International Civil Aviation Organization

Tenth Meeting of the MIDANPIRG AIM Sub-Group (AIM SG/10)

(Cairo, Egypt, 28 - 29 February 2024)

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

MID AIR NAVIGATION STRATEGY/ B1 - DAIM
AND ICAO MID EANP VOL. III

(Presented by the secretariat)

SUMMARY

This paper presents the revised MID Air Navigation Strategy in particular parts related to DAIM Thread/Elements. It also provides an update on the ASBU monitoring and reporting in the MID Region (DAIM) through the MID Region Air Navigation Report 2023 and the MID eANP Volume III.

Action by the meeting is at paragraph 3.

REFERENCES

- GANP 7th edition
- MID Region Air Navigation Strategy MID Doc 002
- MIDANPIRG/20 & RASG-MID/10 Report

1. INTRODUCTION

1.1   The ICAO Assembly at its 41st Session, through Resolution A41-6, endorsed the 2023-2025 edition of the Global Air Navigation Plan (GANP) as the global strategic directions for safety and the evolution of the air navigation system.

1.2   The seventh edition of the GANP encompassed minor updates, as follow:

a) Update of the GANP performance framework

   • Safety KPA - Strengthen the link with the GASP

   • Maintenance process for the performance framework

b) Mapping the Basic Building Blocks (BBBs) and the Universal Safety Oversight Audit Programme (USOAP)

c) Update the Aviation System Block Upgrade (ASBU) framework and the Basic Building Block (BBB) framework.

1.3   The meeting may wish to note that the ICAO MID Workshop on the Global Air Navigation Plan and National Air Navigation Plan (GANP & NANP) was successfully held in the ICAO Middle East Office in Cairo, Egypt, 5 – 8 March 2023. The Workshop reviewed and updated the MID ANP Volume III and MID Region Air Navigation Strategy (ICAO MID Doc 002).

2.   DISCUSSION

2.1   The MID Region Air Navigation Strategy (ICAO MID Doc 002) was reviewed and endorsed by MIDANPIRG/20 meeting (Muscat, Oman, 14 – 17 May 2023) through Conclusion 20/7.

2.2   The MID Region Air Navigation Strategy edition March 2023 is available at: MID Doc 002 - MID Air Navigation Strategy - March 23.pdf (icao.int).

2.3   The meeting may wish to note that the ASBU DAIM Thread/Elements and the monitoring table were updated in the revised MID Region Air Navigation Strategy (ICAO MID Doc 002), in line with the Global Air Navigation Plan (GANP 7th edition), as follows:

Thread	Element code	Title	Priority	Start Date	Monitoring		Remarks
					Main	Supporting	
Information Threads							
DAIM							
DAIM	**B1/1**	Provision of quality-assured aeronautical data and information	1	2021	AIM SG		
	B1/2	Provision of digital Aeronautical Information Publication (AIP) data sets	2				
	B1/3	Provision of digital terrain data sets	1	2021	AIM SG		
	B1/4	Provision of digital obstacle data sets	1	2021	AIM SG		
	B1/5	Provision of digital aerodrome mapping data sets	2				
	B1/6	Provision of digital instrument flight procedure data sets	2				
	B1/7	NOTAM improvements	2				

Element		Applicability	Performance Indicators/ Supporting Metrics	Baseline	Target	Timeline	KPA/ KPI
DAIM							
DAIM B1/1	Provision of quality-assured aeronautical data and information	All States	Indicator*: Regional average implementation status of DAIM B1/1 (provision of quality-assured aeronautical data and information). Supporting Metrics: 1. ~~Number of States that have implemented QMS for AIS/AIM~~ 2. ~~Number of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD) and have implemented WGS-84 Geoid Undulation Number of States that are compliant with the requirements of AIRAC adherence~~, 1. Number of States that have implemented an AIXM-based AIS database (AIXM V5.1+) 2. Number of States that have established formal arrangements with at least 50% of their AIS data originators.	55 %	80 %	Dec 2021	NA
DAIM B1/3	Provision of digital terrain data sets	All States	Indicator*: Regional average implementation status of DAIM B1/3(Provision of Terrain digital datasets). Supporting Metric: Number of States that provide required Terrain digital datasets	35%	60%	Dec 2021	NA
DAIM B1/4	Provision of digital obstacle data sets	All States	Indicator*: Regional average implementation status of DAIM	35%	60 %	Dec 2021	NA

Element	Applicability	Performance Indicators/ Supporting Metrics	Baseline	Target	Timeline	KPA/ KPI
		B1/4(Provision of obstacle digital datasets). Supporting Metric: Number of States that provide required obstacle digital datasets				

2.4   The meeting may wish to recall that MIDANPIRG, through Conclusions 20/9 and 20/11, urged States to implement the Performance-Based Approach (PBA) and provide the ICAO MID Office, with relevant data necessary for the development of the MID Region Air Navigation Report – 2023.

2.5   As a follow-up action to the above-mentioned Conclusions, the ICAO MID Office issued State Letter Ref.: AN 1/7-23/270 dated 6 December 2023 to collect the following information and updates from MID States:

a) update on the status of implementation of the priority 1 ASBU Threads/Elements;

b) progress achieved in the implementation of the Performance Based Approach and development of State National Air Navigation Plan (NANP), by completing the Questionnaire at Appendix 4A; and

c) State's major achievement(s)/success story(ies) in the air navigation field in 2023.

2.6   Accordingly, the Secretariat consolidated the data of the MID Air Navigation Report-2023 related to DAIM. The status of DAIM implementation with the updated method for estimating actual level of implementation is at **Appendix A.**

2.7   It should be reminded that ICAO MID eANP Vol. III contains dynamic/flexible plan elements related to the implementation of the air navigation system and its modernization in line with the ICAO Aviation System Block Upgrades (ASBUs) and associated technology roadmaps described in the Global Air Navigation Plan (GANP). The information contained in Volume III is related mainly to:

– Planning: objectives set, priorities and targets planned at regional or sub-regional levels;
– Implementation monitoring and reporting: monitoring of the progress of implementation towards targets planned. This information should be used as the basis for reporting purposes (i.e.: global and regional air navigation reports and performance dashboards); and/or
– Guidance: providing regional guidance material for the implementation of specific system/procedures in a harmonized manner.

2.8   The management of Volume III is the responsibility of the MIDANPIRG and should be used as a tool for monitoring and reporting the status of implementation of the elements planned here above, through the use of tables/databases. The status of implementation is updated on a regular basis as endorsed by the MIDANPIRG.

2.9   ICAO MID eANP Vol. III contains already a section dedicated to AIM: B0-DATM related to the Service Improvement through Digital Aeronautical Information Management. It consists of the following tables:

− **Table B0-DATM 3-1** Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)
− Table B0-DATM 3-2 Aeronautical Data Quality
− **Table B0-DATM 3-3** World Geodetic System-1984 (WGS-84)
− **Table B0-DATM 3-4-1** Provision of Terrain and Obstacle data sets for Areas 1 and 4
− **Table B0-DATM 3-4-2** Provision of Terrain and Obstacle data sets for Area 2.
− **Table B0-DATM 3-4-3** Provision of Terrain and Obstacle data sets for Area 3 and Airport Mapping Databases (AMDB)

2.10   The above monitoring tables became obsolete for the following reasons:
− The sixth edition of GANP replaces the thread DATM with the DAIM Digital Aeronautical Information Management, refining AIM implementation elements in a more consistent and comprehensive manner.
− The provision of these tables plans duplicates similar action at the ICAO MID regional level with the AIRM
− The monitoring should follow the evolution of the GANP and the revision of the MID Air Navigation Strategy.
− B0 does not exist anymore since the GANP Sixth Edition.

2.11   It is proposed that the AIM SG develops appropriate tables for inclusion in ICAO eANP Vol. III. These tables should then be reviewed by the RANP/NANP TF and submitted for approval by the MIDANPIRG.

2.12   It should be noted that the first meeting of RANP/NANP TF *(Cairo, Egypt, 19 - 22 February 2024)* underlined the need for the MIDANPIRG Sub Groups to allocate enough time in their agenda for the detailed discussion of the ASBU Threads relevant to their technical areas, including the identification of priorities, definition of applicability areas, indicators, metrics, targets, etc.

2.13   Based in the above, it is proposed to create an Action Group to :

− review the structure of ASBU-MID- B0-DATM Tables and provide a proposal to the AIM SG; and
− analyze the ASBU DAIM Thread, including the identification of priorities, definition of applicability areas, indicators, metrics, targets, as well as the development of a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) for the ICAO ASBU (Aviation System Block Upgrade) DAIM (Data Analysis and Information Management) as well as the identification of KPAs and KPIs to enable States to organize the preparation of the ASBU DAIM Thread/Elements for its implementation, measure and document the efficiency benefits of the DAIM elements implemented.

2.14   Based on the above, the meeting may wish to agree on the following Draft Decision:

DRAFT DECISION 10/X: MID REGION ASBU D-AIM ACTION GROUP

That:

a)   *the ASBU D-AIM Action Group is established to:*

> i. *review and propose amendments to the MID Air Navigation Strategy parts related to AIM, including the identification of priorities, definition of applicability areas, indicators, metrics, targets, etc.,*
>
> ii. *review and update the structure of the current ASBU-MID- B0-DATM Tables;*
>
> iii. *support States in the development of their National Air Navigation Plans (NANP) parts related to AIM, including the development of sample SWOT analysis, identification of KPIs, baselines, solutions and targets*

> b) *the Action Group is composed of the following Experts nominated by States/Organizations:*

> a) — *Chairpersons of the AIM SG*
> b) — *Mrs. xxx*
> c) — *Mr. xxx*
> d) — *Mr. xxx*
> e) — *Mrs. xxx*
> f) — *ICAO Secretariat*

3.   ACTION BY THE MEETING

3.1   The meeting is invited to:

a) note and discuss the content of this working paper;

b) review and update the Status of DAIM implementation at **Appendix A**; and

c) endorse the Draft Decision at Para. 2.14.

- END -

APPENDIX A

MID REGION DAIM IMPLEMENTATION STATUS

Updated on January 2024

STATE	B1/1 Provision of quality-assured aeronautical data and information		%	B1/3 Provision of terrain digital data sets			%	B1/4 Provision of obstacle digital data sets			%	DAIM %
	AIXM DB	SLA		Area 1	Area 4	2a/TOFP/OLS		Area 1	Area 4	2a/TOFP/OLS		
BHR	FI	FI	100	FI	FI	FI	100	FI	FI	FI	100	**100**
EGY	NI	FI	50	FI	NI	NI	33.3	NI	NI	NI	0	**27.7**
IRN	NI	FI	50	FI	FI	NI	66.6	FI	FI	NI	66.6	**61.1**
IRQ	NI	NI	0	NI	NI	NI	0	NI	NI	NI	0	**0**
JOR	FI	FI	100	NI	NI	NI	0	NI	NI	NI	0	**33.3**
KWT	NI	FI	50	FI	FI	FI	100	FI	FI	FI	100	**83.3**
LBN	NI	FI	50	NI	N/A	NI	0	NI	N/A	NI	0	**16.6**
LBY	NI	NI	0	NI	N/A	NI	0	NI	N/A	NI	0	**0**
OMN	NI	FI	50	NI	N/A	NI	0	NI	N/A	NI	0	**16.6**
QAT	FI	FI	100	FI	FI	FI	100	FI	FI	FI	100	**100**
SAU	FI	FI	100	FI	N/A	FI	100	FI	N/A	FI	100	**100**
SDN	FI	FI	100	NI	N/A	NI	0	NI	N/A	NI	0	**33.3**
SYR	NI	NI	0	NI	N/A	NI	0	NI	N/A	NI	0	**0**
UAE	FI	FI	100	FI	FI	FI	100	FI	FI	FI	100	**100**
YEM	NI	NI	00	NI	N/A	NI	0	NI	N/A	NI	0	**0**
Regional Implementation			**56.66**	**Regional Implementation**			**40**	**Regional Implementation**			**37.77**	**44.8**

Calculation of DAIM implementation (% rate)

SAMPLE

B1/1 – Provision of quality-assured aeronautical data and information					
State	**Sub-Elements**	*component*	*weighting factor*	*% of implementation*	*B1/1 implementation Σ (1, 2,3, 4)/4*
X	AIXM			100	100%
	SLA (50% of data originators)			100	
Y	AIXM			0	0%
	SLA (50% of data originators			0	
Z	AIXM			0	50%
	SLA(50% of data originators)			50	
Regional average Implementation status of DAIM B1/1 (provision of quality-assured aeronautical data and information)					**Σ (%)/number of States = 50%**

SAMPLE

State	B1/3 : Provision of digital terrain data sets			% of Terrain digital datasets implementation Σ (1, 2 4)/3x % or Σ (1, 2)/2x %	B1/4: Provision of digital obstacle data sets			% of Terrain digital datasets implementation Σ (1, 2 4)/3x % or Σ (1, 2)/2x %
	Area 1	Area 4	2a/TOFP/OLS		Area 1	Area 4	2a/TOFP/OLS	
X	100%	100%	100%	100%	100%	100%	100%	100%
Y	100%	N/A[1]	0%	50%	0%	0%	0%	0%
Z	100%	50%[2]	40%[3]	63%[4]	100%	0%	20%[5]	40%
Regional average Implementation status of DAIM B1/3 (Provision of Terrain digital datasets)			**Σ (%)/number of States = 76.7%**	**Regional average Implementation status of DAIM B1/4 (Provision of obstacle digital datasets)**				**Σ (%)/number of States = 46.7%**

(1) N/A: Not Applicable
(2) 50% of international aerodrome where digital terrain data sets are provided for Area 4.

(3) 40% of international aerodrome where digital terrain data sets are provided for areas 2a/TOFP/OLS.
(4) 63%: the percentages in the table is calculated as the sum of percentages of implementation (100%+50%+ 40%= 190/3)
(5) 20% of international aerodromes where digital obstacle data sets are provided for areas 2a/TOFP/OLS.