



ICAO

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North American, Central American and Caribbean Office

WORKING PAPER

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Seventh North American, Central American and Caribbean Working Group Meeting (NACC/WG/7)
ICAO NACC Regional Office, Mexico City, 30 August - 1 September 2022

Agenda Item 4: NACC/WG Work Programme Update to 2024

- 4.3 Implementation of mechanisms for measuring the performance of air navigation services

AIM/CAR WORKSHOP ON DATASETS AND ELECTRONIC AERONAUTICAL CHARTS (eCharts)

(Presented by the Secretariat)

EXECUTIVE SUMMARY	
This Working Paper presents the summary and recommendations of the AIM Workshop on Electronic Data Sets and Charts (eCharts), which was developed in collaboration with GroupEAD, Frequentis-Comsoft and M-AIS (FLIGHT7), as a follow-up to the activities of the Group of Aeronautical Information Management Task (AIM TF) and the North American, Central American and Caribbean Working Group (NACC/WG), online, 23-24 November 2021.	
Action:	Suggested actions are presented in Section 3.
Strategic Objectives:	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency
References:	<ul style="list-style-type: none">• Annex 15• Annex 4• PANS AIM• Doc 8697

1. Introduction

1.1 Following the requirements contained in the documentation updated by ICAO Headquarters for Annex 15, Annex 4, PANS AIM (Doc 10066), and PANS OPS Doc 8168 Vols. I, II and III), the NAM/CAR Workshop on Dataset Management and Electronic Aeronautical Charts (eCharts) was carried out on 23-24 November 2021.

1.2 Among the topics of the Workshop, the following points were reviewed and discussed:

1.2.1 From the Data Sets part:

- 1) Digital data set and Aeronautical Information Exchange Model (AIXM)
- 2) Impact of digitization on AIM
- 3) Implementing AIM 2.0 and beyond
- 4) Building System-wide Information Management (SWIM) on a solid foundation of AIM

1.2.2 From the Electronic Aeronautical Charts (eCharts) part:

- 1) Introduction to Electronic Aeronautical Charts (Phase 3 Information Management – Step 20)
- 2) Aeronautical cartography (Annex 4)
- 3) Geographic information systems (GIS) and AD Databases, Obstacles/Terrain Navigation points (Nav).
- 4) Importance of Doc 8168 – PANS OPS.

2. Discussion

2.1 The event was opened by Mr. Julio Siu, Deputy Director of the ICAO NACC Regional Office, and 53 Aeronautical Information Management (AIM), aeronautical data management, and aeronautical cartography and GIS specialists from 13 States and Territories of the Region participated. ICAO CAR and representatives of three invited international organizations. In both English and Spanish languages with simultaneous interpretation.

2.2 Important speakers with extensive experience in AIM participated in the Workshop and were from Group EAD (EUROCONTROL) Mr. Henry Caceres (Henry.Caceres@groupead.com), Senior AIM Project Expert, from M-AIS (FLIGHT7) Mr. Antonio Locandro (antonio.locandro@m-ais.com), AIM, Aeronautical Charting & PANS OPS Expert and from Frequentis-Comsoft Mr. Markus Haas (markus.haas@frequentis.com), Product Manager AIM.

2.3 The participants elaborated important questions that allowed a significant discussion of the topics, such as: Is there any standard on how to compile a data set? In the style of MET and IWXXM? In this case, the answer was: there are still no defined rules for the digital data set, EUROCONTROL is in fact working on it, and so a link to the AIXM Coding Guidelines was provided: https://ext.eurocontrol.int/aixm_confluence/ and that is referenced with the Data Sets that are currently being worked on.

2.4 Finally, important recommendations to be considered were achieved at the Workshop and are presented at this NACC/WG/07 Meeting to be included in its final report as background for the planning of a second Workshop on Data Sets and eCharts in the second half of the year 2023. In addition, to informing GREPECAS of the progress in these AIM matters, as follows:

- 1) More training is required on eAIP, AIXM and data set issues in the CAR Region, particularly, the first step is to have a robust eAIP and with constant updates in order for States to maintain skills, since an issue of concern are the States that implement an initial eAIP but do not make periodic (AMDT) amendments. This includes proper maintenance of the information in the database.
- 2) Reducing the number of old and permanent NOTAMs, because of the above, would also help to achieve an awareness that at this time still does not exist in many States regarding adequate knowledge, to discuss advanced SWIM topics, such as the Digital NOTAM.
- 3) Promote the availability of the eAIP on the websites of the States, so that it is easily accessible to the aeronautical community and to be able to begin with the distribution of certain information in an adequate format to be processed by computer systems, such as at least a “comma-separated values” (CSV) file, or an Excel, etc. Regarding obstacles, Brazil is a very good example in the SAM Region in Latin America.

- 4) Also including the topic of PANS OPS is quite relevant because it is something that is closely related to aeronautical cartographers and probably everyone who works with a database in a Geographic Information System (GIS), should have at least an introduction to the Doc. 8168 Vol. I, II and III, in order to work more completely and effectively.
- 5) Continue with these activities of Workshops and Seminars or Courses, of this type are very important for the CAR Region and advance in the different AIM topics
- 6) Status of AIM implementation: this aspect was commented on by the RO/AIM (Raúl Martínez, rmartinez@icao.int) in relation to a new monitoring and supervision system, that it is important that the status of implementation be made public. implementation of the countries of the Region in order to create awareness and promote decision-making and actions, through the AIM Collaborative Plan (CAR AIM Collaborative Plan) and its AIM Tracking Website.
- 7) Regional training: this is an action in which COCESNA has a lot of experience through ICCAE and which was also recently tested virtually in South America sponsored by the ICAO SAM regional office with good results.
- 8) Regional approach regarding digital data sets: although many guidelines regarding the implementation of Digital Data Sets (DDS) are still under development, a homogeneous implementation of these data in the region could be considered. This requires an understanding of current systems and their compatibility and developing an implementation strategy starting with what is proposed by the PANS AIM.
- 9) The time of the Workshop was short: due to the amount of information to be provided, a following part is recommended for further extension of the topics and inclusion of others not yet treated

3. Suggested actions

3.1 The Meeting is invited to:

- a. take note of the information presented in this Working Paper;
- b. Visit the workshop link that includes the video of the event for each day and additional information on the Workshop presentations: <https://bit.ly/3di4hhA>
- c. provide updates and additional comments on the Recommendations of this AIM Workshop;
- d. present to the GREPECAS 20 Meeting the results of the AIM Workshop on Data Sets and eCHARTS of the CAR Region; and
- e. suggest additional actions if appropriate.