



International Civil Aviation Organization

MIDANPIRG AIM Sub-Group

Sixth Meeting (AIM SG/6)
(Cairo, Egypt, 21-23 January 2020)

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

GANP 6TH EDITION AND MID REGION AIR NAVIGATION STRATEGY

(Presented by the Secretariat)

SUMMARY

This paper presents the MID Region Air Navigation Strategy (DATM Table), for review and update by the AIM SG.

Action by the meeting is at paragraph 3.

REFERENCES

- GANP 6th Edition
- MIDANPIRG/17 RASG-MID/7 Report
- MSG/6 Report
- AIM SG/3 and 4 Reports

1. INTRODUCTION

1.1 The 6th Edition of the Global Air Navigation Plan – GANP (DOC 9750) was endorsed by the 40th Session of the ICAO Assembly.

1.2 The MIDANPIRG/17 RASG-MID/7 meeting, through MIDANPIRG Conclusion 17/11, agreed that a Joint ACAO/ICAO MID ASBU Symposium be organized beginning of 2020. The Joint ACAO/ICAO MID ASBU Symposium is scheduled to be held in Cairo, Egypt, from 16 to 19 March 2020. The Symposium would address changes to the MID Air Navigation Strategy further to the endorsement of the GANP 6th Edition.

2. DISCUSSION

2.1 The meeting may wish to recall that the AIM SG/3 meeting agreed to propose the deletion of the element “National AIM implementation plan/roadmap” from the list of Elements of B0-DATM in the MID Air Navigation Strategy.

2.2 The meeting may wish to recall that the AIM SG/4 meeting agreed that, for a simplified performance monitoring of the AIM implementation (B0-DATM), eTOD and Digital NOTAM should also be deleted from the list of Elements of B0-DATM. It was noted that eTOD will still be monitored through the MID eANP Volume III (Tables B0-DATM 3-4-1, 3-4-2 and 3-4-3). The AIM SG/4 meeting also agreed that the agreements with data originators is an important Step of the ICAO Roadmap for the transition from

AIS to AIM and should be included in the MID Air Navigation Strategy (B0-DATM). The above mentioned proposed changes were later endorsed by MSG/6.

2.3 The MIDANPIRG/17 RASG-MID/7 meeting recalled that the current version of the MID Region Air Navigation Strategy (MID Doc 002) was endorsed by MSG/6 (Cairo, Egypt, 3-5 December 2018). The meeting agreed that any further proposed changes should be considered during the development of the next version of Strategy, which would be completely revisited further to the endorsement of the new GANP by the ICAO 40th Assembly.

2.4 The meeting may wish to note that the 6th Edition of the GANP has introduced the following main changes to the DAIM Thread/Modules:

- The title of the thread has changed from DATM to DAIM (Digital Aeronautical Information Management)
- The 5th Edition of GANP included DATM Modules in B0 and B1 (B0-DATM and B1-DATM), while the 6th Edition of GANP includes DAIM Modules in B1 and B2 (B1-DAIM and B2-DAIM).
- B1-DAIM includes the previous B0-DATM elements as well as new elements related to Digital Datasets and NOTAM improvements:

DAIM-B1/1 (Quality-assured aeronautical data and information): *This element ensures that processes, procedures and systems are improved to allow for an enhanced quality of aeronautical information products and services. This element includes:*

- *Implementation of quality management systems to ensure that aeronautical data and information comply with the required standards.*
- *Use of common reference systems (spatial – WGS84 and temporal- AIRAC) to facilitate consistent interpretation of aeronautical data and information and facilitate their timely exchange.*
- *Full move into an automated data-centric environment so that the management, processing, verification, usage and exchange can be done in a structured, automatic manner and human intervention is reduced.*
- *Aeronautical data and information is of high quality if it is aggregated and provided by authoritative sources. This requires to properly control relationships along the whole data chain from the origination to the distribution to the next intended user (formal arrangements with data originators, neighbouring States, data and information service providers and others).*

DAIM-B1/2 (AIP Datasets)

DAIM-B1/3 (Terrain Datasets)

DAIM-B1/4 (Obstacle Datasets)

DAIM-B1/5 (Aerodrome Mapping Datasets)

DAIM-B1/6 (Instrument Flight Procedures Datasets)

DAIM-B1/7 (NOTAM Improvements): *In order to meet the operational needs of the users, it is essential to provide information that is timely and fit for purpose. This can be done by refining the criteria to ensure that the users receive the right information. This element consists in the identification of clear operational conditions under which a NOTAM shall or shall not be originated and replacement of paper NOTAMs by a digital version through the use of information exchange models (e.g. AIXM).*

- B2-DAIM includes elements related to AIM 2.0 (SWIM-enabled AIM Services)

<u>B0-DAIM</u> <u>(GANP 2019)</u>	<u>B1-DAIM</u> <u>(GANP 2019)</u>	<u>B2-DAIM</u> <u>(GANP 2019)</u>
NIL	1. Quality-assured aeronautical information (WGS-84, WGS-84, AIRAC, Automation, SLA)	1. Dissemination of AI in SWIM environment
<u>B0-DATM</u> <u>(GANP 2016)</u>	2. Digital Datasets:	2. AIM data requirements to support network operation
1. WGS-84	▪ AIP datasets	3. AIM information requirements to support high airspace operation
2. QMS	▪ Terrain datasets	4. AIM information requirements tailored to UTM
3. AIRAC	▪ Obstacle datasets	5. NOTAM replacement
4. AIXM/AIS Database	▪ Aerodrome mapping	
5. eAMP	▪ IFP datasets	
6. Terrain & Obstacle Datasets (area 1 & 4)	3. NOTAM improvements	

2.5 With regard to the B1-DAIM Elements proposed by the 6th Edition of the GANP and their subsequent amendment to the MID Air Navigation Strategy, the meeting may wish to note the following:

- DAIM-B1/1 (Quality-assured aeronautical data and information) has several sub-elements (QMS, WGS-84, AIRAC, Automated data-centric environment, etc.). Majority of those elements are already addressed in the current MID Air Navigation Strategy (B0-DATM). They may need minor adjustment/amendment.
- DAIM-B1/2 to DAIM-B1/6 (Digital Datasets): implementation of digital datasets should be done in a step-wise approach: - transition to automated data-centric environment and availability of data in AIXM format; - provision of digital datasets; - provision of SWIM-enabled AIM services. Furthermore, development of dataset specifications and coding guidance for AIP and IFP datasets are still in progress.
- DAIM-B1/7 (NOTAM Improvements): provisions to implement this element are to be developed by the IMP/WG-A (AIM Working Group).

2.6 Based on the above, a working version of the MID Air Navigation Strategy (B0-DATM Table) is at **Appendix A**, for review.

3. ACTION BY THE MEETING

3.1 The meeting is invited to review and update the MID Air Navigation Strategy (B0-DATM Table) at **Appendix A**.

APPENDIX A

B0—DATMDAIM: Service Improvement through Digital Aeronautical Information Management

Description and purpose:

~~The initial introduction of digital processing and management of information, through aeronautical information service (AIS)/aeronautical information management (AIM) implementation, use of aeronautical information exchange model (AIXM), migration to electronic aeronautical information publication (AIP) and better quality and availability of data~~

Improved aeronautical information based on enhanced data quality (accuracy, resolution, integrity, timeliness, traceability, completeness, format) to support Performance-Based Navigation (PBN), airborne computer-based navigation systems and ground automation. In addition, digital exchange and processing of aeronautical information allows a more efficient management of information by avoiding reliance on manual processing and manipulation.

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
N	N	Y	Y	Y

Applicability consideration:

Applicable at State level, with increased benefits as more States participate

<i>B0—DATMDAIM: Service Improvement through Digital Aeronautical Information Management</i>				
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets	Timelines
AIXM	All States	Indicator: % of States that have implemented an AIXM-based AIS database Supporting Metric: Number of States that have implemented an AIXM-based AIS database	80%	Dec. 2018
eAIP	All States	Indicator: % of States that have implemented an IAID driven AIP Production (eAIP) Supporting Metric: Number of States that have implemented an IAID driven AIP Production (eAIP)	80%	Dec. 2020
QMS	All States	Indicator: % of States that have implemented QMS for AIS/AIM Supporting Metric: Number of States that have implemented QMS for AIS/AIM	90%	Dec. 2018
WGS-84	All States	Indicator: % of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD) Supporting Metric: Number of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD) Indicator: % of States that have implemented WGS-84 Geoid Undulation Supporting Metric: Number of States that have implemented WGS-84 Geoid Undulation	Horizontal: 100% Vertical: 90%	Dec. 2018 Dec. 2018

<i>B0—DATMDAIM: Service Improvement through Digital Aeronautical Information Management</i>				
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets	Timelines
Agreement with data originators	All States	Indicator: % of States that have signed Service Level Agreements (SLA) with at least 50% of their AIS data originators Supporting Metric: Number of States that have signed Service Level Agreements (SLA) with at least 50% of their AIS data originators	80%	Dec. 2020