



International Civil Aviation Organization

Ninth Meeting of MIDANPIRG AIM Sub-Group (AIM SG/9)

(Virtual meeting, 20 - 21 September 2022)

AIM SG/9-WP/13

15/09/2022

Agenda Item 4: AIM Planning and Implementation in the MID Region

**OUTCOME OF THE DIGITAL DATASETS IMPLEMENTATION AD-HOC WORKING GROUP
(DDI AD-HOC WG)**

(Presented by the secretariat)

SUMMARY

This Paper presents the outcome of the Digital Datasets Implementation Ad-hoc Working Group (DDI Ad-hoc WG).

Action by the meeting is at paragraph 2.

REFERENCES

- MIDANPIRG/18 DECISION 18/17: Digital Datasets Implementation Adhoc Working Group

1. INTRODUCTION

1.1 The meeting may wish to recall that the MIDANPIRG/18 meeting decided through Decision 18/17, that:

the Digital Datasets Ad-hoc Working Group (DDI Ad-hoc WG):

a) is tasked to develop a detailed Regional Implementation Plan for Digital Datasets and update the MID Doc 008, for review by the AIM SG; and

b) be composed of: Abdulla Hasan AlQadhi (Bahrain), Moataz Abdel Aziz Ahmed (Egypt), Rouhahah Salehi (Iran), Mohammad Hussien Al Anezi (Kuwait), Bassem Ali Nasser (Lebanon), Faisal Al Busaidi (Oman), Pamela Erice (Qatar), Hind A. Almohaimeed (Saudi Arabia), Maram Khaled and Syed Samiullah (UAE) ; and ICAO MID Office.

1.2 The MIDANPIRG/19 meeting was apprised of the progress achieved by the DDI Ad-hoc WG in the development of a detailed Regional Implementation Plan for Digital Datasets and noted that a questionnaire is being developed concerning the intentions and plans of the Member States for the provision of the Digital AIS Data Sets specified in the Annex 15 (16th Edition) to ensure a coordinated deployment of the Digital AIS Data Sets in the MID Region. Furthermore and in order to give the chance to airspace users to reaching the technical capability for handling digital datasets and to evaluate their readiness for using digital datasets instead of AIP tables, the survey results of the European AIS clients and their readiness for using digital datasets instead of AIP tables, will be used to make best use of available resources and avoid duplication of efforts.

1.3 A State letter was issued File Ref.: AN 8/2 – 22/055 dated 29 March 2022 inviting States to complete a Questionnaire on their Plan for the provision of the AIS digital data sets.

1.4 Based on the results of a survey carried out, the expert working group has been working on a detailed Regional Implementation Plan for Digital Datasets.

1.5 The *DDI Ad-hoc WG* uses online tools for their work, mainly the Microsoft Teams. The members provide continuous support and feedback to the drafted materials via this collaborative tool.

2. DISCUSSION

Analyse and interpretation of the replies to the questionnaire

2.1 This section presents an analysis of the replies to the questionnaire (ref. para 1.3) concerning the intentions of the MID Member States for the provision of the Digital AIS Data Sets specified in the Annex 15 (16th Edition). This is one of the steps agreed by the AIM SG/8 and MIDANPIRG/19 meetings for the coordinated deployment plan of these digital data sets.

2.2 From 15 MID Members, 11 States have replied to either some or to all questions. Other States, including Iran, Sudan, Syria and Yemen did not provide any reply.

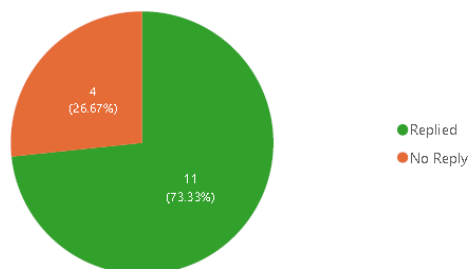


Figure 1 - Questionnaire replies

2.3 The results of the questionnaire are presented in an aggregated form, without sharing the individual replies of each State to provide a global view of the Status of Implementation and provision of Digital Datasets.

2.4 The following diagram presents the status of the provision of the AIP Digital Data Set by the MID States. 6 States have no plan or did not reply to the questionnaire, 2 States have provided the AIP Digital Data Set and for 7 states have planned the provision AIP Digital Data Set with over periods ranging from one to three years latest. The data-coding format foreseen is the AIXM 5.1.

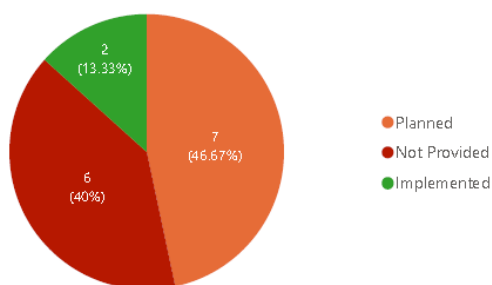


Figure 2 – Status of AIP data set provision

2.5 The below diagram presents the status of the provision of the Terrain and Obstacle Data Set for airports at the MID States. 6 States have no plan or did not reply to the questionnaire, 5 States have provided both terrain and obstacle Digital Data Sets and for 4 states have planned the provision over periods ranging from one to three years latest. The data coding formats foreseen include AIXM 5.1, CSV/Excel, XYZ, ESRI Shape and GeoTIFF.

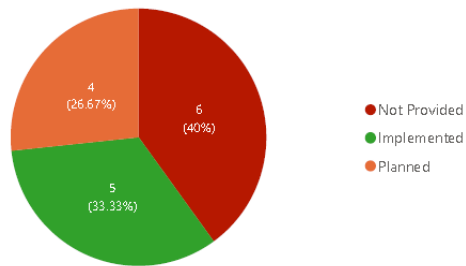


Figure 3 – Status of Obstacle data set provision for airports

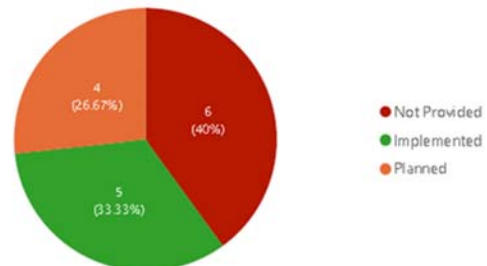


Figure 4 – Status of Terrain data set provision for airports

2.6 The following presents the status of the provision of the Terrain and Obstacle Data Set for area 1 where 6 States have provided both terrain and obstacle Digital Data Sets for area 1. 7 have no plan or did not reply to the questionnaire, 2 States planned data set provision within two years maximum. The data coding formats foreseen include AIXM 5.1, CSV/Excel, XYZ, ESRI Shape and GeoTIFF.

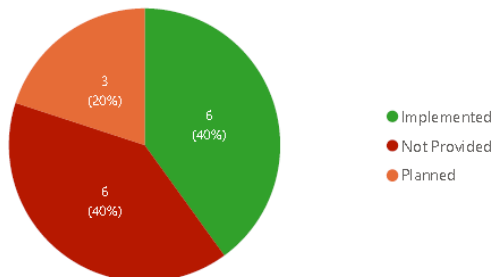


Figure 5 – Status of Obstacle data set provision for area 1

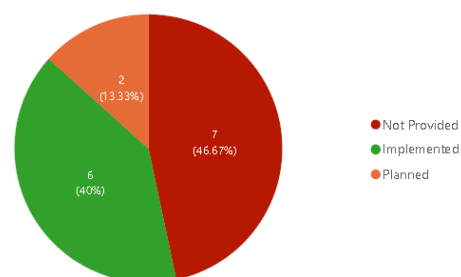


Figure 6 – Status of Terrain data set provision for area 1

2.7 For Instrument Flight Procedures Data Sets and airport mapping data sets, 7 States have no plan or did not reply to the questionnaire, 8 States planned the provision of those data sets until 2025. No coding formats is provided.

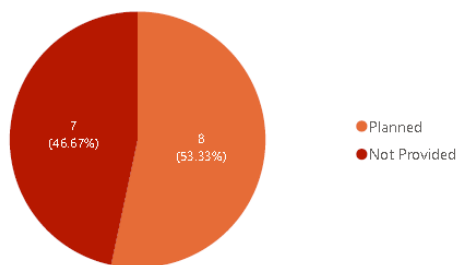


Figure 7 – Status of AMDS provision

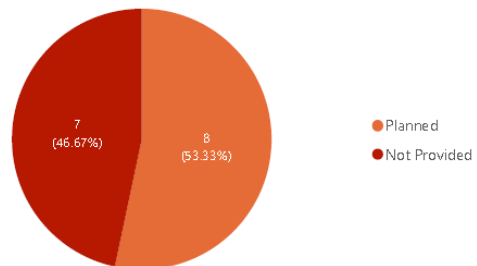


Figure 8 – Status of IFP data set provision

2.8 The DDI Ad-hoc WG addressed another important aspect related to the need for MID States to establish a “transition period” in order to give the chance to their AIP subscribers reaching the technical capability for handling digital datasets.

2.9 The transition from AIP tables to digital data sets and the impact that this might have on the AIS clients were discussed by the AIM SG/8 and MIDANPIRG/19 meetings. It was agreed to use the survey results of the European AIS clients and their readiness for using digital data sets instead of AIP tables in order to make best use of available resources to save a lot of time and to avoid duplication of efforts.

Removal of tables from AIP

2.10 As per the survey results of the European AIS clients and their readiness for using digital datasets instead of AIP tables, it is noted that:

- Provision of digital data sets is generally highly appreciated, as it will increase efficiency and integrity of the aeronautical data chain.
- The data houses, however, have requested to keep the data in the AIP for **five years or longer**, and request the States to understand these requirements and take them into account.
- The continued provision of tabular data in the AIP, even when also provided digitally, is important to data and chart providers for several reasons.

2.11 The DDI Ad-hoc WG proposes to consider the data house requirements to keep information in the AIP for a longer period, once it is published in digital data sets, with the objective not to lose data or information within the aeronautical data supply chain to avoid the risk of compromising flight safety within navigational data products.

Proposed timelines for the provision of Digital Data Sets

2.12 In order to achieve a harmonized deployment of the Digital AIS data sets in MID region based on the Global developments and current activities in other Regions and as per the survey results, the following timelines and coding formats for data sets provision are proposed:

Data set category	Scope	Format	Coding Specification	Provision date	Transition Period for Removal of tables from AIP
AIP data set	GEN 2.5, ENR 2.1, ENR 3.1, ENR 3.2, ENR 3.3, ENR 3.4, ENR 3.5, ENR 3.6, ENR 4.1, ENR 4.2, ENR 4.4, ENR 4.5, ENR 5.1, ENR 5.2, ENR 5.3.1, ENR 5.3.2, ENR 5.5, AD 2.17, AD 2.19, AD 3.16, AD 3.18	AIXM 5.1/5.1.1	EUROCONTROL Specification on AIP Dataset https://ext.eurocontrol.int/aixm_confluence/display/ACGAIP/Overview	2025 - 2028	5 years from the provision date of the AIP data set
Obstacle data set	Area 1: the entire territory of a State Areas 4, 2a + TKOF flight path + OLS for aerodromes	AIXM 5.1/5.1.1	AIXM coding guidelines for obstacle data sets. https://ext.eurocontrol.int/aixm_confluence	Until 2024	5 years from the provision date of the AIP data set

	regularly used by international civil aviation		/		
	Areas 2b, 2c , 2d and 3 For aerodromes regularly used by international civil aviation			2024-2026	
Terrain data set	Area 1: the entire territory of a State Areas 4, 2a + TKOF flight path + OLS for aerodromes regularly used by international civil aviation	GeoTIFFor ESRI ASCII Grid		Until 2024	Not applicable
	Areas 2b, 2c , 2d and 3 For aerodromes regularly used by international civil aviation		-	2024-2026	
Aerodrome mapping data set	For aerodromes regularly used by international civil aviation	AIXM 5.1.1 and/or AMXM	TBD	2024-2026	Not applicable
IFP data set	a) procedure (all properties); b) procedure segment (all properties); c) final approach segment (all properties); d) procedure fix (all properties); e) procedure holding (all properties); and f) helicopter procedure (all properties) and the data publication requirements contained in PANS-OPS, Doc 8168, Volume II	AIXM 5.2	TBD	From 2025 to 2028	5 years from the provision date of the AIP data set

2.13 Based on the above, the meeting may wish to agree on the following Draft Conclusion:

DRAFT CONCLUSION: MID REGIONAL IMPLEMENTATION PLAN FOR DIGITAL DATASETS

That:

- a) *the DDI Ad-hoc WG complete the Regional Implementation Plan for Digital Datasets by 31 December 2022;*

- b) *the Regional Implementation Plan for Digital Datasets be circulated to Member States for review; and*
- c) *the Regional Implementation Plan for Digital Datasets be presented to MIDANPIRG/20 for endorsement.*

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) review the outcomes of the DDI Ad-hoc WG;
- b) *provide feedback on the proposed timelines for provision of the Digital Datasets at para 2.12; and*
- c) endorse the draft conclusion in 2.13.

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