be feasible.</p>

AMC/GM AIS.OR.235

comment	<p>77</p> <p style="text-align: right;">comment by: <i>Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)</i></p> <p>AMC.AIS.OR.235</p> <p>Propose to change to GM as other type quality systems certificate than ISO 9001 are accepted in other air navigation areas.</p>
response	<p>NOT ACCEPTED. AMC is considered necessary, and it allows for other standards to be applied.</p>
comment	<p>1060</p> <p style="text-align: right;">comment by: <i>The Boeing Company</i></p> <p>Page: 73</p> <p>Paragraph: AMC1 AIS.OR.235 Error reporting and corrective action</p> <p>ISO 9001 CERTIFICATE FOR AERONAUTICAL INFORMATION SERVICES PROVIDERS</p> <p>The proposed text states: AN EN ISO 9001 certificate, issued by an appropriately accredited organisation, addressing all the elements required in this Part should be considered as a sufficient means of compliance for aeronautical information services providers.</p> <p>REQUESTED CHANGE: More detailed requirements out of the applicable DO200B standard should be considered as well. It is not clearly defined who and/or which up- and/or downstream partner has to be informed.</p>

JUSTIFICATION: An ISO 9001 certificate does not necessarily cover an appropriate process for error reporting and corrective action because of the high level and very general requirements.

response ACCEPTED. The related GM is complemented by additional guidance as proposed by Jeppesen.

AIS.TR.235

comment 237 comment by: FAA
 Error reporting and corrective actions paragraph, (b), recommend add "and performed" to the end of the sentence. No point in determining a corrective action if it is not called out to perform the action.

response ACCEPTED.

comment 435 comment by: Slovenia Control, Ltd.
 Subpart B
 Section 2 Data quality requirements
 AIS.TR.235 Error reporting and corrective actions
 This requirement does not address preventative action at all which is a very important part of managing errors.

response NOTED. It is not intended to address the prevention action in this rule, whereas it should be part of the QMS. Furthermore, it is already ensured throughout other rules in the current text.

comment 436 comment by: Slovenia Control, Ltd.
 Subpart B
 Section 2 Data quality requirements
 AIS.TR.235 Error reporting and corrective actions
 (d) Propose to reword to 'Errors in operationally significant data are communicated by the most effective means'.

response NOT ACCEPTED. The proposal is not considered to improve the clarity of the text.

comment 626 comment by: Lufthansa Systems FlightNav
 AIS.TR.235, (d):



It should be clarified by what means and within which timeframe affected users shall be warned. Also, it might be helpful to inform the competent authority about certain errors; at least those where flight safety is affected.

response NOT ACCEPTED. The proposal is not considered to improve the clarity of the text.

comment 1057

comment by: *The Boeing Company*

Page: 40

Paragraph: AIS.TR.235 Error reporting and corrective actions

The proposed text states:

The error reporting, measurement and corrective mechanisms shall ensure that:

(d) affected users are warned of errors by the most effective means, taking into account the integrity level of the aeronautical data and aeronautical information; and

REQUESTED CHANGE: Boeing would like this to be more specific to avoid confusion. What type of errors shall be reported to whom? What are the timelines? etc.

JUSTIFICATION: Existing wording is unspecific. We would like this to be clear to avoid any misunderstanding.

response NOT ACCEPTED. There would be too many specific scenarios to describe at the level of these requirements, which is considered not to be feasible.

AIS.OR.240

comment 200

comment by: *DFS Deutsche Flugsicherung GmbH*

Please clarify the meaning of 'identify'; does that mean analysing or highlighting?

Please provide AMC and GM what mechanisms AIS providers must use to meet these requirements, e.g. such as "adequately marked in the publication".

response NOT ACCEPTED. It is considered to be already covered in GM1 AIS.TR.240 Data limitations.

comment 377

comment by: *Slovenia Control, Ltd.*

Subpart A

Section 2

Data Quality Requirements



	AIS.OR.240 Data limitations	
	The title of this requirement is not suitable as data limitations are more commonly used to describe other issues with the data beyond only data quality requirements.	
response	NOTED. The title is considered to be clear enough to understand the objective of the requirement.	
comment	378	comment by: <i>Slovenia Control, Ltd.</i>
	Subpart A	
	Section 2	
	Data Quality Requirements	
	AIS.OR.240 Data limitations	
	This requirement does not detail what the AIS should do once it has identified that data does not meet its data quality requirements. The AIS often has no authority to not publish data that it receives.	
response	This requirement is complemented by AIS.TR.240 that requires AIS providers to annotate the data not meeting the DQR. In addition, a GM is provided.	
comment	379	comment by: <i>Slovenia Control, Ltd.</i>
	Subpart A	
	Section 2	
	Data Quality Requirements	
	AIS.OR.240 Data limitations	
	The AIS can only achieve this requirement is all of the metadata required by CR 73/2010 is provided, not the limited set required by this regulation.	
response	NOTED. AIS provider will annotate that fact in the AIP.	
comment	580	comment by: <i>Lufthansa Systems FlightNav</i>
	AIS.OR.240:	
	The paragraph should be extended to assure that information about identified errors within an aeronautical publication is spread to the parties as mentioned in AIS.OR.105 (c), including DAT providers.	
	The current wording could be amended as follows:	
	"An aeronautical information services provider shall identify and communicate to the parties mentioned in AIS.OR.105 (c) the aeronautical data and aeronautical information that do not meet	

	the data quality requirements."
response	NOT ACCEPTED. This information is already made available to the parties according to current process (e.g. NOTAM).
comment	<p>684 comment by: DGAC</p> <p><u>AIS.OR.240 Data limitations</u></p> <p>Identification alone is worthless if not coupled with an appropriate action such as correction, publication prevention or notification to the next intended users.</p> <p>Coupled with AIS.TR.240, the meaning of “identify” makes more sense as it is understood as “indicate” or “distinguish”. It is proposed to use one of those two verbs to replace “identify” in order to understand the objective of the regulation as soon as reading AIS.OR.240.</p>
response	NOTED. See related TR combined with OR.
comment	<p>897 comment by: Federal Office of Civil Aviation (FOCA), Switzerland</p> <p><i>Comment FOCA:</i> By asking for identification of non-compliant data, the AISP seems to be expected to take over the responsibility on data quality conformity. However, this appears to be an impossible task, because neither formal arrangement requirements to all data originators nor clear data quality assurance mechanisms are required from certain data originators.</p> <p>Justification: From a legal point of view, this responsibility may only be allocated to the AISP, provided that the AISP also gets the power to regulate this domain (i.e. their origination and data provision task). On the other hand, a national NSA may also not be able to oversee all data originators but, at least, it would have the regulatory power over them.</p> <p>Proposed Text: To remove the AISP responsibility and to establish consistent data quality mechanisms to all originators, so to enable identification of non-compliant data. The responsibility for identifying errors throughout the data chain from origination through to end use must be consistently applied to all parties (incl. clear QMS, safety and error reporting requirements for all originators).</p>
response	NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.
comment	<p>1049 comment by: The Boeing Company</p> <div style="border: 1px solid black; padding: 5px;"> <p>Page: 29</p> <p>Paragraph: AIS.OR.240 Data limitations</p> </div>

The proposed text states:

An aeronautical information services provider shall identify the aeronautical data and aeronautical information that do not meet the data quality requirements.

REQUESTED CHANGE: Please change text to read:

An aeronautical information services provider shall identify *and communicate to the parties mentioned in AIS.OR.105 (c)* the aeronautical data and aeronautical information that do not meet the data quality requirements.”

JUSTIFICATION: We believe an action to communicate needs to be added after identification to be meaningful and motivate an action.

response

NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

AIS.TR.240

comment

437

comment by: *Slovenia Control, Ltd.*

Subpart B

Section 2 Data quality requirements

AIS.TR.240 Data limitations

The title of this requirement is not suitable as data limitations is more commonly used to describe other issues with the data beyond only data quality requirements.

response

NOTED. The title is considered to be clear enough to understand the objective of the requirement.

comment

438

comment by: *Slovenia Control, Ltd.*

Subpart B

Section 2 Data quality requirements

AIS.TR.240 Data limitations

The requirement is not clear. What is meant by ‘explicitly providing the data value’ is not understood. Does this mean that the data quality requirements that the data has achieved should be provided?

response

NOTED. The requirement has been amended to read ‘quality value’ instead of ‘data value’.



AMC/GM AIS.TR.240

comment	57	comment by: <i>NATS National Air Traffic Services Limited</i>
	<p>Page No: 82</p> <p>Paragraph No: GM1 AIS.TR.240 Data limitations</p> <p>Comment: The repeal of EC73/2010 means that para b of this section should be revised to remove the reference to EC73/2010</p> <p>Justification: This document is subject to withdrawal/change as a result of the publication of the NPA.</p> <p>Proposed Text: Remove reference to EC 73/2010</p>	
response	ACCEPTED. The reference has been replaced with section 4 of the document.	
comment	94	comment by: <i>Avinor AS</i>
	(b) We propose that the information from the EUROCONTROL 'Guidelines for the Annotation of data not compliant with Commission Regulation (EU) No 73/2010 (ADQ) are included in the GM instead of referring to the document.	
response	ACCEPTED. The reference has been replaced with section 4 of the document.	
comment	539	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart B</p> <p>Section 2 General requirements</p> <p>GM1 AIS.TR.240 Data limitations</p> <p>ANNOTATION</p> <p>Guidance on true data limitations (i.e. limits on its use) needs to be provided. For example, terrain data that may not be used commercially.</p>	
response	NOT ACCEPTED. AIS.OR.240: the limitation only applies to data quality requirements.	
comment	589	comment by: <i>CAA-N</i>
	(b) Information from the Eurocontrol "Guidelines for the Annotation of data not compliant with commission regulation (EU) No 73/2010 (ADQ) should be included in the GM instead of referring to the document.	
response	ACCEPTED. The reference has been replaced with section 4 of the document.	

AIS.OR.250

comment	380 Subpart A Section 2 Data Quality Requirements AIS.OR.250 Consistency requirement This requirement only covers consistency between different State AIPs and would be better to address products in a broader sense, including those within a single State.	comment by: <i>Slovenia Control, Ltd.</i>
response	NOTED. The situation is acknowledged but not foreseen at this stage.	
comment	381 Subpart A Section 2 Data Quality Requirements AIS.OR.250 Consistency requirement Consistency between a State's range of publications is not addressed by this requirement although it may be that AIS.OR.300 is trying to address this.	comment by: <i>Slovenia Control, Ltd.</i>
response	NOTED. It is considered to be covered by AIS.OR.300.	
comment	685 <u>AIS.OR.250 Consistency requirement</u> It should be considered to extend this requirement to the AIP digital data set. Rewording proposal: <i>"Where aeronautical data or aeronautical information is duplicated in the AIP or the AIP data set of more than one Member State, the aeronautical information services providers responsible for those <u>AI products</u> shall establish mechanisms to ensure consistency between the duplicated information"</i>	comment by: <i>DGAC</i>
response	NOTED. The situation is acknowledged but not foreseen at this stage.	
comment	1050	comment by: <i>The Boeing Company</i>

Page: 29

Paragraph: AIS.OR.250 Consistency requirement

The proposed text states:

Where aeronautical data or aeronautical information is duplicated in the AIP of more than one Member State, the aeronautical information services providers responsible for those AIPs shall establish mechanisms to ensure consistency between the duplicated information.

REQUESTED CHANGE: Please add: “In case of a non-conformance, all involved Member States shall involve the competent authority.”

Where aeronautical data or aeronautical information is duplicated in the AIP of more than one Member State, the aeronautical information services providers responsible for those AIPs shall establish mechanisms to ensure consistency between the duplicated information. *In case of a non-conformance, all involved Member States shall involve the competent authority.*

JUSTIFICATION: The intent of our recommendation is to immediately engage the competent authorities in non-conformances instances. We believe this at least should improve communication and engagement if consistency is not ensured.

response PARTIALLY ACCEPTED. GM added: If an AIS provider cannot agree, the competent authority has to be informed.

comment 624 comment by: *Lufthansa Systems FlightNav*

AIS.OR.250:

The paragraph gives advice to ensure consistency between duplicated AIP information.

It seems to be missing how identified inconsistencies shall be communicated to other parties involved in the data chain and/or the competent authority. It is suggested to add the following sentence:

“In case of a non-conformance, all involved Member States shall inform the competent authority.”

response PARTIALLY ACCEPTED. GM added: If an AIS provider cannot agree, the competent authority has to be informed.

comment 1069 comment by: *EUROCONTROL*

ANNEX VI - Page 29

AIS.OR.250 - Consistency requirement

For consistency with other headers and readability of the provision, the word “requirement” should be removed. The header should then read ‘Consistency’.

response ACCEPTED and title amended.



AMC/GM AIS.OR.250

comment	<p>996</p> <p>AMC/GM to Annex VI - Page 71</p> <p><u>GM1 AIS.OR.250(b)</u> - Page 74</p> <p>The term “agreements” is used to describe the interaction between parties (single appearance in this context in the NPA). For overall consistency the preferred (NPA) term should be formal arrangement.</p> <p>Please change agreements into “formal arrangements”.</p>	comment by: <i>EUROCONTROL</i>
response	ACCEPTED.	

AMC/GM to Section 3

comment	<p>163</p> <p>Paragraph: GM1 to Section 3</p> <p>Type: clarification</p> <p>Comment: Including this Eurocontrol reference may be problematic as in one of the latest AIM SWIM Team meetings (meeting 10) this got recorded in the minutes: NOTED THE IDENTIFIED REQUIREMENTS AND CURRENT DEFICIENCIES IN THE EUROCONTROL GUIDELINES FOR THE AIS DATA PROCESS (ADP) AND STATIC DATA PROCEDURES (SDP), IN RESPONSE TO AIM/SWIM TEAM-9/ACT03; With no clear timeline for its update.</p>	comment by: <i>ENAIRE</i>
response	NOTED.	

comment	<p>719</p> <p><u>Section 3 — Aeronautical information products</u></p> <p>Chapter 1 title is missing.</p>	comment by: <i>DGAC</i>
response	ACCEPTED and inserted.	

AIS.OR.300

comment	<p>137</p> <p>Paragraph: AIS.OR.300</p>	comment by: <i>ENAIRE</i>
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	<p>Reference text: consistency between</p> <p>Type: clarification</p> <p>Comment: AMC and GM should be provided. It is with consistency between States, so seems appropriate here also.</p>	
response	ACCEPTED and amended. An AIS provider shall ensure that, where aeronautical data and aeronautical information are provided in multiple formats, processes are implemented to ensure data and information consistency between those formats.	
comment	<p>383</p> <p>comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart A</p> <p>Section 3 Aeronautical information products</p> <p>Data Quality Requirements</p> <p>AIS.OR.300 General</p> <p>Chapter 1</p> <p>Aeronautical Information in a standardised presentation</p> <p>These sections do not support provision of the paper AIP.</p>	
response	NOTED. Information includes AIP paper.	
comment	<p>384</p> <p>comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart A</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 1 Aeronautical Information in a standardised presentation</p> <p>AIS.OR.300 General</p> <p>These sections are confusing in places.</p> <p>It is not considered necessary to copy such a large quantity of the ICAO SARPs in this regulation. This makes the regulation unnecessarily complicated to read and results in a large number of technical requirements.</p>	
response	NOTED.	
comment	<p>1051</p> <p>comment by: <i>The Boeing Company</i></p>	



Page: 29

Paragraph: AIS.OR.300 General

The proposed text states:

An aeronautical information services provider shall ensure that, where aeronautical data and aeronautical information are provided in multiple formats, processes are implemented to ensure data and information consistency between those formats.

REQUESTED CHANGE: We would like a clarification what it is intended by the words “provided in multiple formats” means “cd, dvd, etc. and/or online on the internet”, as mentioned in AMC2 AIS.TR.305(a).

JUSTIFICATION: We would like this to be clear to avoid any misunderstanding.

response ACCEPTED. A GM is added to avoid misunderstanding.

AIS.TR.300

comment 152 comment by: ENAIRE

Paragraph: AIS.TR.300 (b)

Type: clarification

Comment: Please clarify the sentence. Can local spelling (and characters like ñ) be used?

response ACCEPTED. GM added to clarify.

comment 238 comment by: FAA

AIS.TR.300 General, (b) the term "spelt" could/should be changed to "spelled" in the same sentence, I don't think ICAO specifically calls for "ISO basic Latin alphabet" in Annex 4.

response NOT ACCEPTED. The draft rules are based on ICAO Annex 15, not ICAO Annex 4.

comment 439 comment by: Slovenia Control, Ltd.

Subpart B

Section 3 Aeronautical information products

AIS.TR.300 General

(c) ‘Services’ should be replaced by ‘products’.

response ACCEPTED and changed.



comment	440	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart B</p> <p>Section 3 Aeronautical information products</p> <p>AIS.TR.300 General</p> <p>(c) ‘and their use will facilitate distribution of aeronautical data and aeronautical information’ is not needed and makes the requirement unclear.</p>	
response	ACCEPTED and removed.	

AIS.OR.305

comment	230	comment by: <i>FAA</i>
	<p>Editorial comment, AIP first paragraph reads, "...essential to air navigation as AIP,...", recommend change to read "...essential to air navigation as an AIP,...".</p> <p>AIP ammendments paragraph, (b) reads, "at such regular intervals". The interval is not defined. Recommend adding AIRAC cycle language.</p>	
response	NOT ACCEPTED. The paragraph is about regular amendments and not AIRAC cycle; different cycles can be followed.	

comment	385	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart A</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 1 Aeronautical Information in a standardised presentation</p> <p>AIS.OR.305 Aeronautical information publication (AIP)</p> <p>This requirement needs to be reworded as it is not clear. For example, what is meant by “lasting character”? This is not common terminology for AIS.</p>	
response	NOT ACCEPTED. ICAO terminology is used.	

comment	898	comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i>
	<p><i>Comment FOCA:</i> This NPA addresses the AIS products, which means that all AIS products are subject to the requirements. In our opinion, this is a heavy burden for many organizations providing non-IFR Data or products, as well as for AISP providing only information products, such as AIC.</p> <p>Justification: Actually, such information could be left out of the EASA Scope as non-safety-</p>	

relevant. This approach would be cost saving for the involved originators.

Proposed Text: Refine the scope focusing on safety objectives on IFR Operations only. Establish high quality assurance mechanisms for critical and essential data and release the burden from routine data.

response NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. The requirements still cover VFR aerodromes but flexibility is left to States as to what extent these provisions shall apply, depending on each national context and the way such aerodromes are included (or not) in the aeronautical information products.

comment 1070 comment by: EUROCONTROL

ANNEX VI - Page 30

AIS.OR.305 - Aeronautical information publication (AIP)

The provision contains text which is duplicated in the subsequent provisions AIS.OR.310 and 315. A confusion is created with the description of AIP amendments and AIP supplements in AIP description. In addition, the same text appears below (310, 315) for description of AIP amendments and AIP supplements. Please delete the blocks of text in AIS.OR.305: "...permanent information and long-duration temporary changes" and "...including AIP amendments and AIP supplements".

response ACCEPTED and amended.

AIS.TR.305

comment 441 comment by: Slovenia Control, Ltd.

Subpart B

Section 3 Aeronautical information products

Chapter 1 Aeronautical information in a standardised presentation

AIS.TR.305 Aeronautical information publication (AIP)

This is the first mention of the provision of the paper AIP and eAIP. We feel that this is very late in the regulation and should have been encompassed in other requirements.

response NOTED. The technical requirements need to be read in conjunction with the OR.

comment 442 comment by: Slovenia Control, Ltd.

Subpart B



response	<p>Section 3 Aeronautical information products</p> <p>Chapter 1 Aeronautical information in a standardised presentation</p> <p>AIS.TR.305 Aeronautical information publication (AIP)</p> <p>(a) Replace ‘and/or’ with ‘and’ as we believe both are essential products.</p> <p>NOT ACCEPTED. The paragraph has been amended to put more emphasis on the electronic AIP.</p>
comment	<p>845 comment by: ENAV</p> <p>AIS.TR.305</p> <p>Aeronautical Information Publication (AIP)</p> <p>Item (a)</p> <p>Page 41 of 104</p> <p>Comment:</p> <p>The eAIP is indicated as the only ‘electronic document’ for distribution.</p> <p>Are different means like DVD and/or web sites still considered viable means for electronic distribution ?</p> <p>EUROCONTROL specification eAIP is a completely different “tool” if compared to a DVD or a traditional AIP web site.</p> <p>Currently, DVD and web site are the most common electronic means for AIP distribution</p>
response	<p>The term ‘eAIP’ has been included in the definition.</p>
comment	<p>1058 comment by: The Boeing Company</p> <p>Page: 41</p> <p>Paragraph: AIS.TR.305 Aeronautical information publication (AIP)</p> <p>The proposed text states:</p> <p>(a) The AIP, AIP amendments and AIP supplements shall be provided on paper and/or as an electronic document ‘electronic AIP’ (eAIP) that allows for displaying on computer screen and printing on paper.</p> <p>REQUESTED CHANGE:</p> <p>We would like to see the requirement here that the AIP on paper and in any other (electronic) format shall be identical, and with no limitations for operational use.</p> <p>JUSTIFICATION: This has to do with the current Use-of-disclaimers-on-AIS-website action for the AIM/SWIM Team.</p>

response NOT ACCEPTED. Ref to AIS.OR.305: ‘When providing aeronautical data and aeronautical information in multiple formats, an AIS provider shall ensure that processes are implemented to ensure data and information consistency between those formats.’

comment 443 comment by: *Slovenia Control, Ltd.*
 Subpart B
 Section 3 Aeronautical information products
 Chapter 1 Aeronautical information in a standardised presentation
 AIS.TR.305 Aeronautical information publication (AIP)
 (k) We do not believe that the requirement to indicate the territory covered on each and every page of the AIP is often met by States. We recognise that this is an ICAO Annex 15 requirement also, however, we question its relevance.

response NOT ACCEPTED. It is considered as relevant. The AIP page headers identifies the State and the geographical coverage of the AIP.

comment 444 comment by: *Slovenia Control, Ltd.*
 Subpart B
 Section 3 Aeronautical information products
 Chapter 1 Aeronautical information in a standardised presentation
 AIS.TR.305 Aeronautical information publication (AIP)
 (k) The wording of this section is slightly different to ICAO. Consistency is considered important to avoid unnecessary complication and to simply proof of conformity with both requirements.

response ACCEPTED and aligned with ICAO Annex 15.

comment 445 comment by: *Slovenia Control, Ltd.*
 Subpart B
 Section 3 Aeronautical information products
 Chapter 1 Aeronautical information in a standardised presentation
 AIS.TR.305 Aeronautical information publication (AIP)
 (k) Despite the introductory sentence, this section also contains requirements for the eAIP.

response NOTED. This paragraph relates to paper AIP. For eAIP, reference to the ECTRL Spec is made.



comment	446	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart B</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 1 Aeronautical information in a standardised presentation</p> <p>AIS.TR.305 Aeronautical information publication (AIP)</p> <p>(k) This makes the eAIP optional although it was mandatory in CR 73/2010. We consider the provision of a mandatory eAIP an essential component of the NPA.</p>	
response	NOTED. Paper AIP still used but the text now puts emphasis on eAIP in AIS.OR.300.	

comment	583	comment by: <i>CAA-N</i>
	<p>AIS.TR.305 Aeronautical Information publication (AIP):</p> <p>(l): The content and structure of the eAIP should not refer to the paper AIP, since the paper AIP is optional.</p>	
response	ACCEPTED. Paragraph (l) is removed as it is already covered by paragraph (c).	

comment	86	comment by: <i>Avinor AS</i>
	<p>(l): the content and structure of the eAIP should not refer to the paper AIP, since the paper AIP is optional according to AIS.TR.305(a).</p> <p>We suggest that ICAO Annex 15 is used as reference.</p>	
response	ACCEPTED. Paragraph (l) is removed as it is already covered by paragraph (c).	

AMC/GM AIS.TR.305

comment	540	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart B</p> <p>Section 3 Aeronautical information products</p> <p>GM1 AIS.TR.305 Aeronautical information publication (AIP)</p> <p>LANGUAGE</p> <p>This GM does not make sense. There should be no questionable text and if it does exist must be addressed to make it consistent and clear.</p>	
response	ACCEPTED and removed.	



comment	752	comment by: ENAV
	<p>If the AIP is issued in one language, this language shall be “English” according to ICAO requirements.</p> <p>According to ICAO requirement, AIP in one language must be issued in English</p> <p>After ...more than one language, Please add (<i>English</i>) for clarification.</p>	
response	NOTED. The GM is removed.	
comment	1063	comment by: The Boeing Company
	<p>Page: 83</p> <p>Paragraph: AMC2 AIS.TR.305(a) Aeronautical information publication (AIP)</p> <p>ELECTRONIC AIP</p> <p>The proposed text states: When provided, the eAIP should be available on a physical distribution medium, such as cd, dvd, etc. and/or online on the internet.</p> <p>REQUESTED CHANGE: Please add: “<i>The aeronautical information represented in any physical distribution medium shall be identical, and with no limitations for operational use.</i>”</p> <p>JUSTIFICATION: This has to do with the current Use-of-disclaimers-on-AIS-website action for the AIM/SWIM Team.</p>	
response	ACCEPTED. ‘Identical’ is already reflected throughout the rules. Use of disclaimer: Added at a later stage as a GM based on the ECTRL guideline (use of disclaimers).	
comment	1088	comment by: European Transport Workers Federation - ETF
	ETF is of the opinion that aeronautical information is a public service and it should be available free of charge to any EU citizen or undertaking.	
response	NOTED.	
comment	1089	comment by: European Transport Workers Federation - ETF
	ETF strongly recommends to add a requirement to forbid the use of the information included in the AIP for commercial purposes.	
response	NOTED.	
comment	541	comment by: Slovenia Control, Ltd.



	<p>Subpart B</p> <p>Section 3 Aeronautical information products</p> <p>GM2 AIS.TR.305(a) Aeronautical information publication (AIP)</p> <p>FORM OF AIP</p> <p>This GM having been reworded from a SARP (change of text to may) does not now make sense. You are now not allowed a loose leaf document if it is reissued at frequent intervals.</p>
response	ACCEPTED. ICAO wording reinstated (should).
comment	<p>63 comment by: NATS National Air Traffic Services Limited</p> <p>Page No: 83</p> <p>Paragraph No: AMC1,AIS,TR305(c)</p> <p>Comment: Paragraph (a) states “the latitude should be given first:”</p> <p>Justification: To enforce consistency in the way that geo coordinates are supplied to the AISP</p> <p>Proposed Text: replace current statement with “the latitude <u>shall</u> be given first:”</p>
response	NOTED. This AMC is removed.

AIS.TR.310

comment	<p>1059 comment by: The Boeing Company</p> <p>Page: 42</p> <p>Paragraph: AIS.TR.310 AIP amendments</p> <p>The proposed text states:</p> <p>(d) The most current update cycles applicable to AIP amendments shall be made publicly available.</p> <p>REQUESTED CHANGE: Please add: “on time.”</p> <p>(d) The most current update cycles applicable to AIP amendments shall be made publicly available <i>on time</i>.</p> <p>JUSTIFICATION: The best-quality data is of no use if it is not delivered on time. The same applies to AIS.TR.315 AIP supplements (b)</p> <p>The most current update cycles applicable to AIP supplements shall be made publicly available.</p>
response	NOT ACCEPTED. There is no timeframe to provide the update cycles.

comment	447 comment by: Slovenia Control, Ltd.
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	<p>Subpart B</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 1 Aeronautical information in a standardised presentation</p> <p>AIS.TR.310 AIP amendments</p> <p>(e)(2) For consistency between products, the use of hand amendments should be withdrawn. If any errors are detected, users should be informed.</p>	
response	NOT ACCEPTED. Hand amendment are still used.	
comment	<p>448</p> <p>Subpart B</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 1 Aeronautical information in a standardised presentation</p> <p>AIS.TR.310 AIP amendments</p> <p>(e)(2) If this requirement remains, then ‘manuscript’ should be replaced by ‘hand amendments’ which is the more commonly used term.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	ACCEPTED and amended to ‘hand amendments’.	
comment	<p>449</p> <p>Subpart B</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 1 Aeronautical information in a standardised presentation</p> <p>AIS.TR.310 AIP amendments</p> <p>(f) The ICAO requirement to include the amendment number is not included in the regulation. This is considered important.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	NOT ACCEPTED. It is aligned with ICAO text. There is no requirements to include the serial number on each page.	
comment	<p>450</p> <p>Subpart B</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 1 Aeronautical information in a standardised presentation</p>	comment by: <i>Slovenia Control, Ltd.</i>

AIS.TR.310 AIP amendments

(f)(2) It is not clear what ‘annotation against it in the margin’ is supposed to mean. It seems that ‘new or amended information on an AIP amendment page’ is missing.

response ACCEPTED. In line with ICAO.

comment 451

comment by: *Slovenia Control, Ltd.*

Subpart B

Section 3 Aeronautical information products

Chapter 1 Aeronautical information in a standardised presentation

AIS.TR.310 AIP amendments

(f)(2) This should be reworded to ‘contain a publication date and/or an effective date, as applicable’.

response ACCEPTED. ICAO wording.

AIS.OR.315

comment 386

comment by: *Slovenia Control, Ltd.*

Subpart A

Section 3 Aeronautical information products

Chapter 1 Aeronautical Information in a standardised presentation

AIS.OR.315 AIP supplements

(b) ICAO Annex 15 requires these to be issued at intervals of not more than one month so for consistently, we would replace ‘regularly’ with the ICAO Annex 15 text.

response NOTED. Already covered by TR.

comment 686

comment by: *DGAC*

AIS.OR.315 AIP supplements (d)

Consider transferring (d) in **AIS.OR.330 NOTAM**

response NOT ACCEPTED. Transferred to GM.

comment 1008

comment by: *Danish Transport and Construction Agency*



Given that the definition of 'aviation undertakings' is very broad, it could be understood that all parties involved in originating AIP SUP must live up to requirements in Article 3, Appendix 1. This should be clarified, as this would put an unnecessary burden on many non-aviation entities such as police.

response NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed.

AIS.TR.315

comment 239 comment by: FAA
 AIP supplements paragraph, (a), recommend add "(ie: colour)" at the end of the sentence.
 (c) recommend change "calendar year." to "Gregorian calendar year."

response NOT ACCEPTED.

comment 452 comment by: Slovenia Control, Ltd.
 Subpart B
 Section 3 Aeronautical information products
 Chapter 1 Aeronautical information in a standardised presentation
 AIS.TR.315 AIP supplements
 (d) This is not consistent with ICAO Annex 15 as this requires the NOTAM serial number whereas the regulation requires to NOTAM series and number. Is there any good reason for using different terminology to ICAO?

response NOT ACCEPTED. It is in line with ICAO.

comment 453 comment by: Slovenia Control, Ltd.
 Subpart B
 Section 3 Aeronautical information products
 Chapter 1 Aeronautical information in a standardised presentation
 AIS.TR.315 AIP supplements
 (e) This requirement refers to a checklist of NOTAM whereas ICAO Annex 15 refers to a monthly plain-language list of valid NOTAM which is different.



response NOT ACCEPTED. It is in line with ICAO.

comment 454 comment by: *Slovenia Control, Ltd.*

Subpart B

Section 3 Aeronautical information products

Chapter 1 Aeronautical information in a standardised presentation

AIS.TR.315 AIP supplements

(e) A NOTAM checklist is sent out by NOTAM so cannot be distributed as for AIP Supplements.

response ACCEPTED. The text is also amended for clarification.

comment 846 comment by: *ENAV*

AIS.TR.315

AIP supplements

Item (g)

Page 42 of 104

Comment

A NOTAM can't be considered in any case as alternate to an AIP supplement publication.

For instance a NOTAM can't describe the content of an AIP supplement including charts and/or extensive text parts.

response NOTED. This paragraph is moved to GM.

AIS.OR.320

comment 388 comment by: *Slovenia Control, Ltd.*

Subpart A

Section 3 Aeronautical information products

Chapter 1 Aeronautical Information in a standardised presentation

AIS.OR.320 Aeronautical information circular (AIC)

(b) This requirement does not stipulate the action that an AIS should take in response to reviewing the validity of the AIC in force.

response NOTED.



comment	389	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart A</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 1 Aeronautical Information in a standardised presentation</p> <p>AIS.OR.320 Aeronautical information circular (AIC)</p> <p>A new requirement is needed to issue a checklist of AIC currently in force at least once a year, in accordance with ICAO Annex 15.</p>	
response	NOT ACCEPTED. It is already covered by AIS.TR.320(h).	

comment	1007	comment by: <i>Danish Transport and Construction Agency</i>
	<p>Given that the definition of 'aviation undertakings' is very broad, it could be understood that all parties involved in originating AIC must live up to requirements in Article 3, Appendix 1. This should be clarified, as this would put an unnecessary burden on many non-aviation entities such as police.</p>	
response	Data origination requirements do not apply to AICs. However, GM is added.	

AIS.TR.320

comment	847	comment by: ENAV
	<p>AIS.TR.320</p> <p>Aeronautical Information Circular (AIC)</p> <p>Item (a)</p> <p>Page 43 of 104</p> <p>Comment:</p> <p>As 'electronic document' is indicated the eAIP only.</p> <p>Are different means like DVD and/or web sites still considered viable means for electronic distribution ?</p> <p>Currently DVD and web site are the most common electronic means for AIC distribution</p>	
response	ACCEPTED and GM added.	

comment	87	comment by: <i>Avinor AS</i>
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	AIC is not an operational document, it should not be included in the eAIP. (a) and (c) are not consistent with each other.
response	ACCEPTED and GM added.
comment	240 comment by: FAA Page 44, (f), "calendar year." to "Gregorian calendar year."
response	NOTED. Now covered by ATM/ANS.OR.085.
comment	455 comment by: Slovenia Control, Ltd. Subpart B Section 3 Aeronautical information products Chapter 1 Aeronautical information in a standardised presentation AIS.TR.320 Aeronautical information circular (AIC) (i) This should be 'A list of AIC....' Not a 'A checklist of AIC...'
response	NOT ACCEPTED. It is a checklist, ICAO aligned.

AIS.OR.325

comment	390 comment by: Slovenia Control, Ltd. Subpart A Section 3 Aeronautical information products Chapter 1 Aeronautical Information in a standardised presentation AIS.OR.325 Aeronautical charts These chart requirements need to be based on a product specification rather than an AIS having to ensure that the chart enables an operator to meets its requirements. An AIS may not have knowledge of the data the operator requires and its end-use application. If an operator has different requirements that are not met by ICAO then it should open discussions with ICAO directly and submit possible change proposals to this defined product spec.
response	ACCEPTED. This requirement has been revised to reflect the list of aeronautical charts in accordance with 5.2.5 (aeronautical charts) of ICAO Annex 15. ICAO Annex 4 provides the related Standards and Recommended Practices including provision requirements for each chart type. Currently, this Annex 4 is referred to at AMC level until further assessment on a possible



transposition of this Annex in EU Regulation.

comment	138	comment by: ENAIRE
	<p>Paragraph: AIS.OR.325</p> <p>Type: amendment proposal</p> <p>Comment: It seems more descriptive of the aim and purpose of the charts than prescriptive. Maybe better in an enunciation or a definition instead of as a requirement.</p>	
response	NOTED. This requirement has been re-drafted. The new text is aligned with ICAO Annex 15, listing the charts that need to be made available (if published) but not how they should be produced.	
comment	66	comment by: NATS National Air Traffic Services Limited
	<p>Page No: 30</p> <p>Paragraph No: AIS.OR.325 (2)</p> <p>Comment: AD Obstacle Chart - Type A Operating limitations. Move paragraph 2 to an alternative Annex, possibly the ADR Annex or make it a State requirement on “Aviation undertakings”.</p> <p>Justification: The responsibility for achieving the stated requirements (operating limitations of Regulation (EU) No 965/2012) should not be placed solely on the AISP.</p>	
response	ACCEPTED. This requirement has been re-drafted. The new text is aligned with ICAO Annex 15, listing the charts that need to be made available (if published) but not how they should be produced.	
comment	231	comment by: FAA
	General comment, pages 30 and 31, is it understood that Type A and Type B charts are ICAO types?	
response	Yes.	
comment	139	comment by: ENAIRE
	<p>Paragraph: AIS.OR.325 (a)(2)</p> <p>Type: amendment proposal</p> <p>Comment: Is the AISP the one to ensure the charts enable an operator to... ? Or is the specification</p>	

	<p>in Annex 4 or other GM or AMC responsible for it?.</p> <p>Do the AISP have to perform the analysis and provide evidences?</p>	
response	<p>This requirement has been re-drafted. The new text is aligned with ICAO Annex 15, listing the charts that need to be made available (if published) but not how they should be produced.</p>	
comment	140	comment by: ENAIRE
	<p>Paragraph: AIS.OR.325 (c)(2)</p> <p>Type: amendment proposal</p> <p>Comment: Is the AISP the one to ensure the charts enable aircraft operators to... ? Or is the specification in Annex 4 or other GM or AMC responsible for it?.</p> <p>Do the AISP have to perform the analysis and provide evidences?</p>	
response	<p>This requirement has been re-drafted. The new text is aligned with ICAO Annex 15, listing the charts that need to be made available (if published) but not how they should be produced.</p>	
comment	60	comment by: NATS National Air Traffic Services Limited
	<p>Page No: 31</p> <p>Paragraph No: AIS.OR.325 (d)</p> <p>Comment: The Statement uses the term “shall”</p> <p>Justification: Not all States produce an En-Route Chart and have an ICAO filed difference to this effect.</p> <p>Proposed Text: replace current sentence with “An aeronautical information services provider shall ensure that <u>when made available</u>”</p>	
response	<p>This requirement has been re-drafted. The new text is aligned with ICAO Annex 15, listing the charts that need to be made available (if published) but not how they should be produced.</p>	
comment	61	comment by: NATS National Air Traffic Services Limited
	<p>Page No: 31</p> <p>Paragraph No: AIS.OR.325 (e)</p> <p>Comment: The Statement uses the term “shall”</p> <p>Justification: Not all States produce an Area Chart and have an ICAO filed difference to this effect.</p> <p>Proposed Text: replace current sentence with “An aeronautical information services provider shall ensure that <u>when made available</u>”</p>	

response This requirement has been re-drafted. The new text is aligned with ICAO Annex 15, listing the charts that need to be made available (if published) but not how they should be produced.

comment 62 comment by: NATS National Air Traffic Services Limited

Page No: 32

Paragraph No: AIS.OR.325 (i)

Comment: The Statement uses the term “shall”

Justification: Not all States produce a Visual Area Chart and have an ICAO filed difference to this effect.

Proposed Text: replace current sentence with “An aeronautical information services provider shall ensure that when made available”

response This requirement has been re-drafted. The new text is aligned with ICAO Annex 15, listing the charts that need to be made available (if published) but not how they should be produced.

comment 1077 comment by: European Transport Workers Federation - ETF

About (o) :

Why only ATC surveillance ? What about FIS/AFIS ? Are those covered ?

response FIS/AFIS are covered by the ATS rules so it is considered that they are part of this type of charts.

comment 560 comment by: skyguide Compliance Management

AIS.OR.325 Aeronautical charts

(p) Chart distribution requirements

(2) are provided as part of the aeronautical information products:

(i) aerodrome obstacle chart — type B;

(ii) world aeronautical chart 1:1 000 000; and

(iii) world aeronautical chart 1:500 000

Comment: *Should (iii) not be read as: aeronautical chart 1:500 000? (REF ICAO Annex 4)*

response ACCEPTED and changed.

comment 745 comment by: ENAV

The list isn't in the correct order and some charts are not mandatory.



	<p>Area chart and Visual Approach chart are not mandatory</p> <p>Enroute chart must be listed after the ATC surveillance minimum altitude chart.</p> <p>For Area chart and Visual Approach charts should be clarified that they are not mandatory or they must be removed from the list.</p> <p>Furthermore, as accepted by ICAO, the ICAO chart 1:500 000 must be intended as a substitute/alternative to the World Aeronautical Chart 1: 1 000 000.</p>
response	The new text is aligned with ICAO Annex 15, listing the charts that need to be made available (if published) but not how they should be produced.
comment	<p>774 comment by: <i>Solitec Software Solutions GesmbH</i></p> <p>How will it be ensured that the Data/Information depicted on the chart is consistent with the corresponding digital data sets?</p> <p>Should there be a digital data set specification for charts?</p>
response	NOTED. The consistency between the data set and the aeronautical products is the responsibility of the AIS providers.
comment	<p>945 comment by: <i>ESSP-SAS</i></p> <p>Instrument approach charts, as defined in accordance to ICAO Annex 4, shall be published by AIS only for AD open to international traffic.</p> <p>As EASA has introduced new ICAO RWY classification, in the following years is expected that Instrument approaches are going to be implemented at smaller AD (and heliports), equipped with non-instrument RWY, and potentially under EASA Basic regulation.</p> <p>According to our understanding of the present requirement, AD could have instrument approaches implemented but not published within the national AIP, if it is not open to international traffic (in the case of Europe, non-EU?) despite they are open to public use and as mentioned before, under EU-Basic regulation.</p> <p>In case small AD with non-instrument RWY are required to publish their IAP, the effort for to have the same interfaces with AIS than larger operators may jeopardize IAP implementation at such locations. A 'light' Part-AIS for GA should be beneficial.</p> <p>We found the same casuistry for heliports that are not required to publish their IAP and AD/heliport charts if they are not open to international flights.</p>
response	NOTED.
comment	<p>971 comment by: <i>German NSA (BAF)</i></p>

The proposed description does not ensure standardized and uniform production of aeronautical charts because detailed binding features, which everybody has to adhere to, are missing.

The pilots expect to obtain legally binding aeronautical information/charts. To achieve a high level of safety it has to be assured that charts are produced and published in a transparent and common way. All these factors are stated in ICAO Annex 4 Chapter 1, figure 1.3, Chapter 2 figure 2.2.

Proposal:

To assure EU-wide adequate safe, reliable and transparent production of aeronautical maps, all features of Annex 4 shall be reflected in this NPA 2016-02.

The German NSA (BAF) proposes to apply a designator in the maps name (as a quality feature) to show at a glance that a map is produced by a SES certified AIS provider in accordance with the rules laid down in this NPA.

Today it is the term “ICAO” (see ICAO Annex 4 page 2.2)

response The proposed rules transpose the relevant provisions with regard to charts in ICAO Annex 15. Transposition of ICAO Annex 4 will be considered in the future.

comment

1071

comment by: EUROCONTROL

ANNEX VI - Page 30

AIS.OR.325 - Aeronautical charts - Major comments

The removal of the ICAO label in all chart titles undermines the significance of compliance to ICAO requirements of all charts. Annex 15 includes in the title of each chart ‘ICAO’. According to ICAO Annex 4 : ... title shall not include “ICAO” unless the chart conforms with all Standards specified in this Chapter 2 and any specified for the particular chart.’ By removing in requirement ‘ICAO’ all charts will look like not ICAO compliant charts. It is therefore proposed to re-introduce the label ICAO in the title of all charts.

It is not possible to understand why the ICAO requirement for Electronic Aerodrome Terrain and Obstacle Chart has been downgraded to AMC within this NPA. The reason for exclusion of Electronic Aerodrome Terrain and Obstacle Chart (eATOC) from the list of required charts on the basis of the absence of any such charts in Europe, does not stand, since the requirement for provision by ICAO was November 2015 and there was no example/template of such chart provided by ICAO yet.

In addition, the charts listed in AIS.OR.325 (a), (b) and (c) indicate within ICAO Annex 4 the conditional clause saying that, when the eATOC chart is provided, then the charts listed under (a), (b) and (c) are not required. eATOC should be considered as the visualisation of terrain and obstacle datasets provided by the States. Please clarify the reason for “downgrading” the Electronic Aerodrome Terrain and Obstacle Chart to the level of AMC instead of listing it in the requirements.



response

NOT ACCEPTED.

The ICAO term was removed from the chart titles in order to allow some flexibility in the application of ICAO Annex 4. Please refer to AMC1 AIS.OR.325 which gives the possibility to produce charts in a different means of compliance.

This requirement has been re-drafted. The new text is aligned with ICAO Annex 15, listing the charts that need to be made available (if published) but not how they should be produced.

AMC/GM AIS.OR.325

comment

620

comment by: *CANSO*

Clear reference to the relevant amendment of ICAO Annex 4 missing

AMC1 AIS.OR.325 Aeronautical charts

No reference to the related amendment of the 11th edition is indicated.

Please add the relevant amendment to the 11th edition of Annex 4.

response

ACCEPTED.

comment

720

comment by: *DGAC*

AMC1 AIS.OR.325 Aeronautical charts

As the edition number of Annex 4 is specified, should not the included amendments be mentioned too?

response

ACCEPTED.

comment

946

comment by: *ESSP-SAS*

To reinforce the previous comment to AIS.OR.325, AD operators at locations not open to international traffic can implement IAP charts not based in ICAO Annex 4 provisions. This statement could introduce additional risks for ATS provision, DAT providers and airspace users.

response

NOTED. The initial text is amended to reflect the list of charts in annex 4.

comment

164

comment by: *ENAIRE*

Paragraph: AMC2 AIS.OR.325(a), (b) and (c) - item (b)

Type: clarification

Comment: Its seems that paragraphs 1 to 4 provide requirement on the chart, no guidance or



	rules on how to actually the charts should be built. The content does not seem to qualify as AMC. Do the AISP have to perform an individual analysis and come to conclusions to build the chart to fulfil this requirement?
response	The AMC is removed.
comment	<p>165 comment by: ENAIRE</p> <p>Paragraph: AMC2 AIS.OR.325(a), (b) and (c) - item (c)</p> <p>Type: amendment proposal</p> <p>Comment: Please remove. Why is there a need to make hard copy mandatory? This seems to prevent the implementation of the electronic chart.</p>
response	The AMC is removed.
comment	<p>252 comment by: FAA</p> <p>page 75. paragraph (c), since this is a "should", recommend change "An aeronautical..." to "If an aeronautical..."</p>
response	The AMC is removed.
comment	<p>751 comment by: ENAV</p> <p>Clear reference to the relevant amendment of ICAO Annex 4 missing</p> <p><u>AMC1 AIS.OR.325 Aeronautical charts</u></p> <p>No reference to the related amendment of the 11th edition is indicated.</p> <p>Please add the relevant amendment to the 11th edition of Annex 4.</p>
response	ACCEPTED and added.
comment	<p>998 comment by: EUROCONTROL</p> <p>AMC/GM to Annex VI - Page 71</p> <p><u>AMC2 AIS.OR.325(a), (b) and (c) - Page 74</u></p> <p>The chart title is incorrect. The title of ICAO Chart is Aerodrome Terrain and Obstacle Chart – Electronic.</p> <p>Please add 'Terrain' to the name of chart.</p>
response	The AMC is removed.

AIS.TR.325

comment	<p>923</p> <p style="text-align: right;">comment by: <i>EUROCONTROL</i></p> <p>ANNEX VI - Page 44</p> <p>AIS.TR.325 Aeronautical charts - Item (a)</p> <p>The NPA is omitting an Annex 4 requirement. According to ICAO Annex 4 (4.2.2) : 'When a chart combining the specifications of Chapters 3 and 4 is made available, it shall be called the Aerodrome Obstacle Chart — ICAO (Comprehensive)'.</p> <p>Please clarify the reason for not transposing ICAO Annex 4 requirement allowing for combined Aerodrome obstacle chart — type A and type B called Aerodrome Obstacle Chart — ICAO (Comprehensive).</p>
response	<p>NOTED. This requirement has been removed, as a consequence of the change of approach with regard to the charts.</p>
comment	<p>456</p> <p style="text-align: right;">comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart B</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 1 Aeronautical information in a standardised presentation</p> <p>AIS.TR.325 Aeronautical charts</p> <p>It is not clear why only 4 charts have been selected to be listed in this requirement. What about other chart types?</p>
response	<p>NOTED. This requirement has been removed, as a consequence of the change of approach with regard to the charts.</p>
comment	<p>457</p> <p style="text-align: right;">comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart B</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 1 Aeronautical information in a standardised presentation</p> <p>AIS.TR.325 Aeronautical charts</p> <p>There are considered to be fundamental issues on the way responsibilities for certain products have been divided between parties and do not reflect the organisational structures in place in many States. There seems to be an assumption that cartography is a function of the AIS but in many States this is not the case. Such requirements should be included in the general service</p>

	provider section or not be included at all. The same applies to procedure design.
response	This requirement has been removed, as a consequence of the change of approach with regard to the charts.
comment	748 comment by: ENAV Use of 'shall' isn't correct because the Area chart is not ICAO mandatory. The function described may be satisfied by an inset on an Enroute Chart — ICAO
response	This requirement has been removed, as a consequence of the change of approach with regard to the charts.

AIS.OR.330

comment	52 comment by: NATS National Air Traffic Services Limited Page No: 34 Paragraph No: AIS.OR.330 NOTAM Comment: Is the content of a NOTAM made available via AFTN and as Pre-flight Information Bulletin (PIB) required to comply with the stated Data Quality Requirements (DQR). Justification: NOTAM may contain essential/critical data available in the form of free text information, and cannot therefore comply with DQR specifications Proposed Text: Offer clarifying information recognising limitations of making NOTAM available for pre-flight information purposes.
response	ACCEPTED. Content of NOTAM has to comply with Data quality requirements. A requirement and GM is added to recognise specific situations.
comment	991 comment by: LVNL Pro (ATC the Netherlands) Is Digital NOTAM part of the proposed rulemaking?
response	Digital NOTAM is not considered as being a separate AIM product, but an enhancement of the AIP dataset with temporary changes (currently normally only permanent changes are introduced in the database). This temporary change is subsequently automatically issued as a 'classic' NOTAM for those users still needing it. The rules are not considered to be in contradiction with the development of digital NOTAM: the introduction of live changes in the AIP datasets is not forbidden by the rules and the 'classic' NOTAM that are produced by the digital NOTAM system have to comply with the same rules as all other NOTAM currently issued.



comment	1005	comment by: <i>Danish Transport and Construction Agency</i>
	'AIS.OR.330 - NOTAM' should be moved up to the sections covering AIP, AIP SUP and AIC.	
response	ACCEPTED.	

comment	1006	comment by: <i>Danish Transport and Construction Agency</i>
	Given that the definition of 'aviation undertakings' is very broad, it could be understood that all parties involved in originating NOTAM must live up to requirements in Article 3, Appendix 1. This should be clarified, as this would put an unnecessary burden on many non-aviation entities such as police.	
response	ACCEPTED. All parties involved in originating NOTAM do have to comply but introduction of exception of NOTAM for urgent situations	

AMC/GM AIS.OR.330

comment	166	comment by: <i>ENAIRE</i>
	Paragraph: AMC1 AIS.OR.330 NOTAM	
	Type: clarification	
	Comment: What are the implications of having OPADD as AMC? Knowing that it is much more prescriptive than ICAO material, it should better be guidance (should follow up to where possible)?	
response	NOTED. Currently the approach adopted is to leave the reference to OPADD at AMC level.	

AIS.TR.330

comment	11	comment by: <i>Garycooke</i>
	Include a sub paragraph regarding Bird/Wildlife hazards not anticipated or forecast in AIS/AIP documents.	
response	NOT ACCEPTED. Point (13) covers bird and wildlife, in line with ICAO.	
comment	458	comment by: <i>Slovenia Control, Ltd.</i>
	Subpart B	
	Section 3 Aeronautical information products	



Chapter 1 Aeronautical information in a standardised presentation

AIS.TR.330 NOTAM

(a) There are some differences to ICAO Annex 15, for example 4, 14, and 19. It is unsure how the States obligations to meet both will be met.

response NOTED. This paragraph is based on the new ICAO Annex 15.

comment 695 comment by: DGAC

AIS.TR.330 NOTAM (a)

Each NOTAM does not have to contain the described information.

Rewording proposal: "A NOTAM shall be issued when it is necessary to provide the following information:..."

response ACCEPTED.

comment 696 comment by: DGAC

AIS.TR.330 NOTAM (b)

Rewording proposal: "A NOTAM shall not be issued to provide the following information:..."

response ACCEPTED.

comment 75 comment by: Swedish Transport Agency, Civil Aviation Department (Transportstyrelsen, Luftfartsavdelningen)

AIS.TR.330 NOTAM (b)

Although bearing in mind the proliferation of NOTAM it is deemed to be bad legislation to state 'not to do' propose to move part (b) to AMC/GM instead.

response NOTED. However, the requirement follows ICAO standards. In this case, it is considered important to mention when NOTAM shall not be issued.

comment 108 comment by: BE CAA

(b)(8)

Belgian CAA and MIL authorities do wish publishing a NOTAM when paradrops are performed in uncontrolled airspace under VFR.

We consequently suggest



- not to enforce the publication but to recommend its application or

- to retrieve the rule

Justification

- it is difficult spotting para

- publishing the activity will ensure that pilots flying in uncontrolled airspace are aware of the zone of activity

- the amount of such NOTAMs are rather low

- impact on safety will be positively increased

response NOT ACCEPTED. In line with ICAO.

comment 459 comment by: *Slovenia Control, Ltd.*

Subpart B

Section 3 Aeronautical information products

Chapter 1 Aeronautical information in a standardised presentation

AIS.TR.330 NOTAM

(c) There references in this requirement are wrong. They should be to AIS.TR.330 (f) and AIS.TR.300 (g).

response ACCEPTED and changed accordingly.

comment 241 comment by: *FAA*

page 45, items to be included as a NOTAM, item (13), "presence of hazards which affect air navigation;" language is generic and subjective. Also, the list omits specific items such as fireworks display, lantern launch, forest fire and emergency response that should be included in the big Annex 15 update. Is (13) a place holder until big Annex 15 update is published?

response NOT ACCEPTED. ICAO aligned.

comment 925 comment by: *EUROCONTROL*

ANNEX VI - Page 47

AIS.TR.330 NOTAM - Item (i) (1)

The following information is missing in the instruction: the 'year' shall also be indicated, after the 'number'. All the elements included in a NOTAM numbering (series, four-digit number *and the year*) that are required, shall be clearly instructed.



	Please insert “/year” in the text after the word “number”, to read as follows: “number/year”.
response	ACCEPTED.
comment	242 comment by: FAA page 47, item (p), could change "spelt" to "spelled", and (q), recommend change "calendar year" to "Gregorian calendar year".
response	NOT ACCEPTED. Already covered in ATM/ANS.OR.085
comment	561 comment by: skyguide Compliance Management Ref: Appendix 2 to Annex VI (NOTAM Format), INSTRUCTIONS FOR THE COMPLETION OF THE NOTAM FORMAT, § 3. Qualifiers (Item Q), 2) NOTAM CODE, a) a) If the subject is not listed in the NOTAM Code (Doc 8400) or in the NOTAM Selection Criteria (Doc 8126), insert “XX” as the second and third letters (e.g. QXXAK); · <i>Inconsistency between the draft ICAO PANS-AIM and this EASA NPA 2016-02:</i> · <i>The draft ICAO PANS-AIM reads under 3. Qualifiers (Item Q), 2) NOTAM CODE, a): a) If the subject is not listed in the NOTAM Code (Doc 8400) or in the NOTAM Selection Criteria (Doc 8126), insert “XX” as the second and third letters; If subject is “XX”, use “XX” also for condition (e.g. QXXXX).</i> · <i>That means that QXXAK is not anymore allowed and should be read as QXXXX (same as defined in OPADD 4.0). Needs to be clarified.</i>
response	ACCEPTED. Appendix 2 reproduced (copy/paste) the latest version of the NOTAM format from PANS-AIM.
comment	460 comment by: Slovenia Control, Ltd. Subpart B Section 3 Aeronautical information products Chapter 1 Aeronautical information in a standardised presentation AIS.TR.330 NOTAM (s) This requirement is incorrect as it will not be possible to use equivalent numbering as some NOTAM may be national language and some only international language NOTAM.
response	NOT ACCEPTED. Duplicated NOTAM must comply in the numbering (ICAO).

comment	<p>461 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart B</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 1 Aeronautical information in a standardised presentation</p> <p>AIS.TR.330 NOTAM</p> <p>(u) to (w) There is inconsistent terminology used – NOTAM checklist versus checklist of NOTAM. The ICAO list of valid NOTAM is not referred to correctly. Consistency with ICAO is preferable.</p>
response	<p>NOT ACCEPTED. ICAO terminology.</p>
comment	<p>562 comment by: <i>skyguide Compliance Management</i></p> <p>Ref: Appendix 3 to Annex VI (SNOWTAM FORMAT), page 2 => SNOWTAM format and page 3 => INSTRUCTIONS FOR THE COMPLETION OF THE SNOWTAM FORMAT</p> <ul style="list-style-type: none"> · <i>EASA NPA already contains the completely revised SNOWTAM form but the content still refers to the ICAO proposed amendment (AN 4/1.1.55-15/30 => applicability date: 08 NOV 2018) instead of the slightly adjusted version contained in State Letter AN 2/2.4-16-18 adoption of AMDT 39 to Annex 15 (applicability date: 05 NOV 2020):</i> · <i>Well visible in the content order in Item G, the revised order of items in situational awareness section (SNOWBANKS ON THE RUNWAY, SNOWBANKS ADJACENT TO THE RUNWAY, SNOWBANKS ON A TAXIWAY) and the naming of Item S).</i> · <i>Note 1: Only the NOTAM form was adjusted, not the text part (INSTRUCTIONS FOR THE COMPLETION OF THE SNOWTAM FORMAT).</i> · <i>Note 2: If the EASA NPA 2016-02 applicability date is before NOV 2020 (planned for 01.01.2019), then the old SNOWTAM format would be still valid. Needs to be clarified</i> <p><i>Typo in Item J: To be read as RUNWAY (instead of RUNWAYT)</i></p>
response	<p>NOTED. The regulation will align the applicability dates of ICAO, with regard to the SNOWTAM format for which reference will be made to 5 Nov 2020.</p>
comment	<p>1085 comment by: <i>European Transport Workers Federation - ETF</i></p> <p>It is a strange formulation. Does each NOTAM need to contain all those ? Of course not but when reading the sentence as it stands it can be understood this way. We suggest a rewording such as : “A NOTAM shall be issued regarding the following information :”</p>
response	<p>ACCEPTED. The sentence has been revised.</p>

AIS.OR.335



comment	<p>391 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Subpart A</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 2 Digital data sets</p> <p>AIS.OR.335 General</p> <p>(a) This requirement needs to be reworded as the AIS is not necessarily the party in the State that will be providing the data. The proposed rewording is as follows:</p> <p>‘An aeronautical information services provider shall ensure that details of the availability of the following digital data sets are provided:</p> <p>...’.</p>
response	<p>ACCEPTED. Paragraph added to include other than AIS provider responsibility to provide such data.</p>
comment	<p>1072 comment by: <i>EUROCONTROL</i></p> <p>ANNEX VI - Page 34</p> <p>AIS.OR.335 - General - Item (a) - <u>Major comment</u></p> <p>The NPA is downgrading an ICAO requirement to an optional element. Terrain (2) and Obstacle (3) datasets are requirements, that is to say that they are standards in ICAO Annex 15. By placing ‘When provided’ in front of them makes them optional, that is to say that they become only recommendations. Please revise the text in such a way that ‘When provided’ does not cover Terrain (2) and Obstacle (3) datasets.</p> <p>ANNEX VI - Page 34 and 35</p> <p>AIS.OR.335 - Item (b) - and AIS.OR.340 - <u>Major comment</u></p> <p>Metadata requirements for digital data sets are addressed in two quite similar provisions namely in AIS.OR.335 (b) and AIS.OR.340. This needs to be rationalised. For consistency and ease of readability this text should appear only in one provision. Especially, since the technical requirements for metadata are only addressed in TR.340. It is proposed to remove sub-item AIS.OR.335 (b); its text may then be merged into AIS.OR.340.</p>
response	<p>1/ NOT ACCEPTED. The text is aligned with ICAO Annex 15.</p> <p>2/ ACCEPTED.</p>
comment	<p>141 comment by: <i>ENAIRE</i></p> <p>Paragraph: AIS.OR.335 (c)</p> <p>Type: clarification</p>

	Comment: AMC or GM needed
response	NOT ACCEPTED. Already covered by the related TR.
comment	232 comment by: FAA Digital data sets paragraph, (c) reads, "A checklist of valid data sets shall be regularly provided." Is a "checklist" an inventory and is "regularly provided" an AIRAC cycle?
response	Yes. It is an inventory, 'regularly': regularity is according the type of data set – but needs to be consistent with the AIRAC cycle.
comment	1052 comment by: The Boeing Company Page: 34 Paragraph: AIS.OR.335 General The proposed text states: (c) A checklist of valid data sets shall be regularly provided. REQUESTED CHANGE: Please specify when the checklist will be provided. JUSTIFICATION: We would like this to be clear to avoid any misunderstanding.
response	Yes. It is an inventory, 'regularly': regularity is according the type of data set – but needs to be consistent with the AIRAC cycle.
comment	687 comment by: DGAC <u>Chapter 2 — Digital data sets</u> It is proposed to harmonize the wording in this chapter 2 and to choose between : "when provided" vs "when made available".
response	ACCEPTED. When made available is now used.
comment	768 comment by: DSNA This NPA does not contain mandatory requirements for providing digital data sets. The specifications for digital data sets are applicable "when provided" or "when available". An AISP could provide aeronautical information products only in paper or electronic format to conform to the regulation. However, this NPA also requires the AISP to provide data according to an aeronautical information exchange model designed to be globally interoperable, which seems to imply the provision of data

in a digital format. Those aspects might need some clarification.

response ACCEPTED. When made available is now used.

AMC/GM AIS.OR.335

comment 784 comment by: *Solitec Software Solutions GesmbH*

The term "data subject" should be defined in Annex I.

response ACCEPTED and change to 'items'.

AIS.TR.335

comment 243 comment by: *FAA*

page 48, AIS.TR.335 General, (a), to what geographic standard? Recommend ISO 19157 or OGC.

(c) & (d), is "checklist" intended to be an inventory?

same page, the table under (a). "Aerodrome/heliport", first descriptor, recommend change "location indicator" to "location identifier".

response 1/ NOT ACCEPTED. Already covered by the related TR.

2/ Yes.

3/ NOT ACCEPTED.

comment 462 comment by: *Slovenia Control, Ltd.*

Subpart B

Section 3 Aeronautical information products

Chapter 2 Digital data sets

AIS.TR.335 General

(a) It is not clear what standard is being referred to by this requirement and for what purpose.

response NOTED. Clarification is provided in the related AMC.

comment 463 comment by: *Slovenia Control, Ltd.*

Subpart B



	<p>Section 3 Aeronautical information products</p> <p>Chapter 2 Digital data sets</p> <p>AIS.TR.335 General</p> <p>(b) We propose to reword this requirement to :</p> <p>‘A description of each available digital data set shall be provided in the form of data product specification’.</p>
response	ACCEPTED and changed accordingly.

comment	<p>464</p> <p>Subpart B</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 2 Digital data sets</p> <p>AIS.TR.335 General</p> <p>This provides an incomplete list of data subjects for the AIP data set. We recommend that the AIXM 5.1 set of data is listed.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	NOT ACCEPTED. Text is aligned with ICAO.	

AMC/GM AIS.TR.335

comment	<p>175</p> <p>Paragraph: Chapter 2</p> <p>Type: amendment proposal</p> <p>Comment: AMC or GM either descriptive or linking to external documentation should be given also for Instrument flight procedure data sets, as it is with the others.</p>	comment by: <i>ENAIRE</i>
response	ACCEPTED. GM added on instrument flight procedures (ICAO doc 8168).	

comment	<p>542</p> <p>Subpart B</p> <p>Chapter 2 Digital data sets</p> <p>GM1 AIS.TR.335(a) General</p> <p>ISO SERIES</p>	comment by: <i>Slovenia Control, Ltd.</i>
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	<p>Incomplete references to ISO 19100 standards included. GM1 AIS.TR.225 included the year part – please be consistent.</p>
response	<p>ACCEPTED. Consistency applied.</p>
comment	<p>1019 comment by: EUROCONTROL</p> <p>AMC/GM to Annex VI - Page 71</p> <p><u>GM1 AIS.TR.335 (b) - Page 86 - Major comment</u></p> <p>The description of what an available data set can include does not correspond with the description in PANS-AIM Appendix 3 GEN 3.1.6 “Digital data set”. It is not clear why the element ‘metadata’ is part of the description of the data set, and what the scope is in that context.</p> <p>An indication in Appendix 1 to Annex VI on where, in the AIP, the description of available data set shall be published, is missing.</p> <p>The description of what an available data set may include provides a detailed list of items. However, the reference to ICAO provisions (or other) in these listed items is not clear. The listed items differ from the items described in PANS-AIM Appendix 3 GEN 3.1.6, 1).</p> <p>It is therefore proposed to change the listed items in GM1 AIS.TR.335 (b) into the items listed in PANS-AIM Appendix 3 for GEN 3.1.6, 1): data set title, short description, data catalogue features included, geographical scope, if applicable, limitations related to its usage. In particular, please remove ‘metadata’ as an element to be part of the description of the data sets.</p>
response	<p>NOT ACCEPTED. The list based on ICAO annex 15.</p>

AIS.OR.340

comment	<p>233 comment by: FAA</p> <p>Metadata requirements, is this a repete of AIS.OR335(b)?</p>
response	<p>ACCEPTED.</p>
comment	<p>392 comment by: Slovenia Control, Ltd.</p> <p>Subpart A</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 2 Digital data sets</p> <p>AIS.OR.340 Metadata requirements</p> <p>This requirement is obsolete – it is covered in AIS.OR.335 (b).</p>

response NOT ACCEPTED. It is not considered as being covered by AIS.OR.335(b) but provides more technical details on how data sets needs to be included in the metadata.

AMC/GM AIS.OR.340

comment 999 comment by: EUROCONTROL
 AMC/GM to Annex VI - Page 71
GM1 AIS.OR.340 - AIP data set - Page 75
 There is an incorrect number reference to OR.340 for AIP data set. Numbering needs to be brought in line with the correctly numbered parent AIS.OR.345.
 Please correct requirement numbering to AIS.OR.345.

response ACCEPTED and corrected.

comment 528 comment by: Slovenia Control, Ltd.
 Subpart A
 Section 2 Data Quality requirements
 Chapter 2 Digital data
 GM2 AIS.OR.340 AIP data set
 CONTENT
 How is it proposed that supplement data which is not applicable to the (AIRAC cycle) is handled in data sets?

response The GM is now removed.

comment 1000 comment by: EUROCONTROL
 AMC/GM to Annex VI - Page 71
GM2 AIS.OR.340 - AIP data set - Page 75
 There is an incorrect number reference to OR.340 for AIP data set. Numbering needs to be brought in line with the correctly numbered parent AIS.OR.345.
 Please correct requirement numbering to AIS.OR.345.
GM2 AIS.OR.340 - Metadata - Page 75
 GM in relation to AIS.TR.340 Metadata is missing. It may be helpful for parties to indicate specific GM which may support implementation.



	Please add further GM by referring to ISO 19115 standards, at least.
response	1/ ACCEPTED. 2/ This is already covered in TR.225

AIS.TR.340

comment	697 comment by: DGAC
	<p><u>AIS.TR.340 Metadata requirements</u></p> <p>The actual (achieved) accuracy of the data shall be added as mandatory metadata in the event when the regulatory accuracy requirement in the data catalogue is not met. If the metadata is provided along with the data, it will allow the next intended user to:</p> <p>1- identify the data items which do not meet the accuracy requirement, 2- take into consideration the achieved accuracy of the data.</p>
response	NOT ACCEPTED. This is addressed in the formal arrangements.

AIS.OR.345

comment	142 comment by: ENAIRE
	<p>Paragraph: AIS.OR.345</p> <p>Reference text: essential to air navigation</p> <p>Type: amendment proposal</p> <p>Comment: Is the AISP to decide what is essential to air navigation? Is not the regulation that does this? Maybe the paragraph reads better without this last sentence.</p>
response	ACCEPTED. Removed.

comment	393 comment by: Slovenia Control, Ltd.
	<p>Subpart A</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 2 Digital data sets</p> <p>AIS.OR.345 AIP data set</p> <p>Whilst technology can support this requirement, it would be beneficial for EASA to issue guidance on the logistics of preparing data sets giving consideration to the expiry of non-AIRAC supplements</p>

	within an AIRAC cycle and to provide an example.
response	NOTED. It could be useful but more appropriate to be proposed by another organisation (ICAO, industry).
comment	<p>841 comment by: ENAV</p> <p>Comment:</p> <p>Is it intended that AIP data set must include AIP SUP data/information (long duration temporary changes)?</p> <p>If so, this is very challenging due to the temporality (effective date) of permanent and temporary data and its related management process.</p>
response	<p>1/ Yes.</p> <p>2/ NOTED.</p>

AIS.TR.345

comment	<p>153 comment by: ENAIRE</p> <p>Paragraph: AIS.TR.345</p> <p>Type: clarification</p> <p>Comment: Please clarify why some datasets are described individually (obstacle dataset) and others are compiled into the AIP dataset (ATS airspace).</p>
response	The requirement follows ICAO Annex 15. It is possible to deliver a sub-set of the AIP data set.
comment	<p>244 comment by: FAA</p> <p>Page 49, table, recommend spell out "FATO" and "TLOF".</p>
response	ACCEPTED and spelled out.
comment	<p>610 comment by: CANSO</p> <p>AIS.TR.345 AIP data set Item (a) - Table</p> <p>Minimum Obstruction Clearance Altitude" should read "Minimum Obstacle Clearance Altitude"</p> <p>Justification: Correct ICAO definition</p>

response ACCEPTED and amended.

comment 749 comment by: ENAV
 AIS.TR.345 AIP data set Item (a) - Table
 Minimum Obstruction Clearance Altitude” should read “Minimum Obstacle Clearance Altitude”
 Justification: Correct ICAO definition

response ACCEPTED and amended.

comment 777 comment by: Solitec Software Solutions GesmbH
 The terms "property" and "Feature attribute" are not used consistently through the document.
 It is not clear if they are considered as synonyms.
 The term "property" should be defined in Annex I.

response NOTED and checked. The term ‘property’ is considered to be a standard common term, there is no need to define it.

comment 778 comment by: Solitec Software Solutions GesmbH
 ad Item (b): There may also be other reasons why a property is not defined, e.g. missing, unknown, withheld, etc.

response ACCEPTED. GM added.

AIS.OR.350

comment 394 comment by: Slovenia Control, Ltd.
 Subpart A
 Section 3 Aeronautical information products
 Chapter 2 Digital data sets
 AIS.OR.350 Terrain and obstacle data - general requirements
 This requirement places the obligation on the AIS, whereas it should be the responsibility of the member State to ensure that the parties providing terrain and obstacle data are doing so in accordance with TR.350.
 The requirement should be reworded, as follows:
 ‘The aeronautical information services provider shall ensure that details of the availability of



	terrain and obstacle data sets prepared in accordance with AIS.TR.350 are provided.'
response	NOT ACCEPTED. This paragraph is not about the provision of data but about the coverage area of the data sets.
comment	<p>901 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA:</i> The defined eTOD Areas are not consistent with the ICAO Annex 14 provisions leading to very limited data assurance for instrument flight procedures.</p> <p>Justification: This discrepancy leads to a mismatch, as some eTOD areas, which are required by the EU Provisions, are only recommended practice by the ICAO. In addition, differences between ICAO Annex 14 provisions and ICAO Annex 15 provisions and the recommendation status have not been assessed in regard of the safety effects on IFP and have not been harmonized.</p> <p>Proposed Text: Ensure consistency between eTOD provisions in EU Reg 139/2014 and ensure alignment with ICAO Annex 14 and Doc 8168. Further, make sure that existing (EU) 139/2014 AMC/GM reflects current Annex 14 OLS/Doc 8168 requirements. Await upcoming changes prior to mandating a requirement for eTOD in this NPA.</p>
response	ACCEPTED. Reg. 134/2014 is amended accordingly.
comment	<p>904 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i></p> <p><i>Comment FOCA:</i> From the NPA provisions it could be understood that eTOD is a responsibility of the AISP in regard of the full data chain, including data origination. This seems to be supported by the provisions in the EU Reg 139/2014, which include some confusing eTOD requirements for EASA certified aerodromes.</p> <p>Justification: Data origination of eTOD Data is not clearly allocated and is for sure not an AISP task.</p> <p>Proposed Text: Clear responsibilities should be established throughout the EU regulatory framework and especially for eTOD data origination. Those shall including the relevant cost allocation principles. A data origination responsibility on AISP for eTOD Data is unacceptable and mixing-up different roles in the aviation data chain.</p>
response	NOTED. It is considered that this issue should be solved, but not in the context of tis NPA.
comment	<p>1074 comment by: <i>EUROCONTROL</i></p> <p>ANNEX VI - Page 35</p> <p>AIS.OR.350 - Major comment</p> <p>The NPA is downgrading an ICAO requirement to an optional element. Terrain and Obstacle datasets are requirements, that is to say that they are standards in ICAO Annex 15. By placing</p>

‘When provided’ in front of them makes them optional, that is to say that they become only recommendations. Please delete “When made available, ...”

response NOT ACCEPTED. The NPA approach remains to take into account that currently in Europe, eTOD implementation remains a technical challenge and cannot be imposed on AIS providers which is only publishing what it receives. At later stage, when eTOD implementation is completed, this approach might be reconsidered.

AIS.TR.350

comment 698 comment by: DGAC

AIS.TR.350 Terrain and obstacle data — general requirements

Replace the “electronic” occurrences by “digital”.

Rewording proposal : “*The coverage areas for digital terrain and obstacle data sets shall be specified as:*”

response ACCEPTED. The term ‘electronic’ is removed.

comment 907 comment by: daa - Dublin & Cork airports

daa would strongly support the clear identification of responsibilities amongst aeronautical information service providers, aviation undertakings and aerodrome operators with regard to the provision of electronic terrain and obstacle data.

daa proposes that Area 1 and Area 2d should be generated by the national Air Traffic Management Service in each Member State and that Areas 2a-c, Area 3 and Area 4 be managed by aerodrome operators.

Currently, there is a lack of clarity with regard to which entities are responsible for the generation of data with regard to each Area and a considerable opportunity exists herein to clarify this going forward for the avoidance of doubt.

response NOTED. However it is considered that it is outside the scope of this task.

comment 957 comment by: EUROCONTROL

ANNEX VI - Page 49

AIS.TR.350 - item (b)

The NPA, even if transposed correctly, still needs to correct a known Annex 15 inconsistency for TOD area of coverage.

Although the text is correctly reflecting ICAO Annex 15, this text from Amendment 33 was not



considering the amendments introduced by Amendment 36 concerning 10.1.5 and 10.1.6 of Annex 15 regarding:

10.1.5 Terrain:

b) the take-off flight path area; and

c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.

10.1.6 Obstacles:

b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a

common origin with the take-off flight path area; and

c) penetrations of the aerodrome obstacle limitation surfaces.

It is therefore proposed to include the following text from current Annex 15 in AIS.TR.350 (b):

10.1.5 Terrain:

b) the take-off flight path area; and

c) an area bounded by the lateral extent of the aerodrome obstacle limitation surfaces.

10.1.6 Obstacles:

b) objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a

common origin with the take-off flight path area; and

c) penetrations of the aerodrome obstacle limitation surfaces.

AIS.TR.350 - item (d)

A part of the text is superfluous. Please delete “[Annex 15, Appendix 1, Terrain and Obstacle data requirements]”. **ACCEPTED**

response NOTED. The comment is acknowledged, however it is considered that it should be elevated at ICAO level.

AMC/GM AIS.TR.350, AIS.TR.355, AIS.TR.360

comment 262 comment by: FAA
page 86. GM1 to AIS.TR.350, AIS.TR.355, AIS.TR.360 Terrain and obstacle data. 1st paragraph, 1st line reads; "...provision of electronic terrain...". Recommend delete "electronic". The upcoming big ammendment to Annex 15 deletes "electronic".

response ACCEPTED.

comment 891 comment by: BE CAA



AIS.TR.350 Terrain and obstacle data — general requirements

NPA : Annex 15, Appendix 1, is referred for Terrain and Obstacle data requirements

Comment : The reference of ICAO Annex 15 should be “Appendix 8” **Removed because editorial error.**

AIS.TR.350 : The coverage areas are described in the Technical Requirements of the NPA (AIS.TR.350) but they are also described in the Guidance Materials in the Reg (EU) N° 139 related to aerodromes (GM4 ADR.OPS.A.005(a) Aerodrome data) **NOTED**

AIS.TR.355 Terrain data sets / AMC1 AIS.TR.355(d) Terrain data set

NPA: The terrain feature attributes represent the minimum set of terrain attributes, and those annotated as mandatory shall be recorded in the terrain data set.

Comment : Mandatory attributes can be found only in AMC : how will this provision presented in the Regulation? Shall the provision refer to the dedicated AMC or the provision will give details with the mandatory attributes **ACCEPTED. TR updated with the mandatory elements in the tables and GM added to include the optional elements.**

AIS.TR.360 Obstacle data sets

Comment: What is the obstacle data collection for area 4? **NOTED. No collection surfaces for aera 1 & 4, the mini height is described in the OR.**

response Please see responses above, following the comments.

comment 95 comment by: Avinor AS
 AMC1 AIS.TR.355(d): The word 'obstacles' in "Each of defines **obstacle** features..." should be replace with 'terrain'.

response ACCEPTED.

AIS.OR.355

comment 143 comment by: ENAIRE
Paragraph: AIS.OR.355
Reference text: where made available
Type: amendment proposal
Comment: No indication of when is has to be made available? Please indicate.

response It should be read as ‘if made available’, there is no time consideration.



comment	145	comment by: <i>ENAIRE</i>
	<p>Paragraph: AIS.OR.355 (b)</p> <p>Type: amendment proposal</p> <p>Comment: It seems much more prescriptive than current Annex 15 where (2) is a recommendation and thus a different level than (1) for example. Taking into account the current issues and associated costs implementing terrain datasets, this overprescription seems inappropriate.</p>	
response	NOT ACCEPTED. This provision is optional (where made available).	

comment	395	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart A</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 2 Digital data sets</p> <p>AIS.OR.350 - 360</p> <p>These requirements could be restructured. AIS.OR.350 could be incorporated in the other requirements.</p>	
response	NOTED. However, the comment is not clear to which other requirements they could be incorporated.	

comment	396	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart A</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 2 Digital data sets</p> <p>AIS.OR.355 Terrain data sets</p> <p>These requirements implicitly place the obligation on the AIS, whereas it should be the responsibility of the member State to ensure that the parties providing terrain and obstacle data are doing so in accordance with the requirements.</p>	
response	ACCEPTED. The regulation only covers the publication of what is provided to the AIS providers. Regulation (EU) No 2017/373 does not require the provision of terrain data to be AIS certified. Terrain data sets are typically originated and maintained by non-aviation entities for general purposes. The provision of terrain data sets for the purpose of air navigation is consequently limited to the mere distribution of a finished product or even only the provision of information on how the product can be obtained. As such, the provision of terrain data, is not subject to an AIS certificate.	

comment	<p>688</p> <p>comment by: DGAC</p> <p><u>AIS.OR.355 Terrain data sets</u></p> <p>Is this a requirement to provide terrain data sets? In the same sentence, there is a provision requirement: “<i>shall ensure that terrain data are provided for...</i>”, and a “<i>where made available</i>”. Consider rewording if the intent of the regulation is not to mandate the provision of digital terrain data sets.</p> <p>§(b)(6) could end after “<i>...category II or III operations have been established.</i>”, which would be in line with <u>AIS.OR.360.c.6.</u></p>
response	<p>1/ NOT ACCEPTED. This provision is optional (where made available).</p> <p>2/ §(b)(6): NOT ACCEPTED – text from ICAO.</p>
comment	<p>843</p> <p>comment by: ENAV</p> <p>Comment:</p> <p>The wording is misleading.</p> <p>The State (not the AIS provider) shall ensure that the terrain data are provided.</p> <p>In some countries these data are distributed by other entities than the AIS (National Geographic Institute for instance).</p>
response	<p>ACCEPTED. The regulation only covers the publication of what is provided to the AIS providers. Regulation (EU) No 2017/373 does not require the provision of terrain data to be AIS certified. Terrain data sets are typically originated and maintained by non-aviation entities for general purposes. The provision of terrain data sets for the purpose of air navigation is consequently limited to the mere distribution of a finished product or even only the provision of information on how the product can be obtained. As such, the provision of terrain data, is not subject to an AIS certificate.</p>
comment	<p>882</p> <p>comment by: EUROCONTROL</p> <p>ANNEX VI - Page 35 and 36</p> <p><u>AIS.OR.355 Terrain data sets and AIS.OR.360 Obstacle data sets - Major comment</u></p> <p>The NPA is downgrading an ICAO requirement to an optional element. Terrain and Obstacle datasets are requirements, that is to say that they are standards in ICAO Annex 15. By placing ‘When provided’ in front of them makes them optional, that is to say that they become only recommendations. Please delete “Where made available” for AIS.OR.355 and 360. NOT ACCEPTED (optional approach from ICAO)</p> <p><u>AIS.OR.355 Terrain data sets - Major comment</u></p> <p>The NPA transposed ICAO Annex 15 standards down to the level of optional NPA provisions due to</p>

the use of “Where made available...”. This confuses overall the understanding on which items are optional and which ones are mandatory. The areas described in b2 are recommended practices in ICAO Annex 15 and could be provided instead of the ones in b3 and b4 which are the Standards. The NPA requirement does not reflect this ‘optionality’. Further, item b5 area 3 is an ICAO recommendation.

A text revision is therefore required to: 1/ Raise the requirements in items a, b1, b3, b4, b6 to the level of mandatory requirements; 2/ Indicate that requirement b2 is optional and can be provided instead (but not together with) items b3 and b4; and 3/ Reflect the optionality of item b5.

AIS.OR.355 Terrain data sets and AIS.OR.360 Obstacle data sets

It is not clear to which requirement the text “Or parts thereof” refers. A revision would enhance the readability of the provision. For example, it would in particular not make sense to have parts of area 2a area 3 and area 4. Please clarify the intended use of the text “or parts thereof”.

NOT ACCEPTED. The text is considered as clear enough.

response For easy reading, please see responses above on each of the comments.

comment 899 comment by: *Federal Office of Civil Aviation (FOCA), Switzerland*
Comment FOCA: same remark as comments 901 and 904 under AIS.OR.350

response NOTED. Please see responses on comments #901 and #904.

AIS.TR.355

comment 154 comment by: *ENAIRE*
Paragraph: AIS.TR.355

Type: amendment proposal

Comment: It seems that it is here where data availability is specified, at least partially, then it seems much more prescriptive than current Annex 15 where (f and k) is a recommendation. Taking into account the current issues and associated costs implementing terrain datasets, this overprescription seem inappropriate.

response NOTED. The two mentioned provisions are moved to the OR, making them optional (when made available), therefore it is not more prescriptive than ICAO Annex 15.

AMC/GM AIS.TR.355

comment 174 comment by: *ENAIRE*



	<p>Paragraph: AMC1 AIS.TR.355(d)</p> <p>Reference text: Each of defined obstacle feature types</p> <p>Type: typo</p> <p>Comment: It should refer to terrain.</p>	
response	ACCEPTED and changed.	
comment	590	comment by: CAA-N
	AMC1.AIS.TR.355(d): The word "obstacle" must be replaced with "Terrain".	
response	ACCEPTED and changed.	
comment	726	comment by: DGAC
	<p><u>AMC1 AIS.TR.355(d) Terrain data set</u></p> <p>This AMC is about terrain and not obstacle, as presently stated in the text. Moreover Annex 15 wording reads better. Rewording proposal: <i>"Feature attributes describing terrain shall be those listed in the following table. The terrain feature attributes listed hereafter represent the minimum set of terrain attributes, and those annotated as mandatory shall be recorded in the terrain data set."</i></p>	
response	ACCEPTED and changed.	

AIS.OR.360

comment	144	comment by: ENAIRE
	<p>Paragraph: AIS.OR.360</p> <p>Reference text: where made available</p> <p>Type: amendment proposal</p> <p>Comment: No indication of when is has to be made available? Please indicate.</p>	
response	NOTED. The text should be read as 'if'. There is not time consideration.	
comment	146	comment by: ENAIRE
	<p>Paragraph: AIS.OR.360 (c) (2 and 3)</p> <p>Type: amendment proposal</p>	



	Comment: The different surfaces should be more clearly defined at least on AMC or GM material.
response	NOTED. It is considered that this should be provided in the ICAO context and not to be fixed at EU level.
comment	147 comment by: ENAIRE
	Paragraph: AIS.OR.360 (c) (4 and 5) Type: amendment proposal Comment: It seems much more prescriptive than current Annex 15 where (4) and (5) are recommendations and thus a different level than (1) for example. Taking into account the current issues and associated costs implementing obstacle datasets, this overprescription seems inappropriate.
response	NOT ACCEPTED. This provision is optional (where made available).
comment	397 comment by: Slovenia Control, Ltd.
	Subpart A Section 3 Aeronautical information products Chapter 2 Digital data sets AIS.OR.360 Obstacle data sets These requirements implicitly place the obligation on the AIS, whereas it should be the responsibility of the member State to ensure that the parties providing terrain and obstacle data are doing so in accordance with the requirements.
response	ACCEPTED. The regulation only covers the publication of what is provided to the AIS providers. Regulation (EU) No 2017/373 does not require the provision of terrain data to be AIS certified. Terrain data sets are typically originated and maintained by non-aviation entities for general purposes. The provision of terrain data sets for the purpose of air navigation is consequently limited to the mere distribution of a finished product or even only the provision of information on how the product can be obtained. As such, the provision of terrain data, is not subject to an AIS certificate.
comment	689 comment by: DGAC
	<u>AIS.OR.360 Obstacle data sets</u> Same question as for AIS.OR.355.
response	NOTED. Please see response to AIS.OR.355.

comment	<p>844 comment by: ENAV</p> <p>Comment:</p> <p>The wording is misleading.</p> <p>The State (not the AIS provider) shall ensure that the obstacle data are provided.</p> <p>In some countries these data are distributed by other entities than the AIS (National Geographic Institute for instance).</p>
response	<p>ACCEPTED. The regulation only covers the publication of what is provided to the AIS providers. Regulation (EU) No 2017/373 does not require the provision of terrain data to be AIS certified. Terrain data sets are typically originated and maintained by non-aviation entities for general purposes. The provision of terrain data sets for the purpose of air navigation is consequently limited to the mere distribution of a finished product or even only the provision of information on how the product can be obtained. As such, the provision of terrain data, is not subject to an AIS certificate.</p>
comment	<p>883 comment by: EUROCONTROL</p> <p>ANNEX VI - Page 36</p> <p>AIS.OR.360 Obstacle data sets - <u>Major comment</u></p> <p>The NPA transposed ICAO Annex 15 standards down to the level of optional NPA provisions due to the use of “Where made available...”. The areas described in c4 are recommended practices in ICAO Annex 15 and could be provided instead of the ones in c2 and c3 which are the Standards. The NPA requirement does not reflect this ‘optionality’. Further, item c5 area 3 is an ICAO recommendation.</p> <p>A text revision is required to: 1/ Raise the requirements in items a, b, c1, c2, c3 and c6 to the level of mandatory requirements; 2/ Indicate that requirement c4 is optional and can be provided instead (but not together with!) items c2 and c3; and 3/ Reflect the optionality of item c5.</p>
response	<p>NOT ACCEPTED. (optional approach from ICAO).</p>

comment	<p>155 comment by: ENAIRE</p> <p>Paragraph: AIS.TR.360</p> <p>Type: amendment proposal</p> <p>Comment: It seems that it is here where data availability is specified, at least partially, then it seems much more prescriptive than current Annex 15 where (2,3,4 and 5) are recommendations. Taking into account the current issues and associated costs implementing terrain datasets, this</p>
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	overprescription seem inappropriate.
response	NOTED. The mentioned provisions are moved to the OR, making them optional (when made available), therefore it is not more prescriptive than ICAO Annex 15.
comment	779 comment by: <i>Solitec Software Solutions GesmbH</i> Ad item (b): Please clarify what is meant with "obstacle feature type". 1) Feature type as defined in Annex I or 2) is it the "type" of obstacle (e.g. building, tree, etc).
response	NOTED. 'Obstacle feature type' refers to the one in Annex I which can include building, trees...
comment	961 comment by: <i>EUROCONTROL</i> ANNEX VI - Page 51 <u>AIS.TR.360</u> Obstacle data sets - Item (c) - <u>Major comment</u> The obstacle collection surfaces for Areas 1 and 4 are missing in the requirements. In the absence of those collection surfaces, all objects in these areas could be considered as obstacles. Note: Area 1 collection surface is listed as optional in OR.360. Please add the collection surfaces for Area 1 and Area 4. Further, all collection surfaces should be ideally listed inside one TR.
response	NOTED. No collection surfaces for Area 1 & 4, the minimum height is described in AIS.OR.360
comment	1029 comment by: <i>Marcin LATOS CAA PL</i> We have a problem with understanding of these set of requirements. As a whole, the Annex VI applies to the AISP, so reading the given text one could assume, that it is the AISP responsibility to prepare the eTOD/AMDB data or at least to make a formal arrangements to be provided with such data. Yet, the eTOD/AMDB data originators would be in most cases aerodromes, national mapping agencies, military, CAAs working with regard to the national regulations/ICAO SARPs and based on that, many Member States (incl. Poland) does not require to collect the eTOD 2c/2d/3 areas or AMDB datasets as they are only a recommendations in ICAO Annex 15. Moreover there is no economical or operational justification to collect such data for small IFR aerodromes. Given the above, we could have a situation where the AISP would be required to provide the eTOD e2c/2d/3 areas or AMDB data whilst it would be impossible due to lack of such data (because it won't be required by the State). In conclusion, we think that there is no need to copy all the eTOD reqs to the proposed text, since



the AISP could only publish data which it is provided with (the same applies to the AMDB).

Other option is to add [if available ...]

response NOTED. There is no obligation to provide eTOD/AMDB, 'if available' is included already.

AIS.TR.365

p. 52

comment 156 comment by: ENAIRE

Paragraph: AIS.TR.365

Type: amendment proposal

Comment: To keep at the same level of details of AIS.TR.370 either a list of features is need here or removed in AIS.TR.370.

response NOT ACCEPTED. The nature of both data sets is different.

comment 245 comment by: FAA

AIS.TR.365 Aerodrome mapping data sets, (b), to what geographic standard? Reccomend ISO 19157 or OGC.

response NOTED. GM1 to the related requirement makes reference to the ISO Standard 19109.

comment 465 comment by: Slovenia Control, Ltd.

Subpart B

Section 3 Aeronautical information products

Chapter 2 Digital data sets

AIS.TR.365 Aerodrome mapping data sets

(b) It is not clear what standard is being referred to by this requirement and for what purpose.

response NOTED. GM1 to the related requirement makes reference to the ISO Standard 19109.

comment 466 comment by: Slovenia Control, Ltd.

Subpart B

Section 3 Aeronautical information products

Chapter 2 Digital data sets



AIS.TR.365 Aerodrome mapping data sets

(c) It is not clear what DPS standard is being referred to by this requirement.

response ACCEPTED. GM added to refer to the ISO 19131.

comment 780 comment by: *Solitec Software Solutions GesmbH*

ad item (d): A description in UML (similar to AIXM 5) would not be considered sufficient?

response Yes, provided it follows the standards in ED119-C.

AMC/GM AIS.TR.365

comment 263 comment by: *FAA*

page 89. GM1 AIS.TR.365(a) Aerodrome mapping data sets. 1st paragraph, 1st line reads; "...supported by electronic terrain...". Recommend delete "electronic". The upcoming big ammendment to Annex 15 deletes "electronic".

response ACCEPTED.

comment 264 comment by: *FAA*

page 90. GM2 AIS.TR. 365(a), 1st line reads, " Electronic terrain...". Recommend delete "Electronic", upcoming big ammendment to Annex 15 deletes term "electronic".

response ACCEPTED.

comment 543 comment by: *Slovenia Control, Ltd.*

Subpart B

Chapter 2 Digital data sets

GM1 AIS.TR.365(d) aerodrome mapping data sets

ISO REFERENCE

Incomplete references to ISO 19100 standards included. GM1 AIS.TR.225 included the year part – please be consistent.

response ACCEPTED. Consistency applied.

AIS.TR.370



comment	467	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart B</p> <p>Section 3 Aeronautical information products</p> <p>Chapter 2 Digital data sets</p> <p>AIS.TR.370 Instrument flight procedure data sets</p> <p>(b) This list is not complete. It does not include the missed approach segment for example.</p>	
response	NOT ACCEPTED. For now, it is considered to align with ICAO.	

AIS.OR.400

comment	398	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart A</p> <p>Section 4 Distribution and pre-flight information services</p> <p>AIS.OR.400 Distribution services</p> <p>(a) This requirement allows anyone to ask for any information from the AIS and they are obliged to provide it. This carries a significant potential for conflict and additional costs to be incurred.</p>	
response	ACCEPTED. Text amended for clarification.	

comment	399	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart A</p> <p>Section 4 Distribution and pre-flight information services</p> <p>AIS.OR.400 Distribution services</p> <p>(d) This requirement needs to be clarified as the use of 'units concerned' is unclear. It is also worded differently to OR.330 c). The use of central distribution points, such as the EAD, seems not to be supported by this requirement.</p>	
response	ACCEPTED, text amended, the term 'concerned' is removed.	

comment	400	comment by: <i>Slovenia Control, Ltd.</i>
	<p>Subpart A</p> <p>Section 4 Distribution and pre-flight information services</p>	

AIS.OR.400 Distribution services

(e) This requirement needs to be clarified as it is not clear at the current time. Whose operational requirements? Where are these recorded? Surely the “to satisfy operational requirements” is not necessary?

response NOT ACCEPTED. Aligned with ICAO.

comment 915

comment by: EUROCONTROL

ANNEX VI - Page 36

AIS.OR.400 Distribution services - Question

The NPA introduces a potential ambiguity regarding the distribution of the AI products.

This requirement could be understood as if the AISP should provide their products free of charge to anyone requesting them. Until now the distribution has been done on the basis of annual subscription and on the level of contracting state. Current Annex 15 only addresses distribution on request for NOTAM. Other products are not covered by this requirement and are part of the standard exchange between states or annual subscription. It has been noted that the future Annex 15 uses this wording, however, the real intent is questioned.

Is it truly intended that the States will have to provide all products for free, on the basis of simple requests?

response ACCEPTED. Text amended for clarification.

AIS.TR.400

comment 157

comment by: ENAIRE

Paragraph: AIS.TR.400 (a)

Type: clarification

Comment: Please clarify the sentence. What other means are available for distribution of information on volcanic activity? Are they mentioned in this NPA? GM or AMC needed for the requirements of long-range operations.

response NOT ACCEPTED. The paragraph is about the distribution by AHSTAM/NOTAM to be sent to the appropriate centres and not about the format of the information on volcanic activity.

comment 246

comment by: FAA

page 53, AIS.TR.400 Distribution services, (a), why lead with mention of ASHTAM when the section primarily addresses NOTAM? Recommend move (a) to position (d).



response ACCEPTED.

comment 468 comment by: *Slovenia Control, Ltd.*

Subpart B

Section 4 Distribution and pre-flight information services

AIS.TR.400 Distribution services

This section is limited to NOTAM distribution despite the title of the section.

response NOTED. The TR provisions must be read in conjunction with OR.

comment 469 comment by: *Slovenia Control, Ltd.*

Subpart B

Section 4 Distribution and pre-flight information services

AIS.TR.400 Distribution services

(a) This requirement should be split into two as it contains two 'shall' – combining two requirements in one is poor drafting.

response PARTIALLY ACCEPTED. Splitting the requirement in two is not considered appropriate. It is proposed to remove the second 'shall' in the paragraph.

comment 470 comment by: *Slovenia Control, Ltd.*

Subpart B

Section 4 Distribution and pre-flight information services

AIS.TR.400 Distribution services

(a) This requirement should be moved to later in AIS.TR.400 as the ones that follow after are general whereas this is specific to ASHTAM and volcanic activity NOTAM. This will aid reading.

response ACCEPTED. Moved to the end.

comment 471 comment by: *Slovenia Control, Ltd.*

Subpart B

Section 4 Distribution and pre-flight information services

AIS.TR.400 Distribution services

(c) It is not clear who will grant the distribution and for what purpose. Please clarify.



response NOTED. The distribution will be granted by the AISP (the paragraph is contained in the requirements for AIS providers).

comment 472 comment by: *Slovenia Control, Ltd.*
 Subpart B
 Section 4 Distribution and pre-flight information services
 AIS.TR.400 Distribution services
 (d) What are the ICAO communication procedures this requirement is referring to?

response The ICAO communication procedures referred to are AFTN – ICAO Annex 10. A GM is added to clarify.

comment 699 comment by: *DGAC*
AIS.TR.400 Distribution services (d)
 What are the “*relevant provisions of the ICAO communication procedures*”?
 At IR level, provisions should be more specific.

response The ICAO communication procedures referred to are AFTN – ICAO Annex 10. A GM is added.

AMC/GM AIS.TR.400

comment 167 comment by: *ENAIRE*
Paragraph: AMC1 AIS.TR.400
Type: amendment proposal
Comment: The writing does not seem appropriate to an AMC, it looks like a wish or an indication of intent. What are those requirement defined? How are they fulfilled?

response ACCEPTED. AMC is deleted.

comment 529 comment by: *Slovenia Control, Ltd.*
 Subpart A
 Section 4 Distribution and pre-flight information services
 AMC1 AIS.TR.400 Distribution services
 GENERAL



	The AIS must prepare NOTAM on given subjects. Who requests these NOTAM is outside the control of AIS. It is therefore unclear how this GM is of any use. Once again the manner in which AIS works seems to be misunderstood.	
response	ACCEPTED. This AMC is deleted.	
comment	168	comment by: ENAIRE
	Paragraph: GM1 AIS.OR.400(b) (a) (2) Reference text: direct electronic distribution Type: amendment proposal Comment: The word 'direct' adds confusion. Use 'system to system electronic distribution' if this is what is meant. In our opinion 'electronic distribution' would be enough to achieve the expected quality and integrity objective as it is noted in the explanatory part of the NPA.	
response	NOT ACCEPTED. It is considered that the term 'direct' does not creating confusion. In addition it is the term used by ICAO.	
comment	530	comment by: Slovenia Control, Ltd.
	Subpart A Section 4 Distribution and pre-flight information services GM1 AIS.OR.400(d) Distribution of services SNOWTAM SNOWTAM are not exchanged solely between AD as implied here.	
response	This GM is now removed.	
comment	849	comment by: ENAV
	It isn't clear whether the arrangements has to be intended between airports/heliports itself or between airports/heliports and AIS. Please clarify the statement.	
response	This GM is now removed.	

AIS.OR.405

comment	401	comment by: Slovenia Control, Ltd.
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	<p>Subpart A</p> <p>Section 4 Distribution and pre-flight information services</p> <p>AIS.OR.405 Pre-flight information services</p> <p>This should not be a mandatory obligation of the AIS as ARO is not always provided by the AIS service.</p>
response	<p>NOTED. This requirement limits the obligations to make pre-flight information available by AIS providers to enable pre-flight information to be supplied at the aerodrome.</p>
comment	<p>880 comment by: <i>BF</i></p> <p>ARO is not always and everywhere provided by AIS.</p>
response	<p>NOTED. This requirement limits the obligations to make pre-flight information available by AIS providers to enable pre-flight information to be supplied at the aerodrome. This requirement does not imply anything related to who is providing pre-flight information services.</p>
comment	<p>1078 comment by: <i>European Transport Workers Federation - ETF</i></p> <p>About (a) : Is the local ATS unit covered by this formulation ?</p>
response	<p>NOTED. This requirement limits the obligations to make pre-flight information available by AIS providers to enable pre-flight information to be supplied at the aerodrome. This requirement does not imply anything related to who is providing pre-flight information services.</p>
comment	<p>1079 comment by: <i>European Transport Workers Federation - ETF</i></p> <p>This relates also to Annex II, Appendix 1 "Service Provider Certificate," page 24 of the NPA and to our general comment.</p> <p>This OR implies a lot in terms of definition of who is providing aeronautical information services.</p> <p>Here seems to be included not only the functions related to the Pre Flight Information Service but also with the functions related to the ATS Reporting Office, namely the Flight Plan and all the messages that are associated with it.</p> <p>Today, the reality is that the AIS/AD/AO entities, from the reception to the Flight Plan processing are closely linked.</p> <p>We consider that it would be a non-sense that aerodrome operators and/or their subcontractors who provide this service are considered AIS providers and need to be certified as such.</p> <p>ETF will oppose any attempt to fragment the AIS provision.</p>
response	<p>NOTED. A GM is added. This requirement does not imply anything related to who is providing ATS</p>



AIS.TR.405 Pre-flight information services

(d)(4) Although this is an ICAO Annex 15 requirement, the phrase ‘ appropriate mechanism as agreed between the civil aviation authority and operator concerned’ could oblige the AIS to provide a system supporting functionality that the CAA has agreed without consulting the AIS.

response ACCEPTED. Last sentence deleted.

comment 475

comment by: *Slovenia Control, Ltd.*

Subpart B

Section 4 Distribution and pre-flight information services

AIS.TR.405 Pre-flight information services

(e) This requirement is a risk as, by default, giving the user all NOTAM would potentially have safety implications if the user was unable to digest or filter all the information in a large PIB.

response NOT ACCEPTED. AIS providers should not withhold information and it is up to the user to select, filtering is at user’s discretion.

AIS.OR.500

comment 402

comment by: *Slovenia Control, Ltd.*

Subpart A

Section 5 Aeronautical information products updates

AIS.OR.500 General

This requirement is already covered by AIS.OR.310 (b).

response NOT ACCEPTED. If the wording is similar, the scope is different: AIS.OR.500 is general for aeronautical information and products whereas AIS.OR.310 is limited to amendment to AIP.

AIS.TR.500

comment 247

comment by: *FAA*

page 54. AIS.TR.500 General, use of the term "coherence" does not fit the context of the passage. Recommend change "coherence" to "consistency". In this respect, there is consistency that appear in multiple aeronautical information products.

response ACCEPTED and changed.



comment	477	comment by: <i>Slovenia Control, Ltd.</i>
	Subpart B	
	Section 5 Aeronautical information products updates	
	AIS.TR.500 General	
	These requirements are placed solely on the AIS but such requirements need to be placed on aviation undertakings and aerodromes, etc. also.	
response	NOT ACCEPTED. Products are provided by AIS providers.	

comment	700	comment by: <i>DGAC</i>
	<u>AIS.TR.500 General</u>	
	Does not this requirement also apply to AIP supplements?	
response	ACCEPTED and changed.	

AIS.OR.505

comment	83	comment by: <i>Avinor AS</i>
	AIS.OR.505: Hours of operations for rescue and fire fighting, ATS services and aerodromes must be included. We appreciate more flexibility than in current Annex 15, but publication times need to be specified.	
response	ACCEPTED. Already included in GM2 AIS.OR.505(a) AIRAC.	

comment	582	comment by: <i>CAA-N</i>
	AIS.OR.505 AIRAC: Hours of operations for Rescue & Fire fighting, ATS services and Aerodromes must be included.	
response	ACCEPTED. Already included in GM2 AIS.OR.505(a) AIRAC	

comment	148	comment by: <i>ENAIRE</i>
	Paragraph: AIS.OR.505 (a) (1 to 10)	
	Type: amendment proposal	
	Comment: Due to its nature, should it not be moved to a TR like similar statements on AIC (AIS.TR.320) and NOTAM (AIS.TR.330)?	

response ACCEPTED.

comment 403 comment by: *Slovenia Control, Ltd.*
 Subpart A
 Section 5 Aeronautical information products updates
 AIS.OR.505 AIRAC
 (a) These requirements also apply to parties other than the AIS. The AIS is only a vehicle to publish this data – where are the obligations for this information to be provided to the AIS?

response ACCEPTED. See ATM/ANS.OR.A.085 (e).

comment 404 comment by: *Slovenia Control, Ltd.*
 Subpart A
 Section 5 Aeronautical information products updates
 AIS.OR.505 AIRAC
 (a) The text after ‘system’ should be removed. Such text is not appropriate within a regulation.

response NOT ACCEPTED.

comment 405 comment by: *Slovenia Control, Ltd.*
 Subpart A
 Section 5 Aeronautical information products updates
 AIS.OR.505 AIRAC
 (a) This list is not complete when compared to ICAO Annex 15.

response The list is strictly aligned with ICAO 2.6.

comment 920 comment by: *EUROCONTROL*
 ANNEX VI - Page 37
 AIS.OR.505 item (a) - Major comment
 Aeronautical service providers cannot ensure by themselves compliance with the AIRAC cycle. This requirement shall be put primarily on data originators.
 The operational experience shows that most failures to comply with the AIRAC cycle are not due to AIS but due to the late reception of the data from the originators or to last minute changes made



by ANSPs and other data originators. Therefore, this requirement shall be put with priority on data originators. AIS shall be requested that, on the condition that the information is received in time, its provision to the next intended user is done in accordance to the AIRAC cycle provisions.

Therefore please rephrase to say “An aeronautical information services provider shall ensure that, when received in due time from the data originators, information concerning the following circumstances is distributed under the AIRAC system...”.

response NOT ACCEPTED. It is considered that the proposal may weaken the requirements.

comment 406 comment by: *Slovenia Control, Ltd.*

Subpart A

Section 5 Aeronautical information products updates

AIS.OR.505 AIRAC

(b) These are technical requirements.

response ACCEPTED and moved to TR.

comment 407 comment by: *Slovenia Control, Ltd.*

Subpart A

Section 5 Aeronautical information products updates

AIS.OR.505 AIRAC

(b) This is repetition of ICAO – either it should be removed or fully consistent.

response NOT ACCEPTED – the requirement is reflected also in TR, so it is considered to be complete.

comment 1053 comment by: *The Boeing Company*

Page: 37

Paragraph: AIS.OR.505 AIRAC

The proposed text states:

(b) An aeronautical information services provider shall ensure that:

(1) the information notified under the AIRAC system is not changed further for at least another 28 days after the effective date unless the circumstance notified is of a temporary nature and would not persist for the full period;

REQUESTED CHANGE: Please add at the end: “and be promulgated by NOTAM, AIS.OR.400



refers.

(b) An aeronautical information services provider shall ensure that:

(1) the information notified under the AIRAC system is not changed further for at least another 28 days after the effective date unless the circumstance notified is of a temporary nature and would not persist for the full period, *and be promulgated by NOTAM, AIS.OR.400 refers;*

JUSTIFICATION: If the distribution method ('by NOTAM') is not mentioned, the method of notification of information changes is unclear.

response NOT ACCEPTED. The text proposed by the comment is already covered by NOTAM provisions AIS.OR.330.

AMC/GM AIS.OR.505

comment 169 comment by: ENAIRE

Paragraph: GM1 AIS.OR.505(a)

Type: clarification

Comment: Including this Eurocontrol reference may be problematic as in one of the latest AIM SWIM Team meetings (meeting 10) this got recorded in the minutes: NOTED THE IDENTIFIED REQUIREMENTS AND CURRENT DEFICIENCIES IN THE EUROCONTROL GUIDELINES FOR THE AIS DATA PROCESS (ADP) AND STATIC DATA PROCEDURES (SDP), IN RESPONSE TO AIM/SWIM TEAM-9/ACT03; Wirth no clear timeline for its update.

response NOTED. However, it is considered and the experts agree that this document should be used.

comment 170 comment by: ENAIRE

Paragraph: GM2 AIS.OR.505(a)

Reference text: The AIRAC may

Type: clarification

Comment: Why it is used 'may'? Are there other proposed means? When should it be published by AIRAC? When possible? Is this a recommendation?

response It is proposed to keep this text as guidance but it is considered more appropriate to reflect the ICAO recommendation. 'may' replaced by 'should'.

comment 253 comment by: FAA

page 78. Top of page, first line, recommend change "The AIRAC may be used..." to "The AIRAC

	system may be used...".
response	NOT ACCEPTED.
comment	1061 comment by: <i>The Boeing Company</i>
	<p>Page: 78</p> <p>Paragraph: GM2 AIS.OR.505(a) AIRAC Use of AIRAC System</p> <p>The proposed text states:</p> <p>The AIRAC may be used for the provision of information relating to the establishment and withdrawal of, and premeditated significant changes in, the circumstances listed below:</p> <p>REQUESTED CHANGE: Please change the wording to: "The AIRAC shall be used ..."</p> <p>The AIRAC may <i>shall</i> be used for the provision of information relating to the establishment and withdrawal of, and premeditated significant changes in, the circumstances listed below:</p> <p>JUSTIFICATION: This is a requirement to get the changes into the databases and into the cockpit on time.</p>
response	It is proposed to keep this text as guidance but it is considered more appropriate to reflect the ICAO recommendation. The term 'may' is replaced by 'should'.
comment	93 comment by: <i>Avinor AS</i>
	We find it sufficient that notifications of major changes reach the recipients at least 42 days in advance.
response	NOTED.
comment	1062 comment by: <i>The Boeing Company</i>
	<p>Page: 78</p> <p>Paragraph: GM3 AIS.OR.505(a) AIRAC Advance Notification of Major Changes</p> <p>The proposed text states:</p> <p>Whenever major changes are planned and where advance notice is desirable and possible, information may be distributed and/or made available by the aeronautical information services provider, whenever practicable, so as to reach recipients at least 56 days in advance of the AIRAC effective date. This may apply to the establishment of, and premeditated major changes in the circumstances listed below, as well as to other major changes if deemed necessary:</p>

REQUESTED CHANGE:

Whenever major changes are planned and where advance notice is desirable and possible, information ~~may~~ shall be distributed and/or made available by the aeronautical information services provider, so as to reach recipients at least 56 days in advance of the AIRAC effective date. This may apply to the establishment of, and premeditated major changes in the circumstances listed below, as well as to other major changes if deemed necessary:

JUSTIFICATION: This is a requirement to get the changes into the databases and into the cockpit on time.

response NOT ACCEPTED. Replaced with 'should' as it is contained in AMC.

AIS.TR.505

comment 88 comment by: Avinor AS

We propose to change (a) to: "... received at least 28 days in advance of the effective date".

This is to allow for efficient electronical distribution.

response ACCEPTED. Paragraph amended and AMC added based on ICAO 6.2.3 (Note).

comment 630 comment by: Lufthansa Systems FlightNav

AIS.TR.505, (a):

The paragraph describes the minimum requirement for paper copy or physical media publication of information.

It should be discussed whether a recommendation to publish major changes at least 56 days in advance of the effective date can be added, to enable DAT providers to work through the publication, clarify any open issues with the AIS provider and publish the information on time.

response ACCEPTED. A requirement is added to introduce the related AMC.

AIS.OR.510

comment 408 comment by: Slovenia Control, Ltd.

Subpart A

Section 5 Aeronautical information products updates

AIS.OR.510 NOTAM updates



	The title of this section should be renamed 'NOTAM Issuance'. NOTAM are not updated.
response	ACCEPTED and deleted.
comment	409 comment by: <i>Slovenia Control, Ltd.</i> Subpart A Section 5 Aeronautical information products updates AIS.OR.510 NOTAM updates (b) Why is there a Trigger NOTAM requirement here but not all the other NOTAM types referred to in AIS.TR.510?
response	The NOTAM types in TR complement the OR provision on trigger NOTAM. The list in the TR is more specific about the content.
comment	690 comment by: <i>DGAC</i> <u>AIS.OR.510 NOTAM updates (a)</u> AIS.TR.510 is not really about the "updates" of NOTAM. AIS.TR.510 contains specific requirements that apply to the management and the provision of NOTAM. It is proposed to delete the word "updates" from the sentence.
response	ACCEPTED and removed.

AIS.TR.510

comment	159 comment by: <i>ENAIRE</i> Paragraph: AIS.TR.510 (a) Type: amendment proposal Comment: Just some cases of events that cannot be foreseen are listed, either put them as examples or remove them.
response	NOT ACCEPTED. It is not considered as an issue to have the list ending with other cases.
comment	476 comment by: <i>Slovenia Control, Ltd.</i> Subpart B Section 5 Aeronautical information products updates



response	<p>AIS.TR.510 NOTAM updates</p> <p>This section should be renamed ‘NOTAM Issuance’ as NOTAM are not updated and this is not discussed in this section.</p> <p>ACCEPTED and deleted.</p>
comment	<p>701 comment by: DGAC</p> <p><u>AIS.TR.510 NOTAM updates</u></p> <p>The title is not very consistent with the content of this paragraph. Very few provisions relate to the “update” of NOTAM. Most of those provisions can be transferred to “AIS.TR.330 NOTAM”.</p> <p>There are only few things to say about NOTAM updates : when a NOTAM needs to be updated, then a new NOTAM has to be originated ...</p>
response	ACCEPTED.
comment	<p>702 comment by: DGAC</p> <p><u>AIS.TR.510 NOTAM updates (c) and (d)</u></p> <p>The adjectives “permanent” and “temporary” should not be associated with the word “NOTAM” but with the information contained in the NOTAM. The NOTAM is only the vector.</p> <p>Rewording proposal:</p> <p>(c) <i>“Within three months from the issuing of a NOTAM <u>notifying a permanent change</u>, the information contained in the NOTAM shall be included in the aeronautical information products affected.”</i></p> <p>(d) <i>“Within three months from the issuing of a NOTAM <u>notifying a temporary change of long duration</u>, the information contained in the NOTAM shall be included in an AIP supplement.”</i></p>
response	NOT ACCEPTED. ICAO aligned.
comment	<p>703 comment by: DGAC</p> <p><u>AIS.TR.510 NOTAM updates (h)</u></p> <p>This provision lacks :</p> <p>1- the fact that trigger NOTAMs are only originated for “AIRAC” AIP amendments,</p> <p>2- the starting point of the 14 days period.</p> <p>Rewording proposal: <i>“A ‘Trigger’ NOTAM associated with an AIRAC AIP amendment shall remain valid for a period of fourteen days after the effective date of the amendment.”</i></p>

response NOT ACCEPTED. It is considered that if the comment proposes a better wording, the risk is to lose consistency with ICAO.

comment 704 comment by: DGAC
AIS.TR.510 NOTAM updates (i) and (j)
 It should be specified that only “AIRAC” AIP supplements shall be accompanied by a trigger NOTAM.

response NOT ACCEPTED. It is already covered by OR.510(b).

AIS.OR.515

comment 65 comment by: NATS National Air Traffic Services Limited
Page No: 38 (and Pages 54, 78.)
Paragraph No: AIS.OR.515
Comment: ICAO have adopted the term “Data Set Updates” while The NPA has adopted the term “Digital Data updates”.
Justification: For consistency and to avoid misunderstanding recommend NPA text is aligned with ICAO; to adopt the term “Data Set Updates”
Proposed Text: “Data Set Updates”.

response ACCEPTED.

comment 201 comment by: DFS Deutsche Flugsicherung GmbH
 Without (preferably globally) harmonized UUIDs in AIXM this requirement cannot be met. The NPA however does not take into account the shortcomings of AIXM and of the creation and handling of UUIDs.

response NOTED. It is considered that AIXM format is the format to be used today, but it is recognised that this exchange model is also not always the most perfect one.

comment 234 comment by: FAA
 General comment Digital data updates paragraph, (a), "...at such regular intervals...", why not call out AIRAC cycle?

response NOTED. This is based on the ICAO wording. AIRAC cycle is not referred to as not all the data sets are subject to AIRAC cycle (terrain data). A GM added to explain why this term is used instead of



the AIRAC cycle.

comment 625 comment by: *Lufthansa Systems FlightNav*

AIS.OR.515, (a):

The paragraph mentions "regular intervals" for AIS provider to update data sets. If these updates are not aligned with AIRAC publications, it may be difficult for DAT providers to handle these due to strictly defined data production cut-off dates and delivery deadlines.

For thereto, it is suggested to amend the wording as follows:

"An aeronautical information service provider shall:

(a) amend or reissue data sets according to the ICAO AIRAC system;

[...]."

response NOTED. This is based on the ICAO wording. AIRAC cycle is not referred to as not all the data sets are subject to AIRAC cycle (terrain data). A GM added to explain why this term is used instead of the AIRAC cycle.

comment 1054 comment by: *The Boeing Company*

Page: 38

Paragraph: AIS.OR.515 Digital data updates

The proposed text states:

An aeronautical information services provider shall:

(a) amend or reissue data sets at such regular intervals as may be necessary to keep them up to date;

REQUESTED CHANGE:

An aeronautical information services provider shall:

(a) amend or reissue data sets ~~at such regular intervals as may be necessary to keep them up to date;~~ *according to the ICAO AIRAC system;*

JUSTIFICATION: The intent of our recommendation is to reference the source of the requirement. Why should digital data updates comply with something other than the AIRAC system?

response NOTED. This is based on the ICAO wording. AIRAC cycle is not referred to as not all the data sets are subject to AIRAC cycle (terrain data). A GM added to explain why this term is used instead of the AIRAC cycle.



comment	<p>410</p> <p>Subpart A</p> <p>Section 5 Aeronautical information products updates</p> <p>AIS.OR.515 Digital data updates</p> <p>This requirement is a repeat of OR.500.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	NOTED. However it is considered that they are complementary provisions.	

comment	<p>411</p> <p>Subpart A</p> <p>Section 5 Aeronautical information products updates</p> <p>AIS.OR.515 Digital data updates</p> <p>AIS are not responsible for amending or reissuing data sets that it does not issue so the requirement needs to be reworded. In many cases the AIS will only be a vehicle to deliver these sets, it is the originator / provider who must ensure their provision to the AIS.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	NOTED. The AIS provider is considered to be responsible to amend or reissuing the data even if the latter is not originated by it.	

comment	<p>412</p> <p>Subpart A</p> <p>Section 5 Aeronautical information products updates</p> <p>AIS.OR.515 Digital data updates</p> <p>It would be beneficial for guidance on the reissuing of data sets that change midway through an AIRAC cycle, to be included in the regulation.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	NOT ACCEPTED. The AIRAC cycle is the basic updating scheme.	

comment	<p>1055</p> <p>Page: 38</p> <p>Paragraph: AIS.OR.515 Digital data updates</p> <p>The proposed text states:</p> <p>(b) issue permanent changes and temporary changes of long duration — three months or longer — made available as digital data in the form of a complete data set and/or a sub-set</p>	comment by: <i>The Boeing Company</i>
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that includes only the differences from the previously issued complete data set.

REQUESTED CHANGE: We would like to understand how will we get changes with a duration shorter than three months, e. g. one AIRAC cycle?

JUSTIFICATION: We would like the statement to be more specific to be clear and avoid confusion.

response ACCEPTED. A GM is added, clarifying that information of less than three months is handled by temporary NOTAM.

AMC/GM AIS.OR.515

comment 531 comment by: *Slovenia Control, Ltd.*
 Subpart A
 Section 5 Aeronautical information products updates
 AMC1 AIS.OR.515 Digital data updates
 GENERAL
 (a) GM for this AMC is needed.

response NOT ACCEPTED. The rationale to include guidance is not clear.

comment 532 comment by: *Slovenia Control, Ltd.*
 Subpart A
 Section 5 Aeronautical information products updates
 AMC1 AIS.OR.515 Digital data updates
 GENERAL
 (b) It was explained that digital NOTAM was out of scope, but this seems to point to it?

response Provision of digital NOTAM is optional but not out of scope. The NPA is not in contradiction with the development of digital NOTAM: the introduction of live changes in the AIP datasets is not forbidden by the rules and the 'classic' NOTAM that are produced by the digital NOTAM system have to comply with the same rules as all other NOTAM currently issued.

comment 721 comment by: *DGAC*
AMC1 AIS.OR.515 Digital data updates (b)
 What is the "aeronautical information model"? Is this the "exchange model"? Or the "format" of



	the digital data set?
response	It is the format of the digital data set.

AIS.TR.515

comment	<p>608 comment by: <i>CANSO</i></p> <p><u>3. Proposed amendments - 3.1. Draft regulation - Annex VI (Part-AIS) - AIS.OR.515</u></p> <p>Page No: 38 (and Pages 54, 78.)</p> <p>Paragraph No: AIS.OR.515</p> <p>Comment: ICAO have adopted the term “Data Set Updates” while The NPA has adopted the term “Digital Data updates”.</p> <p>Justification: For consistency and to avoid misunderstanding recommend NPA text is aligned with ICAO; to adopt the term “Data Set Updates”</p>
response	ACCEPTED.

comment	<p>750 comment by: <i>ENAV</i></p> <p><u>3. Proposed amendments - 3.1. Draft regulation - Annex VI (Part-AIS) - AIS.OR.515</u></p> <p>Page No: 38 (and Pages 54, 78.)</p> <p>Paragraph No: AIS.OR.515 –AIS.TR.515</p> <p>Comment: ICAO have adopted the term “Data Set Updates” while The NPA has adopted the term “Digital Data updates”.</p> <p>Justification: For consistency and to avoid misunderstanding recommend NPA text is aligned with ICAO; to adopt the term “Data Set Updates”</p>
response	ACCEPTED.

comment	<p>787 comment by: <i>Solitec Software Solutions GesmbH</i></p> <p>ad Item (a): Updates of digital data sets for Aerodrome Mapping, Terrain and Obstacles are not considered?</p>
response	AIP and Flight Information Procedures are the products that need to be synchronised with AIRAC.

comment	<p>848 comment by: <i>ENAV</i></p>
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AIS.TR.515

Digital data updates

Item (b)

Page 55 of 104

Comment:

The wording of the subparagraph isn't clear.

Taking into account that data/information of operational significance must be promulgated by means of AIRAC amendments what is the rationale of this statement?

AIP publication and AIP data set must be consistent in terms of effective date in order to avoid confusion on users side.

For every AIP AIRAC amendment should be made available the corresponding AIP data set for consistency reason.

response NOT ACCEPTED. Synchronisation between the products, which contain AIRAC or non-AIRAC amendment, is considered necessary.

AIS.OR.600

comment 82 comment by: Avinor AS

AIS.OR.600 We do not see the need for authorisations for AIS personnell.

Propose to change requirement to: adequately trained and competent for the job it is required to do.

response ACCEPTED. GM added.

comment 235 comment by: FAA

Personnel requirements paragraph, (b) "adequately trained...", is there an established training standard?

response NOTED. Requirements for AIS-AIM personnel will be developed further in a separate task. In the meantime, it was felt that it was necessary to include some general requirements in the NPA until more detailed rules are developed.

comment 413 comment by: Slovenia Control, Ltd.

Subpart A



	<p>Section 6 Personnel requirements</p> <p>AIS.OR.600 General requirements</p> <p>”Is” at the end of the introductory sentence should be replaced by ‘are’ as personnel is plural.</p>	
response	ACCEPTED. Sentence changed to plural form at the end of it.	
comment	<p>414</p> <p>Subpart A</p> <p>Section 6 Personnel requirements</p> <p>AIS.OR.600 General requirements</p> <p>Is this requirement stating that the AIS is responsible for ensuring the knowledge and awareness of personnel of parties other than the AIS that provide data? This is not possible and so the requirement should be clarified.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	NOTED. It is the responsibility of the AIS provider to ensure that external organisations working on its behalf comply with the applicable requirements.	
comment	<p>415</p> <p>Subpart A</p> <p>Section 6 Personnel requirements</p> <p>AIS.OR.600 General requirements</p> <p>(a)(1) The AIS should not be obliged to make its personnel aware of all of the requirements for products covered in sections 2 to 5, for example, flight procedures. This is unnecessary and costly.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	NOT ACCEPTED. Making aware personnel of organisations of procedures, requirements, and processes is part of an effective management system. This paragraph is included to make it specific to AIS-AIM context. The information by the organisation to its personnel may be done in different manners, according to the type and nature of the organisation and the number of staff involved.	
comment	<p>416</p> <p>Subpart A</p> <p>Section 6 Personnel requirements</p> <p>AIS.OR.600 General requirements</p> <p>(b) We would recommend adding ‘and are aware of the requirements of the aeronautical information products that they are required to produce’.</p>	comment by: <i>Slovenia Control, Ltd.</i>

response NOT ACCEPTED, the suggested text is already covered by (a)(1).

comment 746

comment by: ENAV

Section 6 – Personnel requirements - has been generally very positively evaluated by ENAV, especially as far as the introduction of the Language proficiency requirement is concerned. However, as already foreseen in the case of AIS.OR.605 – Language proficiency, we deem that also in AIS.OR.605 - General requirements, the specification “as required for the function that it is expected to perform” should be introduced

AIS.OR.605 - General requirements applies to personnel employed in different areas and having different levels of skill and expertise in the various topics. Training can be therefore differentiated according to the functions that the staff is expected to perform.

Proposed change

(1) the requirements for aeronautical information products and services, as required for the functions that it is expected to perform, according to the specifications in Sections 2 to 5 as applicable;

response NOT ACCEPTED. The amendment made in (b) is considered to satisfy the proposed change.

comment
t

972

comment by: German NSA (BAF)

Precise training requirements for the AIS personnel are missing.

Therefore, the statement in the executive summary of the Technical requirement: “The role and importance of aeronautical data and aeronautical information has changed significantly with the implementation of area navigation (RNAV), performance-based navigation (PBN), airborne computer-based navigation systems and data link systems. Corrupt, erroneous, late, or missing aeronautical data and aeronautical information can potentially affect the safety of air navigation“, is not reflected adequately. It is not clear what is meant by adequately trained, competent and authorized for the job. It is left to the State responsibility how to train and educate the AIS personnel.

Proposal:

The detailed requirements on the training of AIS personnel are to be defined.

response NOTED. The requirement on training and competency of staff was added in the NPA to align with ICAO. However, it is acknowledged that more detailed provisions are necessary. This shall be done when developing the rules for AIM personnel in the future in Annex XIII of Regulation 2017/373 in Part-PERS.

comment 1081

comment by: European Transport Workers Federation - ETF



	Let's move this section to Annex 13 of the Cover Regulation (Part-PERS) and ETF ask for further elaboration probably at AMC and GM level.
response	NOTED. The requirement on training and competency of staff was added in the NPA to align with ICAO. However, it is acknowledged that more detailed provisions are necessary. This shall be done when developing the rules for AIM personnel in the future in Annex XIII of Regulation 2017/373 in Part-PERS.
comment	1082 comment by: <i>European Transport Workers Federation - ETF</i> This is clearly provisions which ETF wishes to build on. ETF encourages EASA to further develop competence requirements for AIS staff using the Task Safety Impact Assessment Tool proposed by ATM/ANS social partners.
response	NOTED. More detailed provisions shall be developed for AIM personnel in the future in Annex XIII of Regulation 2017/373 in Part-PERS.

AMC/GM AIS.OR.600

comment	171 comment by: <i>ENAIRE</i> Paragraph: GM1 AIS.OR.600 Reference text: Doc 9991 Type: clarification Comment: Does this document exist? It does not seem to be available at ICAONet
response	ACCEPTED. GM is removed.
comment	1009 comment by: <i>EUROCONTROL</i> AMC/GM to Annex VI - Page 71 <u>GM1 AIS.OR.600</u> - Page 78 The ICAO document 9991 is not available at the ICAO secure portal. GM needs to be available for implementation. Please clarify the status of the quoted GM, or provide the document separately e.g. via the EASA website.
response	ACCEPTED. The GM is removed.
comment	1087 comment by: <i>European Transport Workers Federation - ETF</i>



ETF considers that it is a good reference for training of AIS/AIM staff but it is not enough, again, we encourage EASA to develop competence requirements for AIS staff.

response NOTED.

AIS.OR.605

comment 417 comment by: *Slovenia Control, Ltd.*

Subpart A

Section 6 Personnel requirements

AIS.OR.605 Language proficiency

Personnel is usually used in the plural.

response NOTED. However, the requirement on language in AIS.OR.605 is removed.

comment 418 comment by: *Slovenia Control, Ltd.*

Subpart B

Technical Requirements for the provision of Aeronautical Information Services (AIS.TR)

It is unclear what will remain of this original requirement and what will be removed. It seems that a) related to Annex 3 will remain.

response NOTED. However, the requirement on language in AIS.OR.605 is removed.

comment 1081 comment by: *European Transport Workers Federation - ETF*

Let's move this section to Annex 13 of the Cover Regulation (Part-PERS) and ETF ask for further elaboration probably at AMC and GM level.

response NOTED. However, the requirement on language in AIS.OR.605 is removed.

comment 1083 comment by: *European Transport Workers Federation - ETF*

ETF supports the need for a language proficiency requirement. However, we think this provision needs the following adjustments:

- 1) the level of english required to perform the duties should be defined in the EU regulation at AMC level.
- 2) AIS providers should be mandated to provide or make available training for the staff performing those duties. This is to allow the staff to reach and/or maintain the required level of



english.

3) Grandfathering rights should be introduced for the staff already performing those duties : if they follow the training as established in the point 2), they should be allowed to continue performing their duties.

response NOTED. However, the requirement on language in AIS.OR.605 is removed.

comment 1084 comment by: *European Transport Workers Federation - ETF*

There is a safety issue if the language requirement is not extended to all the aeronautical languages used in the country. There are no requirements for all pilots to speak English so the local aeronautical language(s) shall also be available. ETF is asking that the provision is reworded to take this into account all aeronautical languages.

response NOTED. However, the requirement on language in AIS.OR.605 is removed.

3.1. Draft regulation (EU) No 139/2014 & related AMC/GM

comment 705 comment by: *DGAC*

General comment on the requirements applying to aerodrome operators :

All the requirements relating to AIS/AIM applying to aviation undertakings (appendix 1 to article 3) or to ANSPs (Annex III) should also apply to aerodrome operators in the scope of 216/2008. For instance the following requirements that can be found in appendix 1 to article 3 do not exist in the present NPA for aerodrome operators in the scope of 216/2008:

- **Data origination requirements:** all the requirements that apply to aviation undertakings originating data (by the way including aerodrome operators not in the scope of 216/2008), shall apply to aerodrome operators in 139/2014.

- **Common reference systems :** does not seem to exist in present regulation 139/2014,

- **Formal arrangements :** there is an existing requirement in 139/2014 but no minimal content at IR level (there should be). There is no requirement in 139/2014 to cover the necessary instructions that have to be provided when aerodrome operators are requested to originate data or when aerodrome operators request data to be originated (threshold coordinates from a surveyor for instance). Requirements for having such instructions exist for aviation undertakings and ATM/ANS providers and hence should also apply to aerodrome operators.

- **Data quality requirements:** there is no specific mention in 139/2014 where to find the applicable data quality requirements (data catalogue + timeliness, format, completeness etc...),

- **Data verification and validation** (for the use of already existing data): nothing at IR level in 139/2014,



- **Error handling requirements** : nothing at IR level in 139/2014,

- **Request for data origination**: nothing at IR level in 139/2014.

- **Traceability of data**: nothing at IR level in 139/2014. Traceability requirements apply to aerodrome operators that are not in the scope of 216/2008 (the small ones) through §5.d of appendix 1 to article 3 but not to the ones in the scope of 216/2008.

Moreover:

- Article 6.8 (error reporting and corrective actions) of the ADQ regulation does not seem to have been transposed to aerodrome operators in 139/2014.

It should apply to all the operators of aerodromes with instrument flight procedures.

- It is important to introduce a verification and validation of the originated or processed data in this part.

response ACCEPTED and added.

Draft regulation (EU) No 139/2014 - ADR.OR.D.015

comment 22 comment by: *John Hamshare*

This wording is good for aerodrome operators as we can be flexible in our approach to ensuring adequacy and competence.

response NOTED.

comment 89 comment by: *Avinor AS*

We do not see the need for authorisations for aerodrome personnel.

Propose to change requirement to: adequately trained and competent for the job it is required to do.

response The requirement on personnel has been removed as the training and competence for ADR personnel are considered sufficiently covered by the existing requirement in ADR.OR.D.015 Personnel requirements (f).

comment 478 comment by: *Slovenia Control, Ltd.*

Proposed amendments to regulation (EU) No 139/2014

ADR.OR.D.015 Personnel requirements

Article 13 (a) of CR 73/2010 (security clearance) has not been transposed to this regulation so the aerodrome is no longer obliged to meet such requirements.



response NOTED. The security clearance provisions are covered in ADR rules as this is the mean how to comply with the SEC requirements in OR.D.007.

AMC AMC1 ADR.OR.D.007(b) Management of aeronautical data and aeronautical information.

The security management objectives should be:

(1) to ensure the security of aeronautical data and aeronautical information received, produced, or otherwise employed so that it is protected from interference, and access to it is restricted only to those authorised;

comment 808 comment by: CAA-NL

ADR.OR.D.015 – Personnel requirements:

The Netherlands objects to the proposal for ADR.OR.D.015 about personnel requirements in relation to the provision of aeronautical data or aeronautical information because this requirement is too specific, not in line with the level of detail as it currently is in the implementing rule and the rationale for such details are missing.

The following general provisions ADR.OR.D.015 (d) and (f) are already in place:

“(d) The aerodrome operator shall have sufficient and qualified personnel for the planned tasks and activities to be performed in accordance with the applicable requirements” and

“(f) The aerodrome operator shall ensure that personnel involved in the operation, maintenance and management of the aerodrome are adequately trained in accordance with the training programme.”

Tasks in the provision of aeronautical data or aeronautical information are already covered by these general requirements for personnel. Since a rationale for such details is missing, it is unwanted to sum up the tasks that only some personnel should be adequately trained for. We suggest to delete this addition.

response ACCEPTED. The requirement on personnel has been removed as the training and competence for ADR personnel are considered sufficiently covered by the existing requirement in ADR.OR.D.015 Personnel requirements in (d) and (f).

comment 956 comment by: Flughafen Berlin Brandenburg GmbH

Content-wise there are no concerns against the proposed wording.

Nonetheless, it might be clarified, where exactly ADR.OR.D.015 is amended. Currently, it is unclear if the additional text is inserted at the end (as a new section "g") or between existing sections.

In cases where staff is not exclusively occupied with tasks in the provision of aeronautical data or aeronautical information, the wording "...authorised for the job they are required to do..." might be misinterpreted as a broader requirement for all of their tasks.

Hence, "...adequately trained, competent and authorised for the job they are required to do."



	might be replaced by "...adequately trained, competent and authorised for those tasks."
response	The requirement on personnel has been removed as the training and competence for ADR personnel are considered sufficiently covered by the existing requirement in ADR.OR.D.015 Personnel requirements in (d) and (f).
comment	1086 comment by: <i>European Transport Workers Federation - ETF</i> ETF supports this provision and encourages EASA to develop specific provision for the competence including language competence and training of these personnel.
response	NOTED. Specific training and competence requirements will be part of a separate rulemaking task, covering all involved personnel.

Draft regulation (EU) No 139/2014 - ADR.OPS.A.012

comment	706 comment by: <i>DGAC</i> <u>ADR.OPS.A.012 Data catalogue</u> Rewording proposal: <i>"The aerodrome operator shall ensure that aeronautical data is originated in accordance with the data catalogue specifications depicted in Appendix 1 to Subpart A of Annex III to Regulation (EU) .../..."</i> .
response	ACCEPTED. The text has been amended accordingly.

Draft regulation (EU) No 139/2014 - ADR.OPS.A.013

comment	69 comment by: <i>NATS National Air Traffic Services Limited</i> Page No: 55 Paragraph No: ADR.OPS.A.013 Metadata (d) Comment: As an Aerodrome Operator how is it possible for me to publish details of any limitations on the data when as an Aerodrome Operator I am not required (unable) to meet the same software and tool requirements? Justification: As an Aerodrome Operator I am reliant on the individual tools and software adopted by the 'aviation undertaking' conducting the work on my behalf. I do not have the capability to manage 'Metadata'. All that might be achieved is an accompanying letter describing the limitations of use. Proposed Text: Remove item (d) from the Metadata section.
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response ACCEPTED. Removed. Consistency with other parts.

comment 248 comment by: FAA
 page 55. ADR.OPS.A.013 Metadata, requirements (a) through (d) do not match previous metadata requirements or language. Especially (d) which appears to be a new requirement not previously mentioned.

response ACCEPTED. Removed. Consistency with other parts.

comment 707 comment by: DGAC
ADR.OPS.A.013 Metadata
 The actual (achieved) accuracy of the data shall be added as mandatory metadata in the event when the regulatory accuracy requirement in the data catalogue is not met. If the metadata is provided along with the data, it will allow the next intended user to:
 1- identify the data items which do not meet the accuracy requirement,
 2- take into consideration the achieved accuracy of the data.

response NOT ACCEPTED. This is addressed in the formal arrangements.

Draft regulation (EU) No 139/2014 - ADR.OPS.A.014

comment 708 comment by: DGAC
ADR.OPS.A.014 Data exchange
 It would be consistent to have a GM equivalent to "GM1 AIS.OR.210(b)" or "GM1 ATM/ANS.OR.A.080 DATA EXCHANGE" for aerodrome operators.

response ACCEPTED. Added.

comment 736 comment by: Union des Aéroports français - UAF
UAF comments
 L'UAF propose de compléter cet IR par l'AMC suivant qui reprend les précisions données dans la note explicative de la NPA (page 10) :
 AMC1.ADR.OPS.A.014 Data exchange
 Exchange of aeronautical electronic data includes email or pdf documents.



response PARTIALLY ACCEPTED. The GM has been amended not referring anymore to PDF/e-mail.

Draft AMC/GM to AO and Ops reqs for Aerodromes - AMC1 ADR.OPS.A.010

comment 734 comment by: *Union des Aéroports français - UAF*

UAF Comments

L'UAF soutient la nouvelle rédaction des paragraphes (g) et (h). Les propositions permettent de clarifier et d'apporter de la souplesse dans l'application du processus de vérification des données.

response NOTED.

comment 908 comment by: *daa - Dublin & Cork airports*

daa welcomes this additional guidance with regard to the purpose and intent of ADR.OPS.A.010: Data Quality Requirements.

In this regard, the implementation of process and procedures meeting the quality requirements outlined herein will take time for aerodrome operators to develop and implement and will likely incur new costs in this regard in order to demonstrate compliance.

As such, daa would welcome increased practical guidance with regard to the development of the datasets concerned and any origination, production, storage, handling, processing, transfer, distribution, error handling and corrective action mechanisms associated with the provision of aeronautical data and aeronautical information that aerodrome operators should integrate.

daa is also firmly of the view that an extended transitional period should be granted to aerodrome operators to achieve compliance with these requirements.

response NOTED.

comment 1064 comment by: *The Boeing Company*

Page: 92

Paragraph: AMC1 ADR.OPS.A.010 **Data quality requirements** General Requirements

The proposed text states:

(h) The error handling and corrective action mechanisms should ensure that:

(1) errors identified during data origination and after data delivery are addressed or resolved; and

REQUESTED CHANGE: Please change the wording

(1) errors identified during data origination and after data delivery are addressed ~~or~~ *and* resolved; and



JUSTIFICATION: Otherwise it is not sure if any user would be notified and aware of any corrections.

response NOT ACCEPTED. The text is aligned with the other parts.

Draft AMC/GM to AO and Ops reqs for Aerodromes - AMC2 ADR.OPS.A.010

comment 727 comment by: DGAC

AMC2 ADR.OPS.A.010 Data quality requirements

“Content of formal arrangements” is “b” and not “c”.

response ACCEPTED.

comment 909 comment by: daa - Dublin & Cork airports

daa welcomes this additional guidance with regard to the purpose and intent of ADR.OPS.A.010: Data Quality Requirements.

In this regard, the implementation of process and procedures meeting the quality requirements outlined herein will take time for aerodrome operators to develop and implement and will likely incur new costs in this regard in order to demonstrate compliance.

As such, daa would welcome increased practical guidance with regard to the development of the datasets concerned and any origination, production, storage, handling, processing, transfer, distribution, error handling and corrective action mechanisms associated with the provision of aeronautical data and aeronautical information that aerodrome operators should integrate.

daa is also firmly of the view that an extended transitional period should be granted to aerodrome operators to achieve compliance with these requirements.

response NOTED.

comment 1065 comment by: The Boeing Company

Page: 93

Paragraph: AMC2 ADR.OPS.A.010 **Data quality requirements** Formal Arrangements

The proposed text states:

(8) any limitations on the use of data;

REQUESTED CHANGE: Please explain, what happens if no data would meet the requirements for operational use.

JUSTIFICATION: Unclear arrangement.



response It is up to the users to decide what they intent to do with data that does not meet the quality for operational use.

Draft AMC/GM to AO and Ops reqs for Aerodromes - AMC1.OPS.A.011

comment 728 comment by: DGAC

It is proposed to add the following GM after the text of AMC1.OPS.A.011 :

“GM1.OPS.A.014 Data exchange

The exchange of aeronautical data and aeronautical information may be done by different means including email or pdf documents, without any manual interaction with the data itself.”

response ACCEPTED.

comment 735 comment by: Union des Aéroports français - UAF

UAF comments

L’application de l’algorithme CRC a été assouplie dans l’AMC1 ADR.OPS.A.010, alors qu’il a été repris dans ce nouvel AMC à la charge des exploitants d’aérodromes.

L’UAF propose soit de supprimer cet AMC, soit de reprendre la rédaction suivante :

AMC1.OPS.A.011 Data error detection and authentication

GENERAL REQUIREMENTS

The data protection mechanism shall comply with l’AMC1 ADR.OPS.A.010 (g) and (h) requirements.

response ACCEPTED. The relevant text is included as GM to align with ATM AIS rules.

comment 910 comment by: daa - Dublin & Cork airports

daa / Dublin & Cork airports would strongly support the retention of requirements such as the Cyclic Redundancy Check at the Guidance Material level.

Again, without comprehensive additional guidance material, industry workshops, seminars, etc., we would contend that there will be high levels of non-compliance across the aerodromes industry with such specific requirements as such requirements have not been clearly signalled until now.

Additionally, adoption of new systems with regard to aeronautical information services and aeronautical information management are likely to entail requirements for information technology solutions with associated financial costs in terms of procurement and resourcing over time.



Again, daa would strongly make the call for a transitional period in this regard and keeping detailed requirements such as the CRC at the guidance material level for the time being.

response NOTED.

4. Regulatory impact assessment (RIA)

comment 58 comment by: *NATS National Air Traffic Services Limited*

Page No: 99

Paragraph No: 4.4.5 General Aviation

Comment: Are non-EASA Aerodromes and Heliports, (e.g. General Aviation) to be considered as 'Aviation undertakings'?

Justification: The AIP published on behalf of the State may contain information describing General Aviation activities and events. By being considered as aviation undertaking provides the opportunity for the State to provide oversight of organisations conducting data origination activities. (e.g. Non EASA - Aerodromes, Micro light sites, Parachuting sites, Laser sites)

Proposed Text: Add to current text: except when undertaking data origination activities, in which case the organisation shall be considered as an "Aviation Undertaking".

response NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed. The requirements still cover VFR aerodromes but flexibility is left to States as to what extent these provisions shall apply, depending on each national context and the way such aerodromes are included (or not) in the aeronautical information publication.

comment 64 comment by: *NATS National Air Traffic Services Limited*

Page No: 96

Paragraph No: 4.1.1 second paragraph. "to ensure the provision of quality-assured aeronautical data and aeronautical information"

Comment: How will the transposition of Quality Management processes into the Cover regulation address the clear requirement to safeguard consistency in Quality Management principles across all Service providers.

Justification: EC73/2010 makes reference to the ISO 9001 standards as a means of ensuring Quality Management processes are place for all activities conducted by the service provider.

Question:

Proposed Text: Insert text into the Cover Regulation to recognise ISO 9000 Series as a possible



response	<p>MOC.</p> <p>NOTED. Such mean of compliance is already foreseen in the draft ED Decision, where reference is made to ISO 9001 series for the service providers' certificate.</p>
comment	<p>71 comment by: <i>NATS National Air Traffic Services Limited</i></p> <p>Page No: 95</p> <p>Paragraph No: Requirements for 'Aviation Undertakings'</p> <p>Comment: Need clarification that Procedure Design Services fall within this category, noting that some exist within AISP's/ANSP's and some outside, and it needs consistent requirements to be placed upon them all.</p> <p>Justification: Need to clarify the requirements being placed upon this type of service</p> <p>Proposed Text: No change to this text required, just explicit agreement that the definition for 'Aviation Undertakings' includes Procedure Design Services</p>
response	<p>NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed.</p>
comment	<p>544 comment by: <i>Slovenia Control, Ltd.</i></p> <p>General</p> <p>The RIA should assess whether the regulation will maintain data quality in line with CR 73/2010 or not and the financial impact of implementing the NPA – not just a simple statement that it will be less. This should consider implementation, ongoing and oversight costs.</p>
response	<p>NOTED. The RIA as well as the explanatory note, e.g. point 2.4 on the 'Overview of the main changes compared to the ADQ Regulation' underline that the draft rules maintain the data quality requirements in line with the ADQIR. The NPA highlights the fact that this proposal does not diminish the level of the necessary requirements but that the latter are moved from one regulatory framework to another. Considering the weak implementation of the current regulation and consequently the lack of respective data (e.g. on-going, oversight, implementation costs, etc.), the development of this RIA was based on qualitative input rather than quantitative one.</p>
comment	<p>545 comment by: <i>Slovenia Control, Ltd.</i></p> <p>General</p> <p>One option to be considered would be to take no regulatory action and for CR 73/2010 to continue. Given that it is known States have ceased implementation of CR 73/2010 after EASA announced that they would replace it, the status quo would not be no implementation were EASA</p>

	to take no action, but for States to re-start implementation of CR 73/2010. See comment 290.	
response	NOTED. Option 0 (status quo) does not entail any implementation at all, of course. If the ADQ IR remains, Member States will have to ensure full implementation of the current regulation. Furthermore, there is no certainty that the non-progress with the implementation is due to the result of the EASA rulemaking task. In many States, progress is on-going towards achievement of the last implementation date of 30 June 2017 but is made difficult by the current requirements, not by the decision to wait for the NPA outcome.	
comment	546	comment by: <i>Slovenia Control, Ltd.</i>
	General	
	The economic impact of not being able to implement new navigation techniques as a result of not being able to meet the data quality of these techniques is not considered.	
response	NOTED.	
comment	547	comment by: <i>Slovenia Control, Ltd.</i>
	General	
	No recognition is made that as a result of an impending EASA NPA, States have decided not to progress with the implementation of CR 73/2010 and this is therefore one factor in the delay to implementation.	
response	NOTED. However, there is no certainty that the non-progress with the implementation is due to the result of the EASA rulemaking task. In many Member States, progress is on-going towards achievement of the last implementation date of 30 June 2017 but is made difficult by the current requirements, not by the decision to wait for the NPA outcome.	
comment	548	comment by: <i>Slovenia Control, Ltd.</i>
	General	
	We would argue that CR 73/2010 is performance-based which is not reflected at all in the RIA which refers to CR 73/2010 as being full of technical requirements. All the articles are performance based. At the regulatory level, the differences between the EASA NPA and CR 73/2010 are not very different in terms of technical versus performance-based content. The NPA contains pages of technical requirements.	
response	NOTED. The Agency does not share this view. If it is true that the NPA contains pages of technical requirements, these are not related to data quality requirements but rather to the aeronautical information products and services. The proposed data quality requirements stemming from the ADQIR are more performance-based as the rules leaves the flexibility for the organisations to use	

tools and processes according to their type of services. This is not the case under Regulation 73/2010 where many similar requirements apply to different actors independently of their nature, e.g. for data originators.

comment	549	comment by: <i>Slovenia Control, Ltd.</i>
	General	
	It is difficult to assess this RIA as it appears to have been developed quickly, does not consider any negatives of the preferred option 2 and we would recommend that it is redeveloped. We are disappointed with the current status of the RIA and would seek its further elaboration, giving true consideration to relative merits of the options independently, not just justifying the NPA against CR 73/2010.	
response	NOTED. The options are analysed objectively, showing pros and cons according to main criteria (e.g. safety, economic, proportionality, etc.) based on available information.	
comment	550	comment by: <i>Slovenia Control, Ltd.</i>
	Page 96	
	4.1.3. How could the issue/problem evolve?	
	The first sentence is not true as CR 73/2010 would be implemented.	
response	NOTED. However, the first sentence uses the verb 'may' (the risks described in 4.1.1 may continue...) to cater for the situation where the implementation of the ADQIR is not fully ensured because of the known issues.	
comment	551	comment by: <i>Slovenia Control, Ltd.</i>
	Page 97	
	4.4.1. Safety impact	
	The description of Option 0 is incorrect as if there was not an NPA then the implementation of CR 73/2010 would continue.	
response	NOTED. In this option 0, the current regulation continues to apply. However, it is stated that the ADQIR would continue but 'without effective implementation'.	
comment	552	comment by: <i>Slovenia Control, Ltd.</i>
	Page 97	
	4.4.1. Safety impact	

response	<p>The description of Option 1 seems to contradict what was described in 4.3. In 4.3 Option 2 was transposing the CR 73/2010 requirements.</p> <p>Option 1 does transpose as well the provisions of ADQ Regulation but on a performance based approach.</p>
comment	<p>553 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Page 97</p> <p>4.4.1. Safety impact</p> <p>Option 1: No negative impact on safety has been considered in this assessment. The NSA and AIS would find it far more difficult to confirm data quality given that aviation undertakings do not need to provide evidence. This result in additional costs for the AIS</p>
response	<p>NOTED. The confirmation of data quality from a data originator is not performed by the AIS provider as there are not responsible to verify the work of the data originator. Therefore, there is no additional cost in that respect as the NSA or the AIS provider will not have to put more effort than what is currently required today.</p>
comment	<p>554 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Page 99</p> <p>4.4.4. Economic impact</p> <p>Option 1: AISPs and Service Providers: The first sentence is not possible to achieve: ‘ATM/ANS service providers are not required to exchange data using a specific version of an aeronautical information exchange model as long as the exchange of data is globally interoperable between the relevant parties’.</p>
response	<p>NOT ACCEPTED. Service providers may use other means to exchange data. Therefore it is possible to meet this requirement as far as global interoperability is ensured.</p>
comment	<p>555 comment by: <i>Slovenia Control, Ltd.</i></p> <p>Page 99</p> <p>4.4.4. Economic impact</p> <p>Option 1: Data originators: It is not acceptable that these may be using tools and software that are not fit for purpose.</p>
response	<p>NOT ACCEPTED. The rule text does not state that data originators can use tools or software that are not acceptable.</p>

comment	<p>556</p> <p>Page 99</p> <p>4.4.4. Economic impact</p> <p>No acknowledgment is made of the need for additional manpower in the NSA and AIS to confirm data provided by aviation undertakings and for the member State to oversee an enlarged scope of aviation undertakings. The AIS may well need new skills for these additional responsibilities. Training courses for the new skills required by AIS may not be openly available or costly.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	NOTED and acknowledged.	

comment	<p>557</p> <p>Page 101</p> <p>4.5.1. Comparison of options</p> <p>The baseline should all be zero and the option 1 assessed against this as +/- . This table alone demonstrates that the RIA was conducted to assess the impacts of each option independently. In effect it double scores by each giving a + to one option and a – to the other.</p>	comment by: <i>Slovenia Control, Ltd.</i>
response	The baseline (option 0) includes negative scores where negative impacts are to be expected by not taking actions.	

comment	<p>564</p> <p>Open question to stakeholders (p.99)</p> <p>Additionally, stakeholders are kindly invited to provide data on administrative cost impacts introduced by these draft rules and any other quantitative information they may find necessary to bring to the attention of the Agency.</p> <p>As a result, the relevant parts of the RIA might be adjusted on a case-by-case basis.</p> <p>Comment :<i>The cost estimation of 10-20 million are from our point of view realistic for an ANSP.</i></p>	comment by: <i>skyguide Compliance Management</i>
response	NOTED.	

comment	793		comment by: <i>AESA / DSANA</i>
	PART	COMMENT	JUSTIFICATION
	Explanatory Note Section 2.3.2	The proposal of this NPA that " <i>Member States be responsible for aviation undertakings when they are</i>	The implementation of these requirements unto what has been called " <i>aviation undertakings</i> " is still

<p><i>Aeronautical data quality</i></p> <p>Explanatory Note</p> <p>Section 2.9.1</p> <p><i>Proposed amendments to Regulation (EU) .../...</i></p> <p>Explanatory Note</p> <p>Section 2.10</p> <p><i>Overview of the proposed amendments in the ATM/ANS rule structure</i></p> <p>Proposed Amendments</p> <p>Section 3.1.1 (1)</p> <p><i>Proposed amendments to Regulation (EU) .../...</i></p> <p>Regulatory Impact Assessment (RIA)</p> <p>Section 4.4.4</p> <p><i>Economic impact</i></p> <p><i>Option 1</i></p>	<p><i>involved in the origination of aeronautical data" is deemed to solve the problem faced with the implementation of the ADQ Regulation.</i></p> <p>However, this only passes the issue from the competent authorities to the Member States as such and really "postpones" the issue.</p> <p>Although it is acknowledged that this situation cannot be avoided, it must be observed that this will not solve the issue by itself.</p>	<p>at the heart of the matter for they are at the initiation of the data chain, a situation intrinsic to the system and which cannot be avoided.</p> <p>If the issue is left to the Member States, it would be interesting to explore the possibility of developing a Directive for the implementation of these requirements in aviation undertakings involved in the origination of aeronautical data.</p>
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response

NOTED. This issue has been acknowledged at the early stage of the rule drafting and it is recognised that it is not simple to manage from the authorities' perspective. The proposed rules now suggest some guidance material to support Member States in their implementation of their obligations/responsibilities to ensure that data originators comply with relevant data quality requirements. It is expected that this approach would facilitate the handling of data originators compared to the current situation.

comment

823

comment by: AESA / DSANA



PART	COMMENT	JUSTIFICATION
<p>Regulatory Impact Assessment (RIA)</p> <p>Section 4.4.6</p> <p><i>Impact on 'better regulation' and harmonisation</i></p>	<p>In section 4.4.6 it is stated that "<i>this flexibility provided to the organisations concerned to meet or exceed the safety objectives defined at implementing rule level, (...)</i>".</p> <p>The following wording is proposed: "<i>this flexibility provided to the organisations concerned to meet or exceed the safety objectives defined at implementing rule level, (...)</i>".</p>	<p>The sentence does not seem to be consistent with one of the objectives of EASA which is "<i>to provide a level playing field for all actors in the internal aviation market</i>" (article 2.2.(f) of Regulation (EU) No 216/2008), objective that can be summarised in the '<i>no more no less</i>' principle in relation to the establishment of requirements and the compliance with them.</p> <p>The wording proposed aims to bring consistency with EASA and EU principles.</p>

response NOT ACCEPTED. All stakeholders of this segment of the aviation market can benefit from the same set of rules, therefore in line with the level playing field principle. We leave 'exceed' and promote an enhancement of data quality provisions.

comment 947 comment by: *DFS Deutsche Flugsicherung GmbH*

DFS can continue with the investments made.

However the expected benefit of more efficiency and reduction in personnel cost savings for manual operation of data will not occur.

response NOTED.

comment 992 comment by: *LVNL Pro (ATC the Netherlands)*

Des the proposed rulemaking extend to so-called green fields without concrete runway?

response NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

comment 997 comment by: *LVNL Pro (ATC the Netherlands)*

What are the EU mechanisms available to recover costs made for ADQ system parts that now will no longer be needed, and for other costs that now become necessary in order to be able to

	comply with the proposed new rules?
response	Rules related to cost recovery issues are deemed to be covered in the SES regulation, in particular in the charging scheme regulation.

5. References

comment	10	comment by: <i>Prof. Filippo Tomasello</i>
	The proposal to avoid reference to Annex 15 at the level of IRs, expanding the rules, but in a performance based perspective and independent from technology solutions, is highly appreciated and considered appropriate	
response	NOTED.	
comment	810	comment by: <i>CAA-NL</i>
	In chapter 5.1 of the NPA, references affected regulation, Regulation (EU) No 139/2014 is missing	
response	NOTED. The reference to Regulation (EU) No 139/2014 will be included in the explanatory note in the Opinion.	

6. Appendices

comment	36	comment by: <i>NATS National Air Traffic Services Limited</i>
	Appendix 1 to Annex III (ATM/ANS.OR)	
	Page No: All	
	Paragraph No: All,	
	Comment: Does the content of this Appendix reflect changes introduced by Amdt 39 to ICAO Annex 15 (Part A Planned effective Nov 2016)?	
	Justification: Version Control	
	Proposed Text: This Appendix is a reflection of the information published in ICAO Annex 15 up to and including Amdt No XXX	
response	ACCEPTED. The content of this Appendix reflects the changes introduced by amendment 40 to ICAO Annex 15 and PANS-AIM.	

comment	<p>37 comment by: <i>NATS National Air Traffic Services Limited</i></p> <p>Appendix 1 to Annex III (ATM/ANS.OR)</p> <p>Page No: Various</p> <p>Paragraph No: Various</p> <p>Comment: What are AISPs expected to publish for those occasions where the Data catalogue identifies a property or sub-property which does not have any corresponding Accuracy, Integrity, Origination Type or Publication resolution values. (E.g. Page 9 Property - Runway Strip - Dimensions)</p> <p>Justification: Request for clarification</p>
response	<p>NOTED. The AISP may publish, at their discretion, those values which are not identified in the data catalogue.</p>
comment	<p>38 comment by: <i>NATS National Air Traffic Services Limited</i></p> <p>Appendix 1 to Annex III (ATM/ANS.OR)</p> <p>Page No: Page 12</p> <p>Paragraph No: Displacement and TDZ elevation</p> <p>Comment: Publication Resolution values missing from Columns</p> <p>Justification: Is this an omission from the Catalogue?</p> <p>Proposed Text: Appropriate Publication res.</p>
response	<p>NOTED. The 'European' data catalogue is reproducing the ICAO one with no change. If a value is missing, it should be first proposed at ICAO level.</p>
comment	<p>39 comment by: <i>NATS National Air Traffic Services Limited</i></p> <p>Appendix 1 to Annex III (ATM/ANS.OR)</p> <p>Page No: 20</p> <p>Paragraph No: Bearing Strength</p> <p>Comment: Editorial</p> <p>Justification: Spelling</p> <p>Proposed Text: 1 Tonne</p>
response	<p>ACCEPTED and amended.</p>
comment	<p>40 comment by: <i>NATS National Air Traffic Services Limited</i></p>

	<p>Appendix 1 to Annex III (ATM/ANS.OR)</p> <p>Page No: 55</p> <p>Paragraph No: Note 1</p> <p>Comment: It is not entirely clear that Note 1 is also applicable to MLS Azimuth antenna Mag Var</p> <p>Justification: Note 1 contains two different integrity (Essential/routine) levels.</p> <p>Proposed Text: Include 'MLS' in note</p>
response	<p>NOTED. The 'European' data catalogue is reproducing the ICAO one with no change. If a value is missing, it should be first proposed at ICAO level.</p>
comment	<p>41 comment by: <i>NATS National Air Traffic Services Limited</i></p> <p>Appendix 1 to Annex III (ATM/ANS.OR)</p> <p>Page No: 55</p> <p>Paragraph No: Note 2</p> <p>Comment: What is the purpose of the highlighted text in the Publication Resolution Column?</p>
response	<p>NOTED and removed.</p>
comment	<p>42 comment by: <i>NATS National Air Traffic Services Limited</i></p> <p>Appendix 1 to Annex III (ATM/ANS.OR)</p> <p>Page No: 38</p> <p>Paragraph No: En-route Holding (FIX)</p> <p>Comment: Type is TEXT, Description is Identification of Holding Procedure</p> <p>Justification: Why does this row of TEXT include Data accuracy and integrity values?</p>
response	<p>EASA believes that these value are meant to be in the row below (waypoint). Further follow-up will be done with ICAO for appropriate check.</p>
comment	<p>43 comment by: <i>NATS National Air Traffic Services Limited</i></p> <p>Appendix 1 to Part-AIS</p> <p>Page No: 36 and 37</p> <p>Paragraph No: Note 1</p> <p>Comment: The text in this section makes references to Annex 15 Chapter 10 and Appendix 8</p> <p>Justification: Should these references to Annex 15 persist in NPA Appendix 1?</p>

response All references to Annex 15 should be replaced by references to the adequate parts of the Regulation when such relevant parts actually exist, which is the case for note 1.

comment 44 comment by: *NATS National Air Traffic Services Limited*
 Appendix 1 to Part-AIS
Page No: All
Paragraph No: All,
Comment: Does the content this Appendix reflect changes introduced by Amdt 39 to ICAO Annex 15 (Part A Planned effective Nov 2016)
Justification: Version Control
Proposed Text: This Appendix is a reflection of the information published in ICAO Annex 15 up to and including Amdt No XXX

response NOT ACCEPTED. The rule package is based on the latest ICAO amendment 40. It is not necessary to clarify in this document to which amendment version it refers to.

comment 45 comment by: *NATS National Air Traffic Services Limited*
 Appendix 2 to Part-AIS
Page No: 3 & 4
Paragraph No: 2 c) NOTAM Code
Comment: The text in this chapter makes references to Appendix 4 & Chapter 6.
Justification: Should these references to Annex 15 persist in the NPA Appendix 2?

response NOTED. The references to ICAO Annex 15 are removed.

comment 46 comment by: *NATS National Air Traffic Services Limited*
 Appendix 2 to Part-AIS
Page No: All
Paragraph No: All,
Comment: Does the content this Appendix reflect changes introduced by Amdt 39 to ICAO Annex 15 (Part A Planned effective Nov 2016)
Justification: Version Control
Proposed Text: This Appendix is a reflection of the information published in ICAO Annex 15 up to and including Amdt No XXX



response NOT ACCEPTED. The rule package is based on the latest ICAO amendment 40. It is not necessary to clarify in this document to which amendment version it refers to.

comment 47 comment by: NATS National Air Traffic Services Limited

Appendix 3 to Part-AIS

Page No: All

Paragraph No: All,

Comment: Does the content this Appendix reflect changes introduced by Amdt 39 to ICAO Annex 15 (Part A Planned effective Nov 2016) (Part B effective 2020)

Justification: Version Control

Proposed Text: This Appendix is a reflection of the information published in ICAO Annex 15 up to and including Amdt No XXX

response NOT ACCEPTED. The rule package is based on the latest ICAO amendment 40. It is not necessary to clarify in this document to which amendment version it refers to. The applicability for the SNOWTAM format requirement will be reflected in the Regulation.

comment 78 comment by: NATS National Air Traffic Services Limited

Appendix 1 to Annex III (ATM/ANS.OR)

Section: Data Catalogue

Comment: Too many blank fields.

Justification: Examples of no data are in 'Vertical Limits' for 'Special Activity Airspace' or 'Other Regulated Airspace' and 'ATS Control Sector'

Proposed Text: These fields will require another review when populated

response NOTED. At the current time, the data catalogue is considered to contain the necessary elements. It is correct that some fields are not provided but this is because either the corresponding elements have no defined data quality requirements or because they do not have attributes. In some cases, some elements just do not have applicable values.

comment 79 comment by: NATS National Air Traffic Services Limited

Page: 32

Section: Data Catalogue - Appendix 1 to Annex III (ATM/ANS.OR)

Comment: Not clear what Note 2 applies to. We think it applies to the entry on the previous page '*Lateral limits - Polygon - The surface defining the horizontal shape of the Airspace - See Note 2) for*



	<p><i>P,R,D Areas only'</i> but would appreciate clarification.</p> <p>Justification: We believe that the Notes throughout this Appendix would benefit from a review in terms of the way they are aligned with the sections they apply to.</p> <p>Proposed Text: N/A</p>
response	<p>NOTED. The 'European' data catalogue is reproducing the ICAO one with no change. If terms need to be reviewed, it should be first proposed at ICAO level.</p>
comment	<p>176 comment by: ENAIRE</p> <p>Paragraph: APPENDIX 1 TO ANNEX VI (PART-AIS) - CONTENTS OF THE AERONAUTICAL INFORMATION PUBLICATION (AIP)</p> <p>Reference text: AD 3.18 Radio navigation and landing aids</p> <p>Comment: This part has not been harmonized with that for aerodromes.</p>
response	<p>NOT ACCEPTED. The reference for the AIP structure in the Regulation is the last version of ICAO Annex 15/PANS-AIM in which AD 2.19 and AD 3.18 are not fully aligned. For global coherence, it should be up to ICAO to modify the structure/content of the AIP. Once this is adopted at ICAO level, European regulation can then be updated consequently.</p>
comment	<p>177 comment by: ENAIRE</p> <p>Paragraph: APPENDIX 1 TO ANNEX VI (PART-AIS) - CONTENTS OF THE AERONAUTICAL INFORMATION PUBLICATION (AIP) - AD 3.18 Radio navigation and landing aids</p> <p>Reference text: 1) type of aids, magnetic variation (for VOR, station declination used for technical line-up of the aid) to the nearest degree, and type of operation for ILS, MLS, basic GNSS, SBAS and GBAS</p> <p>Comment: It is deemed that this text should be replaced with that of paragraph 1 of AD 2.19.</p>
response	<p>Noted. However, it should be up to ICAO to modify AIP structure and content (see previous response to comment 176).</p>
comment	<p>178 comment by: ENAIRE</p> <p>Paragraph: APPENDIX 1 TO ANNEX VI (PART-AIS) - CONTENTS OF THE AERONAUTICAL INFORMATION PUBLICATION (AIP) - AD 3.18 Radio navigation and landing aids</p> <p>Reference text: 3) frequency(ies), as appropriate</p> <p>Comment: This text should be enhanced with additional items: Channel number(s), service provider, and reference path identifier(s) (RPI).</p>

response NOTED. However, it should be up to ICAO to modify AIP structure and content (see previous response to comment 176).

comment 179 comment by: ENAIRE

Paragraph: APPENDIX 1 TO ANNEX VI (PART-AIS) - CONTENTS OF THE AERONAUTICAL INFORMATION PUBLICATION (AIP) - AD 3.18 Radio navigation and landing aids

Reference text: 6) elevation of the transmitting antenna of DME to the nearest 30 m (100 ft) and of DME/P to the nearest 3 m (10 ft)

Comment: This text should be enhanced with: <<elevation of GBAS reference point to the nearest metre or foot, and the ellipsoid height of the point to the nearest metre or foot. For SBAS, the ellipsoid height of the landing threshold point (LTP) or the fictitious threshold point (FTP) to the nearest metre or foot>>.

response NOTED. However, it should be up to ICAO to modify AIP structure and content (see previous response to comment 176).

comment 180 comment by: ENAIRE

Paragraph: APPENDIX 1 TO ANNEX VI (PART-AIS) - CONTENTS OF THE AERONAUTICAL INFORMATION PUBLICATION (AIP) - AD 3.18 Radio navigation and landing aids

Reference text: new

Comment: This text should be enhanced with a new paragraph: << service volume radius from the GBAS reference point to the nearest kilometre or nautical mile >>.

response NOTED. However, it should be up to ICAO to modify AIP structure and content (see previous response to comment 176).

comment 181 comment by: ENAIRE

Paragraph: Appendix 1 to Annex III (ATM/ANS.OR) - AERONAUTICAL DATA CATALOGUE

Reference text: 4. Instrument flight procedure data - PBN Requirements – page 44

Comment: “PBN 0.3” is not a specification. It should be replaced with “RNP 0.3”.

response ACCEPTED. And amended.

comment 182 comment by: ENAIRE

Paragraph: Appendix 1 to Annex III (ATM/ANS.OR) - AERONAUTICAL DATA CATALOGUE

Reference text: 4. Instrument flight procedure data - Final approach segment – page 46



	<p>Comment: Parenthetical values should be explained. In Doc 8168 it is stated that these values are those in what there is a difference between Annex 10 and Annex 15. Perhaps there is a need to choose one...</p>
response	<p>NOTED. The 'European' data catalogue is reproducing the ICAO one with no change. If terms need to be reviewed, it should be first proposed at ICAO level.</p>
comment	<p>183 comment by: ENAIRE</p> <p>Paragraph: Appendix 1 to Annex III (ATM/ANS.OR) - AERONAUTICAL DATA CATALOGUE</p> <p>Reference text: 4. Instrument flight procedure data - Final approach segment – page 47</p> <p>Comment: The parameter “Course width” has a resolution of 0,25 m (according to Doc 8168) and not 25 m.</p>
response	<p>ACCEPTED. Amended.</p>
comment	<p>184 comment by: ENAIRE</p> <p>Paragraph: Appendix 1 to Annex III (ATM/ANS.OR) - AERONAUTICAL DATA CATALOGUE</p> <p>Reference text: 5. Radio navigation aids/systems data – page 54</p> <p>Comment: “Channel number” should also apply to GBAS. The “ellipsoid height” has also a resolution of 1 m or 1 ft (according to AD 2.19 although this is not further contemplated in data table).</p>
response	<p>NOTED. The 'European' data catalogue is reproducing the ICAO one with no change. If terms need to be reviewed, it should be first proposed at ICAO level.</p>
comment	<p>185 comment by: ENAIRE</p> <p>Paragraph: Appendix 1 to Annex III (ATM/ANS.OR) - AERONAUTICAL DATA CATALOGUE</p> <p>Reference text: 5. Radio navigation aids/systems data – page 55</p> <p>Comment: On this table “GBAS volumen of service” is lacking (resolution of 1 km or 1 NM).</p>
response	<p>NOTED. The 'European' data catalogue is reproducing the ICAO one with no change. If terms need to be reviewed, it should be first proposed at ICAO level.</p>
comment	<p>186 comment by: ENAIRE</p>

	<p>Paragraph: Appendix 1 to Annex III (ATM/ANS.OR) - AERONAUTICAL DATA CATALOGUE</p> <p>Reference text: 5. Radio navigation aids/systems data – page 55</p> <p>Comment: In Note 2) it is not clear whether values of “Aerodrome Navaid” are or must be also applying to GBAS (giving the fact that is solely an Airport Navaid). On other hand, “GBAS polarization” has not been included within the last amendment to Annex 15 so we suggest to wipe it out.</p>
response	<p>NOTED. The ‘European’ data catalogue is reproducing the ICAO one with no change. If terms need to be reviewed, it should be first proposed at ICAO level.</p>
comment	<p>612 comment by: <i>CANSO</i></p> <p>Appendix 1 to Annex III (ATM/ANS.OR)</p> <p>Page No: 20</p> <p>Paragraph No: Bearing Strength</p> <p>Comment: Editorial</p> <p>Justification: Spelling</p> <p>Proposed Text: 1 Tonne</p>
response	<p>ACCEPTED. Amended.</p>
comment	<p>614 comment by: <i>CANSO</i></p> <p>Appendix 1 to Annex III (ATM/ANS.OR)</p> <p>Page No: 55</p> <p>Paragraph No: Note 2</p> <p>Comment: What is the purpose of the highlighted text in the Publication Resolution Column?</p>
response	<p>NOTED. Removed.</p>
comment	<p>615 comment by: <i>CANSO</i></p> <p>Appendix 1 to Annex III (ATM/ANS.OR)</p> <p>Page No: 38</p> <p>Paragraph No: En-route Holding (FIX)</p> <p>Comment: Type is TEXT, Description is Identification of Holding Procedure</p> <p>Justification: Why does this row of TEXT include Data accuracy and integrity values?</p>

response EASA believes that these value are meant to be in the row below (waypoint). Further follow-up will be done with ICAO for appropriate check.

comment 616 comment by: CANSO

Page: 32

Section: Data Catalogue - Appendix 1 to Annex III (ATM/ANS.OR)

Comment: Not clear what Note 2 applies to. We think it applies to the entry on the previous page '*Lateral limits - Polygon - The surface defining the horizontal shape of the Airspace - See Note 2) for P,R,D Areas only*' but would appreciate clarification.

Justification: We believe that the Notes throughout this Appendix would benefit from a review in terms of the way they are aligned with the sections they apply to.

Proposed Text: N/A

response NOTED. The 'European' data catalogue is reproducing the ICAO one with no change. If terms need to be reviewed, it should be first proposed at ICAO level.

comment 617 comment by: CANSO

Appendix 1 to Part-AIS

Page No: 36 and 37

Paragraph No: Note 1

Comment: The text in this section makes references to Annex 15 Chapter 10 and Appendix 8

Justification: Should these references to Annex 15 persist in NPA Appendix 1?

response All references to Annex 15 should be replaced by references to the adequate parts of the Regulation, when such relevant parts actually exist.

comment 618 comment by: CANSO

Appendix 2 to Part-AIS

Page No: 3 & 4

Paragraph No: 2 c) NOTAM Code

Comment: The text in this chapter makes references to Appendix 4 & Chapter 6.

Justification: Should these references to Annex 15 persist in the NPA Appendix 2?

response NOTED. The references are removed.



comment	<p>729 comment by: DGAC</p> <p><u>Comments on Appendix 1 (AIP)</u></p> <p>1- The mentions or references to some ICAO Annexes (or other documents) should be accompanied by a reference to the relevant applicable European regulation. For instance AIR-OPS (965/2012) for ICAO Annex 6, or Regulation/... on service providers for ICAO Annex 15.</p> <p>2- Replace “electronic” by “digital” when referring to digital terrain or obstacle data (for instance in GEN 3.1.6 and AD 2.10).</p> <p>3- GEN 3.4 is about both communication and navigation services. It should be reflected in the title “<u>GEN 3.4 Communication and navigation services</u>”.</p> <p>4- ENR 0.6 and AD 0.6 shall be renumbered ENR 0.1 and AD 0.1 for consistency (or ENR 0 and AD 0).</p>
response	<p>1/ ACCEPTED. References to ICAO annexes should be replaced by the relevant European regulation, depending on the topics.</p> <p>2/ GEN 3.1.6 to be reworded ‘Digital data sets’ according to the latest version of ICAO AIP (state letter project AN 2/2.1.1-17/22). Same treatment for AD 2.10.</p> <p>3 and 4/ NOTED. (See previous response to comment 176).</p>
comment	<p>730 comment by: DGAC</p> <p><u>Comment on appendix 3 (SNOWTAM)</u></p> <p>The proposed SNOWTAM stems from amendment 39b to ICAO Annex 15 which will only be applicable worldwide 5th November 2020 (and not 1st January 2019). The risk of interoperability issue if Europe implements this new format before the rest of the world has to be assessed.</p> <p>Besides, the proposed SNOWTAM format does not completely conform to the amendment 39b one. Is that intentional? (for instance: the notes in the last line, order of the items on the G line).</p>
response	<p>The applicability of November 2020 for the SNOWTAM format requirement will be reflected in the Regulation.</p> <p>The ‘INSTRUCTIONS FOR THE COMPLETION OF THE SNOWTAM FORMAT’ is now in accordance with the adopted version of amendment 40 (PANS-AIM).</p>
comment	<p>753 comment by: ENAV</p> <p>Appendix 1 to Annex III (ATM/ANS.OR)</p> <p>Page No: 20</p> <p>Paragraph No: Bearing Strength</p> <p>Comment: Editorial</p>

	<p>Justification: Spelling</p> <p>Proposed Text: 1 Tonne</p>	
response	ACCEPTED. Amended.	
comment	<p>754</p> <p>Appendix 1 to Annex III (ATM/ANS.OR)</p> <p>Page No: 55</p> <p>Paragraph No: Note 2</p> <p>Comment: What is the purpose of the highlighted text in the Publication Resolution Column?</p>	comment by: ENAV
response	NOTED. Removed.	
comment	<p>755</p> <p>Appendix 1 to Annex III (ATM/ANS.OR)</p> <p>Page No: 38</p> <p>Paragraph No: En-route Holding (FIX)</p> <p>Comment: Type is TEXT, Description is Identification of Holding Procedure</p> <p>Justification: Why does this row of TEXT include Data accuracy and integrity values?</p>	comment by: ENAV
response	EASA believes that these value are meant to be in the row below (waypoint). Further follow-up will be done with ICAO for appropriate check.	
comment	<p>756</p> <p>Page: 32</p> <p>Section: Data Catalogue - Appendix 1 to Annex III (ATM/ANS.OR)</p> <p>Comment: Not clear what Note 2 applies to. We think it applies to the entry on the previous page '<i>Lateral limits - Polygon - The surface defining the horizontal shape of the Airspace - See Note 2) for P,R,D Areas only</i>' but would appreciate clarification.</p> <p>Justification: We believe that the Notes throughout this Appendix would benefit from a review in terms of the way they are aligned with the sections they apply to.</p> <p>Proposed Text: N/A</p>	comment by: ENAV
response	NOTED. The 'European' data catalogue is reproducing the ICAO one with no change. If terms need to be reviewed, it should be first proposed at ICAO level.	

comment	<p>757</p> <p style="text-align: right;">comment by: ENAV</p> <p>Appendix 1 to Part-AIS</p> <p>Page No: 36 and 37</p> <p>Paragraph No: Note 1</p> <p>Comment: The text in this section makes references to Annex 15 Chapter 10 and Appendix 8</p> <p>Justification: Should these references to Annex 15 persist in NPA Appendix 1?</p>
response	<p>All references to Annex 15 should be replaced by references to the adequate parts of the Regulation, when such relevant parts actually exist.</p>
comment	<p>758</p> <p style="text-align: right;">comment by: ENAV</p> <div style="border: 1px solid black; padding: 5px;"> <p>Appendix 2 to Part-AIS</p> <p>Page No: 3 & 4</p> <p>Paragraph No: 2 c) NOTAM Code</p> <p>Comment: The text in this chapter makes references to Appendix 4 & Chapter 6.</p> <p>Justification: Should these references to Annex 15 persist in the NPA Appendix 2?</p> </div>
response	<p>NOTED. These references are removed.</p>
comment	<p>824</p> <p style="text-align: right;">comment by: CAA-NL</p> <p>Appendix 1 to Annex III(ATM ANS.OR) Data catalogue</p> <p>The Data Catalogue is derived from ICAO where ICAO keeps the options for Member States to make choices for implementation. However, Member States are obliged to make such choices. In Europe usually for structures on the ground, like runways the dimensions are expressed in Meters and vertical dimensions often are expressed in feet. The Netherlands prefers such choices are made and in line with current habits. A Data catalogue for which some data originators provide data in meters and others provide similar data in feet introduces safety concerns.</p> <p>The Netherlands supposes the empty white boxes in the appendix will be completed in the rule to be published.</p>
response	<p>NOTED. Presently, the data catalogue is considered to contain the necessary elements. It is correct that some fields are not provided but this is because either the corresponding elements have no defined data quality requirements or because they do not have attributes. In some cases, some elements just do not have applicable values.</p>

comment	890 comment by: <i>SLC Associates</i>
	In the data catalogue, many geographical features do not have any requirements detailed in columns 7 to 11. Does this imply that there are no accuracy, integrity or resolution requirements for these particular features?
response	NOTED. At the current time, the data catalogue is considered to contain the necessary elements. It is correct that some fields are not provided but this is because either the corresponding elements have no defined data quality requirements or because they do not have attributes. In some cases, some elements just do not have applicable values.
comment	914 comment by: <i>Federal Office of Civil Aviation (FOCA), Switzerland</i>
	<p>Appendix 3</p> <p><i>Comment FOCA:</i> The SNOWTAM format included in Appendix 3 of the NPA is the revised format proposed in Amendment 39 of Annex15 with effective date 2020.</p> <p>Justification: According to ICAO, the required SNOWTAM Format will be applicable by 2020, i.e. probably 2 years later than within the EU member states. This will lead to an implementation conflict, which will raise a number of problems in the daily business.</p> <p>Proposed Text: The applicability of SNOWTAM format as per ICAO Annex 15 Amdt 39 must be aligned with ICAO.</p>
response	The applicability of November 2020 for the SNOWTAM format requirement will be reflected in the Regulation.
comment	974 comment by: <i>German NSA (BAF)</i>
	<p>Appendix 1 to Annex VI Part AIS, GEN 0.1 Preface</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>The “Brief description of the AIP” in point 1 is not sufficient. Proposal:</p> <p>The requirements stated in Doc: “Technical requirements and operational procedures for aeronautical services and aeronautical information management” Chapter 1 — Aeronautical information in a standardised presentation AIS.TR.305 Aeronautical information publication (AIP) has to be transposed as follows:</p> <p>“The issuing State and publishing authority shall be clearly indicated”.</p> </div>
response	NOTED. However, it should be up to ICAO to modify AIP structure and content (see previous response to comment 176).

comment	<p>975 comment by: <i>German NSA (BAF)</i></p> <p>Appendix 1 to Annex VI Part AIS, GEN.2.1.4 No. 3</p> <div style="border: 1px solid black; padding: 5px;"> <p>The German NSA (BAF) asks EASA to clarify, why this paragraph refers to Annex 14, whereas ICAO Annex 15 and ICAO Doc 8126 refer to Annex 4 and Annex 15.</p> <p><u>Proposal</u></p> <p>It has to be assured, that the right passages with correct values are transformed to the new rules. Notice:</p> <p>The German NSA (BAF) asks the EASA to ensure, in cooperation with ICAO, that ICAO Annex 15 and ICAO Doc 8126 match each other.</p> </div>
response	<p>The accuracy requirements referred to in GEN 2.1.4 point 3 stem from ICAO Annex 14. Annex 15 contains resolution and integrity requirements. Annex 4 contains charting resolution and integrity requirements. It is not EASA's responsibility to ensure consistency between Annex 15 and Doc 8126. That being said, references to accuracy requirements in Annex 14 should be replaced by references to the data catalogue of the Regulation.</p>
comment	<p>976 comment by: <i>German NSA (BAF)</i></p> <p>Appendix 1 to Annex VI Part AIS, AD 3.17</p> <p>AD 2.18 3) uses the term "channel(s)" instead of "frequency(ies)".</p> <p><u>Proposal:</u></p> <p>To check which value is the correct one.</p>
response	<p>NOTED. AD 2.18 and AD 3.17 conform to the latest ICAO AIP structure/content. Comment may be relevant but see previous response to comment 176.</p>
comment	<p>977 comment by: <i>German NSA (BAF)</i></p> <p>Appendix 1 to Annex VI Part AIS, AD 2.18</p> <p>AD 3.17 3) uses the term "frequency(ies)" instead of "channel(s)".</p> <p><u>Proposal:</u></p> <p>To check which value is the correct one.</p>

response

NOTED. AD 2.18 and AD 3.17 conform to the latest ICAO AIP structure/content. Comment may be relevant but see previous response to comment 176.



3. Appendix A — Attachments

 [UK CAA — Comments on NPA 2016-02.pdf](#)

Attachment #1 to comment [#1090](#)

Commenter:	UK CAA
<p>General</p> <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>	
<p><u>EASA Response</u></p> <p>NOTED.</p> <p>Part-AIS does contain draft AMC and GM (page 72 to 91).</p> <p>Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and</p>	

included in accordance to their relevance for supporting the requirements.	
Commenter:	UK CAA
<p>General</p> <p>Comment: UK CAA is concerned that, having adopted Eurocontrol specifications as Statepreferred 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> <p><u>EASA Response</u></p> <p>Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications such as DAL was not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.</p>	

Commenter:	UK CAA
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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>
<u>EASA Response</u>	<p>NOTED. The approach taken in the NPA is that the provisions laid down in Reg. 552/2004 are applicable for systems and constituents conformity and verification. Therefore, there is no need to transfer the similar provision contained in the ADQ Regulation. The new Basic Regulation will cover the elements from Regulation 552/2004 and therefore this regulation will be repealed. Nevertheless, a dedicated task to cover the conformity assessment requirements (based on Reg. 552/2004) has been initiated, and at the moment of writing, the EASA is assessing the comments on the preliminary impact assessment. The requirements on conformity assessment are due to be published before 02/01/2020, when Reg. 2017/373 and the AIS-AIM rules become applicable. So there will be no gap for the introduction of new software or systems by AIS Providers and Aviation Undertakings and no discontinuity in the standardised level of safety assessment for all involved in the origination, exchange, validation, and publication of aeronautical data.</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>

EASA Response

NOTED. The approach described above applies to the manufacturers. For now, the provisions laid down in Reg. 552/2004 are applicable for systems and constituents conformity by manufacturers. Therefore, there is no need to transfer the similar provision contained in the ADQ Regulation. The new Basic Regulation will cover the elements from Regulation 552/2004 and therefore this regulation will be repealed. Nevertheless, a dedicated task to cover the conformity assessment requirements (based on Reg. 552/2004) has been initiated, and at the moment of writing, the EASA is assessing the comments on the preliminary impact assessment. The requirements on conformity assessment are due to be published before 02/01/2020, when Reg. 2017/373 and the AIS-AIM rules become applicable. So there will be no gap for the introduction of new software or systems by AIS Providers and Aviation Undertakings and no discontinuity in the standardised level of safety assessment for all involved in the origination, exchange, validation, and publication of aeronautical data.

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.

EASA Response

NOT ACCEPTED. This is already covered under the EASA Basic Regulation (Reg. 216/2008) where it is stated that ‘Member States shall, as far as practicable, ensure that any military facilities open to public use referred to in paragraph 2(b) or services provided by military personnel to the public referred to in paragraph 2 (c), offer a level of safety that is at least as effective as that required by the essential requirements as defined in Annexes Va and Vb.’ Annex Vb applies to ATM/ANS services, therefore includes AIS-AIM rules.

Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term ‘aviation undertaking’ has been removed.



Commenter:	UK CAA
<p>General</p> <p>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.</p> <p>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 nonEASA 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.</p> <p>Justification:</p> <p>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.</p>	
<p><u>EASA Response</u></p> <p>ACCEPTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. The requirements still cover VFR aerodromes but flexibility is left to States as to what extent these provisions shall apply, depending on each national context and the way such aerodromes are included (or not) in the aeronautical information publication.</p>	

Commenter:	UK CAA
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Page No: 6

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.

EASA Response

Some Eurocontrol specifications/documents have been used as reference in guidance material (data origination, ADQ guide) and sometimes in AMC (eAIP and OPPADD). The other Eurocontrol specifications, such as DAL, were not included in the text proposal as this document is considered not applicable anymore because too closely linked to Regulation 73/2010 which is proposed to be repealed. For the AIX specification, the Agency believes that this document is still relevant but that appropriate guidance can be found elsewhere such as in the aixm.aero website in order to provide AIS providers with information on the exchange of data. Finally, with regard to the DQR, it is considered that it is superseded by the data catalogue. The review of the Eurocontrol available documents and specifications were taken into consideration and included in accordance to their relevance for supporting the requirements.

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.

EASA Response

NOT ACCEPTED. As from the beginning of the rulemaking task started in 2013, this situation was acknowledged and the pros and cons were assessed. The work of the expert group was performed in that context and it was agreed that EASA regulatory development on AIS-AIM could be made provided that continuous follow-up was ensured with the developments happening in the ICAO AIS-AIM study group. Also, some members of the rulemaking task and review group were members of the latter ICAO group. During the technical discussion, attention was made on the development occurring at ICAO level and decision were made taking into account the work of the ICAO group. As it was mentioned in the NPA, EASA will be making a deep review of the adopted proposed amendment compared to the one that was proposed. Any major change that will have an impact the EASA draft rules will be assessed and the relevant amendment will be made. In the case, the adopted amendment is published after the publication of the Opinion (which should not be the case as EASA expects the ICAO adoption to happen before the Opinion is sent to the EC), there is still some time to adjust the draft regulation before it is adopted and published by the EC.



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.	
<u>EASA Response</u>	
NOTED.	

Commenter:	UK CAA
Page No: 12	
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.	
<u>EASA Response</u>	
ACCEPTED. Some guidance material have been proposed to assist Member States in their task to 'manage' data originators.	

Commenter:	UK CAA
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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):

- 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).



<p>Proposed Text:</p> <p>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).</p>
<p><u>EASA Response</u></p> <p>ACCEPTED. Reg. (EU) 2016/1377 has been replaced with Regulation 2017/373 which includes an applicability date for Part-AIS as from 02/01/2017 (to take into account the AIRAC cycle). This should allow some time for regulated parties to comply with the rules. At the time of writing, the applicability date proposal is proposed to be discussed at the SSC66 (25-26 October 2017).</p>

Commenter:	UK CAA
<p>Page No: 14</p> <p>Paragraph No: 2.6, Applicability of the new proposed rules</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Proposed Text: Transpose/adapt Eurocontrol DAL/DQR/DO specifications as AMC and GM</p>	
<p><u>EASA Response</u></p> <p>ACCEPTED. The NPA stated that 'aeronautical data and aeronautical information that are demonstrated to be in compliance with Regulation (EU) No 73/2010 before 1 January 2019 are deemed to be in compliance with the new proposed rules.' The applicability date is now changed with Reg. 2017/373.</p>	

Commenter:	UK CAA
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Page No: 15**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.

EASA Response

It is considered that the EASA proposal does not lower the objectives of SES with regard to the quality of aeronautical information but proposes an alternative way for affected parties to comply with the necessary requirements. The high level objectives remain, only the means to reach the objectives has been more proportionate to the type of parties involved in the aeronautical data chain. The inability of States to comply with ADQ IR was not the main driver to propose a performance-based approach but rather the assurance that the data is published with a satisfactory level of quality and that it has not been corrupted or deteriorated throughout the data chain process.

Commenter:

UK CAA

Page No: 16**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.

EASA Response

NOT ACCEPTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term ‘aviation undertaking’ has been removed.

Commenter:

UK CAA

Page No: 19

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.

EASA Response

PARTIALLY ACCEPTED. An AMC has been added to article 3 stating that Member States should ensure that, at national level, parties originating data can document data origination activities especially their working methods and operating procedures.

Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

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.

EASA Response

The definition of authoritative source is already included in Regulation 2017/373 as follows:(32) 'authoritative source' means:

(a) a State authority: or

(b) an organisation formally recognised by the State authority to originate and/or publish data which meets the data quality requirements (DQRs) as specified by that State;

The provisions of this NPA are amending Regulation 2017/373 and therefore, the definitions included in said regulation applies.

Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

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.

EASA Response

ACCEPTED. Please note that Appendix 1 (data origination) is now removed but the data origination



requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

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, Subparagraph 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'.	
EASA Response	
NOTED. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.	

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.	



EASA Response

This paragraph on verification and validation has been amended and is now aligned with the other parts. It ensures that those validation and verification techniques will be employed to ensure that the aeronautical data meets the associated data quality requirements. This applies to all phases of the data chain, including the very initial data used to create new data. Data originated by an authoritative source is deemed to have been created in accordance with the necessary quality and verification and validation processes. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

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.

EASA Response

NOT ACCEPTED. The requirements of Article 4 of ADQ Regulation and its Annex I are now covered by the 'data catalogue' which comprises the features, attributions and all other elements that are referred to in the mentioned Annex I. There is therefore no need to include the provisions of this Annex in the Regulation nor in the aerodrome regulation as the 'data catalogue' will be referred to in Reg. 139/2014. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

Commenter:

UK CAA



Page No: 29

Paragraph No: AIS.OR.240, Data limitations

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.

Justification: It is inappropriate for the AISP to be responsible for identifying data that is noncompliant 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.

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.

EASA Response

NOT ACCEPTED. Data originators need to ensure that errors identified during data origination and after data delivery are addressed or resolved. AIS providers will be notified by the originators if a data is not compliant with the DQRs, through the formal arrangements (point (5) ‘the requirement to identify any limitations on the use of the data’). It is considered necessary that AIS providers annotate the data not meeting the data quality requirements to provide such kind of information to those who are making use of the data. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

Commenter:

UK CAA



Page No: 29

Paragraph No: AIS.OR.235, Error reporting and corrective actions

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

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.

Proposed Text: Introduce DO QMS error reporting requirements into Appendix 1 to Article 3, PartASD, and Reg (EU) 139/2014.

EASA Response

NOT ACCEPTED. Error reporting requirements are foreseen for data originators and all service providers, similarly to what is required for AIS providers. Addressing the identified error and to resolve them implicitly means that they have been reported initially. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

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.

EASA Response

NOT ACCEPTED. The current wording proposed in the draft text is considered sufficient to cover the proposal. Please note that Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR.

Commenter:

UK CAA



Page No: 30

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.

EASA Response

NOT ACCEPTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed.

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 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.

EASA Response

NOT ACCEPTED. However, the revised text now proposes that Regulation (EU) No 2017/373 does not require the provision of terrain data to be AIS certified. Terrain data sets are typically originated and maintained by non-aviation entities for general purposes. The provision of terrain data sets for the purpose of air navigation is consequently limited to the mere distribution of a finished product or even only the provision of information on how the product can be obtained. As such, the provision of terrain data, is not subject to an AIS certificate. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed.

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.

EASA Response

NOTED.

ICAO has identified different requirements between OLS (PANS-OPS) and OLS (Annex 14) and is now reviewing these surfaces within joint AP/IFPP Task Force (ANC Job Card AP005) in order to update the Airport Services Manual Part 6- Control of Obstacles. Areas 2b, 2c and 2d collection surfaces of ICAO are indeed 'larger', however they are only recommendations. The proposed AIS-AIM does only not mandate the provision of eTOD if these are made available, hence it is up to the States to decide whether to collect more data or not. The mandatory 'shall' surfaces are the take-off flight path area which is identical with Annex 4 requirements for collection of obstacle for Aerodrome Obstacle Chart and Obstacle Limitation Surfaces of Annex 14.

Commenter:

UK CAA

Page No: 38**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.



EASA Response

NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed.

Commenter:	UK CAA
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Page No: 39

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.

EASA Response

PARTIALLY ACCEPTED. The proposal is already captured for AIS providers in AMC1 AIS.TR.200(d) 'Aeronautical data and associated metadata should be kept for a minimum period of 5 years beyond the validity period of the associated aeronautical information.' For data originators, this is an obligation that should be agreed between the authority and the data originator. For aerodrome operators, a retention period is foreseen but no duration is provided.

Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed.

Commenter:	UK CAA
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Page No: 63

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 ADQ

IR 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.

EASA Response

NOT ACCEPTED. Data originators have to ensure that the data they create, produce ensures a high level of quality assurance. But this is not necessarily ensured through the tools and software they use. The proportionality approach is considered important in the case of data originators. They need to reach the objective (assure data quality) but the way they reach this objective should not be regulated.

Commenter:

UK CAA



Page No: 68**Paragraph No:** GM1 ATM/ANS.OR.A.080(h), Aeronautical data and aeronautical information, subparagraph (b)(3)(i)

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.

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.

Justification: Errors cannot be identified by CRC, only corruption 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.

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)

EASA Response

NOT ACCEPTED.

The referenced sentence of the GM is only provided as an example. True intent of affirming the received data has not been corrupted in transit or during storage is ensured at the level of the implementing rule, this is an obligation imposed on all service providers.

Commenter: UK CAA**Page No:** 73**Paragraph No:** GM1 AIS.OR.210(b)

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.

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.

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.

Justification: The consequential impact of this change in requirements from ADQ to those 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.

EASA Response

PARTIALLY ACCEPTED. The amended GM now clarifies that the transmission of aeronautical data and aeronautical information may be done by different electronic means avoiding the need of manual interaction with the data itself. Article 5 and annex I of the ADQ Regulation is already reflected in the relevant part on data exchange in the proposal, see AIS.TR.210.

Commenter:

UK CAA

Page No: 78

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).

EASA Response

PARTIALLY ACCEPTED. Data quality metadata attributes have now been included in the formal arrangements between the relevant parties that need to exchange data. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed.



 [General comments from ANS CR v1 1.pdf](#)Attachment #2 to comment [#1091](#)**General comments from ANS CR****1st comment: NPA is created on DRAFT of ICAO Annex 15**

The upcoming ICAO Annex 15 Amendment is very important and big change. We are concerned about the current situation when the NPA is created on ICAO draft of Annex 15 which can be changed during the following two years.

2nd comment: AMC and GM are not available

The draft regulation cannot be accepted without AMC and GM supporting implementation. ANS CR concerns are based on negative experience gained during ADQ implementation when the EUROCONTROL Specifications were published several years after ADQ entered into force. ANS CR is aware of some EUROCONTROL Specifications that can be reused in order to support proposed regulation; however majority still has to be delivered.

3rd comment: Possible upcoming regulation

Can we expect further EASA regulation complementing and strengthening requirements in AIM domain contributing ICAO Annex 15?

EASA Response

1/ NOTED. As explained in the EN, the two working groups (ICAO and EASA) worked in parallel with an end date that was timely similar. The EASA rulemaking group included two members of the ICAO study group and therefore was informed of all the relevant changes and discussions occurring within the ICAO group and consequently was able to early align the European proposal to the ICAO one. Any changes stemming from the ICAO context can be introduced at EASA level before the publication of the Opinion

2/ NOTED. The revised proposal now includes additional AMCs and GM to support the requirements.

3/ Yes. Any further amendment or revision to the AIS-AIM rules may be initiated within the framework of the regular update task (RMT.0719)

Attachment #3 to comment [#1091](#)**Topic: Organisations originating data vs. Data originators**

Identification: On page 19, Appendix 1 to Article 3, point 3 (a) (1) “organisations originating data”

GM1 to4. Data catalogue “...data originators...”

GM1 AIS.OR.200 “... that can be used by data originators and service providers.”

GM1 to AIS.OR.350, AIS.OR.355, AIS.OR.360 “...for data gathering by data originators...”

Question/comment from ANS CR:

In the NPA ANS CR can find terms “organisations originating data” and “data originators”. What is the difference between these terms?

Topic: Adequate format

Identification: Page 20 (g) and page 25 point (7)

g) The format of delivered data shall be adequate to ensure that the data is interpreted in a manner that is consistent with the intent of the data.



Question/comment from ANS CR:

Who is responsible to set such rule for the requirement (definition of "... adequate to ...")?

EASA Response

NOTED. Appendix 1 (data origination) is now removed but the data origination requirements remain through a reference in Article 3 to the data origination requirements laid down in Part-ATM/ANS.OR. In addition, the term 'aviation undertaking' has been removed.

Topic: Direct electronic connection x Direct electronic distribution x Electronic means

Identification: Page 76

GM1 AIS.OR.400(b) Distribution services

DISTRIBUTION OF AIP PRODUCTS

(a) Distribution to the next intended user differs in the delivery method applied which may either be:

(1) physical distribution — the means by which aeronautical data and aeronautical information distribution is achieved through the delivery of a physical package, such as postal services; or

(2) **direct electronic distribution** — the means by which aeronautical data and aeronautical information distribution is achieved automatically through the use of a **direct electronic connection** between the AIS and the next intended user

Question/comment from ANS CR:

Please provide definitions of:

- o Direct electronic connection
- o Direct electronic distribution
- o Global communication networks and web services
- o Electronic means

Current description is not unambiguous or clear enough.

EASA Response

NOTED. This GM has been revised. The term 'direct electronic distribution' is defined in the GM. The term 'direct electronic connection' is not used anymore and 'Electronic means' is explained in GM. The term 'global communication networks and web services' will be explained in a GM at a later stage, as it needs some further assessment in the case of this proposal.

Topic: Data origination report

Identification: Page 20 (4) – data origination report

Question/comment from ANS CR:

Please provide further description and explanation what the „data origination report“ means and its minimum content.

EASA Response

ACCEPTED. A GM will be provided to explain what is understood by 'data origination report'.



<p>Topic: Intended use</p> <p>Identification: Page 20 (f) and page 25 point (6)</p> <p>Also mentioned on page 22 in definitions for „completeness „</p> <p>Question/comment from ANS CR:</p> <p>Who and how will be responsible to establish rules for the „intended use“?</p>
<p><u>EASA Response</u></p> <p>This requirements has been revised and does not use the term ‘intended use’ anymore to avoid confusion.</p>

<p>Topic: ATM/ANS provider, service provider, AIS provider</p> <p>Identification: Many occurrences in the text of NPA</p> <p>Question/comment from ANS CR:</p> <ul style="list-style-type: none"> • In the text of NPA ANS CR can find terms ATM/ANS provider, service provider, AIS provider. Definitions of these terms are missing. Could you provide more detailed specifications and definitions of the following terms: <ul style="list-style-type: none"> - ATM/ANS provider - Service provider - AIS provider • Additionally, on page 24, what the „Service provider certificate“ means and where the additional comment for „limitations*“ can be found?
<p><u>EASA Response</u></p> <p>1/ The term ‘service provider’ is defined in Regulation 2017/373 in Article 2. The term ‘ATM/ANS provider’ has been used in the explanatory note of the NPA to be more precise but is meant to mean ‘service provider’. A definition of ‘AIS provider’ is proposed in the context of this rule proposal and will be added to Article 2 of Regulation 2017/373.</p> <p>2/ The term ‘service provider certificate’ is the title used in Appendix 1 to Annex II of Regulation 2017/373. The limitations can be found in the template of the certificate and must be filled in by the competent authority delivering the certificate to the service provider. It limits the scope of the certificate granted for the certified services.</p>



Topic: Data catalogue**Identification:**

- Page 17, ADR.OPS.A.012 Data catalogue

The specifications of the data catalogue **should be** applicable for aerodrome operators. The necessary reference to the data catalogue is provided rather than repeating it in the aerodrome rules

- Page 7 (text)

Another important element that was introduced by the ICAO proposal is the ICAO data catalogue which includes an exhaustive list of data elements that **can be** collected and maintained by the AIS providers

- Page 20 point 4

4. Data catalogue Aeronautical data **shall be** originated in accordance with the data catalogue specified in Appendix 1 to Subpart A of Annex III.

Page 25 point (a)

When originating, processing or transmitting data to the aeronautical information services provider, service providers **shall:**

(a) ensure that aeronautical data is determined in accordance with the data catalogue specified in Appendix 1 to this Annex;

Question/comment from ANS CR:

What is the principle of usage of the data catalogue? There are contradictory requirements in the NPA (please see above).

EASA Response

The specifications of the data catalogue are applicable for aerodrome operators. A reference to the data catalogue in Appendix 1 to Annex III (Part-ATM/ANS.OR) of Regulation (EU) No 2017/373 is made. The specifications of the data catalogue need to be complied with for the data listed in the data catalogue. Of course, not all the specifications of the data catalogue need to be complied with, only those data which will be originated or provided by the relevant organisation.

Topic: Digital NOTAM in general**Question/comment from ANS CR:**

- Please provide further explanation and description related to digital NOTAM. Can you give us a summary how to process NOTAM and digital NOTAM?
- According to the requirement 6.3.3.4 if ANSP provides AIP in AIXM 5.1. is ANSP obliged to published digital NOTAM in AIXM 5.1 ? This requirement is unclear.
- What are the quality requirements related to NOTAM?
- What are the exchange format requirements for NOTAM?

EASA Response

NOTED.



Digital NOTAM is not considered as being a separate AIM product, but an enhancement of the AIP dataset with temporary changes (currently normally only permanent changes are introduced in the database). This temporary change is subsequently automatically issued as a 'classic' NOTAM for those users still needing it. Although AIXM 5.1 is technically prepared to contain digital NOTAM data, digital NOTAM is nothing more than a concept on paper. Apart from some prototypes, no systems exist that can support the introduction of digital NOTAM. At AIM side there are no systems that can manage the creation digital NOTAM in an operational context. At the user's side, there are no systems to visualize the digital NOTAM. The AIS-AIM proposed rules are not in contradiction with the development of digital NOTAM: the introduction of live changes in the AIP datasets is not forbidden by the rules and the 'classic' NOTAM that are produced by the digital NOTAM system have to comply with the same rules as all other NOTAM currently issued.

Topic: Small textual mistake

Identification: Page 3 "gigital data set"

EASA Response

NOTED.

Topic: Terrain data

Identification: Page 58

Question/comment from ANS CR:

Can you provide a list of formats which are considered compliant with NPA requirements (ISO spatial schema and GML etc.)?

EASA Response

The proposal is noted. EASA will coordinate with the relevant experts for possible suggestions to be added in the rules.

Topic: Formal arrangements in general**Question/comment from ANS CR:**

From our point of view the Formal arrangements need more description or explanation. This term should be listed in definitions and explained in more detail in a separate chapter. Such information as legal status/norm/standard (oral, written, bilateral multilateral etc.), need of signature are necessary. The term "Formal arrangement" is too vague and unclear.

EASA Response

ACCEPTED. A template of formal arrangement document has been added in guidance material to provide stakeholders with relevant information and guidance on how to develop a formal arrangement agreement.



Additional explanation from ANS CR:

In the Czech Republic the duties and responsibilities for data suppliers, whose data are published in IAIP, are defined and captured in National Legal Framework. It is, for example, aviation law or national regulation L15 which implements ICAO Annex 15 into the national conditions.

The role of AIS is to collect and disseminate aeronautical data and aeronautical information for the entire territory of the Czech Republic and the relevant airspace.

Aviation Regulation L15 which is the national implementation of ICAO Annex 15 contains besides ICAO information also 4 important appendixes (N, O, P, Q).

Appendix N – procedures and requirements for submission of ADQ data and information

Appendix O – contains procedures and requirements for submission of data and information for AIS publication such as:

- way of delivery,
- data quality requirements,
- formats,
- timeliness,
- etc.

Appendix P – contents of AIP

Appendix Q – contents of VFR Manual

These national L series regulations are historically used for decades and ANS CR is willing to use it as a general formal arrangement. In our opinion in the NPA is no requirement which require signatures and the legal form of Formal Arrangements is free enough to use national regulation. Please provide EASA opinion.

EASA Response

A template of formal arrangement document has been added in guidance material to provide stakeholders with relevant information and guidance on how to develop a formal arrangement agreement. We suggest ANS CR to use this template and cross-check it with the relevant national appendices in use for the moment. ANS CR may use the information in the template to develop a more extensive formal arrangements or adapt its formal arrangement in accordance with its national situation. The template serves as a guidance to assist national current practices. With regard to the signature, the formal arrangement being an agreement, EASA considers that this formality will be required between both parties, independently of the kind of formal arrangements finally selected and agreed on.

Topic: Completeness

Identification: Page 25 point (6), page 39 point (f)

„ Completeness of the aeronautical data shall be ensured in order to support the intended use.“

Question/comment from ANS CR:

What the term “completeness” means and how it can be fulfilled?

EASA Response

NOTED. A definition is provided, similar to the one in ICAO Annex 15. ‘Completeness (of data)’ means the degree of confidence that all of the data needed to support the intended use is provided. EASA considers that this term is clear.



Topic: Scope of data from Data catalogue**Identification:** AIS.OR.200**Question/comment from ANS CR:**

Please confirm our interpretation is correct or not. Member State will decide the scope of data from the Data Catalogue and AIS provider ensures quality?

EASA Response

The scope of the data catalogue is proposed by the rules and is in line with the ICAO data catalogue. The AIS provider when originating or providing data included in the data catalogue, will have to follow the specifications for such data that they are providing or originating. Member States, however, may add data to be included in the data catalogue, for national purposes. By complying with the data catalogue specifications, the AIS provider will de facto ensure data quality.

Topic: Data limitations (annotation)**Identification:** AIS.OR.240**Question/comment from ANS CR:**

GM for AIS.TR.240 (page 40) is mentioned on page 82 but there is no GM for AIS.OR.240 (page 29).

EASA Response

The GM on the annotation is meant to be linked to the technical requirement rather than for the organisation requirement.

Topic: Protection of data**Identification:** Page 12, last column in chart related to Protection of data.

Page 93

Question/comment from ANS CR:

- In order to add clarity, the last column should be changed and instead of “cryptographic techniques” it is proposed to add cryptographic „**hash**” techniques. It should help to avoid using cryptographic techniques in a wider range.
- Additionally on page 93 the text shall be modified to “cryptographic „**hash**” techniques” as it is mentioned above and do not mention CRC. Such description/explanation should be provided in GM. The requirement should be more general and in line with the others.

EASA Response

ACCEPTED. A GM on ADR.OPS.A.025 has been added and covers the implementation of technical data security measures to provide authentication and prevent intentional corruption during exchange of data, including example of secure hashes techniques. In general, hash techniques are now referred to at the appropriate level.

Topic: AIXM 4.5 x AIXM 5.1

Identification: Page 10

Question/comment from ANS CR:

- On page 10 it is stated following “...aeronautical information exchange model (AIXM) will have to be used, whilst not imposing a specific version of this model...”. But if we went through the NPA and find requirements for exchange format we found out that only AIXM 5.1 can be complaint to requirements UML and metadata. Please provide further explanation?
- Next ANS CR question is related to exchange format as well. Who will pay additional costs in the situation that one of our Data provider decides to use another format. ANS CR bought a new AIM system with AIXM 5.1 due to the ADQ IR and now this format does not have to be used if other subjects do not want to...

EASA Response

The NPA proposes a performance-based approach. The proposal puts the obligation on the most suitable model to exchange data and leaves the AIXM model as a mean to comply with this obligation. AIXM is therefore not the only model that can be used as far as interoperability is ensured. The AIXM model should be the model to be used to meet the requirements. The version of this model is open to cater for future upgrade of the models used. It is considered that investment made to meet AIXM 5.1 are not jeopardised. GM is provided to explain what is meant by global interoperability. For the purpose of exchanging aeronautical data, the NPA leaves free the choice of the most suitable model to exchange data, as long as it is globally interoperable between the relevant parties. Practically, this means that the aeronautical information exchange model (AIXM) will have to be used, whilst not imposing a specific version of this model. It is also considered that, at the time when the rules become applicable, all the affected parties would comply with ADQ Regulation and therefore with AIXM 5.1. Therefore the propped rules would only provide that kind of flexibility to a limited number of parties. As mentioned, this is possible if interoperability is met.

Topic: Commonly used

Identification: Page 79 and 80

Question/comment from ANS CR:

There is a term “commonly used” on the pages 79 and 80. Can you please provide further explanation and definition what this term means?

EASA Response

GM1 AIS.TR.210 on Exchange of aeronautical data and aeronautical information (ENABLING EXCHANGE) provides examples of commonly used data encoding formats that may include extensible markup language (XML), geography markup language (GML), and JavaScript object notation (JSON).

Topic: Transposition x Reproduction x Alignment with IACO

Identification: Page 8 and 9

Question/comment from ANS CR:

It the NPA can be found many articles and sentences with words/phrases such as “transposition”, “reproduction”, “closely aligned” with ICAO (see text below this article). Question is whether it has the same meaning or if these terms have different meaning.

- Page 8 (2.3.1)
- ...Transposition of ICAO SARPs...



- ...this NPA is closely aligned with the relevant IACO provision...

- Page 9
 - ...This NPA reproduces the data catalogue...
 - ...All the elements of ICAO Annex 15 Chapter 5 on aeronautical information publication (AIP), AIP Supp, AIP amendments, aeronautical information circulars (AIC), aeronautical charts, notice to airmen (NOTAM), digital sets, distribution services and pre-flight information services, have been transposed,...

EASA Response

NOTED. Yes, these terms mean that the ICAO provisions have been transposed in the AIS-AIM rules. However sometimes, the term 'closely aligned' is used to mean that the ICAO provisions are transposed but not necessarily using the same wording, but the intent is the same.

Topic: "aeronautical data and aeronautical information" vs. "aeronautical data"

Identification: Page 1, 6, 8, 9, 10

Question/comment from ANS CR:

In the NPA it can be found many occurrences where "aeronautical data and aeronautical information" are mentioned together and somewhere only aeronautical data is used (see text below this article). Does it have any special meaning? Is it used intentionally or not?

- Page 1
 - The role and importance of aeronautical data and aeronautical information has changed...
 - This NPA proposes rules for:
 - organisations involved in the origination of aeronautical data
 - The specific objectives of this NPA are to: 1) ensure that aeronautical data and aeronautical information are originated...
- Page 6
 - 2. Explanatory note
 - provision of aeronautical data and aeronautical information
- Page 8
 - 2.3. Summary of the proposal
 - The proposed rules are applicable to AIS providers, to organisations involved in the origination of aeronautical data, to service providers and to aerodrome operators.
- Page 9
 - ...in the origination of aeronautical data, and by service providers...
 - ...It is the source of the accuracy and integrity requirements for determination and reporting of aeronautical data to AIS providers and also the source of the resolution and integrity requirements for publication and charting of products including aeronautical data...
 - ...They create, modify or delete aeronautical information and aeronautical data for the purpose of aviation...



- Page 10
 - ...For the purpose of exchanging aeronautical data, the NPA leaves free the choice of the most suitable model to exchange data...
 - ...The format requirement is not applicable to aviation undertakings but they need to be able to exchange aeronautical data through electronic...

EASA Response

NOTED. In general, the term used is 'aeronautical data and aeronautical information'. However, sometimes only the term 'aeronautical data' is used as it is considered more appropriate. Generally speaking 'aeronautical data' is aeronautical information. While reviewing the text, the expert group agreed on this approach. The revised text has been amended in that regard and is now considered to be consistent.



COMMENTS ON NPA 2016-02 FROM COMSOFT

Comsoft-Solutions together with Frequentis have been following closely the workshops and meetings regarding the EASA rulemaking for ADQ and the planned NPA. We would like to comment on the following topics:

Data Exchange

Comsoft Solutions has been a pioneer in the AIM domain with an early implementation of AIXM 5 and the first AIXM 5 based operational systems in the AIM domain. We have gained a lot of experience with data format conversions and interoperability. Therefore, we would like to share with you our findings with the many integration projects we had world-wide.

We believe that mentioning AIXM as the official data exchange format neglects the fact that AIXM 4.5 and AIXM 5.1 are fundamentally different data models. From numerous projects we have learned that mapping between AIXM 4.5 and AIXM 5.1 compromises safety as it leaves room for interpretation. Especially a backwards mapping from AIXM 5.1 to AIXM 4.5 leads to data loss. Moreover, AIXM 4.5 is only of limited value for processing by automated systems as some information is can only be stored as free unstructured text in character limited comment fields.

We would welcome if AIXM 5.1 would be explicitly mentioned as the official data exchange format requirement or as a compromise to have AIXM as a requirement and AIXM5.1 as the AMC. Moreover, we would welcome if EASA would get more involved in data exchange format and interface standardization as these are key to a safe interaction of automated systems.

EASA Response

NOTED. The NPA proposes a performance-based approach. The proposal puts the obligation on the most suitable model to exchange data and leaves the AIXM model as a mean to comply with this obligation. AIXM is therefore not the only model that can be used as far as interoperability is ensured. However, it should be the model to be used to meet the requirements. The version of this model is open to cater for future upgrade of the models used. A new GM1 AIS.OR.210(a) has been introduced to indicate that AIXM 5.1 is considered to be the minimum baseline for the exchange of data.

ED-76

We welcome the approach to replace numerous ADQ related requirements with the ED-76 specific ones. We believe this will help especially with data exchange towards the next intended users like data integrators and FMS data providers from a data quality perspective.

EASA Response

NOTED.

AIXM 5 based Data Origination

We would like to inform you that we have already gained experience with native AIXM 5.1 data surveying where the measuring systems produce directly AIXM 5.1. We believe that a relaxed data origination that would allow data exchange via PDF is not a digital data exchange in the sense of ADQ and would rather see this as deprecated electronic data exchange.



EASA Response

NOTED.

