EUROPEAN ORGANISATION FOR THE SAFETY OF AIR NAVIGATION

EUROCONTROL

SUMMARY OF RESPONSES (SOR) DOCUMENT FOR THE

DRAFT EUROCONTROL SPECIFICATION FOR DATA ASSURANCE LEVELS (DAL)

Formal Consultation 28 June – 30 September 2010

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DOCUMENT CONTROL

DOCUMENT CHANGE RECORD

The following table records the complete history of the successive editions of the present document.

Edition Number	Edition Date	Reason for Change	Pages Affected
0.1	15/12/10	Initial creation – Draft 'Strawman' Early SOR	All
0.2	16/12/10	Updated 'Strawman' Early SOR Following Review	All
0.3	10/01/11	Initial Draft 'Early' SOR for Internal Review	All
0.4	27/01/11	Updated Draft 'Early' SOR after Internal Review	All
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1. INTRODUCTION

1.1 GENERAL

The Draft EUROCONTROL Specification for Data Assurance Levels (DAL) has been developed, in particular, to complement the Single European Sky (SES) interoperability implementing rule (IR) on Aeronautical Data and Aeronautical Information Quality (ADQ)[1]. The purpose of the draft DAL Specification is to support the IR in respect of meeting data quality requirements for the processing of aeronautical data from origination through to the publication by the Aeronautical Information Service Provider (AISP) to the next intended user. The draft DAL Specification defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the IR provisions.

The draft DAL Specification has been developed as a single document. It is aimed at providing sufficient guidance for Stakeholders and individuals involved in the aeronautical data chain to understand what is required to meet the DAL objectives. In consequence, achieving compliance with the DAL objectives demonstrates adherence to the ADQ IR provisions for the three defined data assurance levels.

When completed, it is anticipated that the draft DAL Specification will be put forward for consideration as a Means of Compliance (MOC) with the ADQ IR.

1.2 SUBJECT AND SCOPE OF CONSULTATION

As required by the EUROCONTROL Regulatory and Advisory Framework (ERAF), the draft DAL Specification was circulated for comment between 28 June and 30 September 2010, using the EUROCONTROL Notice of Proposed Rule-Making (ENPRM) mechanism for formal consultation (ENPRM/10-005). The formal consultation allows all States, Stakeholders and interested parties to express their formal views on the draft EUROCONTROL Specification.

The consultation documentation comprised the draft DAL Specification and a Consultation Response Sheet. In the Response Sheet, the addressees were asked to express their formal view on the draft DAL Specification. Copies were sent directly to the following:

- Civil and Military regulatory authorities and key Air Traffic Service (ATS) providers of each EUROCONTROL Member State;
- Regulatory authorities of States' observers at the Provisional Council;
- European Commission, European Civil Aviation Conference (ECAC), Federal Aviation Administration (FAA), International Civil Aviation Organisation (ICAO), North Atlantic Treaty Organisation (NATO);
- International Organisations having observer status at the Provisional Council;
- Key trade and professional associations having observer status at the Provisional Council;
- Chairmen of the following bodies:
  - Air Navigation Services Board (ANSB);
  - Civil & Military Interface Standing Committee (CMIC);

[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 (OJEU, L 23, 27.1.2010, Pg.6).

- Enlarged Committee and Observers;
- Performance Review Commission (PRC);
- Safety Regulation Commission (SRC);

The documentation was also made available through existing working arrangements and to members of the public via the ENPRM web site.

1.3 PURPOSE AND STRUCTURE OF DOCUMENT

The purpose of this Summary of Responses (SOR) document is to provide a consolidation of the main comments received as part of the formal consultation activity, as well as to provide EUROCONTROL responses to, and disposal of, those comments. This draft version of the SOR will be provided to support a Stakeholder Consultation Workshop on 17/18 February 2011 to discuss the outcome of the consultation. On completion of the workshop, the draft SOR will be updated to provide the final version of the SOR that will be published on the EUROCONTROL website. Once the SOR has been finalised, the draft DAL Specification will be amended to take account of the results of the formal consultation. The initial edition of the DAL Specification will then be published on the EUROCONTROL website.

The responses section (Section 2) of the document is structured as follows:

- General Response – providing a general analysis of the comments received;
- Consolidated Comments and Responses – summarising the comments made and providing the associated responses.

Two annexes are provided with the document as follows:

- Annex A contains a list of those Stakeholders that provided comments on the draft DAL Specification;
- Annex B provides a table containing all of the comments provided by Stakeholders, the proposed ‘disposal’ by EUROCONTROL and cross-references to the responses within the main body of the document.

2. OUTCOME OF FORMAL CONSULTATION

2.1 GENERAL RESPONSE

2.1.1 Review of Comments

The review of comments was carried out by a Review Group, which was established as an Agency working group to address the comments received. The Review Group comprised Agency staff and external experts in the Aeronautical Information Management (AIM), safety and regulatory domains.

2.1.2 Overall Response

A total of 38 individual Stakeholders responded to the consultation. The largest sector represented was Air Navigation Service Providers (ANSPs), who provided around 60% the responses. National Supervisory Authorities (NSAs) provided the second largest at 37% of the respondents.

Overall, the 38 Stakeholders provided a total of 267 separate comments; however, a significant number of those comments were common to several ANSPs and also arose from Functional Airspace Block Europe Central (FABEC).

Just under three-quarters of the Stakeholders who responded to the consultation felt that the draft EUROCONTROL DAL Specification was currently not acceptable. Furthermore, around 42% considered that it would not be acceptable under any circumstances, and this was the majority view of ANSPs. Only 7 Stakeholders considered that amendments to the draft document would not be required.

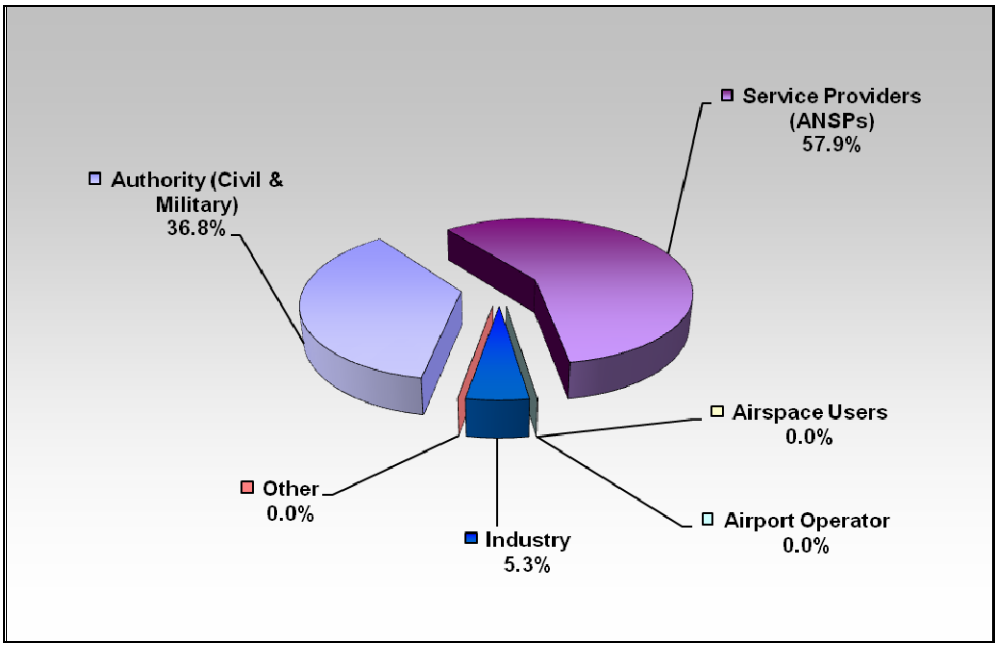
The number of responses from each category of Stakeholder is shown in the table below.

ENPRM/10-005
Draft EUROCONTROL Specification for Data Assurance Levels (DAL)
Comments Received By Stakeholder Category

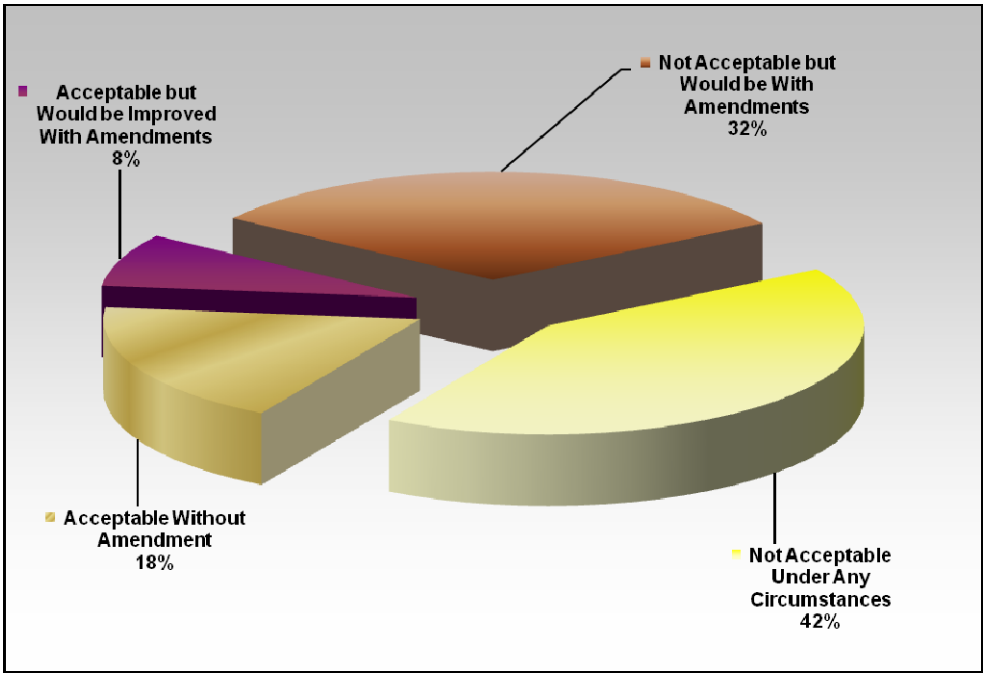
	A	B	C	D	Total by Stakeholder	%
Authority (Civil & Military)	3	3	5	3	**14**	**36.8%**
Service Providers (ANSPs)	4	0	6	12	**22**	**57.9%**
Airspace Users	0	0	0	0	**0**	**0.0%**
Airport Operator	0	0	0	0	**0**	**0.0%**
Industry	0	0	1	1	**2**	**5.3%**
Other	0	0	0	0	**0**	**0.0%**
Total Received Comments by Category	**7**	**3**	**12**	**16**	**38**	**100%**
Percentage (%)	**18.4%**	**7.9%**	**31.6%**	**42.1%**	**100%**	

A = Acceptable without amendment
B = Acceptable but would be improved with amendments
C = Not acceptable but would be acceptable with amendments
D = Not acceptable under any circumstances

The distribution of the Stakeholders that submitted comments during the consultation period is shown in the chart below.



The breakdown of the overall general responses about the draft Specification is shown in the chart below.



2.2 CONSOLIDATED COMMENTS AND RESPONSES

2.2.1 Introduction

This section summarises the issues arising from the consultation on the contents of the draft DAL Specification. Other comments, including those of a supportive nature, those correcting minor spelling or grammatical errors, those outside of the scope of the draft DAL Specification and/or those not requiring a response have not been included for the sake of brevity. However, all comments submitted are included verbatim in the table at Annex B.

The section is broken down into two main sub-sections: ‘Key Issues’ and ‘Other Issues’.

The comments included under the first sub-section are those that were seen to represent the ‘main’ issues arising from the consultation.

The second sub-section summarises other comments received, which were seen as less critical to further development of the draft DAL Specification.

EUROCONTROL responses to both sets of comments are provided.

2.2.2 Key Issues

2.2.2.1 Need for the Draft DAL Specification

Comment

Several Stakeholders stated that EUROCONTROL was not the appropriate body to write a Community Specification for a topic where the complete aeronautical data chain was covered. It was argued that a Community Specification on this topic must be produced by a European Standards Organisation (ESO), as only that mechanism guaranteed the involvement of all considered parties and it avoided duplication of work for ANSPs commenting on draft specifications. It was further argued that EUROCONTROL should avoid raising the impression that the draft DAL Specification could be an MOC for the ADQ IR without a proper consultation of the document through an ESO with all parties involved.

One Stakeholder argued that an MOC was not a Community Specification, and pointed to the specific process to establish Community Specifications that was set out in the interoperability Regulation[2]. The Stakeholder further argued that the draft EUROCONTROL Specification for DAL had not been produced by that process and, consequently, could not be considered as a potential Community Specification. In particular, no request from the European Commission had been seen and it was not clear that the subject of the draft DAL Specification was "*a matter of operational coordination between air navigation service providers*". Therefore, it was felt that the description of the draft DAL Specification in relation to SES and Community Specifications, set out in paragraph 1.2.2 of the draft DAL Specification, was entirely misleading.

One Stakeholder considered that the draft DAL Specification was fundamentally flawed because the ADQ IR on which it was based is also flawed. The Stakeholder also felt that the draft DAL Specification was not a suitable MOC and should not be proposed as a Community Specification. It was argued that EUROCONTROL should wait until a mandate to develop a DAL Specification was received from the European Commission and the current draft DAL Specification should then be rewritten.

Several Stakeholders pointed out that the diagram in Figure 2 of the draft DAL Specification incorrectly indicated that Community Specifications were mandatory. The word "*mandatory*" should be replaced with "*voluntary*" in Figure 2.

Response

The ADQ IR mandate required that the EUROCONTROL Final Report identified those specifications necessary to provide MOC with the ADQ IR. This list of draft Means of Compliance was subsequently presented to the Industry Consultation Body (ICB)/Interoperability(IOP) and the opinion of the ICB#21 expressed to the Single Sky Committee (SSC) was that Community Specifications should be developed in due course.

In taking the initiative to start early drafting of the DAL Specification, EUROCONTROL took particular account of specific requests from Stakeholders to ensure the timely provision of specifications, knowing that lead-times of around two years over implementation dates would have to be considered. The Civil Air Navigation Services Organisation (CANSO) position to the ICB also supports early developments by requiring that recognised MOCs must be available by the time the associated IR is approved by the SSC. In practice, however, MOCs cannot normally be completed until the final draft of the regulation is accepted.

[2] Regulation (EC) No 552/2004 of the European Parliament and the Council of 10 March 2004 on the interoperability of the European Air Traffic Management network (OJEU, L 96, 31.03.2004, p. 26), as amended by Regulation (EC) of the European Parliament and the Council No 1070/2009 of 21 October 2009 (OJEU, L 300, 14.11.2009, p.34).

States must take the necessary steps to achieve compliance with the ADQ IR, and EUROCONTROL's actions were designed to ensure that Stakeholders can access specifications that will provide MOC to the ADQ IR and, therefore, assist with timely implementation. It is for this reason that specific references to show how the requirements provide MOC to the ADQ IR were included in the draft Specification.

Community Specifications are voluntary and States are free to apply them or to choose other means of compliance, if required. However, if alternative means are applied then their fitness as MOC will have to be demonstrated to the relevant NSA with consequent cost and time impacts. The completed EUROCONTROL DAL Specification will be submitted to the SSC for consideration for publication in the EU Journal as a Community Specification. In any case, it will be published as a EUROCONTROL Specification and be available for all Stakeholders.

The draft DAL Specification is being developed in accordance with the ENPRM process, which has been designed to satisfy the requirements of rule-making within the EU context. It has been used extensively and successfully in developing SES IRs and EUROCONTROL Specifications. EUROCONTROL will continue to develop the draft specifications until their completion and subsequent adoption as EUROCONTROL Specifications. They will then be made available to all Stakeholders.

Notwithstanding the above, it is agreed that paragraph 1.2.2 creates confusion and needs to be amended. It is also agreed that Figure 2 in the draft DAL Specification needs to be updated.

Action

- *EUROCONTROL will continue to develop the draft specifications until their completion as EUROCONTROL Specifications and will then make them available to all Stakeholders.*
- *The EUROCONTROL Specifications, once completed, will be offered to the SSC for consideration as Community Specifications under Article 4.1(b) of the interoperability Regulation. This approach was supported at SSC 37 (September 2010).*
- *Appropriate sections of the draft DAL Specification will be amended to ensure that the document does not give the impression that it is already a Community Specification; however, the document format will include a compliance matrix to show how specific parts of the specification provide compliance with associated provisions of the ADQ IR.*
- *Paragraph 1.2.2 will be reviewed and updated to describe the status and the relationship between EUROCONTROL Specifications, MOC and Community Specifications more clearly and correctly.*
- *Figure 2 in the draft DAL Specification will be updated accordingly.*

2.2.2.2 Nature of the Specification Requirements

Comment

Many Stakeholders felt that the draft DAL Specification was overly prescriptive, too stringent and went beyond the requirements of the ADQ IR. Some argued that the Specification Requirements would be too costly to implement or exceed the capabilities/resources involved, and that this would encourage organisations not to use the Specification. Therefore, it was considered that all the Specification Requirements deemed to be overly-prescriptive should be re-assessed before the draft DAL Specification could be realistically and practically usable as an MOC to the ADQ IR. Some examples of Specification Requirements deemed to be too prescriptive included the specific naming of the data exchange format (AIXM 5.X) as the only one able to meet requirements, and also Indicator "E" being too stringent in DAL-FA-080 at paragraph 4.4.3.3.

Several Stakeholders argued that the draft DAL Specification should focus on MOC that exactly mapped the requirements specified in the ADQ IR. It was also argued that each State or FAB must be able to implement its own means of response to the ADQ IR and that the aim of the draft EUROCONTROL DAL Specification should just be to provide guidance material sufficiently close to the original ADQ IR requirements.

It was further considered that any revision of the draft DAL Specification must take into account the planned capabilities and resources of the involved parties, and ensure that the already demanding boundaries of the ADQ IR were respected without being more restrictive. However, one Stakeholder felt that the time allowed for the response to the consultation was too short to provide or propose any suitable revised text.

Several Stakeholders felt that a new ENPRM consultation must be conducted when the draft DAL Specification had been revised.

Response

In order to meet the level of assurance required, there is an expectation that AIM organisations will have to 'step-up' their activities, and so the draft DAL Specification does indeed 'raise the barrier'. The draft DAL Specification directly addresses the requirements for data integrity, which are not elaborated in the ADQ IR, and the approach and method of the Specification Requirements were assessed during initial evaluations with two Stakeholders. It must be noted that assurance of data integrity has wide implications for the whole aeronautical data chain process, and this is reflected in the draft DAL Specification.

EUROCONTROL Specifications are voluntary means and the States are free to apply them or to choose other means, if required. However, if alternative means are applied then their fitness as MOC will have to be demonstrated to the relevant NSA.

Specification Requirements deemed to be too prescriptive will be reviewed on a case-by-case basis to determine whether or not they are impracticable (and thus need to be re-phrased or removed), or are necessary to achieve the required DAL. For example, it is accepted that reference to the specific version of the AIXM should not be included in the draft DAL Specification and that Indicator "E" is too stringent in DAL-FA-080 at paragraph 4.4.3.3.

It is accepted that the draft DQR Specification should be reviewed to ensure that it provides a suitable MOC with the ADQ IR and is implementable with reasonable/proportionate effort and costs. The draft DAL Specification should introduce impractical targets, and it is recognised that guidance is required on the interpretation of some Specification Requirements. For example, for Specification Requirements like DAL-TS-010, it is accepted that further guidance is required on how TQLs and DPALs work.

Action

- *An overall review of the draft DAL Specification will be performed on the basis of the Stakeholder comments received, with the aim of identifying what areas would be too demanding for implementation, whilst still respecting the fitness of the Specification to meet the ADQ IR requirements.*
- *An assessment will be made on whether or not there are objectives that go beyond the requirements specified in ADQ IR. Where these are determined, the draft DAL Specification will be corrected accordingly.*
- *Any reference to AIXM, and the version, will be removed from the draft DAL Specification.*
- *Independence on Specification Requirement DAL-FA-080 will be changed on DAL 1 to 'D'.*

2.2.2.3 Maturity of the Draft DAL Specification

Comment

It was felt by many Stakeholders that the maturity of the draft DAL Specification was debateable. In particular, it was noted that the draft document mentioned parts that were still to be developed, and there were reported inconsistencies in the labelling of parties to whom the various Specification Requirements applied. It was also considered that the document had not been sufficiently consolidated. For example, it was questioned why DAL-DE, DAL-DPE, DAL-CT and DAL-STC were separate blocks when DAL-DE/DAL-DPE both covered data exchange and DAL-CT/DAL-STC both covered personnel and competence. Consequently, it was argued that the draft DAL Specification should be further matured, taking into account received Stakeholder comments, and a new formal ENPRM consultation should then be conducted.

One Stakeholder considered that the draft DAL specification was an important step forward for achieving the required aeronautical data integrity requirements, but also felt that it was a vague and complex specification to implement, which would need to be implemented throughout the aeronautical data chain. Therefore, it was felt that the Aeronautical Information Team (AIT) should be mandated to further refine the draft DAL Specification and make it more practical, such that it could also, in the future, naturally lead to implementation up to data users.

Several Stakeholders pointed to the note for Figure 7 in paragraph 3.5 of the draft DAL Specification, which mentioned the functional areas DAL-CA, DAL-VS and DAL-AR. The Stakeholders stated that only DAL-AR was currently included in the table in paragraph 3.4 and there was no other reference to DAL-CA and DAL-VS in the draft DAL Specification. Therefore, even though these were indicated in the note for Figure 7 as "*not addressed in this edition of the DAL Specification*", the Stakeholders felt that it was not clear what were the Conformity Assessment (CA) and Verification of Systems (VS) functional areas. Consequently, they argued that all sections should be completed and another ENPRM consultation on the draft DAL Specification should be conducted.

Several Stakeholders considered Specification Requirement DAL-CT-010 to be effectively meaningless because it was merely a copy of the ADQ IR. Therefore, it was argued that as no MOC were specified, DAL-CT-010 was not practicable as a Specification Requirement.

Response

It is accepted that steps need to be taken to achieve consistent use of language/terms (i.e. in the use of States, Parties, etc). However, it must be noted that, although the draft DAL specification is applicable to all parties identified by the ADQ IR, which is discussed in paragraph 1.4.2 of the draft Specification, it does not contain applicability to parties at the level of the various Specification Requirements. Individual parties will need to make a judgement regarding the applicability of Specification Requirements to them. For example, if a party is not an organisation publishing an Aeronautical Information Publication (AIP), then objective DAL-DPE-030 is not applicable to them, and they simply need to state this in the compliance matrix. Nevertheless, it does appear that various parties are having difficulties interpreting what Specification Requirements concern their organisation. Therefore, this will be investigated with the aim of improving the draft DAL Specification to provide a 'better picture' early on in the document regarding the determination of applicability.

Furthermore, the DAL-DE Specification Requirements address the transfer and exchange of all data (not necessarily AIPs), whereas the DAL-DPE Specification Requirements address specific issues with AIP publishing. Therefore, they are considered to be separate. The DAL-CT Specification Requirements address consistency issues, whereas the DAL-STC Specification Requirements cover staff and competency. However, there are indeed staff training objectives named as DAL-CT, and it is accepted that this needs to be reviewed.

The proposal to task the Aeronautical Information Team (AIT) with further development of the draft DAL Specification is not considered practical, however, consideration will be given to inviting an ad-hoc drafting meeting to review the re-drafted DAL Specification after the consultation workshop.

EUROCONTROL has applied a common and recognised process (i.e. ENPRM) and Stakeholders have been engaged at various stages for reviews/comments. The need for further consultation will be considered and take into account the impact on the Specification of planned changes in accordance with the ENPRM process. A number of options are available, including the consultation workshop itself or targeted/limited consultation. A new formal consultation is only considered when changes to the purpose, scope and/or approach of the document are so fundamental that the formal views of stakeholders must be sought. However, the need for specific guidance/training after the Specification is finished is acknowledged.

Paragraph 3.5 on page 20 of the draft DAL Specification incorrectly states that DAL-CA, DAL-VS and DAL-AR are still to be developed, and it is accepted that this needs to be amended. In the Executive Summary, paragraph 1.3 and paragraph 5, it is explained that CA and VS are not within the scope of the draft DAL Specification. This is to avoid duplication with the CA Guidelines that were recently created and released by the CATF (Conformity Assessment Task Force).

The comment on Specification Requirement DAL-CT-010 is accepted.

Action

- *Language/terms used in the Specification Requirements will be made consistent (i.e. in the use of Parties, etc.).*
- *Guidance will be added on how the draft DAL Specification applies to a regulated party; for example, if a party is a data originator, it will identify the Specification Requirements that are applicable to them.*
- *Paragraph 3.5 of the draft DAL Specification will be corrected to reflect the response above. All Specification Requirements named as DAL-CT will be revised for consistency*
- *The necessary steps will be taken to review and revise the Specification, as indicated above, with the involvement of a number of Stakeholders.*
- *The Specification Requirement DAL-CT-010 will be deleted.*

2.2.2.4 The DAL Approach

Comment

One industry Stakeholder felt that the overall approach of the draft DAL Specification was not the right method for achieving enhancements of data quality, and did not ensure consistency with ICAO and military authorities. It was stated that the approach would create increased risk for manufacturing companies because of inconstant requirements for product development, which must always address global customer needs. It was felt that the structure and wording of the draft DAL Specification was too complicated to achieve the intended goal, and so it could not be accepted.

It was considered that the similar, but not equal, Software Assurance Level (SWAL) approach could introduce some practical issues if not noticed. This was because there was no such concept as a unique DAL for a complete set of data in the same way that there was for software. It was believed that the DAL Specification Requirements applied on a 'data-by-data' basis would be unworkable where data of the same nature (and grouped together accordingly) had different DALs assigned. Therefore, a request was made for the differences between SWAL and DAL approaches to be highlighted and for the introduction of some

guidance (or further guidance material developed) on how to apply the draft DAL Specification to a collection of data.

One Stakeholder stated that there appeared to be a belief in the DAL approach that, if a component complied with a specification, then any use of that component would be safe. This Stakeholder considered this to be "*demonstrable nonsense*" but felt that it underpinned the whole of the ADQ IR and the draft DAL specification. This Stakeholder also considered that the basis of DALs, i.e. hazard criticality, was another fundamental flaw in the draft DAL Specification, as there was no such thing. It was argued that the processes described by the draft DAL Specification were related to the difficulty of demonstrating the required level of integrity of the properties of the data and its delivery, and so were not related to the use of the data but to how it is derived. Consequently, the Stakeholder considered the basis for the allocation of DALs to be flawed and nonsensical, as there appeared to be a belief that following a process ensured that the required properties of a component (in this case specifications for accuracy, timeliness, and format) were met.

This Stakeholder also stated that because there was no requirement to demonstrate integrity via statistical testing, either alone or in combination, then the third sub-paragraph of overview in paragraph 2.3.1 was incorrect. It was considered that the difference between so called random and systematic errors was of no significance to the argument that, if a specification includes integrity as an attribute, then that level of integrity should be demonstrated to a known level of confidence. The Stakeholder argued that the DAL approach did not ensure that this level of integrity would be achieved, it merely aided the collection of the evidence. The hope was then that, when analysed, this evidence should show that the integrity level had been achieved, and this needed to be demonstrated separately via the use of arguments and evidence. The Stakeholder believed that the fourth sub-paragraph of paragraph 2.3.1 was dangerous because it reinforced this misconception, and so it would be better to include a very clear warning that this practice was wrong. Consequently, the Stakeholder believed that paragraph 2.3.1 should clearly state the need to demonstrate that Specification Requirements were met completely to a known level of confidence and that performing the processes described by the DAL did not imply that this is sufficient.

A different Stakeholder stated support for the concept of DALs as a means to achieve compliancy with the data quality requirements that were defined for the ADQ IR. However, the Stakeholder queried whether or not the concept was actually "*practicable*" and felt that the draft DAL specification was very complicated and might be too ambitious. Specifically, the Stakeholder felt that the requirements regarding the independence levels were very difficult to implement as many organizations were currently not structured to meet the independence levels. Additional guidance material would be an absolute requirement for a successful implementation of the ADQ IR in accordance with the draft DAL Specification. Also, it was considered that it would take a lot of time and effort to persuade all parties involved in the data chain to adhere to the draft DAL Specification; especially, for entities that were not limited to working within the aviation industry, such as surveyors and software vendors. For example, surveyors and software vendors had their own set of quality, assurance and evidence levels that might already match the DALs defined by EUROCONTROL. It was considered that to make the aforementioned parties adhere to the DALs defined in the draft DAL Specification might be regarded as superfluous and not necessary. If these parties had matching quality requirements, it was argued that there was no need to impose an additional set of requirements, and the draft DAL Specification could be amended to conform to, or accept, these standards.

Response

The draft DAL Specification is not specifically aimed at tool vendors and it is not intended as a tool design and development standard. However, the approach adopted for tool qualification takes into account the availability of Commercial-off-the-Shelf (COTS) tools, which are designed for a global market. For example, the draft DAL Specification makes the

AISP responsible for ensuring tools are integrated into the overarching process correctly. An explanation about the exclusion of tool vendors will be added into paragraph 1.4.2 and chapter 2 of the draft DAL Specification.

It is considered highly likely that data providers will want to develop a common process for all of the data provided. The draft DAL Specification Requirements are not applied on a 'data by data' basis, but it would not be cost effective to apply the same process to all data. The assignment of a DAL to each data item should help guide process development; for example, by adding extra checks for critical data. As a general point, it is agreed that further guidance is required on the matter of TQL and DPAL application.

The DAL and Data Quality Requirements (DQR) Specification development process recognises that it is the application end-users who are ultimately responsible for safety, and thus it is they who identify hazards and perform risk assessments. The DQR process should set DQRs (including DAL assignments) and then the ADQ IR regulated parties must do their part to show that the DQRs are met, as defined by the DAL approach[3]. The ADQ IR cannot mandate that application end-users perform the safety assessments (this is covered by other SES II regulations) but the draft DQR Specification places obligations on the Member States to ensure that DQRs are defined. The DQR work should not be performed by the other ADQ IR regulated parties. The intention behind the draft DAL Specification is to provide a basis for demonstrating that the 'systems' employed will produce, and then continue to produce, data that meets the DQRs. This by no means solely implies that the data is 'safe' or that it is used 'safely'. Assuring the latter is the responsibility of the next intended users. Furthermore, the comment on 'hazard criticality' is not understood because the DALs are not based on 'hazard criticality' and the process of DAL assignment is not discussed in the draft DAL Specification. DALs are assigned within the DQR process, based on data use not derivation, using an assessment of worst-case end consequences and probabilities of occurrence in the same manner as that which is applied within ED-153 for software. It is the basis of all assurance level approaches, but the process itself requires product-based determinations to ensure the correct balance between process and product-based arguments.

Notwithstanding the above, it is accepted that the draft DAL Specification should include a description of the role of the draft DQR Specification in conjunction with the draft DAL Specification.

There is no requirement to demonstrate integrity via statistical testing but there are those who believe it can be done in isolation. It is agreed that a purely process-based assessment would not provide an adequate level of confidence, especially since the ADQ IR requires arguments and evidence. For this reason the draft DAL Specification includes requirements specifically for the derivation of arguments and evidence supported by a 'safety style'[4] analysis of the data 'system'. Simple compliance with the DAL is not enough. It is also agreed that safety integrity is not fully addressed by data integrity. However, it is the application end-users who should be defining the DQRs required of the data. Since the ICAO definition of data integrity can be misinterpreted in this respect, the DALs address the wider issues for data quality as a whole, including errors introduced at any stage prior to delivery to the next intended user.

The need for guidance material is recognised, and the implementation will have to be supported through training sessions, based on request. The draft DAL Specification responds to the overall need to meet the user requirements reflected in ICAO Standards and Recommended Practices (SARPs) but it does not aim to describe the DALs for the entire aeronautical data chain. The data chain stages that are within the scope of draft DAL

[3] It is recognised in paragraph 2.4.1.1 of the draft DAL Specification that the approach does not address all relevant parties and, therefore, cannot fully demonstrate that the DQRs are met

[4] It should be noted that 'safety style' means having the rigour of safety analysis, not hazard identification and risk assessment.

Specification are from request to origination (instigated by the parties) to publication to the next intended user.

This is stated in paragraph 1.3.2, Figure 3 of paragraph 2.2, and Figure 4 of paragraph 2.5.1. Also, the draft DAL Specification does not address the Specification Requirements for software vendors. It is aimed at all ADQ IR regulated parties, and AIS providers will need to agree appropriate standards with system vendors. Furthermore, the draft DAL Specification is not intended as a replacement for industry standards (e.g. ED-153).

Action

- *The role of tool vendors will be clarified in paragraph 4.6.3 of the draft DAL Specification.*
- *A general paragraph will be added into Chapter 2 to explain the concept behind DALs, including the differences with the SWAL approach. It will also explain the benefits of DAL for meeting requirements and how DALs help Stakeholders to meet specific ADQ IR provisions.*
- *The draft DAL Specification will be amended to include a description of the role of the DQR Specification in conjunction with the DAL Specification.*
- *The statement on the requirement to demonstrate integrity via statistical testing in paragraph 2.3.1 of the draft DAL Specification will be clarified or deleted.*
- *Guidance material and training sessions will be developed on request. Also, an overall review of the draft DAL Specification will be performed on the basis of the Stakeholder comments received, with the aim of identifying what areas would be too demanding for implementation, whilst still respecting the fitness of the draft DAL Specification as a potential MOC for the ADQ IR.*

2.2.2.5 Implementation Timescales

Comment

One Stakeholder considered that some of the DAL Specification Requirements could not realistically be implemented by the concerned organisations within the required timeframe of the ADQ IR. The following examples were provided:

- Regarding paragraph 4.4.4.3.3 of the draft DAL Specification, it was argued that some requirements for the Measurement of Survey Points, such as a systematic use of a Cyclic Redundancy Check (CRC) to protect the survey output or the additional independent survey for some data items, would involve a significant cost increase if they were required within a short timeframe. This could make it impossible for some States to perform the necessary surveys in the next few years;
- Based on the requirements in paragraph 4.5.4.4 the draft DAL Specification, it was noted that a "formal" qualification process was required for "staff responsible for tasks in the provision of aeronautical data". However, to define such a process, and to qualify all the concerned staff within 2 or 3 years, was considered to be difficult to achieve. In addition, it was felt that the definition of the "staff responsible for tasks in the provision of aeronautical data" was not clearly laid down. It was queried whether this referred only to the staff of the AISP or also to the staff of some other organisations playing any role in the aeronautical data chain (i.e. aerodrome operator, procedure design service etc);
- It was argued that the requirements in paragraph 4.6.4.1.4 of the draft DAL Specification implied a complete retro-engineering of existing tools. This retro-engineering was reported to be difficult to perform within 2 or 3 years. Consequently, it was argued that, if these requirements were enforced, some organisations would stop using some tools and go back to manual processes.

Consequently, the Stakeholder argued that a complete review of all the aforementioned requirements should be performed, in close collaboration with the concerned organisations. In particular, this review should define the following:

- The requirements that shall remain and could be implemented within the required timeframe;
- The requirements that shall remain but could not realistically be implemented within the required timeframe. Intermediate steps should then be defined that would propose intermediate MOC as a first stage of implementation of the ADQ IR. In parallel, work should be launched to define a step-by-step way to reach a fully satisfactory requirement;
- The requirements that went beyond the scope of the ADQ IR and that should be deleted for that reason.

Response

In general, the ADQ IR requirements were taken into account at all times during the development of the draft DAL Specification, and it is not obvious in some Stakeholder comments in what areas the Specification Requirements would go beyond the ADQ IR.

Regarding the specific example on paragraph 4.5.4.4 the draft DAL Specification, about unclear definition of 'staff responsible for tasks in the provision of aeronautical data', it is accepted that the Specification Requirements and the respective paragraph need to be clarified.

Regarding the specific example on paragraph 4.6.4.1.4 the draft DAL Specification, about retro-engineering of existing tools, it is understood that the comment has been used as an example of the difficulty with implementation timescales, which is accepted. However, it should be noted that existing tools do not necessarily require retro-engineering, and the process here appears to have been misunderstood. There is a need to balance a level of rigour in the process (to meet integrity levels) with the time needed to implement significant procedural changes.

It is accepted that the timeframe and approach to implementation needs to be discussed and guidance needs to be provided to the States. However, it should be noted that, to a certain degree, implementation timescales are out of EUROCONTROL's hands because compliance dates are laid down by the ADQ IR. There is little room for manoeuvre at this point in time and individual State issues related to implementation will have to be addressed through the annual SES reporting process. In particular, the EUROCONTROL "Report on the SES Legislation Implementation" is used to identify the overall issues related to the implementation of SES Regulations, and it is submitted to the European Commission. As mentioned under paragraph 2.2.2.2 above, Stakeholders are not obliged to use the EUROCONTROL DAL Specification but, if they do, they must implement DALs in line with ADQ IR timescales. The EUROCONTROL DQR Specification will also help to reduce Stakeholder workload through a widely consolidated approach. Furthermore, it is acknowledged in paragraph 2.2.2.2 above that the draft DAL Specification should be reviewed to ensure that the right balance is achieved in terms of identifying what areas would be too demanding for implementation, whilst still respecting the fitness of the draft Specification to meet the ADQ IR requirements.

In order to ease the burden of implementation, EUROCONTROL has already taken actions in a number of areas, including: production of the 'ADQ Guide'; creation of the ADQ website that includes FAQs; provision of a 'roll-out' workshop; and the creation of an ADQ Regulator's Working Group etc. In addition, the possibility of arranging training workshops in the near future, for example based on Specifications, is being considered.

Action

- *Paragraph 4.5.4.4 and the associated Specification Requirements in the draft DAL Specification will be further clarified.*
- *Paragraph 4.6.4.1.4 in the draft DAL Specification will be clarified, especially the approach to legacy and new tools, and also acknowledging the challenging implementation timescales.*
- *As stated under the responses in paragraph 2.2.2.2 above, the draft DAL Specification will be reviewed to ensure that the right balance is achieved.*

2.2.2.6 Tool Qualification

Comment

One Stakeholder queried whether the intention was to force the most stringent data to determine the master DAL for tool selection and, if so, this should be explicit in the draft DAL Specification. For example, with the Specification Requirements for tools, whose SWAL requirements stated in paragraph 4.6.4.1.2 relied totally on TQLs that were assigned based on DALs, ANSPs would need a tool with a different SWAL depending on the data in question. However, the differences between SWAL 2 or SWAL 3, for instance, were significant in many aspects.

Many Stakeholders considered that the Specification Requirements for TQL were not commensurate with the AIM domain and would lead to un-achievable targets unless the tools were completely redesigned (retro-engineering). For example, it was reported that TQL 2 would lead to a SWAL that was more stringent than SWAL 4, which was not achievable for existing tools and would be very costly to obtain for new tools. It was argued that this might jeopardize the incentive for AIS automation, which was one of the foundations of the ADQ IR. Therefore, the Stakeholders felt that the TQL related Specification Requirements should be reconsidered to make them practical, realistic, clearly related to the ADQ IR, and commensurate with the AIM domain.

One Stakeholder stated that all requirements regarding software should be carefully re-evaluated or removed from the draft DAL Specification (e.g. DAL-PRC-180/190/210/220, in paragraph 4.6). It was also felt that a cost-benefit analysis would probably be needed because, as currently stated in the draft DAL Specification, requirements regarding software might be too stringent and not feasible. It was argued that the main reason for inclusion of data format standards like Geographic Mark-up Language (GML) in ICAO Annex 15 and the ADQ IR, and one of the goals of the AIXM 5 global initiative, was to reduce costs by using standard commercial software to deal with aeronautical data/information. Therefore, it was felt that specific and very stringent software requirements for dealing with aeronautical data/information would make all these efforts invalid, would impose important over-costs on the aeronautical data chain actors, and would limit the implementation of automated systems.

Another Stakeholder specifically pointed to the TQL related Specification Requirements DAL-DE-120, DAL-DE-130, and DAL-TS-250 to DAL-TS-290, which it was considered would result in a potential need for re-engineering with uncertain benefits, and might negate the benefits gained from automation. It was further felt that a revised proposal to amend the relevant text of the draft DAL Specification required more time, as the issues were of a complex nature.

Several Stakeholders argued that the Specification Requirements for TQL would require new tool developments, for which the cost had been assessed for only one of the FABEC ANSPs to be in the order of €10 million. In the worst case, it was considered that they would lead to a fallback to human processes, which was the contrary of the aim of the ADQ IR. It was also felt that the link between the Specification Requirements for TQL and the ADQ IR was

unclear, with most of them deemed to go beyond the requirements of the ADQ IR that would add unnecessary efforts for software development.

Many Stakeholders considered that, in the Specification Requirements DAL-TS-120 and DAL-TS-130, the hard linkage of 'Critical' data with SWAL 2 would lead to excessive development costs for data management platforms dealing with all kinds of aeronautical data. It was argued that comparing metadata before and after transfer of the actual 'Critical' data also provided assurance that nothing had been altered. Hard linkage of 'Critical' data would always force the AISP to use costly SWAL 2 tested software, where the task of assuring identical data could also have been fulfilled by a much simpler process. It was further argued that there would rarely be a system dealing with only one type of data and, therefore, all systems would have to be developed according to SWAL 2, which seemed too restrictive and far too costly for most AISPs. It was further argued that to start at a reasonable lower level would lead to improved safety, rather than initially defining a high level standard to which nobody would comply. Consequently, a compromise suggestion was made for the hard linkage of 'Critical' data with SWAL 2 to be softened, with SWAL 3 being required for systems using all data and SWAL 2 only being required for systems dealing solely with 'Critical' data.

One Stakeholder felt that it was not clear why extra requirements for software were needed in the draft DAL Specification, because EUROCONTROL Safety Regulatory Requirement (ESARR) 6 and Commission Regulation (EC) No 482/2008[5] on a software safety assurance system were already in place.

One Stakeholder commented that there was no appropriate guidance for Specification Requirement DAL-AU-010, concerning automation of data processes. Therefore, it was felt that the purpose and scope of the draft DAL Specification (i.e. guidance and support) was missed in this case.

Response

The draft DAL Specification addresses software in so far as it is mandated in the ADQ IR and covers only those aspects of assurance that are within the responsibility of the ADQ IR regulated parties. The purpose is not to state how software is to be developed, but the draft DAL Specification does set requirements for the way users deal with software in the overarching process. The draft DAL Specification includes requirements on software to address Article 8 of the ADQ IR, as ESARR 6 does not apply to all parties. The draft DAL specification is not intended as a development standard for software; whilst it prescribes a SWAL (only for new tools) it does not prescribe how the SWAL should be met, for which standards such as the preliminary European Norm (prEN) 16154 and ED-153 will apply. It is accepted that where other suitable MOC are identified, then the draft DAL specification should exploit them. However, it needs to be assessed if such MOCs are fully suitable and what aspects the draft DAL Specification still needs to cover in terms of COTS. There will be some aspects that are unique to the AIM domain, such as the assignment of SWAL that will need to remain in the DAL, to avoid inappropriate or over specification. It is acknowledged that many tools handle all categories of data. However, the entire tool does not require development according to 'Critical' data, only those functions that deal with 'Critical' data. For example, EAD is a tool that handles all data and achieves SWAL 3. Furthermore, there is less difference between SWAL 3 and SWAL 4, than between SWAL 3 and SWAL 2.

SWAL 3 for tools is considered to be achievable for the AIM domain; for example, the EAD is SWAL 3. In addition, Specification Requirements about SWALs are only applicable to new or significantly modified tools, not existing ones. The draft DAL Specification does not require the re-design or re-engineering of existing tools. Moreover, there may be ways to reduce the

[5] Commission Regulation (EC) No 482/2008 of 30 May 2008 establishing a software safety assurance system to be implemented by air navigation service providers and amending Annex II to Regulation (EC) No 2096/2005 (OJEU, L 141, 31.5.2008, p.5).

reliance on COTS tools; for example, through sample checking. If not, the COTS tools will need to be addressed using a suitable standard, such as prEN 16154. This needs to be clarified within the draft DAL Specification.

It is accepted that Specification Requirements DAL-DE-120 and DAL-DE-130 should be reviewed and generalised. The comments on Specification Requirements DAL-TS-250 to DAL-TS-290 are also accepted and this section should be simplified. However, it is considered that DAL-TS-250, DAL-TS-260, and DAL-TS-290 should still be retained.

The need for guidance on automation of data processes is understood. The underlying concept of ADQ is automation towards a fully digital data supply.

Action

- *A new sub-section will be added to the fundamentals in Chapter 2 of the draft DAL Specification to address the trade-off between tools and process, and to highlight the differences between existing and new tools, which are currently covered in the tool section.*
- *Specification Requirements DAL-DE-120 and DAL-DE-130 will be reviewed and 'generalised' to one requirement.*
- *Paragraph 4.6.4.1.4 of the draft DAL Specification, and the associated DAL-TS Specification Requirements, will be simplified, as far as possible, to be less prescriptive, thus allowing organisations, for example, to agree the tool qualification approach with their NSA. However, Specification Requirements DAL-TS-250, DAL-TS-260, and DAL-TS-290 will be retained.*
- *As stated under the responses in paragraph 2.2.2.2 above, the draft DAL Specification will be reviewed on the basis of the comments received to identify what areas would be too demanding for implementation, whilst still respecting the suitability of the draft DAL Specification as MOC for ADQ IR.*
- *Where other potential MOCs are identified, they will be reviewed to assess if the draft DAL Specification can exploit them.*
- *In paragraph 4.4.5.3 of the draft DAL Specification, the objectives for 'Automation' will, where possible, be simplified. In particular, it is proposed to delete the following Specification Requirements: DAL-AU-010, DAL-AU-020, DAL-AU-040, DAL-AU-050, DAL-AU-060, DAL-AU-080, DAL-AU-090, and DAL-AU-0100.*

2.2.2.7 COTS Requirements

Comment

Many Stakeholders stated that Specification Requirements concerning COTS constituents were already covered by the SWAL Community Specification (prEN 16154), which had been produced and was currently under public scrutiny by the European Committee for Standardization (CEN) Technical Body CEN/TC 377, 'Project Committee Air Traffic Management (ATM)', based on the European Commission mandate M/390. Therefore, it was felt that all requirements concerning COTS constituents in the draft DAL Specification were obsolete and should be deleted. It was further felt that the revised draft DAL Specification should then be subject to a new ENPRM consultation.

One Stakeholder accepted why requirements were specified for ‘bespoke’ products, but expressed concern that a tool qualification process appeared to be mandated for universally available COTS applications, for which Stakeholders did not have the ability to demonstrate that they were fit for purpose; for example, standard ‘desktop’ applications such as Microsoft products.

Furthermore, the same Stakeholder requested clarification on how this impacted on the Data Quality Tool Set (DQTS), for which there was no known replacement and which was no longer 'supported'.

It was felt that the note in paragraph 4.6.4.1.3 of the draft DAL Specification, stating that TQL 1 was not to be implemented using COTS software, went too far. It was considered that there was no reason why this should not be possible with today's technology and that failures might occur no matter where the software was developed. It was further considered that internal development was a matter of cost and may become unaffordable, whereas external development and maintenance costs could be shared among the user-base of a COTS product. Therefore, it was argued that all requirements in the draft DAL Specification not to use COTS software should be removed in favour of requirements covering formal arrangements with a supplier of data management software.

Response

The draft DAL specification is not intended as a development standard for software; whilst it prescribes a SWAL (only for new tools) it does not prescribe how the SWAL should be met, for which standards such as prEN 16154 and ED-153 will apply. It is accepted that where other suitable MOC are identified, then the draft DAL specification should exploit them. However, it needs to be assessed if the draft prEN is fully suitable and what aspects the draft DAL Specification still needs to cover in terms of COTS. There will be some aspects which are unique to the AIM domain, such as the assignment of SWAL that will need to remain in the DAL, to avoid inappropriate or over specification.

It is recognised that COTS products are used widely in the industry and that there are benefits in doing so. It is also recognised that, for many of these COTS tools, evidence of development rigour, or in-service reliability, or integrity, may not be available. The draft DAL Specification requires that, where COTS are used, the weaknesses are identified and appropriate protections are placed within the supporting work instructions to mitigate the identified weaknesses. By doing so, the qualification requirements on the COTS may be reduced.

DQTS is no longer supported due to a lack of Stakeholder requirements and, therefore, it is not maintained but States can still continue to use it. However, DQTS never been formally validated as an operational tool (refer also to paragraph 2.2.3.2 below).

The note in paragraph 4.6.4.1.3 of the draft DAL Specification refers more to generally available COTS products (e.g. Microsoft) rather than industry-specific tools (e.g. a specific AIS system). Using general COTS to resolve a TQL 1 tool need is not recommended. However, this does not stop AISPs from using COTS alongside appropriate work instructions, where checking the outputs reduces the reliance on the tool.

Action

- *A review of the draft prEN 16154 will be conducted to assess if it is fully suitable and to identify what specific AIM aspects the draft DAL Specification still needs to cover in terms of COTS.*
- *As noted in paragraph 2.2.2.6 above, a new sub-section will be added to the fundamentals in Chapter 2 of the draft DAL Specification to address the trade-off between tools and process, and to highlight the differences between existing and new tools, which are currently buried in the tool section.*
- *The requirements regarding COTS in the note in paragraph 4.6.4.1.3 of the draft DAL Specification will be clarified.*

2.2.2.8 References to Safety

Comment

It was reported by one Stakeholder that the draft DAL Specification contained approximately 130 references to safety, and most of these implied that the DALs could be used as a safety indicator. It was argued that this was not the case. The use of DALs as a management tool might be appropriate in that it gave some guidance on the processes that might need to be followed in accruing the evidence needed to demonstrate that the data was of a specified level of integrity. However, it was further argued that integrity and safety were not the same thing and just because a specification was met to some level of integrity, it did not imply that use of the component was safe. Therefore, the Stakeholder requested that all references to safety in the draft DAL Specification be removed except for a single reference in paragraph 1.3 (Scope), which should point out that safety cannot be implied by the integrity of a data delivery system and also cannot be implied by the use of DALs.

It was argued by many Stakeholders that, despite the requirements of Article 10.2 of the ADQ IR, the Safety Management Systems (SMS) provisions included in Annex II of Commission Regulation (EC) No 2096/2005[6] did not apply to AIS entities. In particular, reference should be made to the results of the EUROCONTROL 'Safety Framework for AIM' Focus Group. It was further argued that Annex II of Commission Regulation (EC) No 2096/2005 was designed for Air Traffic Management (ATM), ATS and Communications Navigation and Surveillance (CNS), and not for AIS/AIM. Therefore, it was requested that all references to the safety management provisions of Commission Regulation (EC) No 2096/2005 and the EUROCONTROL Safety Assessment Methodology (SAM) be deleted from the draft DAL Specification.

Response

It is accepted that the role of the draft DAL Specification should be made clearer with respect to its use as a 'management tool'. The word safety is only used within the draft DAL Specification as a reflection of the importance of data quality to the safety of ATM operations. However, nowhere does it mention that DALs can be used as a safety indicator, although poor data quality is clearly a safety issue. The DALs only support the argument that the DQRs have been met and that adequate data quality is achieved up to the point of delivery to the next intended user. This does not imply that the data will not be corrupted or misused by the next intended user, and it is not appropriate to assume that Data Providers are incapable of understanding any of the safety issues that may arise for end-users in relation to data errors. Therefore, the occurrences of the term 'safety' cannot be simply deleted but the general review will address whether there is any unnecessary duplication.

The draft DAL Specification is required to address the ADQ IR as published. However, it is accepted that Commission Regulation (EC) No 2096/2005 does not play a role in the draft DAL Specification and that the reference adds no value.

Action

- *The role of the draft DAL Specification will be made clearer with respect to its use as a 'management tool'.*
- *References to Commission Regulation (EC) No 2096/2005 will be removed from the draft DAL Specification.*

[6] Amended by Commission Regulation (EC) No 482/2008 of 30 May 2008 (OJEU, L 141, 31.5.2008, p.5).

2.2.2.9 Duplication With Quality Management System Requirements

Comment

Many Stakeholders considered that the draft DAL Specification went too far by requiring duplicated work and multiple tracking of different documentary evidence in areas that already need to be undertaken to fulfil other requirements. In particular, it was argued that a Quality Management System (QMS) was mandatory for regulated parties in the aeronautical data chain in accordance with the ADQ IR and Commission Regulation (EC) No 2096/2005. Therefore, it was believed that many Specification Requirements in the draft DAL Specification were already an inherent part of an ISO 9001 QMS that had been certified by an accredited organisation.

In particular, DAL-EV-070 and all the DAL-QM Specification Requirements were considered to be unnecessary and should be removed. Also, two Stakeholders considered that paragraph 4.4.4.3.2 of the draft DAL Specification, and the associated DAL-DOR Specification Requirements, together with Specification Requirement DAL-DPE-050, were an inherent part of an ISO 9001 QMS certification and should be deleted.

One Stakeholder argued that Specification Requirements DAL-QM-030 and DAL-QM-090 should be independent according to the mandatory requirement of Amendment 75 to ICAO Annex 3 (implementation of a QMS for the Meteorological Services in order to provide an ISO 9001/2008 certificate to Aeronautical Meteorological Service Providers). Therefore, it was considered that the related "*DAL 1*" and "*DAL 2*" columns in the draft DAL Specification should be marked with a dark point.

One Stakeholder felt that the draft DAL Specification should be expanded to include annotations to identify whether or not particular individual Specification Requirements would be suitably covered by a ISO 9001 certificate.

Response

The existence of a QMS is indeed a mandatory requirement but considering ISO 9001 as mandatory minimum requirements on contents for a QMS is not sufficient for data assurance. Mindful of this, the draft DAL Specification is not meant to override the existing QMS of an organisation, it has been designed to supplement the QMS. The draft DAL specification adds domain-specific requirements to the data quality process not explicitly covered by ISO 9000 at all. The aim is to not duplicate QMS requirements but to make them specific to the assurance of data. Furthermore, different States may enhance their QMS with different requirements coverage and, therefore, a draft DAL Specification designed to be applied by all States cannot assume or know all the requirements that are being implemented through national QMS. It is important to note that, if a DAL Specification Requirement is already covered by a QMS, then compliance can be achieved and proved by providing a reference to the relevant QMS requirement and an associated reference to the evidence of how the organisation is meeting the requirement.

Specification Requirement DAL-DPE-050 *refers to scanned images etc, where verification of correct digitisation needs to be confirmed. However, it is accepted that this should only be a "P" (for different person) rather than "D" (for different department).*

The comment on Specification Requirements DAL-QM-030 and DAL-QM-090 is accepted.

It is accepted that the draft DAL Specification should be expanded to include annotations that identify whether or not particular individual Specification Requirements would be suitably covered by an ISO 9001 certificate.

Action

- *The relationship between DALs and QMS will be explained in chapter 2 of the draft DAL Specification.*

- *Specification Requirement DAL-DPE-50 will be changed to a "P" rather than "D".*
- *The "DAL 1" and "DAL 2" columns for Specification Requirements DAL-QM-030 and DAL-QM-090 will be marked with a dark point.*
- *A specific new matrix will be added to the draft DAL Specification, which will provide the suggested markers between the main DAL Specification Requirements and the main QMS requirements.*

2.2.2.10 Work Instructions

Comment

One Stakeholder considered that the Specification Requirements in paragraphs 4.1.4.2.2 to 4.1.4.2.6 of the draft DAL Specification were too complex, disproportionate to the benefit, and mostly already covered by a QMS. It was suggested that these Specification Requirements should be replaced by one requirement that all work instructions must be verified and validated before becoming effective. Alternatively, all the Specification Requirements should be annotated as "*should*".

It was also felt that Specification Requirement DAL-PRC-470 was overly prescriptive and should be deleted. It was argued that there was independent auditing of the processes of the QMS, and so there was no benefit in prescribing a second audit.

Response

It is agreed that the tables in paragraphs 4.1.4.2.2 to 4.1.4.2.6 of the draft DAL Specification should be simplified, where practicable. However, the response to the QMS comments at paragraph 2.2.2.9 of this SOR must also be considered.

The comment about Specification Requirement DAL-PRC-470 is accepted.

Action

- *The tables in paragraphs 4.1.4.2.2 to 4.1.4.2.6 of the draft DAL Specification will be reviewed against the QMS requirements and will be 'simplified', wherever possible, to ensure a better balance.*
- *Specification Requirement DAL-PRC-470 will be deleted.*

2.2.2.11 Data Origination

Comment

It was felt by many Stakeholders that the brief description of data origination under paragraph 2.5.1.1 of the draft DAL Specification was insufficient because data quality originated with surveying/measurement of data, and incorrect or insufficient measurement of data caused data errors or data hazards. It was also argued that the draft DAL and DQR Specifications could not be implemented without also developing, releasing and implementing a fully aligned Data Origination Specification that provided evidence of the required MOC. States should first have the possibility to introduce the required Data Origination Specification Requirements but this might be challenging for some NSAs, as there was currently no suitable legal framework available. Therefore, it was considered that EUROCONTROL must ensure alignment of Data Origination Specification with the Specification Requirements in paragraph 4.4.4 of the draft DAL Specification. It was further considered that this alignment was a pre-requisite to ensure provision of the required MOC, and so the Data Origination Specification should be developed and released as soon as possible.

Many Stakeholders felt that an annual revision and assessment of 'Critical' and 'Essential' data items was not realistic. It was also argued that annual independent survey for 'Critical'

items had no benefit for the reliability of data and would result in a significant increase in unjustified costs. Therefore, it was considered that the related requirements in paragraph 4.4.4.2 of the draft DAL Specification, and in the following tables, should be deleted.

One Stakeholder felt that there was no guidance material provided in Specification Requirement DAL-RDO-070 for the data origination report format. Consequently, the Stakeholder considered that the draft DAL Specification did not support the implementation of the ADQ IR for this aspect.

Several Stakeholders felt that Specification Requirement DAL-DOM-130 went well beyond the requirements laid down by the ADQ IR, would create a significant increase of the overall costs for implementation, and it would overburden airports and operators. It was argued that only a full survey followed by an annual check was required by the ADQ IR, and that there was no justification for extending these requirements to a double survey. It was considered that the reliability of measurement networks (i.e. measurements, computed coordinates) was the responsibility of surveyors, and that the freedom of applying an adequate surveying method should be left to the originator/surveyor.

Similarly, the Stakeholders felt that Specification Requirement DAL-DOM-140 was overly prescriptive and should be removed. It was argued that a full initial survey did not necessarily guarantee the quality of the collected data and it was not the only means to guarantee the required quality. Therefore, the freedom of applying an adequate surveying method had to be left to the originator/surveyor.

One Stakeholder considered that Specification Requirement DAL-DOM-150 should be deleted because the usage of transformed data must be allowed for 'Critical' and 'Essential' data; for example, different coordinates systems used for origination and publication/usage (e.g. elevation was measured in WGS-84, but published in EGM-96).

Several Stakeholders commented that Specification Requirements DAL-DOD-010 to DAL-DOD-050 were not clear. In particular, it was felt that the meaning of "*validated*" and "*appropriate means*", and who needs to approve them, should be specified. A suggestion was made to clarify or delete requirements; for example, by reusing ICAO Doc 9906 (Quality Assurance Manual for Flight Procedure Design Volume 3 - Flight Procedure Design Software Validation).

Response

The note in paragraph 4.4.4.1 of the draft DAL Specification is still relevant and it is agreed that the Data Origination Specification and DAL Specification need to be aligned. It should be noted that work on a draft Data Origination Specification is in progress, and an ENPRM consultation is estimated to be launched in Spring of 2011.

The comments on the annual revision and assessment of 'Critical' and 'Essential' data items (i.e. paragraph 4.4.4.2 and Specification Requirement DAL-RDO-110 in the draft DAL Specification) are partly accepted and a review will be performed.

It is recognised that further guidance is required for the data origination report format. This will be addressed in the Data Origination Specification.

The comments on Specification Requirements DAL-DOM-130 and DAL-DOM-140 are accepted.

With regard to Specification Requirement DAL-DOM-150, it should be noted that the table in which it is included only applies to survey. However, it is accepted that this could be made clearer in the draft DAL Specification.

The comments on Specification Requirements DAL-DOD-010 to DAL-DOD-050 are accepted.

Action

- *The draft DAL and Data Origination Specifications will be aligned in the relevant chapters.*
- *Paragraph 4.4.4.2 of the draft DAL Specification, and the following tables, will be reviewed to determine what would be realistic, and they will then be revised accordingly.*
- *Guidance material on the data origination report format will be developed as part of the Data Origination Specification.*
- *Specification Requirement DAL-DOM-130 will be revised in line with Stakeholder responses to match the minimum requirements of the ADQ IR.*
- *The wording of Specification Requirement DAL-DOM-140 will be amended to be allow more flexibility.*
- *Specification Requirement DAL-DOM-150 will be kept, but the text will be modified to say: "during the initial survey stage…".*
- *Specification Requirements DAL-DOD-010 to DAL-DOD-050 will be modified and clarified accordingly.*

2.2.3 Other Issues

2.2.3.1 Independence

Comment

One Stakeholder felt that it was unclear whether or not it was necessary to have two or three different procedures depending on the independency requirements. The example of the Specification Requirements for procedures was given, whose independency directive could be totally different depending on the DAL. It was argued that, in this case, ANSPs would have to develop one single procedure that might need a different level of independency (as defined in paragraph 2.3.4 of the draft DAL Specification) depending on the data in question (i.e. some parts of the procedure must be reviewed by an Independent Organisation and others not).

It was considered that the NSA should not have the right, per se, to approve independency, as this could cause difficulties. It was argued that an organisation could have independent organisational units, which could act as independent entities, and their independency was regarded as sufficient. Also, an organisational unit within an organisation was regarded to be independent if both reported independently to the head of the business unit.

Another Stakeholder questioned whether or not the example given for an independent organisation in paragraph 2.3.4 of a draft DAL Specification was appropriate. As written, it was felt that the implication was that a 'D' ("*different party or an independent department*") when overseen by an NSA was considered to be equivalent to an 'E' ("*independent organisation*"). Consequently, the example risked 'blurring' the distinction between "D" and "E" independence requirements. A suggestion was made to define "*independent department*" and "*independent organisation*" without referring to "*overseen by national regulator*".

Several Stakeholders commented that Specification Requirement DAL-DPE-070 was prescribing a consistency check by a different department, but the responsibility for publication of the AIP was within the national AIS/AIM organisations, and so a consistency check by a different department would not be reasonable or effective. It was considered that this Specification Requirement went in the opposite direction of the DAL approach and should be removed. It was argued that it was virtually impossible to check all paper products against digital ones for every production cycle, and the draft DAL Specification mentioned this for integrity at data level. It was further argued that it was only possible and feasible to establish a mechanism that would, to a certain level, guarantee that this would happen; for example, derive all products from the same source (i.e. similar to Specification Requirement DAL-DPE-060).

Response

It is recognised that further guidance is required on 'independency' and it is accepted that data providers will very likely want to develop a common process for all of the data provided. The DAL Specification Requirements are not applied on a 'data-by-data' basis, but it would also not be cost effective to apply the same process to all data. The assignment of the DAL to each data item should help guide process development, for example by adding extra checks for 'Critical' data on top of the common processes.

The comment that NSAs should not have the right to approve the 'independency', is accepted.

The example in paragraph 2.3.4 of the draft DAL Specification was drafted in this way only to illustrate the point that 'independent organisation' does not necessarily mean a completely different external organisation, and that there are other ways of meeting 'independency' requirements. However, it is accepted that further clarification is required.

The comments on Specification Requirement DAL-DPE-070 are accepted.

Action

- *Further guidance on 'independency' will be added to the draft DAL Specification paragraph 2.3.4.*
- *Text will be added to Note 2 in paragraph 2.3.4 of the draft DAL Specification to clarify the NSA role in independency.*
- *The example in paragraph 2.3.4 of the draft DAL Specification will be changed/re-phrased to make the distinction between "D" and "E" clear.*
- *Specification Requirement DAL-DPE-070 will be amended to delete "D" from the "DAL 1" and "DAL 2" columns.*

2.2.3.2 Data Transmission Protection

Comment

Several Stakeholders commented that Specification Requirement DAL-DE-020 was unclear because the application of CRCs in connection with data transmission by paper means was not actually feasible. It was argued that CRCs could only be applied for computerized data, and so DAL-DE-020 should be clarified or deleted accordingly.

It was argued that, in order for the protection by CRC to be useful, it must be applied in a consistent way. Therefore, it was felt that the draft DAL Specification needed to include further clarification on how CRCs should be applied (i.e. wrapping a whole data set, wrapping all data elements, or specific data elements).

One Stakeholder felt that all the Specification Requirements in paragraph 4.7.4.1 of the draft DAL Specification might be too stringent and impossible to achieve with the use of standard technologies, thereby imposing a huge increase in costs and limiting the implementation of the DAL Specification. The Stakeholder considered that it should be determined if existing technology could deal with all these requirements (existing web services, etc), or the Specification Requirements should be removed or made non mandatory ('should').

Response

"It is accepted that the "...application of CRCs in connection with data transmission by paper means" is not feasible, and Specification Requirement DAL-DE-020 will be revised accordingly.

It is accepted that further guidance is needed to explain the use of CRCs. Guidance could be developed on the application of CRCs, but it is considered that this should not be included, in full, within the draft DAL Specification because there may be many different technical approaches that could be taken. However, the underlying key principles could be covered inside the draft DAL Specification, and more details could then be published within the ADQ Guide under the relevant article.

It is not understood from the comment why existing technologies cannot deal with the Specification Requirements in paragraph 4.7.4.1. Encryption methods and algorithms are widely available and capable of being implemented on current technology.

Action

- *Specification Requirement DAL-DE-020 will be amended to provide the requested clarification.*
- *The draft DAL Specification will be revised to include further clarification on how CRCs should be applied.*

2.2.3.3 References to the eAIP

Comment

Some Stakeholders felt that Specification Requirements DAL-DPE-030 and DAL-DPE-040 went beyond the ADQ IR requirements laid down in Article 5(4)(b), and argued that there was already another MOC dealing with this subject (i.e. the eAIP Specification). Therefore, it was considered that Specification Requirements DAL-DPE-030 and DAL-DPE-040 should be deleted.

Another Stakeholder felt that Specification Requirement DAL-DPE-030 should be removed in favour of DAL-DPE-040, because the eAIP Specification would provide the means for a standardised presentation to the user. It was argued that the publication in digital/electronic form should be according to a specification and, if the rendering was left to the next intended user, then this would open up room for safety issues to arise, because the way the data was presented using web technologies might be unclear, confusing and lead to misinterpretation of the data presented.

Response

It is accepted that Specification Requirement DAL-DPE-030 needs to be revised, however, the key requirement stemming from the IR has to be retained.

It is also accepted that DAL-DPE-040 should not be mandatory.

Action

- *Specification Requirement DAL-DPE-030 will be revised.*
- *Specification Requirement DAL-DPE-040 will be changed to "should".*

2.2.3.4 Assessment of ICAO Doc 9855 Guidelines

Comment

Stakeholders considered that Specification Requirements DAL-DE-120 and DAL-DE-130 made no sense at individual State level, would require a potential re-engineering with uncertain benefits, might contradict the benefits gained from automation, and should be carried globally for European States. It was argued that the individual assessment of the applicability of the ICAO guidelines would lead to duplication of effort and inconsistency among European States. Consequently, it was suggested that the Specification Requirements should be removed and appropriate action taken at EUROCONTROL level (e.g. within the eTOD WG).

Response

The comments on Specification Requirements DAL-DE-120 and DAL-DE-130 are accepted.

Action

- *All DAL-DE requirements in paragraph 4.3.4.2 of the draft DAL Specification will be reviewed and 'generalised' to one requirement.*

2.2.3.5 Formal Arrangements

Comment

One Stakeholder considered that the number of Specification Requirements in paragraph 4.4.3 of the draft DAL Specification should be considerably reduced. It was suggested that the requirements could be replaced by a single requirement stating that formal arrangements

should be met by using Service Level Agreements (SLAs). This was a common standard that could be used to support SLA/SLA management.

Response

It is accepted that the Specification Requirements in paragraph 4.4.3 of the draft DAL Specification could be simplified.

Action

- *The Specification Requirements in paragraph 4.4.3 of the draft DAL Specification will be simplified as far as possible. In particular, Specification Requirements DAL-FA-020 to DAL-FA-070 will be reworded or deleted.*

2.2.3.6 Conformity Assessment

Comment

A Stakeholder felt that the draft DAL Specification should provide guidance on Article 11 of the ADQ IR, regarding conformity or suitability for use of constituents, and on Article 12, regarding verification of systems.

Two Stakeholders considered that any reference to ANSPs and the link to Commission Regulation (EC) No 2096/2005 in paragraph 5.3.3 of the draft DAL Specification should be deleted, because ANSPs were not addressed in Article 13 of the ADQ IR.

Response

The draft DAL Specification makes it clear that the current version provides coverage of the ADQ IR provisions with the exception of those relating to CA (Article 11), VS (Article 12), transitional provisions (Article 14) and entry into force and application (Article 15).This is stated in the last paragraph of the Executive Summary, and in paragraphs 1.3 (Note 2 and Note 3), 3.5, 5.1 and 5.2. Furthermore, Conformity Assessment Guidelines exist and it is considered that duplication must be avoided.

Paragraph 5.3 of the draft DAL Specification does not apply to ANSPs, although they are mentioned once simply to clarify that Commission Regulation (EC) No 2096/2005 applies to them.

Action

- *Reference to the Conformity Assessment Guidelines will be added.*
- *Paragraph 5.3 in the draft DAL Specification will be amended to further clarify that it does not apply to ANSPs.*

2.2.3.7 Identification of Applicability to States

Comment

One Stakeholder considered that Specification Requirements addressing the State should be clearly marked and should be easy to identify in the draft DAL Specification.

Response

It must be noted that although the draft DAL specification is applicable to all the ADQ IR regulated parties, which is discussed in paragraph 1.4.2 of the draft DAL Specification, it does not address the applicability of the various individual Specification Requirements to specific parties. The ADQ IR regulated parties need to make a judgement regarding the applicability of individual Specification Requirements to them, using the guidance in

paragraph 3.5 of the draft DAL Specification. This guidance is 'role-orientated' to best address the variety of roles/functions performed by different organisations.

Action

- *Some guidance will be added on how the draft DAL Specification applies to a regulated party; for example, if a party is an originator, it will identify the Specification Requirements that are applicable to them.*

2.2.3.8 Definitions

Comment

One Stakeholder argued that the definitions of 'Critical', 'Essential' and 'Routine' data were incorrect in Annex 3 of the draft DAL Specification. It was considered that, as currently written, the definitions meant the opposite of what was defined by ICAO.

Response

The definitions in Annex 3 of the draft DAL Specification have been misunderstood by the Stakeholder. The definitions set out are the ICAO definitions, and they are interpreted as the probability of error. For example, for 'Critical' data the target aimed for (i.e. the integrity level) is a very low probability of error, i.e.1 X 10^{-8}.

Action

N/A

ANNEXES

ANNEX A

Annex A contains a list of those Stakeholders that provided comments on the draft EUROCONTROL Specification for the Data Assurance Levels (DAL) formal consultation.

ANNEX B

Annex B provides a table containing all the comments provided by Stakeholders. The table cross-refers the comments with the associated sections of the SOR and shows the 'Disposal' of each comment, i.e. 'Accepted', 'Partially Accepted', 'Rejected' or 'Noted'.

ANNEX A LIST OF STAKEHOLDERS WHO PROVIDED COMMENTS TO THE FORMAL CONSULTATION

The Stakeholders who provided comments on the draft EUROCONTROL Specification Data Assurance Levels (DAL) are listed below.

Country	Organisation	Contact Name
Austria (AT)	Austro Control	Joachim BRUJA
Belgium (BE)	Belgian Civil Aviation Authority	Erika BILLEN
Belgium (BE)	Belgocontrol	Roger HENDRICKX
Belgium (BE)	CANSO	Karsten TILENDA
Belgium (BE)	FABEC (Belgocontrol)	Roger HENDRICKX
Belgium (BE)	European Committee for Standardization (CEN)	Anna VON GROOTE
Cyprus (CY)	Department of Civil Aviation	Andreas GEORGIOU
Czech Republic (CZ)	ANS CR	Lubomir STRAKA
Denmark (DK)	Naviair	Hans HOLST
France (FR)	DGAC/DTA	Cédric TEDESCO
France (FR)	DGAC/DSNA	Stéphane DUBET
France (FR)	DIRCAM (French Military Air Traffic Management Directorate)	Cdt Denis OLLIER
France (FR)	FABEC (DGAC/DSNA)	Stéphane DUBET
Germany (DE)	Federal Ministry of Transport, Building and Urban Affairs	Horst-Ulrich VOLKMAR
Germany (DE)	DFS Deutsche Flugsicherung GmbH	Ralf REISER
Germany (DE)	FABEC (DFS)	Ralf REISER
Germany (DE)	Avitech AG	Peter RUDOLPH
Ireland (IE)	Irish Aviation Authority Safety Regulation Division	David WINSHIP
Italy (IT)	Italian Air Force	LTC Fabio MANGIAPELO
Italy (IT)	General Office for Airspace and Meteorology (USAM) - Meteorological Department	Lt. Col Angelo ROMITO
Italy (IT)	ENAV S.p.A.	Giulio MELILLI
Luxembourg (LU)	FABEC (Administration de la Navigation Aérienne Luxembourg (ANA))	Roland REISER
Netherlands (NL)	ATC the Netherlands	W.A. RITSEMA
Netherlands (NL)	FABEC (LVNL - ATC the Netherlands)	W.A. RITSEMA

Country	Organisation	Contact Name
Netherlands (NL)	FABEC (MUAC)	Peter MATERN
Poland (PL)	Polish Air Navigation Services Agency	Rafal BRANDYS
Portugal (PT)	NAV Portugal, EPE	Goretti REIS
Romania (RO)	Romanian Civil Aviation Authority	Claudia VIRLAN
Slovakia (SK)	Civil Aviation Authority	Martin NEMECEK
Spain (ES)	Aena	Javier Aldanondo ARNAU
Sweden (SE)	Swedish Transport Agency	Morgan SUNDELL
Sweden (SE)	LFV	Jens JOHANSON
Switzerland (CH)	Federal Office of Civil Aviation (FOCA)	Daniel HÜGLI
Switzerland (CH)	skyguide	Thierry BRÉGOU
Switzerland (CH)	FABEC (skyguide)	Thierry BRÉGOU
United Kingdom (GB)	Civil Aviation Authority	Rick DAVIDSON
United Kingdom (GB)	Civil Aviation Authority	John Penny
United Kingdom (GB)	NATS	Robert WESTERBERG

ANNEX B TABLE OF RECEIVED COMMENTS

1. The following table details all the comments received as part of the draft EUROCONTROL Specification for Data Assurance Levels (DAL) formal consultation and cross-refers each comment to an appropriate response within the Summary of Responses document.

2. The table headings are as follows:

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**

a) The first column cross-refers to the relevant paragraph number in the version of the draft EUROCONTROL Specification for Data Assurance Levels (DAL) that was issued for formal consultation.

b) The 'Comment', 'Reason(s) for Comment' and 'Proposed Change/Text' columns copy exactly the textual comments as provided in the Consultation Response Sheets.

c) The **'Reference § No SOR' column cross-refers to the relevant section of the SOR**.

Note - If a comment does not require a detailed response because a proposed change to the text in the draft Specification has been accepted, reference is just made in this column to the general remarks in paragraph 2.2.1 in the main body of the document.

d) The 'Disposal' column provides information about the way the received comment was treated.

e) The 'Organisation' column identifies the source of the comment.

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
All	DSNA supports all comments sent out in the FABEC response. The following comments come in addition to those former ones.	All FABEC comments are to be considered also as DSNA comments.		2.2.1	**Noted**	**France, DGAC/DSNA**
ALL	This draft is derived from Regulation (CE) 73/2010 document. Nevertheless, some items are more stringent than in the reference text itself. The exchange format (AIXM 5.X) is too clearly mentioned as the only one able to meet requirements. Each state or FAB must be able to implement its own mean of response to ADQ.	The aim of this Eurocontrol document should be to provide a guidance material sufficiently close to the original requirements coming from framework regulation, avoiding being more restricting and over prescriptive.		2.2.2.2	**Accepted**	**France, DSAE/DIRCAM**
All	We have commented in detail items which are related to eTOD, obstacles and AMDB. However we did comment in details other items because we think that the approach of the whole document is not the right way for the enhancements of data quality requirements. Also the constancy to ICAO and military is not ensured.	For manufacturing companies like us this approach develops a lot of risk as we have inconstant requirements for product development as product development addresses always the customers in the whole world. The structure and wording of the document is to complicated to reach the intended goal.	There is no overall suggestion of new text as we do not accept the document.	2.2.2.4	**Noted**	**Germany, AVITECH AG**
All document	At the moment the “DAL” Program can not be implemented by Italian Air Force due to technical activity in progress (estimating to be completed by 2012) in order to be compliant with requirements requested.			2.2.1	**Noted**	**Italy, ITALIAN AIR FORCE**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
All	The requirements listed in this document can be considered as very far reaching MOCs and most of them can be considered as relevant objectives to aim at. However some of them cannot realistically be implemented by the concerned organisations within the required timeframe of the ADQ IR (1st July 2013 or 2014). For example: • Section 4.4.4.3.3: some requirements for the Measurement of Survey Points like a systematic use of a CRC to protect the survey output or the additional independent survey for some data items would involve significant cost increase if they are required within a short timeframe and could make it impossible for some States to perform the necessary surveys in the next few years. • Section 4.5.4.4: based on those requirements, a "formal" qualification process is required for "staff responsible for tasks in the provision of aeronautical data". To define such a process and to qualify all the concerned staff within 2 or 3 years seem difficult to achieve. In addition, it has to be noted that the definition of the "staff responsible for tasks in the provision of aeronautical data" is not clearly laid down. Does it refer only to the staff of the AISP or also to the staff of some others organisations playing any role in the aeronautical information data chain (aerodrome operator, procedure design service ...)?			2.2.2.5	**Partially Accepted**	**France, DGAC/DTA**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
	• Section 4.6.4.1.4: those requirements imply a complete retro-engineering of existing tools. This retro-engineering can be difficult to perform within 2 or 3 years. Would this requirement be enforced, some organisations would stop using some tools and go back to manual processes. A complete review of all those requirements shall consequently be performed, in close collaboration with the concerned organisations, in order to define: • The requirements that shall remain and can be implemented within the required timeframe. • The requirements that shall remain but cannot realistically be implemented with in the required timeframe. Intermediate steps shall then be defined that would propose intermediate MOC as a first stage of implementation of the ADQ-IR. In parallel, a work shall be launched to define the way to reach step by step a fully satisfactory requirement. • The requirements that go beyond the scope of the ADQ-IR and that shall be deleted for that reason.					
All document	The DAL requirement is associated with a specific data, therefore for different kind of data we should expect to have a variety of DALs from 1 to 3, as indicated in DQR Specification. There is no such a concept as a unique DAL for a complete set of data as there is for software: to assign a SWAL to a software functionality, the separate SWAL of all software elements of the	The similar to but not equal to SWAL approach could introduce some practical issues if not noticed.	Highlighted the differences between both SWAL and DAL approaches. Introduce some guidance (or develop further guidance material) on how to apply the DAL spec to a collection of data.	2.2.2.4 2.2.2.6 2.2.3.1	**Accepted**	**Spain, AENA**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
	function must be first calculated and then assign the most restringing SWAL to the function (assuming that software elements are not totally independent one from the other). The DAL specification objectives should be applied then on a 'data by data' basis, what makes them unworkable. Using the Harmonised List of the DQR Spec as an example, some data of the same nature (and grouped like that) have different assigned DAL, what makes some DAL objectives especially difficult to apply, for example: • DAL objectives for procedures (whose independency directive could be totally different depending on the DAL): the ANSP has to develop one single procedure which may need a different level of independency (as defined in 2.3.4) depending on the data in question; some parts of the procedure must be reviewed by an Independent Organisation and others don't? Is it necessary to have two or three different procedures depending on the Independency requirement? • DAL objectives for tools (whose SWAL requirements stated in 4.6.4.1.2 rely totally on TQLs which are assigned based on DAL): the ANSP needs a tool with a different SWAL depending on the data in question, when differences between SWAL2 or SWAL3 for instance are huge in many senses. If the intention is to force that the most stringent data is the master DAL for Tool					

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
	selection, this should be explicit in the document.					
General	We have read the DAL specifications but as these are very technical, we do not take position to specific points. We support the comments made by Skyguide and will only add a general comment. We think that the DAL Specs are extensive and go sometime too far in detail (regarding the content). Also we would like to see an amendment before they are coming into effect.	Skyguide has performed an in-depth analysis with technically competent personnel.		2.2.2.2	**Noted**	**Switzerland, FOCA**
General	The DAL specification is too stringent in various objectives.	Additional effort - which can be prevented - means additional costs. Furthermore it will encourage organisations not to use this specification at all.		2.2.2.2	**Noted**	**Austria, AUSTRO CONTROL**
General	The specification is fundamentally flawed.	The fundamental flaws are: • It is neither a MOC nor should it be proposed as a Community Specification • The IR on which it is based is flawed and since the DAL specification claims compliance with the IR then it must, ipso facto, also be flawed. A particular instance of the flawed nature of the IR is that it demands that each data processing unit performs safety risk assessment and mitigation. This is impossible since only the ATSP can perform such a process. This of course begs the question: what if there is no ATSP? The IR does not attempt to resolve this issue, it just masks the problem. • There appears to be a belief that if a component complies with a specification then any use of that component will be safe. This is	Wait until a mandate is received from the EC and then rewrite the specification to take account of the above.	2.2.2.1 2.2.2.4	**Rejected**	**United Kingdom, CAA**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
		demonstrable nonsense but underpins the whole of the IR and the DAL specification e.g. the manufacturer of a bolt cannot say whether the bolt will always be used safely. • This leads to another fundamental flaw, that of hazard criticality. The basis of DALs is hazard criticality. Unfortunately there is no such thing. There may be categories of accidents that appear less critical than others e.g. harming many people is usually seen as worse than harming a few people, but, because of the architecture of the system, these cannot be 'back applied' to the components of the system. The identification and classification of accidents merely results in safety requirements being placed on parts of the system (some of which may be components). • The DAL specification claims that DALs are related to the likelihood of an unwanted event. However the processes described by a DAL are related to the difficulty of showing the required level of integrity of the properties of the data and its delivery. This difficulty is not related to the use of the data but to how it is derived. Consequently the basis for the allocation of DALs is flawed. • There appears to be a belief that following a process ensures that the required properties of a component (in this case specifications of accuracy timeliness and format) are met. This is nonsensical but appears to				

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
		be the basis for the use of DALs.				
General	All references to safety should be removed	The specification contains approximately 130 references to safety. Most imply that the DALs can be used as a safety indicator. This is not the case. The use of DALs as a management tool may be appropriate in that it gives some guidance on the processes that may need to be followed in accruing the evidence needed to demonstrate that the data is of a specified level of integrity. However, integrity and safety are not the same thing and just because a specification is met, to some level of integrity does not imply that use of the component will be safe e.g. the manufacturer of a bolt cannot say whether the bolt will always be used safely.	Remove all references to safety bar one. That reference should be in the scope section (1.3) and it should point out that safety cannot be implied by the integrity of a data delivery system (component/data item) and also cannot be implied by the use of DALs	2.2.2.8	**Rejected**	**United Kingdom, CAA**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	The maturity of the document is arguable. It should be further matured before being subject to formal consultation.	The document mentions parts that are still to be developed, e.g. DAL-CA, DAL-VS and DAL-AR, see 3.5 page 20, parts related to data origination (see note in section 4.4.4.1) Also, there is an inconsistency in the label of parties to whom the various objectives apply. Depending on objectives, reference is made to AISPs, States, Member States (Member of ?), State AIS (difference with AISPs?), "the organization", parties… See for example DAL-DPE030, 040 and DAL-PRC010, DAL-ER-010 or DAL-ER020...It shows that the document has not been matured enough. Furthermore, many objectives are questioned in subsequent comments and show that this version has not been consolidated enough.	Further mature the document taking into account the received comments for a new formal consultation to be set.	2.2.2.3	**Partially Accepted**	**Belgium, BELGOCONTROL**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	The maturity of the document is arguable. It should be further matured before being subject to formal consultation.	The document mentions parts that are still to be developed, e.g. DAL-CA, DAL-VS and DAL-AR, see 3.5 page 20, parts related to data origination (see note in section 4.4.4.1) Also, there is an inconsistency in the label of parties to whom the various objectives apply. Depending on objectives, reference is made to AISPs, States, Member States (Member of ?), State AIS (difference with AISPs?), "the organization", parties… See for example DAL-DPE030, 040 and DAL-PRC010, DAL-ER-010 or DAL-ER020...It shows that the document has not been matured enough. Furthermore, many objectives are questioned in subsequent comments and show that this version has not been consolidated enough.	Further mature the document taking into account the received comments for a new formal consultation to be set.	2.2.2.3	**Partially Accepted**	**Belgium, CANSO**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	The maturity of the document is arguable. It should be further matured before being subject to formal consultation.	The document mentions parts that are still to be developed, e.g. DAL-CA, DAL-VS and DAL-AR, see 3.5 page 20, parts related to data origination (see note in section 4.4.4.1) Also, there is an inconsistency in the label of parties to whom the various objectives apply. Depending on objectives, reference is made to AISPs, States, Member States (Member of ?), State AIS (difference with AISPs?), "the organization", parties… See for example DAL-DPE030, 040 and DAL-PRC010, DAL-ER-010 or DAL-ER020...It shows that the document has not been matured enough. Furthermore, many objectives are questioned in subsequent comments and show that this version has not been consolidated enough.	Further mature the document taking into account the received comments for a new formal consultation to be set.	2.2.2.3	**Partially Accepted**	**Belgium, FABEC (BELGOCONTROL)**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	The maturity of the document is arguable. It should be further matured before being subject to formal consultation.	The document mentions parts that are still to be developed, e.g. DAL-CA, DAL-VS and DAL-AR, see 3.5 page 20, parts related to data origination (see note in section 4.4.4.1) Also, there is an inconsistency in the label of parties to whom the various objectives apply. Depending on objectives, reference is made to AISPs, States, Member States (Member of ?), State AIS (difference with AISPs?), "the organization", parties… See for example DAL-DPE030, 040 and DAL-PRC010, DAL-ER-010 or DAL-ER020...It shows that the document has not been matured enough. Furthermore, many objectives are questioned in subsequent comments and show that this version has not been consolidated enough.	Further mature the document taking into account the received comments for a new formal consultation to be set.	2.2.2.3	**Partially Accepted**	**France, FABEC (DGAC/DSNA)**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	The maturity of the document is arguable. It should be further matured before being subject to formal consultation.	The document mentions parts that are still to be developed, e.g. DAL-CA, DAL-VS and DAL-AR, see 3.5 page 20, parts related to data origination (see note in section 4.4.4.1) Also, there is an inconsistency in the label of parties to whom the various objectives apply. Depending on objectives, reference is made to AISPs, States, Member States (Member of ?), State AIS (difference with AISPs?), "the organization", parties… See for example DAL-DPE030, 040 and DAL-PRC010, DAL-ER-010 or DAL-ER020...It shows that the document has not been matured enough. Furthermore, many objectives are questioned in subsequent comments and show that this version has not been consolidated enough.	Further mature the document taking into account the received comments for a new formal consultation to be set.	2.2.2.3	**Partially Accepted**	**Germany, DFS**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
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General	The maturity of the document is arguable. It should be further matured before being subject to formal consultation.	The document mentions parts that are still to be developed, e.g. DAL-CA, DAL-VS and DAL-AR, see 3.5 page 20, parts related to data origination (see note in section 4.4.4.1) Also, there is an inconsistency in the label of parties to whom the various objectives apply. Depending on objectives, reference is made to AISPs, States, Member States (Member of ?), State AIS (difference with AISPs?), "the organization", parties… See for example DAL-DPE030, 040 and DAL-PRC010, DAL-ER-010 or DAL-ER020...It shows that the document has not been matured enough. Furthermore, many objectives are questioned in subsequent comments and show that this version has not been consolidated enough.	Further mature the document taking into account the received comments for a new formal consultation to be set.	2.2.2.3	**Partially Accepted**	**Germany, FABEC (DFS)**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	The maturity of the document is arguable. It should be further matured before being subject to formal consultation.	The document mentions parts that are still to be developed, e.g. DAL-CA, DAL-VS and DAL-AR, see 3.5 page 20, parts related to data origination (see note in section 4.4.4.1) Also, there is an inconsistency in the label of parties to whom the various objectives apply. Depending on objectives, reference is made to AISPs, States, Member States (Member of ?), State AIS (difference with AISPs?), "the organization", parties… See for example DAL-DPE030, 040 and DAL-PRC010, DAL-ER-010 or DAL-ER020...It shows that the document has not been matured enough. Furthermore, many objectives are questioned in subsequent comments and show that this version has not been consolidated enough.	Further mature the document taking into account the received comments for a new formal consultation to be set.	2.2.2.3	**Partially Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	The maturity of the document is arguable. It should be further matured before being subject to formal consultation.	The document mentions parts that are still to be developed, e.g. DAL-CA, DAL-VS and DAL-AR, see 3.5 page 20, parts related to data origination (see note in section 4.4.4.1) Also, there is an inconsistency in the label of parties to whom the various objectives apply. Depending on objectives, reference is made to AISPs, States, Member States (Member of ?), State AIS (difference with AISPs?), "the organization", parties… See for example DAL-DPE030, 040 and DAL-PRC010, DAL-ER-010 or DAL-ER020...It shows that the document has not been matured enough. Furthermore, many objectives are questioned in subsequent comments and show that this version has not been consolidated enough.	Further mature the document taking into account the received comments for a new formal consultation to be set.	2.2.2.3	**Partially Accepted**	**Luxembourg, FABEC (ANA)**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	The maturity of the document is arguable. It should be further matured before being subject to formal consultation.	The document mentions parts that are still to be developed, e.g. DAL-CA, DAL-VS and DAL-AR, see 3.5 page 20, parts related to data origination (see note in section 4.4.4.1) Also, there is an inconsistency in the label of parties to whom the various objectives apply. Depending on objectives, reference is made to AISPs, States, Member States (Member of ?), State AIS (difference with AISPs?), "the organization", parties… See for example DAL-DPE030, 040 and DAL-PRC010, DAL-ER-010 or DAL-ER020...It shows that the document has not been matured enough. Furthermore, many objectives are questioned in subsequent comments and show that this version has not been consolidated enough.	Further mature the document taking into account the received comments for a new formal consultation to be set.	2.2.2.3	**Partially Accepted**	**Netherlands, FABEC (LVNL)**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	The maturity of the document is arguable. It should be further matured before being subject to formal consultation.	The document mentions parts that are still to be developed, e.g. DAL-CA, DAL-VS and DAL-AR, see 3.5 page 20, parts related to data origination (see note in section 4.4.4.1) Also, there is an inconsistency in the label of parties to whom the various objectives apply. Depending on objectives, reference is made to AISPs, States, Member States (Member of ?), State AIS (difference with AISPs?), "the organization", parties… See for example DAL-DPE030, 040 and DAL-PRC010, DAL-ER-010 or DAL-ER020...It shows that the document has not been matured enough. Furthermore, many objectives are questioned in subsequent comments and show that this version has not been consolidated enough.	Further mature the document taking into account the received comments for a new formal consultation to be set.	2.2.2.3	**Partially Accepted**	**Netherlands, FABEC (MUAC)**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	The maturity of the document is arguable. It should be further matured before being subject to formal consultation.	The document mentions parts that are still to be developed, e.g. DAL-CA, DAL-VS and DAL-AR, see 3.5 page 20, parts related to data origination (see note in section 4.4.4.1) Also, there is an inconsistency in the label of parties to whom the various objectives apply. Depending on objectives, reference is made to AISPs, States, Member States (Member of ?), State AIS (difference with AISPs?), "the organization", parties… See for example DAL-DPE030, 040 and DAL-PRC010, DAL-ER-010 or DAL-ER020...It shows that the document has not been matured enough. Furthermore, many objectives are questioned in subsequent comments and show that this version has not been consolidated enough.	Further mature the document taking into account the received comments for a new formal consultation to be set.	2.2.2.3	**Partially Accepted**	**Switzerland, FABEC (SKYGUIDE)**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	The maturity of the document is arguable. It should be further developed before being subject to formal consultation.	The document mentions parts that are still to be developed, e.g. DAL-CA, DAL-VS and DAL-AR, see 3.5 page 20, parts related to data origination (see note in section 4.4.4.1) Also, there is an inconsistency in the label of parties to whom the various objectives apply. Depending on objectives, reference is made to AISPs, States, Member States (Member of ?), State AIS (difference with AISPs?), "the organization", parties… See for example DAL-DPE030, 040 and DAL-PRC010, DAL-ER-010 or DAL-ER020...It shows that the document has not been matured enough. Furthermore, many objectives are questioned in subsequent comments and show that this version has not been consolidated enough.	Further mature the document taking into account the received comments prior to undertaking a new formal consultation process.	2.2.2.3	**Partially Accepted**	**United Kingdom, NATS**
Page 1 / General	The document is more or less at the stage of a draft. It should be further developed before being subject to formal consultation.	The document mentions parts that are still to be developed, e.g. DAL-CA, DAL-VS and DAL-AR, see 3.5 page 20, parts related to data origination		2.2.2.3	**Accepted**	**Italy, ENAV**
General	The specification should focus on MoCs, which exactly map the requirements specified in the ADQ IR. It is debatable if this is true for this Specification.	The MoCs go far beyond the requirements specified in the ADQ IR.	The specification shall be adjusted to ADQ IR and revised completely.	2.2.2.2	**Partially Accepted**	**Belgium, BELGOCONTROL**
General	The specification should focus on MoCs, which exactly map the requirements specified in the ADQ IR. It is debatable if this is true for this Specification.	The MoCs go far beyond the requirements specified in the ADQ IR.	The specification shall be adjusted to ADQ IR and revised completely.	2.2.2.2	**Partially Accepted**	**Belgium, CANSO**
General	The specification should focus on MoCs, which exactly map the requirements specified in the ADQ IR. It is debatable if this is true for this Specification.	The MoCs go far beyond the requirements specified in the ADQ IR.	The specification shall be adjusted to ADQ IR and revised completely.	2.2.2.2	**Partially Accepted**	**Belgium, FABEC (BELGOCONTROL)**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	The specification should focus on MoCs, which exactly map the requirements specified in the ADQ IR. It is debatable if this is true for this Specification.	The MoCs go far beyond the requirements specified in the ADQ IR.	The specification shall be adjusted to ADQ IR and revised completely.	2.2.2.2	**Partially Accepted**	**France, FABEC (DGAC/DSNA)**
General	The specification should focus on MoCs, which exactly map the requirements specified in the ADQ IR. It is debatable if this is true for this Specification.	The MoCs go far beyond the requirements specified in the ADQ IR.	The specification shall be adjusted to ADQ IR and revised completely.	2.2.2.2	**Partially Accepted**	**Germany, DFS**
General	The specification should focus on MoCs, which exactly map the requirements specified in the ADQ IR. It is debatable if this is true for this Specification.	The MoCs go far beyond the requirements specified in the ADQ IR.	The specification shall be adjusted to ADQ IR and revised completely.	2.2.2.2	**Partially Accepted**	**Germany, FABEC (DFS)**
General	The specification should focus on MoCs, which exactly map the requirements specified in the ADQ IR. It is debatable if this is true for this Specification.	The MoCs go far beyond the requirements specified in the ADQ IR.	The specification shall be adjusted to ADQ IR and revised completely. The new specification shall be consulted in a new ENPRM	2.2.2.2	**Partially Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**
General	The specification should focus on MoCs, which exactly map the requirements specified in the ADQ IR. It is debatable if this is true for this Specification.	The MoCs go far beyond the requirements specified in the ADQ IR.	The specification shall be adjusted to ADQ IR and revised completely.	2.2.2.2	**Partially Accepted**	**Luxembourg, FABEC (ANA)**
General	The specification should focus on MoCs, which exactly map the requirements specified in the ADQ IR. It is debatable if this is true for this Specification.	The MoCs go far beyond the requirements specified in the ADQ IR.	The specification shall be adjusted to ADQ IR and revised completely.	2.2.2.2	**Partially Accepted**	**Netherlands, FABEC (LVNL)**
General	The specification should focus on MoCs, which exactly map the requirements specified in the ADQ IR. It is debatable if this is true for this Specification.	The MoCs go far beyond the requirements specified in the ADQ IR.	The specification shall be adjusted to ADQ IR and revised completely.	2.2.2.2	**Partially Accepted**	**Netherlands, FABEC (MUAC)**
General	The specification should focus on MoCs, which exactly map the requirements specified in the ADQ IR. It is debatable if this is true for this Specification.	The MoCs go far beyond the requirements specified in the ADQ IR.	The specification shall be adjusted to ADQ IR and revised completely.	2.2.2.2	**Partially Accepted**	**Switzerland, FABEC (SKYGUIDE)**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General comment	The specification should focus on MoCs, which exactly map the requirements specified in the ADQ IR. It is debatable if this is true for this Specification.	The MoCs go far beyond the requirements specified in the ADQ IR.	The specification shall be adjusted to ADQ IR and revised completely.	2.2.2.2	**Partially Accepted**	**United Kingdom, NATS**
General comment	It is noted that this document purports to be a means of compliance to the ADQ Implementing Rule.	This document includes requirements which exceed those within the ADQ Implementing Rule.		2.2.2.2	**Partially Accepted**	**United Kingdom, NATS**
General	Despite the requirements of ADQ IR Article 10.2, the SMS provisions included in regulation (EC) No. 2096/2005 Annex II do not apply to AIS entities.	See the results of the Eurocontrol Safety Framework for AIM Focus Group. EC Reg. 2096/2005 Annex II is designed for ATM/ATS and CNS and not for AIS/AIM.	Delete any safety management provisions reference to (EC) No. 2096/2005 in the document. Delete any reference to Eurocontrol Safety Assessment Methodology (SAM)	2.2.2.8	**Partially Accepted**	**Belgium, BELGOCONTROL**
General	Despite the requirements of ADQ IR Article 10.2, the SMS provisions included in regulation (EC) No. 2096/2005 do not apply to AIS entities.	See the results of the Eurocontrol Safety Framework for AIM Focus Group. 2096/2005 is designed for ATM/ATS.	Delete any safety management provisions reference to (EC) No. 2096/2005 in the document. Delete any reference to Eurocontrol Safety Assessment Methodology (SAM).	2.2.2.8	**Partially Accepted**	**Belgium, CANSO**
General	Despite the requirements of ADQ IR Article 10.2, the SMS provisions included in regulation (EC) No. 2096/2005 Annex II do not apply to AIS entities.	See the results of the Eurocontrol Safety Framework for AIM Focus Group. EC Reg. 2096/2005 Annex II is designed for ATM/ATS and CNS and not for AIS/AIM.	Delete any safety management provisions reference to (EC) No. 2096/2005 in the document. Delete any reference to Eurocontrol Safety Assessment Methodology (SAM).	2.2.2.8	**Partially Accepted**	**Belgium, FABEC (BELGOCONTROL)**
General	Despite the requirements of ADQ IR Article 10.2, the SMS provisions included in regulation (EC) No. 2096/2005 Annex II do not apply to AIS entities.	See the results of the Eurocontrol Safety Framework for AIM Focus Group. EC Reg. 2096/2005 Annex II is designed for ATM/ATS and CNS and not for AIS/AIM.	Delete any safety management provisions reference to (EC) No. 2096/2005 in the document. Delete any reference to Eurocontrol Safety Assessment Methodology (SAM)	2.2.2.8	**Partially Accepted**	**France, FABEC (DGAC/DSNA)**
General	Despite the requirements of ADQ IR Article 10.2, the SMS provisions included in regulation (EC) No. 2096/2005 Annex II do not apply to AIS entities.	See the results of the Eurocontrol Safety Framework for AIM Focus Group. EC Reg. 2096/2005 Annex II is designed for ATM/ATS and CNS and not for AIS/AIM.	Delete any safety management provisions reference to (EC) No. 2096/2005 in the document. Delete any reference to Eurocontrol Safety Assessment Methodology (SAM)	2.2.2.8	**Partially Accepted**	**Germany, DFS**

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General	Despite the requirements of ADQ IR Article 10.2, the SMS provisions included in regulation (EC) No. 2096/2005 Annex II do not apply to AIS entities.	See the results of the Eurocontrol Safety Framework for AIM Focus Group. EC Reg. 2096/2005 Annex II is designed for ATM/ATS and CNS and not for AIS/AIM.	Delete any safety management provisions reference to (EC) No. 2096/2005 in the document. Delete any reference to Eurocontrol Safety Assessment Methodology (SAM).	2.2.2.8	**Partially Accepted**	**Germany, FABEC (DFS)**
General	Despite the requirements of ADQ IR Article 10.2, the SMS provisions included in regulation (EC) No. 2096/2005 Annex II do not apply to AIS entities.	See the results of the Eurocontrol Safety Framework for AIM Focus Group. (EC) No 2096/2005 is designed for ATM/ATS.	Delete any reference to (EC) No. 2096/2005 in the document. Delete any reference to ESSAR4. Delete any reference to Eurocontrol Safety Assessment Methodology (SAM)	2.2.2.8	**Partially Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**
General	Despite the requirements of ADQ IR Article 10.2, the SMS provisions included in regulation (EC) No. 2096/2005 Annex II do not apply to AIS entities.	See the results of the Eurocontrol Safety Framework for AIM Focus Group. EC Reg. 2096/2005 Annex II is designed for ATM/ATS and CNS and not for AIS/AIM.	Delete any safety management provisions reference to (EC) No. 2096/2005 in the document. Delete any reference to Eurocontrol Safety Assessment Methodology (SAM)	2.2.2.8	**Partially Accepted**	**Luxembourg, FABEC (ANA)**
General	Despite the requirements of ADQ IR Article 10.2, the SMS provisions included in regulation (EC) No. 2096/2005 Annex II do not apply to AIS entities.	See the results of the Eurocontrol Safety Framework for AIM Focus Group. EC Reg. 2096/2005 Annex II is designed for ATM/ATS and CNS and not for AIS/AIM.	Delete any safety management provisions reference to (EC) No. 2096/2005 in the document. Delete any reference to Eurocontrol Safety Assessment Methodology (SAM)	2.2.2.8	**Partially Accepted**	**Netherlands, FABEC (LVNL)**
General	Despite the requirements of ADQ IR Article 10.2, the SMS provisions included in regulation (EC) No. 2096/2005 Annex II do not apply to AIS entities.	See the results of the Eurocontrol Safety Framework for AIM Focus Group. EC Reg. 2096/2005 Annex II is designed for ATM/ATS and CNS and not for AIS/AIM.	Delete any safety management provisions reference to (EC) No. 2096/2005 in the document. Delete any reference to Eurocontrol Safety Assessment Methodology (SAM)	2.2.2.8	**Partially Accepted**	**Netherlands, FABEC (MUAC)**
General	Despite the requirements of ADQ IR Article 10.2, the SMS provisions included in regulation (EC) No. 2096/2005 Annex II do not apply to AIS entities.	See the results of the Eurocontrol Safety Framework for AIM Focus Group. EC Reg. 2096/2005 Annex II is designed for ATM/ATS and CNS and not for AIS/AIM.	Delete any safety management provisions reference to (EC) No. 2096/2005 in the document. Delete any reference to Eurocontrol Safety Assessment Methodology (SAM).	2.2.2.8	**Partially Accepted**	**Switzerland, FABEC (SKYGUIDE)**
General comment	Despite the requirements of ADQ IR Article 10.2, the SMS provisions included in regulation (EC) No. 2096/2005 do not apply to AIS entities.	See the results of the Eurocontrol Safety Framework for AIM Focus Group. 2096/2005 is designed for ATM/ATS.	Delete any safety management provisions reference to (EC) No. 2096/2005 in the document. Delete any reference to Eurocontrol Safety Assessment Methodology (SAM).	2.2.2.8	**Partially Accepted**	**United Kingdom, NATS**

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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General and 4.8.2 Safety Management	Regulation (EC) No. 2096/2005 Annex II is meant for ATS and does not apply to AIS entities.	AIS/AIM is covered by Annex IV of Regulation (EC) No. 2096/2005. On the contrary Annex II is intended for ATS.	Delete any reference to (EC) No. 2096/2005 Annex II in the document. Delete any reference to ESARR 4. Delete any reference to the EUROCONTROL Safety Assessment Methodology (SAM) which is a MoC for ESARR 4 and therefore not applicable to AIS / AIM.	2.2.2.8	**Partially Accepted**	**Switzerland, SKYGUIDE**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	Requirements concerning COTS constituents are covered by the SWAL Community Specification (pr EN 16154) produced and currently under public enquiry by CEN/TC 377 Air Traffic Management based on Mandate M/390 of the European Commission. All requirements concerning COTS constituents are obsolete.	For reasons see chapter 2 "Scope" of the respective draft CS. *The present document is for the production of assurance evidence for software used in ground-based systems and their constituents. This Community Specification on Software Assurance Levels (SWAL) is intended to apply to software that is part of the EATMN, focusing only on it's "ground" segment and providing a reference against which stakeholders can assess their own practices for software specification, design, development, operation, maintenance, evolution and decommissioning.* *This Community Specification defines the Technical, Operational and Maintenance requirements for Software Assurance Levels to demonstrate compliance with the applicable (see Annex A) Essential Requirements of the Regulation (EC) N° 552/2004 of the European Parliament and of the Council on the interoperability of the European Air Traffic network ("the Interoperability regulation").*	Delete all requirements concerning COTS constituents. The new specification shall be consulted in a new ENPRM.	2.2.2.7	**Partially Accepted**	**Belgium, BELGOCONTROL**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	Requirements concerning COTS constituents are covered by the SWAL Community Specification (pr EN 16154) produced and currently under public enquiry by CEN/TC 377 Air Traffic Management based on Mandate M/390 of the European Commission. All requirements concerning COTS constituents are obsolete.	For reasons see chapter 2 "Scope" of the respective draft CS. *The present document is for the production of assurance evidence for software used in ground-based systems and their constituents. This Community Specification on Software Assurance Levels (SWAL) is intended to apply to software that is part of the EATMN, focusing only on it's "ground" segment and providing a reference against which stakeholders can assess their own practices for software specification, design, development, operation, maintenance, evolution and decommissioning.* *This Community Specification defines the Technical, Operational and Maintenance requirements for Software Assurance Levels to demonstrate compliance with the applicable (see Annex A) Essential Requirements of the Regulation (EC) N° 552/2004 of the European Parliament and of the Council on the interoperability of the European Air Traffic network ("the Interoperability regulation").*	Delete all requirements concerning COTS constituents. The new specification shall be consulted in a new ENPRM.	2.2.2.7	**Partially Accepted**	**Belgium, CANSO**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General	Requirements concerning COTS constituents are covered by the draft SWAL Community Specification (pr EN 16154) produced and currently under public enquiry by CEN/TC 377 Air Traffic Management under Mandate M/390 of the European Commission. Therefore, all requirements concerning COTS constituents in the proposed Eurocontrol specification are considered obsolete; any duplications of requirements must be avoided.	For reasons see chapter 2 "Scope" of the respective draft CS (prEN 16154): *The present document is for the production of assurance evidence for software used in ground-based systems and their constituents. This Community Specification on Software Assurance Levels (SWAL) is intended to apply to software that is part of the EATMN, focusing only on it's "ground" segment and providing a reference against which stakeholders can assess their own practices for software specification, design, development, operation, maintenance, evolution and decommissioning.* *This Community Specification defines the Technical, Operational and Maintenance requirements for Software Assurance Levels to demonstrate compliance with the applicable (see Annex A) Essential Requirements of the Regulation (EC) N° 552/2004 of the European Parliament and of the Council on the interoperability of the European Air Traffic network ("the Interoperability regulation').*	Delete all requirements concerning COTS constituents.	2.2.2.7	**Partially Accepted**	**Belgium, CEN**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
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General	Requirements concerning COTS constituents are covered by the SWAL Community Specification (pr EN 16154) produced and currently under public enquiry by CEN/TC 377 Air Traffic Management based on Mandate M/390 of the European Commission. All requirements concerning COTS constituents are obsolete.	For reasons see chapter 2 "Scope" of the respective draft CS. *The present document is for the production of assurance evidence for software used in ground-based systems and their constituents. This Community Specification on Software Assurance Levels (SWAL) is intended to apply to software that is part of the EATMN, focusing only on it's "ground" segment and providing a reference against which stakeholders can assess their own practices for software specification, design, development, operation, maintenance, evolution and decommissioning.* *This Community Specification defines the Technical, Operational and Maintenance requirements for Software Assurance Levels to demonstrate compliance with the applicable (see Annex A) Essential Requirements of the Regulation (EC) N° 552/2004 of the European Parliament and of the Council on the interoperability of the European Air Traffic network ("the Interoperability regulation").*	Delete all requirements concerning COTS constituents. The new specification shall be consulted in a new ENPRM.	2.2.2.7	**Partially Accepted**	**Belgium, FABEC (BELGOCONTROL)**

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General	The DAL Specifications go too far and duplicate work that needs to be done to fulfil other requirements.	DAL-EV-070 and others are typically done in a Quality Management System, which is mandatory in the ADQ IR.	All requirements that are subject to being implemented by a Quality Management System shall be removed.	2.2.2.9	**Rejected**	**Switzerland, SKYGUIDE**
General	The DAL Specifications go too far and duplicate work that needs to be done to fulfil other requirements.	DAL-EV-070 and others are typically done in a Quality Management System, which is mandatory in the ADQ IR.	All requirements that are subject to being implemented by a Quality Management System shall be removed.	2.2.2.9	**Rejected**	**Sweden, SWEDISH TRANSPORT AGENCY**

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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Entire document	As an example: The objective reference in the DAL stating level of DAL should be expanded with a notification whether or not this object would be covered by a ISO 9001 certificate.	The DAL is a very ambitious document. The structure of it offers a various amount of actions needed to be taken. However there will be national discussions and separate decisions regarding what will be covered by an existing quality system. The ANS community would benefit from a mutual judgement of the ISO 9001-status regarding this data.	Add a marker for each Object Reference clarifying the compliance with the ISO 9001-standard	2.2.2.9	**Partially Accepted**	**Sweden, LFV**
General	All requirements concerning activities that are already covered by a Quality Management System shall be removed.	According to ADQ IR a QMS is mandatory for participants in the data chain. See CHAPTER III QUALITY, SAFETY AND SECURITY MANAGEMENT REQUIREMENTS, Article 10 (1) Management requirements 1. Without prejudice to Regulation (EC) No 2096/2005, the parties referred to in Article 2(2) shall implement and maintain a quality management system covering their aeronautical data and aeronautical information provision activities, in accordance with the requirements laid down in Annex VII, Part A (listing of Quality Management System requirements).	Remove all requirements concerning activities that are already covered by a Quality Management System. The new specification shall be consulted in a new ENPRM.	2.2.2.9	**Partially Accepted**	**Belgium, BELGOCONTROL**

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General	All requirements concerning activities that are already covered by a Quality Management System shall be removed.	According to ADQ IR a QMS is mandatory for participants in the data chain. See CHAPTER III QUALITY, SAFETY AND SECURITY MANAGEMENT REQUIREMENTS, Article 10 (1) Management requirements 1. Without prejudice to Regulation (EC) No 2096/2005, the parties referred to in Article 2(2) shall implement and maintain a quality management system covering their aeronautical data and aeronautical information provision activities, in accordance with the requirements laid down in Annex VII, Part A (listing of Quality Management System requirements).	Remove all requirements concerning activities that are already covered by a Quality Management System. The new specification shall be consulted in a new ENPRM.	2.2.2.9	**Partially Accepted**	**Belgium, FABEC (BELGOCONTROL)**

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General	All requirements concerning activities that are already covered by a Quality Management System shall be removed. See also Comment Sheets , 11, 14, 18, 22	According to ADQ IR a QMS is mandatory for participants in the data chain. See CHAPTER III QUALITY, SAFETY AND SECURITY MANAGEMENT REQUIREMENTS, Article 10 (1) Management requirements 1. Without prejudice to Regulation (EC) No 2096/2005, the parties referred to in Article 2(2) shall implement and maintain a quality management system covering their aeronautical data and aeronautical information provision activities, in accordance with the requirements laid down in Annex VII, Part A (listing of Quality Management System requirements).	Remove all requirements concerning activities that are already covered by a Quality Management System. The new specification shall be consulted in a new ENPRM.	2.2.2.9	**Partially Accepted**	**Germany, DFS**

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General	All requirements concerning activities that are already covered by a Quality Management System shall be removed. See also Comment Sheets 11, 14, 18, 22	According to ADQ IR a QMS is mandatory for participants in the data chain. See CHAPTER III QUALITY, SAFETY AND SECURITY MANAGEMENT REQUIREMENTS, Article 10 (1) Management requirements 1. Without prejudice to Regulation (EC) No 2096/2005, the parties referred to in Article 2(2) shall implement and maintain a quality management system covering their aeronautical data and aeronautical information provision activities, in accordance with the requirements laid down in Annex VII, Part A (listing of Quality Management System requirements).	Remove all requirements concerning activities that are already covered by a Quality Management System. The new specification shall be consulted in a new ENPRM.	2.2.2.9	**Partially Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**
Page 1 / General	All requirements concerning activities that are already covered by a Quality Management System shall be removed.	According to ADQ IR a QMS is mandatory for participants in the data chain.		2.2.2.9	**Partially Accepted**	**Italy, ENAV**

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General	All requirements concerning activities that are already covered by a Quality Management System shall be removed.	According to ADQ IR a QMS is mandatory for participants in the data chain. See CHAPTER III QUALITY, SAFETY AND SECURITY MANAGEMENT REQUIREMENTS, Article 10 (1) Management requirements 1. Without prejudice to Regulation (EC) No 2096/2005, the parties referred to in Article 2(2) shall implement and maintain a quality management system covering their aeronautical data and aeronautical information provision activities, in accordance with the requirements laid down in Annex VII, Part A (listing of Quality Management System requirements).	Remove all requirements concerning activities that are already covered by a Quality Management System. The new specification shall be consulted in a new ENPRM.	2.2.2.9	**Partially Accepted**	**Netherlands, FABEC (LVNL)**

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General	All requirements concerning activities that are already covered by a Quality Management System shall be removed.	According to ADQ IR a QMS is mandatory for participants in the data chain. See CHAPTER III QUALITY, SAFETY AND SECURITY MANAGEMENT REQUIREMENTS, Article 10 (1) Management requirements 1. Without prejudice to Regulation (EC) No 2096/2005, the parties referred to in Article 2(2) shall implement and maintain a quality management system covering their aeronautical data and aeronautical information provision activities, in accordance with the requirements laid down in Annex VII, Part A (listing of Quality Management System requirements).	Remove all requirements concerning activities that are already covered by a Quality Management System. The new specification shall be consulted in a new ENPRM.	2.2.2.9	**Partially Accepted**	**Switzerland, FABEC (SKYGUIDE)**

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General	ISO 9001 references in general: An ISO 9001 certificate, issued by an appropriate accredited organisation, is considered as a sufficient MoC (REF ADQ IR, ICAO, EC 2096).	The requirements DAL-QM are covered by the QMS and cause double work and multiple tracking of different evidence documents.	All requirements regarding an implemented Quality Management System, ISO 9001 certified by an accredited organisation, shall be removed.	2.2.2.9	**Rejected**	**Switzerland, SKYGUIDE**
General	The requirements which address the state should be clearly marked and should be easily to identify.	The stakeholder responsible for a requirement shall be listed.	Insert a column with the respective information.	2.2.3.7	**Rejected**	**Germany, DFS**
General	The requirements which address the state should be clearly marked and should be easily to identify.	The stakeholder responsible for a requirement shall be listed.	Insert a column with the respective information.	2.2.3.7	**Rejected**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**

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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General The comments in this document complement the response sheet provided by: LVNL -ATC the Netherlands, acting as FABEC ANSP.	The AIS unit of ATC the Netherlands supports the **concept** of Data Assurance Levels as a means to achieve compliancy to the data quality requirements that are defined for the ADQ IR. In this case, it is not so much a question of the DALs being 'acceptable' but for being 'practicable'. We are not convinced that the DALs specified in this document are the way to go forward. Implementation of the DALs as described in the DAL specification may prove to be near impossible. Especially the requirements regarding the independence levels are very difficult to implement. Many organizations are at this moment not structured to meet the independence levels.	The DAL specification in its current form aims to describe the DALs for the entire data chain (from surveyor to FMS). That may be too ambitious. It will take a lot of time and effort to persuade all parties involved in the chain to adhere to the DAL specifications as specified in this document. Especially for parties that are not limited to the aviation industry/industry, for example surveyors and software vendors. ICAO, and to a lesser degree EUROCONTROL, are regulatory bodies that can define specifications for the aviation environment/industry. Outside that environment, their influence is limited. For example surveyors and software vendors have their own set of quality, assurance and evidence levels (ISO, NEN, Capability Maturity Models (CMM), etc.) that may already match the DALs defined by EUROCONTROL. To make the aforementioned parties adhere to the DALs as defined in this document may be regarded as superfluous and not necessary. If they have matching quality requirements, there is no need to impose an additional set of requirements. The DAL specification can be amended to conform to, or accept, these standards.	The DAL specification document is very complicated. Additional guidance material is an absolute requirement for a successful implementation of the ADQ IR according to the DAL specification.	2.2.2.4	**Partially Accepted**	**Netherlands, LVNL**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
General comment	While we consider the DAL specification an important step forward on achieving the required data integrity requirements, it is also true that it is itself vague and a complex specification to implement, in some cases, more than a specification looks like additional regulatory material, which is unacceptable.		Mandate AI Team to further refine the specification and make it more practical, so that it is itself contained and not further guidance material is needed.	2.2.2.3	**Rejected**	**Spain, AENA**
General comment	Some requirements for aeronautical data management (like DAL-DP-090) are too stringent even at AISP level. If this specification is applied at data user levels, becomes something completely impractical and impossible to achieve. Imposing thigh measured on Data Originators and AISP that would not have any continuity on the rest of the data chain.		Mandate AITeam to further refine the specification and make it more practical, so it would later on naturally lead for implementation on data users also.	2.2.2.3	**Rejected**	**Spain, AENA**
General Page ii, Abstract Page ix, Executive Summary	Abstract: *The document defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the ADQ Implementing Rule provisions.* *Executive Summary:* ***The Data Assurance Levels Specification is proposed as a Means of Compliance with Article 6(2) of the ADQ Implementing Rule (IR)**. It supports the IR in respect of meeting data quality requirements for the processing of aeronautical data from origination through to the publication by the Aeronautical Information Service Provider (AISP) to the next intended user. The DAL Specification defines objectives to be demonstrated as a means of compliance with the*	552/2004 Interoperability Regulation, Article 4 (1) b *Community specifications* *1. In pursuit of the objective of this Regulation, Community specifications may be established. Such specifications may be:* *(a) European standards for systems or constituents, together with the relevant procedures, drawn up by the European standardisation bodies in cooperation with Eurocae, on a mandate from the Commission in accordance with article 6(4) of Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations (1) and pursuant to*	Avoid to raise the impression that this Eurocontrol Specification can be a MoC without a proper consultation of the document through an ESO with all parties involved.	2.2.2.1	**Partially Accepted**	**Belgium, BELGOCONTROL**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
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	data integrity requirements of the IR provisions. Eurocontrol is not the right body to write a Community Specification for a topic where the complete data chain is covered. Article 2 (2) lists the parties where the regulation shall apply. These are besides ANSPs, operators of IFR aerodromes and heliports, public or private entities for origination and provision of survey data, procedure design services, electronic terrain data and electronic obstacle data.	*the general guidelines on cooperation between the Commission and the standardisation bodies signed on 13 November 1984;* *or* *(b) specifications drawn up by Eurocontrol on **matters of operational coordination between air navigation service providers**, in response to a request from the Commission in accordance with the procedure referred to in Article 5(2) of the framework Regulation.* A Community Specification on this topic has to be produced by an ESO. Only this procedure guarantees the involvement of all considered parties. In addition the duplication of work for commenting on specifications for ANSPs is avoided. Eurocontrol was (formally) tasked by the EC to draft 5 Eurocontrol specifications (not CS yet), including the DAL and "data origination" specs, covering the whole data chain.				
General Page ii, Abstract Page ix, Executive Summary	Abstract: *The document defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the ADQ Implementing Rule provisions.* *Executive Summary:* ***The Data Assurance Levels Specification is proposed as a Means of Compliance with Article 6(2) of the ADQ Implementing Rule (IR)**. It supports the IR in respect of meeting data quality requirements for the processing of aeronautical*	552/2004 Interoperability Regulation, Article 4 (1) b *Community specifications* *1. In pursuit of the objective of this Regulation, Community specifications may be established. Such specifications may be:* *(a) European standards for systems or constituents, together with the relevant procedures, drawn up by the European standardisation bodies in cooperation with Eurocae, on a mandate from the Commission in accordance with article 6(4) of*	Avoid to raise the impression that this Eurocontrol Specification can be a MoC without a proper consultation of the document through an ESO with all parties involved.	2.2.2.1	**Partially Accepted**	**Belgium, CANSO**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
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	data from origination through to the publication by the Aeronautical Information Service Provider (AISP) to the next intended user. The DAL Specification defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the IR provisions. *Eurocontrol is not the right body to write a Community Specification for a topic where the complete data chain is covered.* *Article 2 (2) lists the parties where the regulation shall apply. These are besides ANSPs, operators of IFR aerodromes and heliports, public or private entities for origination and provision of survey data, procedure design services, electronic terrain data and electronic obstacle data.*	*Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations (1) and pursuant to the general guidelines on cooperation between the Commission and the standardisation bodies signed on 13 November 1984;* *or* *(b) specifications drawn up by Eurocontrol on* ***matters of operational coordination between air navigation service providers****, in response to a request from the Commission in accordance with the procedure referred to in Article 5(2) of the framework Regulation.* A Community Specification on this topic has to be produced by an ESO. Only this procedure guarantees the involvement of all considered parties. In addition the duplication of work for commenting on specifications for ANSPs is avoided. Eurocontrol was (formally) tasked by the EC to draft 5 Eurocontrol specifications (not CS yet), including the DAL and "data origination" specs, covering the whole data chain.				
General Page ii, Abstract Page ix, Executive Summary	*Abstract:* *The document defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the ADQ Implementing Rule provisions.* *Executive Summary:* ***The Data Assurance Levels***	Regulation (EC) 552/2004 Interoperability Regulation, Article 4 (1): *Community specifications* *1. In pursuit of the objective of this Regulation, Community specifications may be established. Such specifications may be:*	Avoid to raise the impression that this Eurocontrol Specification can be a MoC / recognized as a CS without a proper consultation of the document through an ESO with all parties involved.	2.2.2.1	**Partially Accepted**	**Belgium, CEN**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
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	Specification is proposed as a Means of Compliance with Article 6(2) of the ADQ Implementing Rule (IR)*. It supports the IR in respect of meeting data quality requirements for the processing of aeronautical data from origination through to the publication by the Aeronautical Information Service Provider (AISP) to the next intended user. The DAL Specification defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the IR provisions.* Eurocontrol is not the right body to write a Community Specification for a topic where the complete data chain is covered. Article 2 (2) of the ADQ IR lists the parties where the regulation shall apply. These are, besides ANSPs, operators of IFR aerodromes and heliports, public or private entities for origination and provision of survey data, procedure design services, electronic terrain data and electronic obstacle data.	*(a) European standards for systems or constituents, together with the relevant procedures, drawn up by the European standardisation bodies in cooperation with Eurocae, on a mandate from the Commission in accordance with article 6(4) of Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations (1) and pursuant to the general guidelines on cooperation between the Commission and the standardisation bodies signed on 13 November 1984;* *or* *(b) specifications drawn up by Eurocontrol on* ***matters of operational coordination between air navigation service providers****, in response to a request from the Commission in accordance with the procedure referred to in Article 5(2) of the framework Regulation.* Eurocontrol was (formally) tasked by the EC to draft 5 Eurocontrol specifications (not CS yet) , including the DAL and "data origination" specs, covering the whole data chain. In line with the above provisions of the Interoperability Regulation, a Community Specification on this topic has to be produced by an ESO. Only this procedure guarantees the involvement of all considered parties. If mandated by the European				

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		Commission in accordance with the provisions of the Interoperability Regulation to produce an EN / CS on this topic, CEN would welcome any possible cooperation with Eurocontrol on this matter and any CEN deliverable to be produced would take into account the existing Eurocontrol documentation as much as possible.				
General Page ii, Abstract Page ix, Executive Summary	*Abstract:* *The document defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the ADQ Implementing Rule provisions.* *Executive Summary:* ***The Data Assurance Levels Specification is proposed as a Means of Compliance with Article 6(2) of the ADQ Implementing Rule (IR)**. It supports the IR in respect of meeting data quality requirements for the processing of aeronautical data from origination through to the publication by the Aeronautical Information Service Provider (AISP) to the next intended user. The DAL Specification defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the IR provisions.* Eurocontrol is not the right body to write a Community Specification for a topic where the complete data chain is covered. Article 2 (2) lists the parties where the regulation shall apply. These are besides ANSPs, operators of IFR aerodromes and heliports, public or private entities for	552/2004 Interoperability Regulation, Article 4 (1) b *Community specifications* *1. In pursuit of the objective of this Regulation, Community specifications may be established. Such specifications may be:* *(a) European standards for systems or constituents, together with the relevant procedures, drawn up by the European standardisation bodies in cooperation with Eurocae, on a mandate from the Commission in accordance with article 6(4) of Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations (1) and pursuant to the general guidelines on cooperation between the Commission and the standardisation bodies signed on 13 November 1984;* *or* *(b) specifications drawn up by Eurocontrol on **matters of operational coordination between air navigation service providers**, in response to a*	Avoid to raise the impression that this Eurocontrol Specification can be a MoC without a proper consultation of the document through an ESO with all parties involved.	2.2.2.1	**Partially Accepted**	**Belgium, FABEC (BELGOCONTROL)**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
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	origination and provision of survey data, procedure design services, electronic terrain data and electronic obstacle data.	*request from the Commission in accordance with the procedure referred to in Article 5(2) of the framework Regulation.* A Community Specification on this topic has to be produced by an ESO. Only this procedure guarantees the involvement of all considered parties. In addition the duplication of work for commenting on specifications for ANSPs is avoided. Eurocontrol was (formally) tasked by the EC to draft 5 Eurocontrol specifications (not CS yet), including the DAL and "data origination" specs, covering the whole data chain.				
General Page ii, Abstract Page ix, Executive Summary	*Abstract:* *The document defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the ADQ Implementing Rule provisions.* *Executive Summary:* ***The Data Assurance Levels Specification is proposed as a Means of Compliance with Article 6(2) of the ADQ Implementing Rule (IR)**. It supports the IR in respect of meeting data quality requirements for the processing of aeronautical data from origination through to the publication by the Aeronautical Information Service Provider (AISP) to the next intended user. The DAL Specification defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the IR provisions.* Eurocontrol is not the right body to write a Community Specification	552/2004 Interoperability Regulation, Article 4 (1) b *Community specifications* *1. In pursuit of the objective of this Regulation, Community specifications may be established. Such specifications may be:* *(a) European standards for systems or constituents, together with the relevant procedures, drawn up by the European standardisation bodies in cooperation with Eurocae, on a mandate from the Commission in accordance with article 6(4) of Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations (1) and pursuant to the general guidelines on cooperation between the Commission and the standardisation bodies signed on*	Avoid to raise the impression that this Eurocontrol Specification can be a MoC without a proper consultation of the document through an ESO with all parties involved.	2.2.2.1	**Partially Accepted**	**France, FABEC (DGAC/DSNA)**

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	for a topic where the complete data chain is covered. Article 2 (2) lists the parties where the regulation shall apply. These are besides ANSPs, operators of IFR aerodromes and heliports, public or private entities for origination and provision of survey data, procedure design services, electronic terrain data and electronic obstacle data.	*13 November 1984;* *or* *(b) specifications drawn up by Eurocontrol on **matters of operational coordination between air navigation service providers**, in response to a request from the Commission in accordance with the procedure referred to in Article 5(2) of the framework Regulation.* A Community Specification on this topic has to be produced by an ESO. Only this procedure guarantees the involvement of all considered parties. In addition the duplication of work for commenting on specifications for ANSPs is avoided. Eurocontrol was (formally) tasked by the EC to draft 5 Eurocontrol specifications (not CS yet), including the DAL and "data origination" specs, covering the whole data chain.				
General Page ii, Abstract Page ix, Executive Summary	*Abstract:* *The document defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the ADQ Implementing Rule provisions.* *Executive Summary:* ***The Data Assurance Levels Specification is proposed as a Means of Compliance with Article 6(2) of the ADQ Implementing Rule (IR).** It supports the IR in respect of meeting data quality requirements for the processing of aeronautical data from origination through to the publication by the Aeronautical Information Service Provider*	552/2004 Interoperability Regulation, Article 4 (1) b *Community specifications* *1. In pursuit of the objective of this Regulation, Community specifications may be established. Such specifications may be:* *(a) European standards for systems or constituents, together with the relevant procedures, drawn up by the European standardisation bodies in cooperation with Eurocae, on a mandate from the Commission in accordance with article 6(4) of Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying*	Avoid to raise the impression that this Eurocontrol Specification can be a MoC without a proper consultation of the document through an ESO with all parties involved.	2.2.2.1	**Partially Accepted**	**Germany, DFS**

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	(AISP) to the next intended user. The DAL Specification defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the IR provisions. Eurocontrol is not the right body to write a Community Specification for a topic where the complete data chain is covered. Article 2 (2) lists the parties where the regulation shall apply. These are besides ANSPs, operators of IFR aerodromes and heliports, public or private entities for origination and provision of survey data, procedure design services, electronic terrain data and electronic obstacle data.	*down a procedure for the provision of information in the field of technical standards and regulations (1) and pursuant to the general guidelines on cooperation between the Commission and the standardisation bodies signed on 13 November 1984;* *or* *(b) specifications drawn up by Eurocontrol on **matters of operational coordination between air navigation service providers**, in response to a request from the Commission in accordance with the procedure referred to in Article 5(2) of the framework Regulation.* A Community Specification on this topic has to be produced by an ESO. Only this procedure guarantees the involvement of all considered parties. In addition the duplication of work for commenting on specifications for ANSPs is avoided. Eurocontrol was (formally) tasked by the EC to draft 5 Eurocontrol specifications (not CS yet), including the DAL and "data origination" specs, covering the whole data chain.				
General Page ii, Abstract Page ix, Executive Summary	*Abstract:* *The document defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the ADQ Implementing Rule provisions.* *Executive Summary:* ***The Data Assurance Levels Specification is proposed as a Means of Compliance with Article 6(2) of the ADQ***	552/2004 Interoperability Regulation, Article 4 (1) b *Community specifications* *1. In pursuit of the objective of this Regulation, Community specifications may be established. Such specifications may be:* *(a) European standards for systems or constituents, together with the relevant procedures, drawn up by the European*	Avoid to raise the impression that this Eurocontrol Specification can be a MoC without a proper consultation of the document through an ESO with all parties involved.	2.2.2.1	**Partially Accepted**	**Germany, FABEC (DFS)**

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	Implementing Rule (IR). *It supports the IR in respect of meeting data quality requirements for the processing of aeronautical data from origination through to the publication by the Aeronautical Information Service Provider (AISP) to the next intended user. The DAL Specification defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the IR provisions.* Eurocontrol is not the right body to write a Community Specification for a topic where the complete data chain is covered. Article 2 (2) lists the parties where the regulation shall apply. These are besides ANSPs, operators of IFR aerodromes and heliports, public or private entities for origination and provision of survey data, procedure design services, electronic terrain data and electronic obstacle data.	*standardisation bodies in cooperation with Eurocae, on a mandate from the Commission in accordance with article 6(4) of Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations (1) and pursuant to the general guidelines on cooperation between the Commission and the standardisation bodies signed on 13 November 1984;* *or* *(b) specifications drawn up by Eurocontrol on* ***matters of operational coordination between air navigation service providers****, in response to a request from the Commission in accordance with the procedure referred to in Article 5(2) of the framework Regulation.* A Community Specification on this topic has to be produced by an ESO. Only this procedure guarantees the involvement of all considered parties. In addition the duplication of work for commenting on specifications for ANSPs is avoided. Eurocontrol was (formally) tasked by the EC to draft 5 Eurocontrol specifications (not CS yet), including the DAL and "data origination" specs, covering the whole data chain.				
General Page ii, Abstract Page ix, Executive Summary	*Abstract:* *The document defines objectives to be demonstrated as a means of compliance with the data integrity*	552/2004 Interoperability Regulation, Article 4 (1) b *Community specifications* *1. In pursuit of the objective of this*	Avoid to raise the impression that this Eurocontrol Specification can be a MoC without a proper consultation of the document	2.2.2.1	**Partially Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**

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	requirements of the ADQ Implementing Rule provisions. *Executive Summary:* ***The Data Assurance Levels Specification is proposed as a Means of Compliance with Article 6(2) of the ADQ Implementing Rule (IR)**. It supports the IR in respect of meeting data quality requirements for the processing of aeronautical data from origination through to the publication by the Aeronautical Information Service Provider (AISP) to the next intended user. The DAL Specification defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the IR provisions.* Eurocontrol is not the right body to write a Community Specification for a topic where the complete data chain is covered. Article 2 (2) lists the parties where the regulation shall apply. These are besides ANSPs, operators of IFR aerodromes and heliports, public or private entities for origination and provision of survey data, procedure design services, electronic terrain data and electronic obstacle data.	*Regulation, Community specifications may be established. Such specifications may be:* *(a) European standards for systems or constituents, together with the relevant procedures, drawn up by the European standardisation bodies in cooperation with Eurocae, on a mandate from the Commission in accordance with article 6(4) of Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations (1) and pursuant to the general guidelines on cooperation between the Commission and the standardisation bodies signed on 13 November 1984;* *or* *(b) specifications drawn up by Eurocontrol on **matters of operational coordination between air navigation service providers**, in response to a request from the Commission in accordance with the procedure referred to in Article 5(2) of the framework Regulation.* A Community Specification on this topic has to be produced by an ESO. Only this procedure guarantees the involvement of all considered parties. In addition the duplication of work for commenting on specifications for ANSPs is avoided. Eurocontrol was (formally) tasked by the EC to draft 5 Eurocontrol specifications (not CS yet),	through an ESO with all parties involved.			

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		including the DAL and "data origination" specs, covering the whole data chain.				
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	data, procedure design services, electronic terrain data and electronic obstacle data.	*accordance with the procedure referred to in Article 5(2) of the framework Regulation.* A Community Specification on this topic has to be produced by an ESO. Only this procedure guarantees the involvement of all considered parties. In addition the duplication of work for commenting on specifications for ANSPs is avoided. Eurocontrol was (formally) tasked by the EC to draft 5 Eurocontrol specifications (not CS yet), including the DAL and "data origination" specs, covering the whole data chain.				
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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
	data chain is covered. Article 2 (2) lists the parties where the regulation shall apply. These are besides ANSPs, operators of IFR aerodromes and heliports, public or private entities for origination and provision of survey data, procedure design services, electronic terrain data and electronic obstacle data.	*or* *(b) specifications drawn up by Eurocontrol on **matters of operational coordination between air navigation service providers**, in response to a request from the Commission in accordance with the procedure referred to in Article 5(2) of the framework Regulation.* A Community Specification on this topic has to be produced by an ESO. Only this procedure guarantees the involvement of all considered parties. In addition the duplication of work for commenting on specifications for ANSPs is avoided. Eurocontrol was (formally) tasked by the EC to draft 5 Eurocontrol specifications (not CS yet), including the DAL and "data origination" specs, covering the whole data chain.				
General Page ii, Abstract Page ix, Executive Summary	Abstract: *The document defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the ADQ Implementing Rule provisions.* *Executive Summary:* ***The Data Assurance Levels Specification is proposed as a Means of Compliance with Article 6(2) of the ADQ Implementing Rule (IR)**. It supports the IR in respect of meeting data quality requirements for the processing of aeronautical data from origination through to the publication by the Aeronautical Information Service Provider (AISP) to the next intended user. The DAL Specification defines*	552/2004 Interoperability Regulation, Article 4 (1) b *Community specifications* *1. In pursuit of the objective of this Regulation, Community specifications may be established. Such specifications may be:* *(a) European standards for systems or constituents, together with the relevant procedures, drawn up by the European standardisation bodies in cooperation with Eurocae, on a mandate from the Commission in accordance with article 6(4) of Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field*	Avoid to raise the impression that this Eurocontrol Specification can be a MoC without a proper consultation of the document through an ESO with all parties involved.	2.2.2.1	**Partially Accepted**	**Switzerland, FABEC (SKYGUIDE)**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
	objectives to be demonstrated as a means of compliance with the data integrity requirements of the IR provisions. Eurocontrol is not the right body to write a Community Specification for a topic where the complete data chain is covered. Article 2 (2) lists the parties where the regulation shall apply. These are besides ANSPs, operators of IFR aerodromes and heliports, public or private entities for origination and provision of survey data, procedure design services, electronic terrain data and electronic obstacle data.	*of technical standards and regulations (1) and pursuant to the general guidelines on cooperation between the Commission and the standardisation bodies signed on 13 November 1984;* *or* *(b) specifications drawn up by Eurocontrol on* ***matters of operational coordination between air navigation service providers****, in response to a request from the Commission in accordance with the procedure referred to in Article 5(2) of the framework Regulation.* A Community Specification on this topic has to be produced by an ESO. Only this procedure guarantees the involvement of all considered parties. In addition the duplication of work for commenting on specifications for ANSPs is avoided. Eurocontrol was (formally) tasked by the EC to draft 5 Eurocontrol specifications (not CS yet), including the DAL and "data origination" specs, covering the whole data chain.				
General Page ii, Abstract Page ix, Executive Summary	*Abstract:* *The document defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the ADQ Implementing Rule provisions.* *Executive Summary:* ***The Data Assurance Levels Specification is proposed as a Means of Compliance with Article 6(2) of the ADQ Implementing Rule (IR)****. It supports the IR in respect of*	552/2004 Interoperability Regulation, Article 4 (1) b *Community specifications* *1. In pursuit of the objective of this Regulation, Community specifications may be established. Such specifications may be:* *(a) European standards for systems or constituents, together with the relevant procedures, drawn up by the European standardisation bodies in cooperation with Eurocae, on a*	Avoid giving the impression that this Eurocontrol Specification can be a MoC without a proper consultation of the document through an ESO with all parties involved.	2.2.2.1	**Partially Accepted**	**United Kingdom, NATS**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
	meeting data quality requirements for the processing of aeronautical data from origination through to the publication by the Aeronautical Information Service Provider (AISP) to the next intended user. The DAL Specification defines objectives to be demonstrated as a means of compliance with the data integrity requirements of the IR provisions. Eurocontrol is not the right body to write a Community Specification for a topic where the complete data chain is covered. Article 2 (2) lists the parties where the regulation shall apply. These include ANSPs, operators of IFR aerodromes and heliports, public or private entities for origination and provision of survey data, procedure design services, electronic terrain data and electronic obstacle data.	*mandate from the Commission in accordance with article 6(4) of Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations (1) and pursuant to the general guidelines on cooperation between the Commission and the standardisation bodies signed on 13 November 1984;* *or* *(b) specifications drawn up by Eurocontrol on* ***matters of operational coordination between air navigation service providers****, in response to a request from the Commission in accordance with the procedure referred to in Article 5(2) of the framework Regulation.* A Community Specification on this topic has to be produced by an ESO. Only this procedure guarantees the involvement of all considered parties and in addition avoids the duplication of work required in commenting upon specifications. Eurocontrol was (formally) tasked by the EC to draft 5 Eurocontrol specifications (not CS yet), including the DAL and "data origination" specs, covering the whole data chain.				

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Page 1 / General	Eurocontrol might not be the most appropriate body in charge of determining a "Community Specification" for a topic where the complete data chain is covered. Ref. Article 2 (2) of the regulation for all parties involved.	A Community Specification on this topic has to be produced by an ESO. Only this procedure guarantees the involvement of all considered parties.		2.2.2.1	**Partially Accepted**	**Italy, ENAV**
missing	No guidance available for ADQ Article 11 on Conformity or suitability for use of constituents – as well as Article 12 on verification of systems.	The purpose and scope of the specification (guidance and support) is missed in this case.		2.2.3.6	**Rejected**	**Austria, AUSTRO CONTROL**
Various objectives throughout the whole document	All objectives deemed over-prescriptive shall be re-assessed so that the specification is realistically and practically usable as a Means of Compliance to the IR	Many objectives are deemed over-prescriptive, either because they go beyond the IR itself or because they imply changes that are not deemed commensurate with the IR objective. They include, but may not be limited to the following objectives: • PRC-180, 190, 470, 570 • DPE-030, 040 and 070 • RDO-070 and 090 • DOR-040 • DOM-080 and 130 • AU-070 • DTP-010, 020, 030, 040 and 070 • DP-090 and 100 • SM-230 Either the impact exceeds the capabilities or the resources involved or go beyond what the ADQ IR requires and is therefore considered a major comment to all the listed objectives.	Reassess the objectives so that the specification is realistically and practically usable as a Means of Compliance to the IR. This revision shall take into account the planned capabilities and resources of the involved parties and ensure that the boundaries of the ADQ IR are respected as these are already demanding enough.	2.2.2.2	**Partially Accepted**	**Belgium, BELGOCONTROL**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
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ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
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ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
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ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
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Various objectives throughout the whole document	All objectives deemed over-prescriptive shall be re-assessed so that the specification is realistically and practically usable as a Means of Compliance to the IR	Many objectives are deemed over-prescriptive, either because they go beyond the IR itself or because they imply changes that are not deemed commensurate with the IR objective. They include, but may not be limited to the following objectives: • RDO-070 and 090 • DOR-040 • DOM-080 and 130 • AU-070 • DTP-010, 020, 030, 040 and 070 • DP-090 and 100 • SM-230 Either the impact exceeds the capabilities or the resources involved or go beyond what the ADQ IR requires and is therefore considered a major comment to all the listed objectives.	Reassess the objectives so that the specification is realistically and practically usable as a Means of Compliance to the IR. This revision shall take into account the planned capabilities and resources of the involved parties and ensure that the boundaries of the ADQ IR are respected as these are already demanding enough.	2.2.2.2	**Partially Accepted**	**Germany, DFS**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
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ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
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ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
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ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
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Various objectives throughout the whole document	All objectives deemed over-prescriptive shall be re-assessed so that the specification is realistically and practically usable as a Means of Compliance to the IR	Many objectives are deemed over-prescriptive, either because they go beyond the IR itself or because they imply changes that are not deemed commensurate with the IR objective. They include, but may not be limited to the following objectives: • PRC-180, 190, 470, 570 • DPE-030, 040 and 070 • RDO-070 and 090 • DOR-040 • DOM-080 and 130 • AU-070 • DTP-010, 020, 030, 040 and 070 • DP-090 and 100 • SM-230 Either the impact exceeds the capabilities or the resources involved or go beyond what the ADQ IR requires and is therefore considered a major comment to all the listed objectives.	Reassess the objectives so that the specification is realistically and practically usable as a Means of Compliance to the IR. This revision shall take into account the planned capabilities and resources of the involved parties and ensure that the boundaries of the ADQ IR are respected as these are already demanding enough.	2.2.2.2	**Partially Accepted**	**Netherlands, FABEC (LVNL)**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Various objectives throughout the whole document	All objectives deemed over-prescriptive shall be re-assessed so that the specification is realistically and practically usable as a Means of Compliance to the IR	Many objectives are deemed over-prescriptive, either because they go beyond the IR itself or because they imply changes that are not deemed commensurate with the IR objective. They include, but may not be limited to the following objectives: • PRC-180, 190, 470, 570 • DPE-030, 040 and 070 • RDO-070 and 090 • DOR-040 • DOM-080 and 130 • AU-070 • DTP-010, 020, 030, 040 and 070 • DP-090 and 100 • SM-230 Either the impact exceeds the capabilities or the resources involved or go beyond what the ADQ IR requires and is therefore considered a major comment to all the listed objectives.	Reassess the objectives so that the specification is realistically and practically usable as a Means of Compliance to the IR. This revision shall take into account the planned capabilities and resources of the involved parties and ensure that the boundaries of the ADQ IR are respected as these are already demanding enough.	2.2.2.2	**Partially Accepted**	**Netherlands, FABEC (MUAC)**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
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ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Various objectives throughout the whole document	All objectives deemed over-prescriptive shall be re-assessed so that the specification is realistically and practically usable as a Means of Compliance to the IR	Many objectives are deemed over-prescriptive, either because they go beyond the IR itself or because they imply changes that are not deemed commensurate with the IR objective. They include, but may not be limited to the following objectives: • PRC-180, 190, 470, 570 • DPE-030, 040 and 070 • RDO-070 and 090 • DOR-040 • DOM-080 and 130 • AU-070 • DTP-010, 020, 030, 040 and 070 • DP-090 and 100 • SM-230 Either the impact exceeds the capabilities or the resources involved or go beyond what the ADQ IR requires and is therefore considered a major comment to all the listed objectives.	Reassess the objectives so that the specification is realistically and practically usable as a Means of Compliance to the IR. This revision shall take into account the planned capabilities and resources of the involved parties and ensure that the boundaries of the ADQ IR are respected as these are already demanding enough.	2.2.2.2	**Partially Accepted**	**United Kingdom, NATS**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
1.2.2 Page 2	A 'means of compliance' is not a Community Specification. There is a specific process defined in the Interoperability Regulation to establish Community Specifications. This Eurocontrol Specification has not been produced by that process and consequently cannot be considered as a potential Community Specification.	The description of the Eurocontrol Specifications in relation to SES and Community Specifications is entirely misleading. Please refer to the Interoperability Regulation 552/2004 Article 4, 1b): *"specifications drawn up by Eurocontrol on matters of operational coordination between air navigation service providers, in response to a request from the Commission in accordance with the procedure referred to in Article 5(2) of the framework Regulation."* In the first instance, no such request from the commission has been seen, and in the second instance, is the subject of this Eurocontrol Specification 'a matter of operational coordination between air navigation service providers'?	Delete Para 1.2.2	2.2.2.1	**Accepted**	**United Kingdom, CAA**
1.2.2 Page 2, third para	EU National Authorities are not able to make a specification mandatory in isolation from EU regulations	Incorrect proposal	Insert 'non EU' - ".....status but *non EU* National authorities....."	2.2.1	**Accepted**	**United Kingdom, CAA**
Page 3 - 1.3.1 subject matter	The quoted text from the ADQ IR is not correct.	IR Ref 2.1 (d) and 3.7 a) are not correctly quoted.	2.1 (d) : change "issued" into made available". 3.7 a) : change "amendment service" into "amendments".	2.2.1	**Accepted**	**Belgium, CAA**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Note 2 Page 3 and 5.1 Note, page 90	No basis for this suggestion.	Misleading comment regarding this specification and a misuse of the guideline reference.	Remove second sentence: "Should this Specification be adopted as a Community Specification (CS), it would be a baseline MoC with Article 6(2). *The EUROCONTROL Guidelines on Conformity Assessment provide guidance on conformity assessment of EATMN systems and constituents with the essential requirements (ERs) and all IRs relevant to the interoperability regulation EC Reg. No. 552/2004."*	2.2.1	**Accepted**	**United Kingdom, CAA**
Page 4 - 1.4.1 Applicable Systems	IR Ref 2.1 is not correctly quoted.	The word "storage" is missing.	Add the word "storage" after "production," and before "handling".	2.2.1	**Accepted**	**Belgium, CAA**
Page 7 - 1.9 Document Structure	Figure 1 and the text that follows are not consistent with the content of the DAL Specification under investigation.	In figure 1 : The introduction has no paragraph dealing with context; Data Lifecycle Model doesn't exist and there is no paragraph dealing with application. The text handling section 2 speaks about means of compliance, but in section 2 there is no paragraph about means of compliance.	In figure 1 : - take the word "content" out of the Introduction box - change "Data Lifecycle Model" into "Aeronautical Data Chain" in the Principles box - take the box "Application" out of the Content box Section 2 : take the words "and means of compliance" out or complete the text so that missing items are added.	2.2.1	**Accepted**	**Belgium, CAA**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Figure 2	Figure 2 incorrect regarding "Community Specifications **(Mandatory)**"	Ref statement in Eurocontrol Guidelines on Conformity Assessment: • Community specifications are a voluntary means of compliance with the essential requirements and/or relevant implementing rules for interoperability. They specify requirements defining a solution that can be implemented by a subset of the 8 systems, their constituents and associated procedures. When the relevant requirements of Community specifications published in the Official Journal of the European Union are followed, conformity with the essential requirements and/or relevant implementing rules for interoperability shall be presumed. In line with Article R8 of Decision No 768/2008/EC [5], this is termed "presumption of conformity".	Change Figure 2 to CS (Voluntary) and add footnote with reference to Eurocontrol Guidelines on CA.	2.2.2.1	**Accepted**	**Ireland, IAA SAFETY REGULATION DIVISION**
1.10	Figure 2. states that the DAL and DQR are voluntary. LFV supports this.	The DQR and DAL are theoretical products that might need partially reconsiderations in the future. The documents should therefore not be mandatory	None	2.2.2.1	**Noted**	**Sweden, LFV**
1.10 Relationship to other Documents Figure 2 - Page 8	Diagram indicates that Community Specifications are mandatory.	Community specifications are entirely voluntary.	Replace "mandatory" with "voluntary"	2.2.2.1	**Accepted**	**Sweden, SWEDISH TRANSPORT AGENCY**
Figure 2 - Page 8	Diagram indicates that Community Specifications are mandatory.	Community specifications are entirely voluntary.	Replace "mandatory" with "voluntary"	2.2.2.1	**Accepted**	**United Kingdom, NATS**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
2.3.1 Overview	The overview of DALs is flawed	There is no requirement to demonstrate integrity via statistical testing either alone or in combination. Consequently, the third paragraph of the section is incorrect. The difference between so called random and systematic errors is of no significance to the argument that if a specification includes integrity as an attribute then that level of integrity should be demonstrated to a known level of confidence. DALs do not do this. They merely aid the collection of the evidence. It is to be hoped that, when analysed, this evidence should show that the integrity level has been achieved. Performing the process defined by the DAL does not ensure that this level of integrity will be achieved. This needs to be demonstrated separately via the use of arguments and evidence. The fourth paragraph is dangerous as it reinforces the misconception. It would be better to make this a very clear warning that this practice is wrong.	Rewrite the section and correct the description of DALs. Ensure that the section clearly states the need to demonstrate that specifications are met completely and to a known level of confidence and that performing the processes described by the DAL does not imply this. Note, since the overview is flawed then the use of DALs is also probably flawed. The rest of the specification should therefore be reviewed and corrected.	2.2.2.4	**Partially Accepted**	**United Kingdom, CAA**
Page 11, 2.3.4, Note 2	The NSA should not have per se the right to approve independency.	This will raise discussions. It should be said, that an organization can have independent organizational units. They can act as independent entities and that their independency is regarded as sufficient.	An organizational unit within an organization is regarded to be independent, if both report independently to the head of the business unit, respectively.	2.2.3.1	**Accepted**	**Germany, DFS**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
2.3.4	Is the example given for an independent organisation appropriate? As written the implication is that a "D" ("different party or an independent department") when overseen by a national regulator is considered to be equivalent to an "E" "independent organisation". Given that the NSA will generally have oversight responsibilities in this area is this a valid example?	It would be preferable to define "independent department" and "independent organisation" without referring to "overseen by national regulator" given that the NSA will generally have oversight responsibilities in this area. As currently written the example risks "blurring" the distinction between "D" and "E" independence requirements.		2.2.3.1	**Accepted**	**Ireland, IAA SAFETY REGULATION DIVISION**
Page 13 / 2.5	Data quality originates with surveying/measurement of data. Wrong or insufficient measurement of data causes data errors or data hazards.	Eurocontrol DQR as well as DAL specifications can not be implemented without developing, releasing and implementing a fully aligned Data Origination Specification in order to provide evidence of the required MoCs.		2.2.2.11	**Accepted**	**Italy, ENAV**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
2.5 and 4.4.4 data origination	Chapter 2.5 Aeronautical Data Chain, page 13 Chapter 4.4.4 Data Origination, page 49 Data quality originates with surveying or measurement of data. Wrong or insufficient measurement of data causes data errors or data hazards.	From this perspective, the brief description under 2.5.1.1 is not sufficient → see 4.4.4 Data Origination), Note 4.4.4.1 "*This section needs to be re-visited and finalised once the Origination Specification is completed*" Conclusion: EUROCONTROL DQR as well as DAL specifications can not be implemented without developing, releasing and implementing a fully aligned Data Origination Specification in order to provide evidence of the required MoCs. States should have the possibility to introduce the required data origination specifications. This might be challenging for some NSA as currently no sufficient legal framework is available and should be taken into account. Proposal: Develop and release Data Origination Specification as soon as possible.	Ensure alignment of Data Origination Specification with DAL specifications in Chapter 4.4.4. This alignment is a pre-requisite to ensure provision of the required MoCs.	2.2.2.11	**Accepted**	**Belgium, BELGOCONTROL**

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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
2.5 and 4.4.4 data origination	Chapter 2.5 Aeronautical Data Chain, page 13 Chapter 4.4.4 Data Origination, page 49 Data quality originates with surveying or measurement of data. Wrong or insufficient measurement of data causes data errors or data hazards.	From this perspective, the brief description under 2.5.1.1 is not sufficient → see 4.4.4 Data Origination), Note 4.4.4.1 "*This section needs to be re-visited and finalised once the Origination Specification is completed*" Conclusion: Eurocontrol DQR as well as DAL specifications can not be implemented without developing, releasing and implementing a fully aligned Data Origination Specification in order to provide evidence of the required MoCs. States should have the possibility to introduce the required data origination specifications. This might be challenging for some NSA as currently no sufficient legal framework is available and should be taken into account. Proposal: Develop and release Data Origination Specification as soon as possible.	Ensure alignment of Data Origination Specification with DAL specifications in Chapter 4.4.4. This alignment is a pre-requisite to ensure provision of the required MoCs.	2.2.2.11	**Accepted**	**Belgium, CANSO**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
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ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Page 13, 2.5 and Page 49, 4.4.4	Page 13, Chapter 2.5 Aeronautical Data Chain Page 49, Chapter 4.4.4 Data Origination Data quality originates with surveying or measurement of data. Wrong or insufficient measurement of data causes data errors or data hazards.	From this perspective, the brief description under 2.5.1.1 is not sufficient → see 4.4.4 Data Origination), Note 4.4.4.1 "*This section needs to be re-visited and finalised once the Origination Specification is completed*" Conclusion: Eurocontrol DQR as well as DAL specifications can not be implemented without developing, releasing and implementing a fully aligned Data Origination Specification in order to provide evidence of the required MoCs. States should have the possibility to introduce the required data origination specifications. This might be challenging for some NSA as currently no sufficient legal framework is available and should be taken into account. Proposal: Develop and release Data Origination Specification as soon as possible.	Ensure alignment of Data Origination Specification with DAL specifications in Chapter 4.4.4. This alignment is a pre-requisite to ensure provision of the required MoCs.	2.2.2.11	**Accepted**	**Germany, DFS**

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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
2.5 and 4.4.4 data origination	Chapter 2.5 Aeronautical Data Chain, page 13 Chapter 4.4.4 Data Origination, page 49 Data quality originates with surveying or measurement of data. Wrong or insufficient measurement of data causes data errors or data hazards.	From this perspective, the brief description under 2.5.1.1 is not sufficient → see 4.4.4 Data Origination), Note 4.4.4.1 "*This section needs to be re-visited and finalised once the Origination Specification is completed*" Conclusion: Eurocontrol DQR as well as DAL specifications can not be implemented without developing, releasing and implementing a fully aligned Data Origination Specification in order to provide evidence of the required MoCs. States should have the possibility to introduce the required data origination specifications. This might be challenging for some NSA as currently no sufficient legal framework is available and should be taken into account. Proposal: Develop and release Data Origination Specification as soon as possible.	Ensure alignment of Data Origination Specification with DAL specifications in Chapter 4.4.4. This alignment is a pre-requisite to ensure provision of the required MoCs.	2.2.2.11	**Accepted**	**Germany, FABEC (DFS)**

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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Page 13, 2.5 and Page 49, 4.4.4	Page 13, Chapter 2.5 Aeronautical Data Chain Page 49, Chapter 4.4.4 Data Origination Data quality originates with surveying or measurement of data. Wrong or insufficient measurement of data causes data errors or data hazards.	From this perspective, the brief description under 2.5.1.1 is not sufficient → see 4.4.4 Data Origination), Note 4.4.4.1 "*This section needs to be re-visited and finalised once the Origination Specification is completed*" Conclusion: Eurocontrol DQR as well as DAL specifications can not be implemented without developing, releasing and implementing a fully aligned Data Origination Specification in order to provide evidence of the required MoCs. States should have the possibility to introduce the required data origination specifications. This might be challenging for some NSA as currently no sufficient legal framework is available and should be taken into account. Proposal: Develop and release Data Origination Specification as soon as possible.	Ensure alignment of Data Origination Specification with DAL specifications in Chapter 4.4.4. This alignment is a pre-requisite to ensure provision of the required MoCs.	2.2.2.11	**Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**

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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
2.5 and 4.4.4 data origination	Chapter 2.5 Aeronautical Data Chain, page 13 Chapter 4.4.4 Data Origination, page 49 Data quality originates with surveying or measurement of data. Wrong or insufficient measurement of data causes data errors or data hazards.	From this perspective, the brief description under 2.5.1.1 is not sufficient → see 4.4.4 Data Origination), Note 4.4.4.1 "*This section needs to be re-visited and finalised once the Origination Specification is completed*" Conclusion: EUROCONTROL DQR as well as DAL specifications can not be implemented without developing, releasing and implementing a fully aligned Data Origination Specification in order to provide evidence of the required MoCs. States should have the possibility to introduce the required data origination specifications. This might be challenging for some NSA as currently no sufficient legal framework is available and should be taken into account. Proposal: Develop and release Data Origination Specification as soon as possible.	Ensure alignment of Data Origination Specification with DAL specifications in Chapter 4.4.4. This alignment is a pre-requisite to ensure provision of the required MoCs.	2.2.2.11	Accepted	Switzerland, SKYGUIDE
Page 16 - 2.6 Data Error Barriers bullet Introduced Errors	In the paragraph dealing with "Introduced Errors", the reference to the section about "functional levels" is wrong.	Functional levels are discussed in section 2.**7** instead of section 2.**6**.	Change "section 2.6" into "section 2.7".	2.2.1	Accepted	Belgium, CAA
Page 18, 3.1	Why is the DAL specification based on a draft of the ADQ IR?		Clarify the reference.	2.2.1	Accepted	Germany, DFS
Page 18, 3.1	Why is the DAL specification based on a draft of the ADQ IR?		Clarify the reference.	2.2.1	Accepted	Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS
3.1 para 2, Page 18	Implies that DAL was developed in support of 'Draft' IR provisions	As above.	Remove 'Draft'	2.2.1	Accepted	United Kingdom, CAA

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Page 18 - 3.3 Structure	The structure explained with "overview, provisions, application and objectives" as elements of each chapter/section dealing with requirements is not in line with structure of 4.4.3 - 4.4.4 - 4.4.5 - 4.4.6.	For the mentioned chapters/sections the provisions are grouped in the beginning instead of being quoted per section.	Line up or change the overall structure to get a consistent structure during the whole document.	2.2.1	**Accepted**	**Belgium, CAA**
Page 19 - 3.4 Objectives Characterization	DAL-CT speaks about Consistency, Timeliness and Personnel Performance. But the last part (Personnel Performance) is already covered in DAL-STC : Staff Training and Competency.	Double use.	Change "Consistency, Timeliness and Personnel Performance" into "Consistency, Timeliness" .	2.2.1	**Accepted**	**Belgium, CAA**
Page 19 -3.4 Objectives Characterization	Why are DAL-DE and DAL-DPE separate blocks? Why are DAL-CT and DAL-STC separate blocks?	DAL-DE and DAL-DPE both speak about data exchange; DAL-CT and DAL-STC both speak about personnel and competence.	Group DAL-DE and DAL-DPE into one block and put 4.3.4 and 4.3.4.5 together in the last column. Group DAL-CT and DAL-STC into one block and put 4.5.4.1-4.5.4.2-4.5.4.3-4.5.4.4-4.5.4.5 together into one section 4.5.4 in the last column.	2.2.2.3	**Partially Accepted**	**Belgium, CAA**
3.5 Figure 7 Note	Note mentions functional areas DAL-CA, DAL-VS & DAL-AR. Only DAL-AR is currently included in the table in section 3.4. There is no other reference to DAL-CA & DAL-VS in the document so even though they are indicated “not addressed in this edition of the DAL spec” it is not clear what the CA & VS functional areas are.		Identify what the acronyms DAL-CA & DAL-VS are. Include functional area text for CA & VS in Table contained in section 3.4 even though not currently defined so that the reader understands what areas are currently being omitted.	2.2.2.3	**Accepted**	**Ireland, IAA SAFETY REGULATION DIVISION**
3.5 Page 20 Figure 7	Sections should be completed before DAL is consulted upon.	As above.	Complete DAL-CA, DAL-VS, DAL-AR before consultation.	2.2.2.3	**Accepted**	**United Kingdom, CAA**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Section 3.5	In Section 3.5, in the paragraph beneath figure 7: • There are two functional areas (DAL-CA and DAL-VS, which may stand for Conformity Assessment and Verification of Systems respectively) for which only the abbreviation is given (both are not included in section 3.4). • There is a functional area (DAL-AR) for which it is claimed not to be covered by the specification, but stated in section 3.4 to be covered in section 5.3.4.	To avoid misunderstandings about what is covered by the specification.	Provide the definition for abbreviations DAL-CA and DAL-VS. Solve inconsistency explained.	2.2.2.3	**Accepted**	**Spain, AENA**
Page 22 - 4.1.3 Application (d)	Third column last text block : wrong references to IR Articles.	Only Annex IV Part E and F are involved.	Change "sections 4.4.5, 4.4.6 - Article 6 (Annex IV Part C, Part E, Part F)" into "sections 4.4.5, 4.4.6 - Article 6 (Annex IV Part E, Part F)". Change "section 4.5 - Article 7 (Annex VI)" into "section 4.5 - Article 7".	2.2.1	**Accepted**	**Belgium, CAA**
Page 24, 4.1.4.1	The requirement DAL-EV-070 is covered by a QMS.	Unnecessary requirement. This is an inherent part of an ISO9001 certification.	Delete requirement DAL-EV-070.	2.2.2.9	**Rejected**	**Germany, DFS**
Page 24, 4.1.4.1	The requirement DAL-EV-070 is covered by a QMS.	Unnecessary requirement. This is an inherent part of an ISO9001 certification.	Delete requirement DAL-EV-070.	2.2.2.9	**Rejected**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**
Section 4.1.4.2.1	The objective DAL-PRC-020 has no directive in DAL 1, DAL2 and DAL3 columns.	The specification has to be as complete as possible.	Give directives to objective DAL-PRC-020.	2.2.1	**Accepted**	**Spain, AENA**
DAL-PRC-180 and 190	The Tool Qualification Level is not commensurate with the AIM domain and would lead to un-achievable objectives.	TQL 2 leads to SWAL more stringent than SWAL 4 which is not achievable for existing tools and will be very costly to get for new tools. This may jeopardize the incentive for AIS automation, which is one of the foundations of the ADQ IR	Reconsider the target TQL	2.2.2.6	**Rejected**	**Belgium, BELGOCONTROL**

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DAL-PRC-180 and 190	The Tool Qualification Level is not commensurate with the AIM domain and would lead to un-achievable objectives.	TQL 2 leads to SWAL more stringent than SWAL 4 which is not achievable for existing tools and will be very costly to get for new tools. This may jeopardize the incentive for AIS automation, which is one of the foundations of the ADQ IR	Reconsider the target TQL	2.2.2.6	**Rejected**	**Belgium, FABEC (BELGOCONTROL)**
DAL-PRC-180 and 190	The Tool Qualification Level is not commensurate with the AIM domain and would lead to un-achievable objectives.	TQL 2 leads to SWAL more stringent than SWAL 4 which is not achievable for existing tools and will be very costly to get for new tools. This may jeopardize the incentive for AIS automation, which is one of the foundations of the ADQ IR	Reconsider the target TQL	2.2.2.6	**Rejected**	**France, FABEC (DGAC/DSNA)**
Page 28, DAL-PRC-180 and 190	The Tool Qualification Level is not commensurate with the AIM domain and would lead to un-achievable objectives.	TQL 2 leads to SWAL more stringent than SWAL 4 which is not achievable for existing tools and will be very costly to get for new tools. This may jeopardize the incentive for AIS automation, which is one of the foundations of the ADQ IR.	Reconsider the target TQL.	2.2.2.6	**Rejected**	**Germany, DFS**
DAL-PRC-180 and 190	The Tool Qualification Level is not commensurate with the AIM domain and would lead to un-achievable objectives.	TQL 2 leads to SWAL more stringent than SWAL 4 which is not achievable for existing tools and will be very costly to get for new tools. This may jeopardize the incentive for AIS automation, which is one of the foundations of the ADQ IR.	Reconsider the target TQL.	2.2.2.6	**Rejected**	**Germany, FABEC (DFS)**

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DAL-PRC-180 and 190	The Tool Qualification Level is not commensurate with the AIM domain and would lead to un-achievable objectives.	TQL 2 leads to SWAL more stringent than SWAL 4 which is not achievable for existing tools and will be very costly to get for new tools. This may jeopardize the incentive for AIS automation, which is one of the foundations of the ADQ IR	Reconsider the target TQL	2.2.2.6	**Rejected**	**Luxembourg, FABEC (ANA)**
DAL-PRC-180 and 190	The Tool Qualification Level is not commensurate with the AIM domain and would lead to un-achievable objectives.	TQL 2 leads to SWAL more stringent than SWAL 4 which is not achievable for existing tools and will be very costly to get for new tools. This may jeopardize the incentive for AIS automation, which is one of the foundations of the ADQ IR	Reconsider the target TQL	2.2.2.6	**Rejected**	**Netherlands, FABEC (LVNL)**
DAL-PRC-180 and 190	The Tool Qualification Level is not commensurate with the AIM domain and would lead to un-achievable objectives.	TQL 2 leads to SWAL more stringent than SWAL 4 which is not achievable for existing tools and will be very costly to get for new tools. This may jeopardize the incentive for AIS automation, which is one of the foundations of the ADQ IR	Reconsider the target TQL	2.2.2.6	**Rejected**	**Netherlands, FABEC (MUAC)**
DAL-PRC-180 and 190	The Tool Qualification Level is not commensurate with the AIM domain and would lead to un-achievable objectives.	TQL 2 leads to SWAL more stringent than SWAL 4 which is not achievable for existing tools and will be very costly to get for new tools. This may jeopardize the incentive for AIS automation, which is one of the foundations of the ADQ IR.	Reconsider the target TQL.	2.2.2.6	**Rejected**	**Switzerland, FABEC (SKYGUIDE)**

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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
DAL-PRC-180 and 190	The Tool Qualification Level is not commensurate with the AIM domain and would lead to un-achievable objectives.	TQL 2 leads to SWAL more stringent than SWAL 4 which is not achievable for existing tools and will be very costly to get for new tools. This may jeopardize the incentive for AIS automation, which is one of the foundations of the ADQ IR.	Reconsider the target TQL.	2.2.2.6	**Rejected**	**United Kingdom, NATS**
Several	All requirements regarding software should be carefully revaluated and probably a cost benefit analysis would be needed, as stated right now on the DAL they might be too stringent and not feasible. DAL-PRC-180 , DAL-PRC-190, DAL-PRC-210, , DAL-PRC-220 and all 4.6 chapter.	The main reason for inclusion on Annex15 and ADQ IR of data format standards like GML, and one of the goals of all the AIXM5 global initiative go in the direction of reducing costs by using standard commercial software to deal with aeronautical information, general purpose GML and XML libraries, etc. Specific and very stringent software requirements for dealing with aeronautical data will make all this efforts invalid, and will impose important over costs on the AIS data chain actors and limit the implementation of automated systems.	Removal of all aspect regarding software from the specification.	2.2.2.6	**Partially Accepted**	**Spain, AENA**
4.1.4.2.1 DAL-PRC-180 4.1.4.2.1 DAL-PRC-190 4.1.4.2.3 DAL-PRC-470 4.3.4.5 DAL-DPE-030 4.3.4.5 DAL-DPE-040 4.4.4.3.1 DAL-RDO-070 4.4.4.3.1 DAL-RDO-090 4.4.4.3.2 DAL-DOR-040 4.4.4.3.3 DAL-DOM-130 4.6.4.1.2 DAL-TS-120 4.6.4.1.2 DAL-TS-130 4.7.4.1 DAL-DTP-010 4.7.4.1 DAL-DTP-020 4.7.4.1 DAL-DTP-030 4.7.4.1 DAL-DTP-040 4.7.4.4 DAL-DP-090 4.7.4.4 DAL-DP-100 4.8.2.4.4 DAL-SM-230	General comment: the above mentioned DAL are considered too stringent or too costly to implement and in some cases are even over prescriptive or go beyond what the ADQ IR requires.	Either the impact exceeds the capabilities or the resources involved or go beyond what the ADQ IR requires and is therefore considered a major comment to all above references.	Revision of the current text taking into account the planned capabilities and resources of the involved parties and ensure that the boundaries of the ADQ IR are respected as these are already demanding enough. The time provided is too short to provide or propose a change of text.	2.2.2.2	**Partially Accepted**	**Switzerland, SKYGUIDE**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Page 29 - 33, 4.1.4.2.2 – 4.1.4.2.6	Those requirements are disproportionate to the benefit.	They are too complex; the requirements are disproportionate to the benefit.	Replace those requirements by one requirement: Every working instructions must be verified and validated before becoming effective. All other requirements are an inherent part of an ISO9001 QMS. Alternative: Mark all requirements as 'should'.	2.2.2.10	**Partially Accepted**	**Germany, DFS**
Page 30, 4.1.4.2.3	The requirement DAL-PRC-470 is over-prescriptive.	According to ADQ IR a QMS is mandatory for participants in the data chain. See CHAPTER III QUALITY, SAFETY AND SECURITY MANAGEMENT REQUIREMENTS, Article 10 (1) Management requirements 1. Without prejudice to Regulation (EC) No 2096/2005, the parties referred to in Article 2(2) shall implement and maintain a quality management system covering their aeronautical data and aeronautical information provision activities, in accordance with the requirements laid down in Annex VII, Part A (listing of Quality Management System requirements). There is independent auditing of the processes of the QMS. What in the benefit in prescribing a second auditing?	Delete requirement DAL-PRC-470.	2.2.2.10	**Accepted**	**Germany, DFS**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Page 30, 4.1.4.2.3	The requirement DAL-PRC-470 is over-prescriptive.	According to ADQ IR a QMS is mandatory for participants in the data chain. See CHAPTER III QUALITY, SAFETY AND SECURITY MANAGEMENT REQUIREMENTS, Article 10 (1) Management requirements 1. Without prejudice to Regulation (EC) No 2096/2005, the parties referred to in Article 2(2) shall implement and maintain a quality management system covering their aeronautical data and aeronautical information provision activities, in accordance with the requirements laid down in Annex VII, Part A (listing of Quality Management System requirements). There is independent auditing of the processes of the QMS. What in the benefit in prescribing a second auditing?	Delete requirement DAL-PRC-470.	2.2.2.10	**Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**
4.2.3 EUROCAE ED-99A Page 36	Reference to current version of EUROCAE ED-99.	EUROCAE ED-99B is the current version of the standard.	The model need to include the data elements for publication specified in ICAO Annex 15 and ~~EUCOCAE ED-99A~~ **the current version of EUROCAE ED-99.**	2.2.1	**Accepted**	**Germany, AVITECH AG**
Page 38 - 4.3.2 Provisions	5.3 and 5.4 c) are incorrectly quoted from the ADQ IR.	5.3 ends with "(see A5.2 above)". 5.4 c) uses the word "specified" instead of "laid down".	5.3 delete "(see A5.2 above)" 5.4 c) change "specified" into "laid down".	2.2.1	**Accepted**	**Belgium, CAA**
4.3.3.1	There should be no specific version mentioned but just the actual exchange model (AIXM)	The version of AIXM is not a limiting factor for actual exchange between ANSP.	Remove any specific version of the model	2.2.2.2	**Accepted**	**France, DGAC/DSNA**
Page 40 - 4.3.3.2 Organisation	Point 1. refers to Provision 9.2.	It is unclear what this reference is all about. Where does it come from ?	Delete "- refer to Provision 9.2".	2.2.1	**Accepted**	**Belgium, CAA**
4.3.4.1 DAL DE 020	The application of CRCs in connection with data transmission by paper means is not feasible.	CRCs can be applied only for computerized data.		2.2.3.2	**Accepted**	**Austria, AUSTRO CONTROL**
Page 41, 4.3.4.1	The requirement DAL-DE-020 is unclear.		Clarify requirement DAL-DE-020 or delete it.	2.2.3.2	**Accepted**	**Germany, DFS**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Page 41, 4.3.4.1	The requirement DAL-DE-020 is unclear.		Clarify requirement DAL-DE-020 or delete it.	2.2.3.2	**Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**
4.3.4 DAL-DE-020	DAL-DE-020 is out of context.	The requirements for direct electronic connection shall not rely on paper.	Remove requirement.	2.2.3.2	**Accepted**	**Switzerland, SKYGUIDE**
DE-020, DOM-090 and DOD-070	The specification should be more explicit on the way to apply CRCs.	In order for the protection by CRC to be useful, it shall be applied in a consistent way. For this purpose, the precise way to use CRC (DAL-DE-020 needs further specification: how should the CRC be applied (wrapping whole data set, wrapping data elements? Which elements?)	Further specify how to use CRCs in a consistent way	2.2.3.2	**Accepted**	**France, DGAC/DSNA**
Page 41 - 4.3.4.1 Direct Electronic Connection	Error in the counting of the requirements.	DAL-DE-90 instead of DAL-DE-090.	Change "DAL-DE-90" into "DAL-DE-090".	2.2.1	**Accepted**	**Belgium, CAA**
4.3.4.2 DAL-DE-120 4.3.4.2 DAL-DE-130 4.6.4.1.4 DAL-TS-250 4.6.4.1.4 DAL-TS-260 4.6.4.1.4 DAL-TS-270 4.6.4.1.4 DAL-TS-280 4.6.4.1.4 DAL-TS-290	Above mentioned references are not acceptable.	Above mentioned references require a potential re-engineering with uncertain benefits and may be in contradiction with the benefits gained from automation and is therefore considered a major comment to all above references.	Review and change of text required as deemed unacceptable in the current form based on current experience. A proposal for text requires more time as the issues are of complex nature.	2.2.3.4 2.2.2.6	**Accepted**	**Switzerland, SKYGUIDE**
4.3.4.4, Page 42	States 'draft' implementing rule.	As above	Remove 'draft'	2.2.1	**Accepted**	**United Kingdom, CAA**
Page 43, 4.3.4.5	The requirements DAL-DPE-030 and DAL-DPE-040 go beyond ADQ IR requirements. ADQ IR only reads in article 5, chapter 4 b, that the information must be "directly readable on a computer screen".	DAL is not compliant to ADQ IR.	Delete requirement DAL-DPE-030 and DAL-DPE-040.	2.2.3.3	**Partially Accepted**	**Germany, DFS**
Page 43, 4.3.4.5	The requirements DAL-DPE-030 and DAL-DPE-040 go beyond ADQ IR requirements. ADQ IR only reads in article 5, chapter 4 b, that the information must be "directly readable on a computer screen".	DAL is not compliant to ADQ IR.	Delete requirement DAL-DPE-030 and DAL-DPE-040.	2.2.3.3	**Partially Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
4.3.4.5 DAL-DPE-030	The DAL-DPE-030 shall be removed in favour of DAL-DPE-040	The publication in digital/electronic form shall be according to a specification including the presentation to the user. If the rendering is left to the next intended user then this will open room for safety issues as the way the data is presented using web technologies (without the clear specification how this has to be) may be unclear, confusing and thus lead to misinterpretation of the data presented. The eAIP specification from EUROCONTROL provides the means for a standardised presentation to the user.	Remove DAL-DPE-030.	2.2.3.3	**Partially Accepted**	**Switzerland, SKYGUIDE**
DAL-DPE-030 DAL-DPE-040	There is already another MOC dealing with this subject, the eAIP specification, there is no need to make further references on the DAL.		Removal of both requirements	2.2.3.3	**Partially Accepted**	**Spain, AENA**
Page 43, 4.3.4.5	Requirement DAL-DPE-50 is part of the basic QMS at ANSPs. Already covered by the need for an existing QMS.	Needless DAL.	Delete requirement DAL-DPE-50.	2.2.2.9	**Partially Accepted**	**Germany, DFS**
Page 43, 4.3.4.5	Requirement DAL-DPE-50 is part of the basic QMS at ANSPs. Already covered by the need for an existing QMS.	Needless DAL.	Delete requirement DAL-DPE-50.	2.2.2.9	**Partially Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**
Page 42, 4.3.4.5	Requirement DAL-DPE-070 is prescribing a consistency check by a different department. The responsibility for publication of the AIP lies within the national publication agency. A consistency check by a different department is not reasonable and effective.	Ineffective DAL.	Delete “D” from DAL1 and DAL2 column.	2.2.3.1	**Accepted**	**Germany, DFS**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Page 43, 4.3.4.5	Requirement DAL-DPE-070 is prescribing a consistency check by a different department. The responsibility for publication of the AIP lies within the national publication agency. A consistency check by a different department is not reasonable and effective.	Ineffective DAL.	Delete “D” from DAL1 and DAL2 column.	2.2.3.1	**Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**
DAL-DPE-070	This requirement goes in the opposite direction of the DAL itself.	It is nearly impossible to check all paper products against its digital ones for every production cycle (integrity at product level). The DAL itself mentions this for integrity at data level. What it is possible and feasible, is to establish a mechanism that will, to a certain level, guaranty that this will happen, like derive all products from the same source (DAL-DPE-060)	Removal of the requirement	2.2.3.1	**Accepted**	**Spain, AENA**
DE-120 and 130	These objectives make no sense at individual State level, they should be carried globally for European States.	The individual assessment of the applicability of the ICAO guidelines will lead to duplication of efforts and inconsistency among European States	Remove the objectives and take an action at Eurocontrol level (e.g. within the eTOD WG)	2.2.3.4	**Accepted**	**France, DGAC/DSNA**
DE-150	Specify what is meant by “approved”	Is there a recognized body which approves these format standards?	Further clarification required	2.2.1	**Accepted**	**France, DGAC/DSNA**
Page 46 - 4.4.2 Provisions	Text of ADQ IR incorrectly quoted.	6.6 b) ii : "shall be" has to be "are to be". 6.8 : "specified" has to be "laid down".	6.6 b) ii : change "shall be" into "are to be". 6.8 : change "specified" into "laid down".	2.2.1	**Accepted**	**Belgium, CAA**
Page 47 - 49, 4.4.3	The number of requirements should be considerably reduced.	In 4.4.2. Article 6.3. is referenced, which addresses more subjects than provision of data. It would be more helpful to refer to a model than defining requirements. SLA is such a model and it should be sufficient to refer to this in one requirement.	The requirements shall be replaced by one requirement stating: Formal arrangements should be met by using SLAs. This is a common standard which can be used to support the SLA/SLA-management. All other requirements should be deleted.	2.2.3.5	**Partially Accepted**	**Germany, DFS**
Page 48 - 4.4.3.2 Application	Wrong reference to section 4.4.2	Formal arrangements and data origination are discussed in sections 4.4.3 and 4.4.4.	Change "section 4.4.2" into "sections 4.4.3 and 4.4.4".	2.2.1	**Accepted**	**Belgium, CAA**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
4.4.3.3 DAL-FA-080	Indicator E • is too stringent.			2.2.2.2	Accepted	Austria, AUSTRO CONTROL
Page 49 / 4.4.4	Data quality originates with surveying/measurement of data. Wrong or insufficient measurement of data causes data errors or data hazards.	Eurocontrol DQR as well as DAL specifications can not be implemented without developing, releasing and implementing a fully aligned Data Origination Specification in order to provide evidence of the required MoCs.		2.2.2.11	Accepted	Italy, ENAV
Page 49, 4.4.4.2	Annual revision and assessment of critical and essential data items is not realistic. Annual independent survey for critical items has no benefit for the reliability of data.	Annual revision and independent survey would cause a significant increase in cost that is not justifiable.	Delete requirements in paragraph and in the following tables.	2.2.2.11	Accepted	Belgium, BELGOCONTROL
4.4.4.2	Annual revision and assessment of critical and essential data items is not realistic. Annual independent survey for critical items has no benefit for the reliability of data.	Annual revision and independent survey would cause a significant increase in cost that is not justifiable.	Delete requirements in paragraph and in the following tables.	2.2.2.11	Accepted	Belgium, CANSO
Page 49, 4.4.4.2	Annual revision and assessment of critical and essential data items is not realistic. Annual independent survey for critical items has no benefit for the reliability of data.	Annual revision and independent survey would cause a significant increase in cost that is not justifiable.	Delete requirements in paragraph and in the following tables.	2.2.2.11	Accepted	Belgium, FABEC (BELGOCONTROL)
Page 49, 4.4.4.2	Annual revision and assessment of critical and essential data items is not realistic. Annual independent survey for critical items has no benefit for the reliability of data.	Annual revision and independent survey would cause a significant increase in cost that is not justifiable.	Delete requirements in paragraph and in the following tables.	2.2.2.11	Accepted	France, FABEC (DGAC/DSNA)
Page 49, 4.4.4.2	Annual revision and assessment of critical and essential data items is not realistic. Annual independent survey for critical items has no benefit for the reliability of data.	Annual revision and independent survey would cause a significant increase in cost that is not justifiable.	Delete requirements in paragraph and in the following tables.	2.2.2.11	Accepted	Germany, DFS

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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Page 49, 4.4.4.2	Annual revision and assessment of critical and essential data items is not realistic. Annual independent survey for critical items has no benefit for the reliability of data.	Annual revision and independent survey would cause a significant increase in cost that is not justifiable.	Delete requirements in paragraph and in the following tables.	2.2.2.11	**Accepted**	**Luxembourg, FABEC (ANA)**
Page 49, 4.4.4.2	Annual revision and assessment of critical and essential data items is not realistic. Annual independent survey for critical items has no benefit for the reliability of data.	Annual revision and independent survey would cause a significant increase in cost that is not justifiable.	Delete requirements in paragraph and in the following tables.	2.2.2.11	**Accepted**	**Netherlands, FABEC (LVNL)**
Page 49, 4.4.4.2	Annual revision and assessment of critical and essential data items is not realistic. Annual independent survey for critical items has no benefit for the reliability of data.	Annual revision and independent survey would cause a significant increase in cost that is not justifiable.	Delete requirements in paragraph and in the following tables.	2.2.2.11	**Accepted**	**Netherlands, FABEC (MUAC)**
4.4.4.2	Annual revision and assessment of critical and essential data items is not realistic. Annual independent survey for critical items has no benefit for the reliability of data.	Annual revision and independent survey would cause a significant increase in cost that is not justifiable.	Delete requirements in paragraph and in the following tables.	2.2.2.11	**Accepted**	**Germany, FABEC (DFS)**
4.4.4.2	Annual revision and assessment of critical and essential data items is not realistic. Annual independent survey for critical items has no benefit for the reliability of data.	Annual revision and independent survey would cause a significant increase in cost that is not justifiable.	Delete requirements in paragraph and in the following tables.	2.2.2.11	**Accepted**	**Switzerland, FABEC (SKYGUIDE)**
Page 50 - 4.4.4.2 Application	The reference to footnote 6 is not printed in superscript.	Bullet two says: " ... can be used6."	Change "used6" into "used [6]."	2.2.1	**Accepted**	**Belgium, CAA**
4.4.4.3.1 DAL-RDO-070	There is no guidance material for data origination report. Format.	The Specification should basically support the implementation of the ADQ IR.		2.2.2.11	**Accepted**	**Austria, AUSTRO CONTROL**
Page 51, 4.4.4.3.2	The requirements are part of a QMS.		Delete chapter 4.4.4.3.2. This is an inherent part of an ISO9001 certification.	2.2.2.9	**Rejected**	**Germany, DFS**
Page 51, 4.4.4.3.2	The requirements are part of a QMS.		Delete chapter 4.4.4.3.2. This is an inherent part of an ISO9001 certification.	2.2.2.9	**Rejected**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**

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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
4.4.4.3.DAL-DOM-130	This objective goes far beyond the ADQ requirements, and would create a significant increase of the overall costs for the implementation.	There is no justification for extending the requirements of the ADQ.		2.2.2.11	**Accepted**	**Austria, AUSTRO CONTROL**
4.4.4.3.3 DAL-DOM-130	Remove the requirement DAL-DOM-130.	Reliability of measurement networks (measurements, computed coordinates) is the surveyors mean for this. The freedom of applying an adequate surveying method should be left to the originator/surveyor.		2.2.2.11	**Accepted**	**Switzerland, SKYGUIDE**
DAL-DOM-130, Page 52	DAL requirement unachievable. Surveying critical survey data items twice is not realistic. Overburdening airports and operators.	Not included in the ADQ IR itself. Full survey followed by annual check only mentioned.	Remove requirement for surveying twice.	2.2.2.11	**Accepted**	**United Kingdom, CAA**
Page 52, 4.4.4.3.3	The requirement DAL-DOM-140 is over-prescriptive. Remove the requirement DAL-DOM-140.	A full initial survey is not necessarily a guarantee to ensure the quality of the collected data nor is it the only means to guarantee the required quality. The freedom of applying an adequate surveying method has to be left to the surveyor.	Delete requirement DAL-DOM-140.	2.2.2.11	**Partially Accepted**	**Germany, DFS**
Page 52, 4.4.4.3.3	The requirement DAL-DOM-140 is over-prescriptive. Remove the requirement DAL-DOM-140.	A full initial survey is not necessarily a guarantee to ensure the quality of the collected data nor is it the only means to guarantee the required quality. The freedom of applying an adequate surveying method has to be left to the surveyor.	Delete requirement DAL-DOM-140.	2.2.2.11	**Partially Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
4.4.4.3.3 DAL-DOM-140	Remove the requirement DAL-DOM-140.	A full initial survey is not necessarily a guarantee to ensure the quality of the collected data nor is it the only mean to guarantee the required quality. The freedom of applying an adequate surveying method should be left to the originator/surveyor.		2.2.2.11	**Partially Accepted**	**Switzerland, SKYGUIDE**
4.4.4.3.3 DAL-DOM-150 Page 52	Usage of transform data shall be allowed for critical and essential data.	There may be reasons where a transformation of critical and essential data is required, for example different coordinates systems of origination and publication/usage (e.g. elevation is measured in WGS-84, but published in EGM-96).	Delete DAL-DOM-150.	2.2.2.11	**Rejected**	**Germany, AVITECH AG**
DOD-010 and 040	Specify what is meant by “validated” and “appropriate means"	The specification is pointless if no validation method or specific appropriate means is referred to	Further specify means, e.g. by reusing the ICAO Doc 9906 (Quality Assurance Manual for Flight Procedure Design Volume 3 - Flight Procedure Design Software Validation)	2.2.2.11	**Accepted**	**France, DGAC/DSNA**
Page 53, 4.4.4.3.4	The requirements DAL-DOD-020 - DAL-DOD-050 are not clear.	What are appropriate means? Who approves them?	Clarify or delete requirements.	2.2.2.11	**Accepted**	**Germany, DFS**
Page 53, 4.4.4.3.4	The requirements DAL-DOD-020 - DAL-DOD-050 are not clear.	What are appropriate means? Who approves them?	Clarify or delete requirements.	2.2.2.11	**Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**
4.4.5.3.DAL-AU-010	There is no appropriate guidance for this objective.	The purpose and scope of the specification (guidance and support) is missed in this case.		2.2.2.6	**Accepted**	**Austria, AUSTRO CONTROL**
CT-010	The objective is not a specification but a copy of the rule	This objective is not practicable unless a means is specified (it is just copied and pasted from the rule and thus is not a specification)	Further refine the objective or delete it and stay at the rule level	2.2.2.3	**Accepted**	**France, DGAC/DSNA**
Page 61, 4.5.4.1	For requirement DAL-CT-010 no Means of Compliance are specified.	Requirement is considered meaningless because no specification is given how to achieve it.	Delete requirement.	2.2.2.3	**Accepted**	**Germany, DFS**

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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Page 61, 4.5.4.1	For requirement DAL-CT-010 no Means of Compliance are specified.	Requirement is considered meaningless because no specification is given how to achieve it.	Delete requirement or give a specification how to achieve it	2.2.2.3	**Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**
4.5.4.1 DAL-CT-010	No Means of Compliance are specified.	Just copied from the rule without specifying how this shall be achieved, considered meaningless.	Either specify a means of Compliance or Delete.	2.2.2.3	**Accepted**	**Switzerland, SKYGUIDE**
Page 65 - 4.6 tools and software requirements	Why do we need extra requirements for software?	We have already ESARR 6 and the Commission Regulation EC 482/2008 on software safety assurance system in place.		2.2.2.6	**Rejected**	**Belgium, CAA**
DAL 4.6.3	Re: the tool qualification process: Whilst we recognise why this requirement is in place for 'bespoke' products, we are concerned that a tool qualification process appears to be necessary for universally available COTS applications of which stakeholders (surveyors, data providers etc) do not have the ability to demonstrate that they are fit for purpose. E.g. standard 'desktop' applications such as Microsoft products. Furthermore, how does this impact on the DQTS for which there is no known replacement and which is no longer 'supported'.	Request for clarification		2.2.2.7	**Noted**	**United Kingdom, NATS**
DAL 4.6.3	With regards to the tool qualification process: How does this impact on the applicability of the DQTS for which there is no known replacement and which is no longer 'supported'	Request for clarification		2.2.2.7	**Noted**	**United Kingdom, NATS**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
TS-010 to 0100, 120, 130, 180, 220, 250 to 290, 330,360, 370, 390, 440 and 500 to 540	Most of the tool specifications (in particular the ones listed in reference) are deemed over-prescriptive and shall be reassessed so that they are commensurate with the AIM domain.	The objectives for existing tools, as drafted, are not feasible unless the tools are completely redesigned (retro-engineering). This will lead at best to a new development, which cost has been assessed for only one of the FABEC ANSP of the order of 10 millions euros, and in the worst case to fallback to human processes, which is the contrary of the ADQ IR aim. The link of these objectives to the rule is unclear and most of them are deemed to go beyond the rule and add unnecessary efforts for software development. The feasibility of these objectives (e.g. TS-330 or 370) should be carefully assessed, as they may not be practically implementable.	Completely reconsider the Tool Specification objectives to make them practical, realistic, clearly related to the rule, and commensurate with the AIM domain	2.2.2.6	**Partially Accepted**	**Belgium, BELGOCONTROL**

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TS-010 to 0100, 120, 130, 180, 220, 250 to 290, 330,360, 370, 390, 440 and 500 to 540	Most of the tool specifications (in particular the ones listed in reference) are deemed over-prescriptive and shall be reassessed so that they are commensurate with the AIM domain.	The objectives for existing tools, as drafted, are not feasible unless the tools are completely redesigned (retro-engineering). This will lead at best to a new development, which cost has been assessed for only one of the FABEC ANSP of the order of 10 millions euros, and in the worst case to fallback to human processes, which is the contrary of the ADQ IR aim. The link of these objectives to the rule is unclear and most of them are deemed to go beyond the rule and add unnecessary efforts for software development. The feasibility of these objectives (e.g. TS-330 or 370) should be carefully assessed, as they may not be practically implementable.	Completely reconsider the Tool Specification objectives to make them practical, realistic, clearly related to the rule, and commensurate with the AIM domain.	2.2.2.6	**Partially Accepted**	**Germany, FABEC (DFS)**

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General and 4.6.4.1.2 DAL-TS-120 4.6.4.1.2 DAL-TS-130	DAL-TS-120, DAL-TS-130: "Hard" linkage of critical Data with SWAL 2 leads to excessive development costs for data management platforms dealing with all kind of aeronautical data (routine, essential and critical).	There will hardly be a system dealing only with one type of data (routine, essential or critical). Therefore systems will have to be developed according to SWAL 2 which seems too restrictive and for sure much too costly for most AISP.	The problem comes from the "hard" linkage of critical Data with SWAL 2. This relation has to be softened. Maybe a SWAL 3 for system using all data (routine, essential or critical) would be a compromise. System dealing solely with critical data should still satisfy SWAL 2.	2.2.2.6	**Partially Accepted**	**Belgium, BELGOCONTROL**
General and 4.6.4.1.2 DAL-TS-120 4.6.4.1.2 DAL-TS-130	DAL-TS-120, DAL-TS-130: "Hard" linkage of critical Data with SWAL 2 leads to excessive development costs for data management platforms dealing with all kind of aeronautical data (routine, essential and critical).	There will hardly be a system dealing only with one type of data (routine, essential or critical). Therefore systems will have to be developed according to SWAL 2 which seems too restrictive and for sure much too costly for most AISP.	The problem comes from the "hard" linkage of critical Data with SWAL 2. This relation has to be softened. Maybe a SWAL 3 for system using all data (routine, essential or critical) would be a compromise. System dealing solely with critical data should still satisfy SWAL 2.	2.2.2.6	**Partially Accepted**	**Belgium, CANSO**

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General and 4.6.4.1.2 DAL-TS-120 4.6.4.1.2 DAL-TS-130	DAL-TS-120, DAL-TS-130: "Hard" linkage of critical Data with SWAL 2 leads to excessive development costs for data management platforms dealing with all kind of aeronautical data (routine, essential and critical).	There will hardly be a system dealing only with one type of data (routine, essential or critical). Therefore systems will have to be developed according to SWAL 2 which seems too restrictive and for sure much too costly for most AISP.	The problem comes from the "hard" linkage of critical Data with SWAL 2. This relation has to be softened. Maybe a SWAL 3 for system using all data (routine, essential or critical) would be a compromise. System dealing solely with critical data should still satisfy SWAL 2.	2.2.2.6	**Partially Accepted**	**France, FABEC (DGAC/DSNA)**
General and 4.6.4.1.2 DAL-TS-120 4.6.4.1.2 DAL-TS-130	DAL-TS-120, DAL-TS-130: "Hard" linkage of critical Data with SWAL 2 leads to excessive development costs for data management platforms dealing with all kind of aeronautical data (routine, essential and critical).	There will hardly be a system dealing only with one type of data (routine, essential or critical). Therefore systems will have to be developed according to SWAL 2 which seems too restrictive and for sure much too costly for most AISP.	The problem comes from the "hard" linkage of critical Data with SWAL 2. This relation has to be softened. Maybe a SWAL 3 for system using all data (routine, essential or critical) would be a compromise. System dealing solely with critical data should still satisfy SWAL 2.	2.2.2.6	**Partially Accepted**	**Germany, FABEC (DFS)**
General and 4.6.4.1.2 DAL-TS-120 4.6.4.1.2 DAL-TS-130	DAL-TS-120, DAL-TS-130: "Hard" linkage of critical Data with SWAL 2 leads to excessive development costs for data management platforms dealing with all kind of aeronautical data (routine, essential and critical).	There will hardly be a system dealing only with one type of data (routine, essential or critical). Therefore systems will have to be developed according to SWAL 2 which seems too restrictive and for sure much too costly for most AISP.	The problem comes from the "hard" linkage of critical Data with SWAL 2. This relation has to be softened. Maybe a SWAL 3 for system using all data (routine, essential or critical) would be a compromise. System dealing solely with critical data should still satisfy SWAL 2.	2.2.2.6	**Partially Accepted**	**Luxembourg, FABEC (ANA)**

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General and 4.6.4.1.2 DAL-TS-120 4.6.4.1.2 DAL-TS-130	DAL-TS-120, DAL-TS-130: "Hard" linkage of critical Data with SWAL 2 leads to excessive development costs for data management platforms dealing with all kind of aeronautical data (routine, essential and critical).	There will hardly be a system dealing only with one type of data (routine, essential or critical). Therefore systems will have to be developed according to SWAL 2 which seems too restrictive and for sure much too costly for most AISP.	The problem comes from the "hard" linkage of critical Data with SWAL 2. This relation has to be softened. Maybe a SWAL 3 for system using all data (routine, essential or critical) would be a compromise. System dealing solely with critical data should still satisfy SWAL 2.	2.2.2.6	**Partially Accepted**	**Netherlands, FABEC (MUAC)**
General and 4.6.4.1.2 DAL-TS-120 4.6.4.1.2 DAL-TS-130	DAL-TS-120, DAL-TS-130: "Hard" linkage of critical Data with SWAL 2 leads to excessive development costs for data management platforms dealing with all kind of aeronautical data (routine, essential and critical).	There will hardly be a system dealing only with one type of data (routine, essential or critical). Therefore systems will have to be developed according to SWAL 2 which seems too restrictive and for sure much too costly for most AISP.	The problem comes from the "hard" linkage of critical Data with SWAL 2. This relation has to be softened. Maybe a SWAL 3 for system using all data (routine, essential or critical) would be a compromise. System dealing solely with critical data should still satisfy SWAL 2.	2.2.2.6	**Partially Accepted**	**Switzerland, SKYGUIDE**
General and 4.6.4.1.2 DAL-TS-120 4.6.4.1.2 DAL-TS-130	DAL-TS-120, DAL-TS-130: "Hard" linkage of critical Data with SWAL 2 leads to excessive development costs for data management platforms dealing with all kind of aeronautical data (routine, essential and critical).	There will hardly be a system dealing only with one type of data (routine, essential or critical). Therefore systems will have to be developed according to SWAL 2 which seems too restrictive and for sure much too costly for most AISP.	The problem comes from the "hard" linkage of critical Data with SWAL 2. This relation has to be softened. Maybe a SWAL 3 for system using all data (routine, essential or critical) would be a compromise. System dealing solely with critical data should still satisfy SWAL 2.	2.2.2.6	**Partially Accepted**	**Switzerland, FABEC (SKYGUIDE)**

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General and Page 65ff, 4.6.4.1.2 4.6.4.1.2	DAL-TS-120, DAL-TS-130: "Hard" linkage of critical data with SWAL 2 leads to excessive development costs for data management platforms dealing with all kind of aeronautical data (routine, essential and critical). In the example illustrated below comparing metadata before and after transfer of the actual critical data does also assure that nothing has been altered. Hard linkage of critical data would always force the AISP to use costly SWAL 2 tested software, where the task of assuring identical data could also have been fulfilled by a much simpler process. ***[See Diagram provided in actual response sheet]***	There will hardly be a system dealing only with one type of data (routine, essential or critical). Therefore systems will have to be developed according to SWAL 2 which seems too restrictive and for sure much too costly for most AISP. To start at a reasonable lower level leads to more safety than defining a high level standard to which nobody will comply to.	The problem comes from the "hard" linkage of critical Data with SWAL 2. This relation has to be softened or deleted. Maybe a SWAL 3 for systems using all data (routine, essential or critical) would be a compromise.	2.2.2.6	**Partially Accepted**	**Germany, DFS**
General and Page 65ff, 4.6.4.1.2 4.6.4.1.2	DAL-TS-120, DAL-TS-130: "Hard" linkage of critical data with SWAL 2 leads to excessive development costs for data management platforms dealing with all kind of aeronautical data (routine, essential and critical).	There will hardly be a system dealing only with one type of data (routine, essential or critical). Therefore systems will have to be developed according to SWAL 2 which seems too restrictive and for sure much too costly for most AISP.	The problem comes from the "hard" linkage of critical Data with SWAL 2. This relation has to be softened or deleted. Maybe a SWAL 3 for system using all data (routine, essential or critical) would be a compromise. System dealing solely with critical data should still satisfy SWAL 2.	2.2.2.6	**Partially Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**
4.6.4.1.3	TQL Note No 9: Not to be implemented using COTS software.	We see no reason why COTS should be excluded	Remove note. COTS should be a possible solution	2.2.2.7	**Partially Accepted**	**Sweden, LFV**
4.6.4.1.3 and 4.6.4.2.3	This goes too far, particularly the foot note that TQL 1 shall not be implemented using COTS software.	We do not see why this shouldn't be possible with today's technology. Failures may occur not matter where the software was developed. Internal development is a matter of cost and may become unaffordable whereas external development and maintenance cost can be shared among the user base of a COTS product.		2.2.2.7	**Partially Accepted**	**Sweden, SWEDISH TRANSPORT AGENCY**

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4.6.4.1.3 and 4.6.4.2.3	This goes too far, particularly the foot note that TQL 1 shall not be implemented using COTS software.	We do not see why this shouldn't be possible with today's technology. Failures may occur not matter where the software was developed. Internal development is a matter of cost and may become unaffordable whereas external development and maintenance cost can be shared among the user base of a COTS product.	Remove all requirements not to use COTS software in favour of requirements towards the formal arrangement with a supplier of data management software.	2.2.2.7	**Partially Accepted**	**Switzerland, SKYGUIDE**
Page 76 - 4.7.2 Provisions	Text of ADQ IR incorrectly quoted.	VI.4 : "transmission" has to be "transfer".	VI.4 : change "transmission" into "transfer".	2.2.1	**Accepted**	**Belgium, CAA**
Page 77 - 4.7.3.1 Overview	Reference to section 4.8.3 is incomplete.	Section 4.8.2 speaks about safety management and section 4.8.3 speak about security management.	Change "section 4.8.3" into "sections 4.8.2 and 4.8.3".	2.2.1	**Accepted**	**Belgium, CAA**
4.7.4.1	All requirements might be too stringent and impossibilities the use of standard technologies, thus imposing an huge increment of costs and limiting the implementation of the specification	It should be identified if existing technology can deal with all this requirements (existing web services, etc.)	Removal or make non mandatory (should) all the requirements.	2.2.3.2	**Accepted**	**Spain, AENA**
Page 80 - 4.8.1.3 Application	Reference to ICAO Doc 8697 is missing.	Does this document still exists ? If yes, what is it about ?	Check and add, if necessary, the information for ICAO Doc 8697.	2.2.1	**Accepted**	**Belgium, CAA**
Page 81 4.8.1.4 QMS- Objectives	a) DAL – QM-030 “The Quality Management System shall be developed and implemented covering the complete scope of aeronautical data, information and product activities of the organization” b) DAL – QM -090 “A management representative shall be appointed within the organization responsible for the implementation of the Quality Management System”:	The objectives above mentioned should be INDEPENDENT according to the mandatory requirement of the amendment nr.75 to Annex 3 ICAO (implementation of a QMS for the Meteorological Services in order to provide to Aeronautical Meteorological Service Providers a ISO 9001 /2008 certificate)	Mark the column “DAL 1” and “DAL 2” with a dark point.	2.2.2.9	**Accepted**	**Italy, USAM - METEOROLOGICAL DEPARTMENT**

ENPRM/10-005 Draft EUROCONTROL Specification for Data Assurance Levels (DAL) SPECIFICATION REQUIREMENTS						
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Page 90, 5.3.2	The text cited leads to misinterpretation.	Misleading information. Clarification needed to make clear who are the parties to be involved.	Please add the text of the IR, the text cited is referencing to: *"The parties referred to in Article 2(2) points (b) and (c) shall:…"* and add: "This Regulation shall apply to the following parties: (b) **operators of those aerodromes and heliports**, for which instrument flight rules (IFR) or Special-visual flight rules (VFR) procedures have been published in national aero nautical information publications; (c) **public or private entities** providing, for the purposes of this Regulation"	2.2.1	**Accepted**	**Germany, DFS**
Page 90, 5.3.2	The text cited leads to misinterpretation.	Misleading information. Clarification needed to make clear who are the parties to be involved.	Please add the text of the IR, the text cited is referencing to: "*The parties referred to in Article 2(2) points (b) and (c) shall:…*" and add: "This Regulation shall apply to the following parties: (b) **operators of those aerodromes and heliports**, for which instrument flight rules (IFR) or Special-visual flight rules (VFR) procedures have been published in national aero nautical information publications; (c) **public or private entities** providing, for the purposes of this Regulation"	2.2.1	**Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**

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§ No	**Comment**	**Reason(s) for Comment**	**Proposed Change/Text**	**Ref § No SOR**	**Disposal**	**Organisation**
Page 91, 5.3.3	In article 13 the ANSPs are not addressed! *"The parties referred to in Article 2(2) points (b) and (c) shall:…"* *"This Regulation shall apply to the following parties:* *(b) **operators of those aerodromes and heliports**, for which instrument flight rules (IFR) or Special-visual flight rules (VFR) procedures have been published in national aero nautical information publications;* *(c) **public or private entities** providing, for the purposes of this Regulation"*	Any reference to ANSPs (and therefore any link to 2096/2005) shall be deleted, because the ANSPs are not addressed in the referenced Article 2(2) points (b) and (c).	Chapter 5 shall be rewritten completely.	2.2.3.6	**Partially Accepted**	**Germany, DFS**
Page 91, 5.3.3	In article 13 the ANSPs are not addressed! "*The parties referred to in Article 2(2) points (b) and (c) shall:…*" "*This Regulation shall apply to the following parties:* *(b) **operators of those aerodromes and heliports**, for which instrument flight rules (IFR) or Special-visual flight rules (VFR) procedures have been published in national aero nautical information publications;* *(c) **public or private entities** providing, for the purposes of this Regulation"*	Any reference to ANSPs (and therefore any link to 2096/2005) shall be deleted, because the ANSPs are not addressed in the referenced Article 2(2) points (b) and (c).	Chapter 5 shall be rewritten completely.	2.2.3.6	**Partially Accepted**	**Germany, FEDERAL MINISTRY OF TRANSPORT, BUILDING AND URBAN AFFAIRS**
Page 97 Annex 1 : References	References to ICAO Doc 8697 and ICAO Doc 9855 are missing.	These documents are mentioned in the specification, without full reference information in Annex 1.	Add the necessary information for ICAO Doc 8697 and ICAO Doc 9855 in Annex 1.	2.2.1	**Accepted**	**Belgium, CAA**
Page 99 Annex 2: Table of Abbreviations	"SAM" is used for "Safety Assurance Method". This is confusing.	Double use of the same acronym. "SAM" also stands for "Eurocontrol Safety Assessment Methodology".	Please find another unambiguous acronym.	2.2.1	**Accepted**	**Belgium, CAA**

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Page 101-102 Annex 3: Defined terms	Definitions of critical, essential and routine data are incorrect.	For critical data, integrity level must be very high. So, 99,999999%. (But, 10^{-8} means that only 1 per 10^{8} is correct) For essential data, integrity level must be high; So, 99,999%. (But, 10^{-5} means that only 1 per 10^{5} is correct) For routine data, integrity level can be low. So, 99,9%. (But, 10^{-3} means that only 1 per 10^{3} is correct) With the definitions as they are written today, you get the opposite of what you want. For critical data you get the lowest integrity level (0,00000001) and for routine data the highest integrity level (0,001), but still not integer at all.	Change $1X10^{-8}$ into $1-(1x10^{-8})$. Change $1x10^{-5}$ into $1-(1x10^{-5})$. Change $1x10^{-3}$ into $1-(1x10^{-3})$.	2.2.3.8	**Rejected**	**Belgium, CAA**
Page 11 0 Annex 5 Traceability Matrix	Reference to a requirement that does not exist : DAL-DQ-400.	Code and number are incorrect. DQ doesn't appear in the list of codes. There are no other DAL-DQ numbers. So, the number 400 is also incorrect.	Delete DAL-DQ-400 and change into the right reference code and number.	2.2.1	**Accepted**	**Belgium, CAA**