



Agenda Item 7: Amendment 39 to Annex 15 – Aeronautical Information Services

Data Catalogue

(Presented by the Secretariat)

SUMMARY	
This working paper presents an aeronautical data catalogue project.	
REFERENCES	
<ul style="list-style-type: none">• Annex 15 – Aeronautical Information Services• AIS-AIM SG report• Draft PANS-AIM	
ICAO strategic objectives:	<i>A - Safety</i> <i>B – Air navigation capacity and efficiency</i> <i>E – Environmental protection</i>

1. Introduction

1.1 Ever since its creation in 2008, the AIS-AIM Study Group (AIS-AIM SG) has been reviewing aeronautical information documentation and requirements in order to consolidate and adjust AIS services to the new requirements of the industry and to use technology for digital data exchange.

1.2 At its last meetings, the Study Group has been developing a draft PANS-AIM project, which was consolidated in April 2015.

1.3 The PANS-AIM introduces the Data Catalogue in Appendix 1, to be considered as a reference for all provisions concerning the origin and publication of aeronautical data.

2. Analysis

2.1 The AIS-to-AIM Transition Roadmap seeks to move away from a product-based service towards a data-based environment. This change of culture requires defining the scope of data and of the information on all the data collected by the aeronautical information service, including metadata (data on data).

2.2 The purpose of developing a data catalogue is to provide a general description of the scope of AIM data, rather than being an inventory of the data to be collected. The data catalogue is seen as a reference for all the provisions related to the origin and publication of aeronautical data, providing a common language and encouraging formal arrangements between data producers and the aeronautical information service.

2.3 The data catalogue should be the only source for all quality requirements, which would facilitate long-term maintenance when requirements are modified, to ensure that changes are consistent. For instance, resolution and accuracy together should enable verification of the correctness of the data received and further support electronic processing without any future human intervention.

2.4 The AIS-AIM SG has considered transferring all data quality requirements contained in Annex 4 (Appendix 6), Annex 11 (Appendix 5), Annex 14 Vol. I (Appendix 5), Annex 14 Vol. II (Appendix 1), and Annex 15 (Appendices 7 and 8) to the PANS-AIM and consolidate it in a single place, in the data catalogue, which would be beneficial since it would provide a central reference and would facilitate the detection of discrepancies.

2.5 The data catalogue is organised in information sub-domains that reflect the different sources of information:

- a) National regulations, standards, and procedures
- b) Aerodrome and heliports
- c) Airspace
- d) ATS routes
- e) Instrument flight procedures
- f) Nav aids / systems
- g) Obstacles
- h) Geographic information

2.6 Furthermore, the data catalogue should be a detailed description of all topics, domains and sub-domains, and data quality requirements. The data catalogue introduces the concept of a data type that describes the nature of the domain/sub-domain and the specification of the data elements that need to be collected. The data catalogue must be considered as a living document that may need to be updated regularly during the first few years.

2.7 The data catalogue is aimed at consolidating the data that may be collected and maintained by the AIS. The data catalogue is the source of accuracy and integrity requirements for detection and reporting of aeronautical data to the AIS. It is also the source of resolution and integrity requirements for the publication and mapping of products, including the aeronautical data listed in Annex 15.

2.8 In order to establish a Data Catalogue, the State should follow the recommendations listed below:

- a) Use the ICAO AIM data catalogue model available in the PANS-AIM project on the ICAO AIS-AIM SG website.
- b) Analyse the national aeronautical information products in order to identify additional data elements.
- c) Establish principles and rules on how to assign a DQR (*Data Quality Requirement*) to all data elements.
- d) Conduct safety assessment workshops to define the national DQR for all data elements, in accordance with the established standards and principles.

2.9 For each data element, States should:

- a) Identify the organisation responsible for the preparation and development of data elements.

- b) Identify the organisational unit within the organisation that originates the data and that is responsible for authorising a change in the data element.
- c) Consult with stakeholders.
- d) "Publish" and state the applicable data catalogue.

2.10 **Appendix A** contains an example of a Data Catalogue.

3. **Suggested action**

3.1 The Meeting is invited to:

- a) take note of the information provided in this working paper;
- b) consider the implementation of an aeronautical data catalogue in each State; and
- c) take any other action it may deem appropriate.

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Apéndice/Appendix A

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