



International Civil Aviation Organization

AIR NAVIGATION SYSTEMS IMPLEMENTATION GROUP

Third Meeting (ANSIG/3)
(Cairo, Egypt, 2 – 4 July 2018)

Agenda Item 4.2.1: MID Region ASBU Implementation

**STATUS OF IMPLEMENTATION OF PIA 2 BLOCK 0 MODULES
(B0-DATM, B0-FICE AND B0-AMET)**

(Presented by the Secretariat)

SUMMARY

This paper presents the status of implementation of the PIA 2 Block 0 Modules (B0-DATM, B0-FICE and B0-AMET) in the MID Region and seeks ways and means to expedite the implementation in order to meet the agreed performance targets.

Action by the meeting is at paragraph 3.

REFERENCES

- MID Air Navigation Strategy (MID Doc 002)
- MID eANP Volume III

1. INTRODUCTION

1.1 Performance Improvement Area 2 (Globally Interoperable Systems and Data – Through Globally Interoperable System Wide Information Management) includes three (3) Modules in Block 0: B0-DATM, B0-FICE and B-AMET.

2. DISCUSSION

B0-DATM

2.1 B0-DATM, as a priority 1 Module, is the initial introduction of digital processing and management of information, through AIS/AIM implementation, use of aeronautical information exchange model (AIXM), migration to eAIP and better quality and availability of data. Performance Indicators/Supporting Metrics, Targets and status of the implementation of B0-DATM are detailed in **Appendix A**.

Implementation Challenges:

- Effective QMS implementation in some States
- AIXM implementation and eAIP
- Data exchange using AIXM
- Lack of proper study/planning for the implementation of AIM systems and proper involvement of relevant Stakeholders (ATM, PANS OPS, etc.), in order to ensure all Stakeholders' needs and interoperability issues

- Funding for new AIM systems (financial issues)
- Training of AIS/AIM personnel (competent human resources)

B0-FICE

2.2 The objective of B0-FICE (Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration), is to improve coordination between air traffic service units (ATSUs) by using ATS Inter-facility Data Communication (AIDC) and/or on-line data interchange (OLDI). The transfer of communication in a data link environment improves the efficiency of this process.

Implementation Challenges

2.3 The CNS SG/8 meeting analyzed the replies to the Questionnaire sent to the States' AIDC/OLDI focal points, and identified the following challenges impeding the implementation:

- adjacent State(s) not ready to implement AIDC/OLDI;
- no response from adjacent State(s);
- ATM system does not support AIDC/OLDI as reported by two (2) States; and
- technical problems;
- No common protocol supported by all ATM systems in the MID Region (Incompatibilities issues)

2.4 Based on above, the CNS SG/8 meeting agreed to the following actions/recommendations:

- ICAO MID Office to coordinate with Paris Office regarding Beirut – Nicosia and Cairo– Nicosia OLDI connections;
- States that do not have AIDC/OLDI capability are urged to plan for an upgrade of their systems as soon as possible; and
- States that need assistance (Jordan, Lebanon and Yemen) are invited to visit Muscat Centre (including Simulator) on 3-4 September 2018, as Oman offered to share their AIDC/OLDI experience with other States;

2.5 The ATM SG/4 agreed that the applicability area should be defined in consultation with the ATM chairpersons. The AIDC/OLDI Applicability Table at **Appendix B** is proposed to be used for the definition of the applicability area of AIDC/OLDI implementation. It is also proposed to include a requirement for AIDC/OLDI implementation (priority 1 interconnections) in the MID eANP Volume II Part IV-ATM, under Specific Regional Requirements.

2.6 Based on the above, the following Draft Conclusion is proposed:

DRAFT CONCLUSION 3/X: PFA TO THE MID eANP VOLUMES II– ATM PART

That, a Proposal for Amendment to the MID eANP Volumes II – Part IV-ATM related to the requirement for AIDC/OLDI implementation (priority 1 interconnections) be processed in accordance with the standard procedure of amendment.

B0-AMET

2.7 B0-AMET, as a priority 1 Module, contains global, regional and local meteorological information. This information includes: a) forecasts provided by world area forecast centres (WAFC), volcanic ash advisory centres (VAAC) and tropical cyclone advisory centres (TCAC); b) aerodrome warnings to give concise information of meteorological conditions that could adversely affect all aircraft at an aerodrome including wind shear; and c) SIGMETs to provide information on occurrence or expected occurrence of specific en-route weather phenomena which may affect the safety of aircraft operations and other operational meteorological (OPMET) information, including METAR/SPECI and TAF, to provide routine and special observations and forecasts of meteorological conditions occurring or expected to

occur at the aerodrome. This module includes elements which should be viewed as a subset of all available meteorological information that can be used to support enhanced operational efficiency and safety. Performance Indicators/Supporting Metrics, Targets and status of the implementation of B0-AMET are detailed in **Appendix C**.

Implementation challenges

- Effective QMS implementation in some States
- Administrative (internal issues or situated in conflict zone)
- Funding for new MET systems (e.g. wind shear systems)
- Training of MET personnel (competent human resources)
- Exchange of MET information between States and MID ROC; in particular determining necessary OPMET information to be exchanged with the MID ROC to satisfy States' operational needs

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) review and update the status of implementation of B0-DATM, B0-FICE and B0-AMET;
- b) identify the difficulties faced in the implementation of B0-DATM, B0-FICE and B0-AMET;
- c) review and amend, as deem necessary, the AIDC/OLDI Applicability Table at **Appendix B**; and
- d) endorse, as appropriate, the Draft Conclusion at Para. 2.6.

B0 – DATM: Service Improvement through Digital Aeronautical Information Management					
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets	Status	Remarks
National AIM Implementation Plan/Roadmap	All States	Indicator: % of States that have National AIM Implementation Plan/Roadmap Supporting Metric: Number of States that have National AIM Implementation Plan/Roadmap	90% by Dec. 2018	80% (12 States)	AIM Sub-Group
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% by Dec. 2018	5347% (87 States)	Data Collection: MID eANP Table B0-DATM 3-1 AIM Sub-Group
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% by Dec. 2020	33% (5 States)	Data Collection: MID eANP Table B0-DATM 3-1 AIM Sub-Group
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% by Dec. 2018	60% (9 States)	Data Collection: MID eANP Table B0-DATM 3-2 AIM Sub-Group
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	Horizontal: 100% by Dec. 2018 Vertical: 90% by Dec. 2018	Horizontal: 9387% (1413 States) Vertical: 8073% (1211 States)	Data Collection: MID eANP Table B0-DATM 3-3 AIM Sub-Group

		Supporting Metric: Number of States that have implemented WGS-84 Geoid Undulation			
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	60% by Dec. 2020	TBD	Data Collection: MID eANP Table B0-DATM 3-2 AIM Sub-Group
eTOD	All States	Indicator: % of States that have implemented required Terrain datasets Supporting Metric: Number of States that have implemented required Terrain datasets Indicator: % of States that have implemented required Obstacle datasets Supporting Metric: Number of States that have implemented required Obstacle datasets	Area 1: Terrain: 70% by Dec. 2018 Obstacles: 60% by Dec. 2018 Area 4: Terrain: 100% by Dec. 2018 Obstacles: 100% by Dec. 2018	Area 1: Terrain: 47% (7 States) Obstacles: 40% (6 States) Area 4: Terrain: 89% (8 States) Obstacles: 78% (7 States)	Data Collection: AIM Sub-Group
Digital NOTAM*	All States	Indicator: % of States that have included the implementation of Digital NOTAM into their National Plan for the transition from AIS to AIM Supporting Metric: Number of States that have included the implementation of Digital NOTAM into their National Plan for the transition from AIS to AIM	90% by Dec. 2020	80% (12 States)	

B0-DATM Enablers/Tables

In order to assist States in the planning for the transition from AIS to AIM in an expeditious manner, the following Tables, which provide more details than the standard ANRF, should be used:

- 1- **Table B0-DATM 3-1** sets out the requirements for the Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID). It reflects the transition from the current product centric AIS to data centric AIM. For the future digital environment it is important that the authoritative databases are clearly designated and such designation must be published for the users. This is achieved with the concept of the Integrated Aeronautical Information Database (IAID), a single access point for one or more authoritative databases (~~AIS~~AIP, Terrain, Obstacles, AMDB, etc) for which the State is responsible. This Table will be used for the monitoring of the Key Performance Indicators (KPIs) related to elements Nr. 1 and 2 of the Module B0-DATM.
- 2- **Table B0-DATM 3-2** sets out the requirements for aeronautical data quality. It will be used for the monitoring of the Key Performance Indicators (KPIs) related to the element Nr. 3 of the Module B0-DATM.
- 3- **Table B0-DATM 3-3** sets out the requirements for the implementation of the World Geodetic System – 1984 (WGS-84).The requirement to use a common geodetic system remains essential to facilitate the exchange of data between different systems. The expression of all coordinates in the AIP and charts using WGS-84 is an important first step for the transition to AIM. This Table will be used for the monitoring of the Key Performance Indicators (KPIs) related to the element Nr. 4 of the Module B0-DATM.
- 4- **Table B0-DATM 3-4-1** sets out the requirements for the provision of Terrain and Obstacle data sets for Area 1 and Area 4. It will be used for the monitoring of the Key Performance Indicators (KPIs) related to the element Nr. 5 of the Module B0-DATM.
- 5- **Table B0-DATM 3-4-2** sets out the requirements for the provision of Terrain and Obstacle data sets for Area 2. It will be used for the monitoring of the Key Performance Indicators (KPIs) related to the element Nr. 5 of the Module B0-DATM.
- 6- **Table B0-DATM 3-4-3** sets out the requirements for the provision of Terrain and Obstacle data sets for Area 3 and implementation of Airport Mapping Databases (AMDB). It will be used for the monitoring of the Key Performance Indicators (KPIs) related to the element Nr. 5 of the Module B0-DATM.

Table B0-DATM 3-1

Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)

EXPLANATION OF THE TABLE

Column:

- 1 Name of the State or territory for which the provision of AIS/AIM products and services based on the IAID is required.
- 2 Requirement for the implementation and designation of the authoritative IAID, shown by:
 - FI – Fully Implemented
 - ~~PI – Partially Implemented~~
 - NI – Not Implemented

Note 1 – The IAID of a State is a single access point for one or more databases (AIS/AIP, Terrain, Obstacles, AMDB, etc). The minimum set of databases which should be integrated is defined in Annex 15.

~~*Note 2 – Information providing detail of “PI” should be given in the Remarks column (the implemented components of the IAID).*~~

~~*Note 3-2 – The information related to the designation of the authoritative IAID should be published in the AIP (GEN 3.1)*~~
- 3 Requirement for an IAID driven AIP production, shown by:
 - FI – Fully Implemented (eAIP: Text, Tables and Charts)
 - PI – Partially Implemented
 - NI – Not Implemented

~~*Note 4-3 – AIP production includes, production of AIP, AIP Amendments and AIP Supplements*~~

~~*Note 4 – Charts’ GIS-based database should be interoperable with AIP database*~~
- 4 Requirement for an IAID driven NOTAM production, shown by:
 - FC – Fully Compliant
 - NC – Not Compliant
- 5 Requirement for an IAID driven SNOWTAM ~~production~~processing, shown by:
 - ~~FC-FI~~ – Fully Implemented~~Compliant~~
 - ~~NC-NI~~ – Not Implemented~~compliant~~
- 6 Requirement for an IAID driven PIB production, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
- ~~7 – Requirement for Charting systems to be interoperable with the IAID, shown by:
 - ~~FC~~ – Fully compliant
 - ~~PC~~ – Partially compliant
 - ~~NC~~ – Not compliant~~
- 87 Requirement for Procedure design systems to be interoperable with the IAID, shown by:
 - FI – Fully Implemented

PI – Partially Implemented

NI – Not Implemented

Note 5 — full implementation includes the use of the IAID for the design of the procedures and for the storage of the encoded procedures in the IAID

98 Requirement for ATS systems to be interoperable with the IAID, shown by:

FI – Fully Implemented

PI – Partially Implemented

NI – Not Implemented

109 Action Plan — short description of the State’s Action Plan with regard to the provision of AIM products and services based on the IAID, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate.

110 Remarks — additional information, including detail of “PC”, “NC”, “PI” and “NI”, as appropriate.

TABLE B0-DATM-3-1

Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)

State	IAID	AIP	NOTAM	SNOWTAM	PIB	Charting	Procedure Design	ATS	Action Plan	Remarks
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>87</i>	<i>98</i>	<i>109</i>	<i>110</i>
BAHARAIN	PFI	FI	FC	FCFI	FC	FC	PI	FI	National AIM Roadmap- 2015 2016	AIXM: 4.5-5.1 by end 2015
EGYPT	FI	PI	NCFC	NCFI	FC	NC	NI	PI	National AIM Roadmap- 2015 2017	AIXM: 5.1 3 and 7 by 2015, 4-9 by 2016 2018
IRAN, ISLAMIC REPUBLIC OF	NI	NI	NC	NI	NC	NC	NI	NI	National AIM Roadmap- 2015 2016	AIXM: NI Separate semi-automated NOTAM/SNOWTAM system is operative
IRAQ	NI	NI	NC	NCNI	NC	NC	NI	NI	National AIM Roadmap- 2014 2015	AIXM: NI
JORDAN	PNI	NI	FC	FCNI	FC	PC	NI	NI	National AIM Roadmap- 2014 2017	AIXM: database through EAD
KUWAIT	PNI	NI	FC	NCNI	PC	NC	NI	NI	National AIM Roadmap- 2015 2016	AIXM: NI (5.1 in progress)
LEBANON	NI	FI NI	NC	NCNI	NC	NC	NI	NI	National AIM Roadmap- 2014 2016	AIXM: 4.5
LIBYA	NI	NI	NC	NCNI	NC	NC	NI	NI	No Action Plan	AIXM: NI
OMAN	NI	NI	NC	NCNI	NC	NC	NI	NI	National AIM Roadmap- 2014 2016	AIXM: NI (5.1 in progress)
QATAR	PNI	PI	FC	PCNI	FC	PC	PI	NI	National AIM Roadmap- 2015 2016	AIXM: 5.1 Q4/2017 – Data Integration (AIP, Terrain, Obstacle, Procedure Design and AMDB datasets)
SAUDI ARABIA	FI	FI	FCNC	FCNI	FCP C	FC	FI	FI	National AIM Roadmap- 2014 2017	AIXM: 4.5
SUDAN	PNI	NI	FC	NINC	FC	PC	PI	PI	National AIM Roadmap- 2015 2017	1-AIS DB integrated with MET & ATM 2-Contract Signed for eAIP; AIXM connected with Charting SYS. 7-Contract signed 8-Ongoing project AIXM: NI (5.1 in progress) AIS Automation Project is

State	IAID	AIP	NOTAM	SNOWTAM	PIB	Charting	Procedure Design	ATS	Action Plan	Remarks
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>87</i>	<i>98</i>	<i>109</i>	<i>110</i>
										ongoing
SYRIAN ARAB REPUBLIC	NI	NI	NC	NCNI	NC	NC	NI	NI	No Action Plan	<u>AIXM: NI</u>
UNITED ARAB EMIRATES	PI NI	FI	NC	NCNI	PC	PC	NI	PI	National AIM Roadmap- 2014 2017	<u>AIXM: 5.1</u> <u>AMDB: 2016-2021; PIB: AVBL at OMAA, OMDW, OMDW, OMFJ, other ADs 2020; Charting system upgrade is planned for 2017; Procedure Design 2020; ATS: ACC AVBL, ADs 2020</u> <u>Digital NOTAM: 2016-2021</u> AMDB: 2016-2021 eTOD integration: 2016 PIB: AVBL at OMMA, OMDW, OMDW; other ADs 2020 Charting: 2016 Procedure Design 2020 ATS: ACC AVBL, ADs 2020 Digital NOTAM 2016-2021
YEMEN	NI	NI	NC	NCNI	NC	NC	NI	NI	No Action Plan	<u>AIXM: NI</u>

Table B0-DATM-3-2 Aeronautical Data Quality

EXPLANATION OF THE TABLE

Column:

- 1 Name of the State or territory.
- 2 Compliance with the requirement for implementation of QMS for Aeronautical Information Services including safety and security objectives, shown by:
 - FC – Fully compliant
 - NC – Not compliant
- 3 Compliance with the requirement for the establishment of formal arrangements with approved data originators concerning aeronautical data quality, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 4 Implementation of digital data exchange with originators, shown by:
 - FI – Implemented
 - PI – Partially Implemented
 - NI – Not implemented

Note 1 — Information providing detail of “PI” and “NI” should be given in the Remarks column (percentage of implementation).
- 5 Compliance with the requirement for metadata, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 6 Compliance with the requirements related to aeronautical data quality monitoring (accuracy, resolution, timeliness, completeness), shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 7 Compliance with the requirements related to aeronautical data integrity monitoring, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 8 Compliance with the requirements related to the AIRAC adherence, shown by:
 - FC – Fully compliant
 - NC – Not compliant
- 9 Action Plan — short description of the State’s Action Plan with regard to aeronautical data quality requirements implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate.
- 10 Remarks — additional information, including detail of “PC”, “NC”, “PI” and “NI”, as appropriate.

TABLE B0-DATM-3-2
Aeronautical Data Quality

	QMS	Establishment of formal agreements	Digital data exchange with originators	Metadata	Data quality monitoring	Data integrity monitoring	AIRAC adherence	Action Plan	Remarks
State	2	3	4	5	6	7	8	9	10
BAHARAIN	FC	FCPC	PI	PCFC	PCFC	PCFC	FC	National AIM Roadmap- 2015 2016	
EGYPT	FC	PC	PI	FC	PC	PC	FC	National AIM Roadmap- 2015 2017	3, 4, 6 and 7 by 2016 2018
IRAN, ISLAMIC REPUBLIC OF	FC	PC	NI	NC	NCFC	NCFC	FC	National AIM Roadmap- 2015 2016	
IRAQ	NC	NC	NI	NC	NC	NC	FC	National AIM Roadmap- 2014 2015	
JORDAN	FC	NCPC	NI	PCFC	FC	FC	FC	National AIM Roadmap- 2014 2017	
KUWAIT	FC	PC	NI	NC	NC	NC	FC	National AIM Roadmap- 2015 2016	
LEBANON	NC	NCPC	NI	NCPC	NCPC	NCPC	FC	National AIM Roadmap- 2014 2016	
LIBYA	NC	NC	NI	NC	NC	NC	NC	No Action Plan	
OMAN	NC	NC	NI	NC	NCFC	NCFC	FC	National AIM Roadmap- 2014 2016	
QATAR	FC	FCPC	PI	FC	PC	PC	FC	National AIM Roadmap- 2015 2016	SLA with MIL in progress
SAUDI ARABIA	FC	PCFC	NI	FC	FC	FC	FC	National AIM Roadmap- 2014 2017	SLA will be completed end 2015
SUDAN	FC	FC	NI	NC	FC	FC	FC	National AIM Roadmap- 2015 2017	
SYRIAN ARAB REPUBLIC	NC	NC	NI	NC	NC	NC	NC	No Action Plan	
UNITED ARAB EMIRATES	FC	PC	NIPI	FC	FC	FC	FC	National AIM Roadmap- 2014 2017	SLA initiated with MIL-ongoing Digital data exchange with originator: planned (2016-2021)

									CAAP 56 details of agreements
YEMEN	NC	NC	NI	PC	NC	NC	NC	No Action Plan	

Table B0-DATM-3-3

World Geodetic System-1984 (WGS-84)

EXPLANATION OF THE TABLE

Column:

- 1 Name of the State or territory for which implementation of WGS-84 is required.
- 2 Compliance with the requirements for implementation of WGS-84 for FIR and Enroute points, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 3 Compliance with the requirements for implementation of WGS-84 for Terminal Areas (arrival, departure and instrument approach procedures), shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 4 Compliance with the requirements for implementation of WGS-84 for Aerodrome, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 5 Compliance with the requirements for implementation of Geoid Undulation, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 6 Action Plan — short description of the State’s Action Plan with regard to WGS-84 implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate.
- 7 Remarks — additional information, including detail of “PC” and “NC”, as appropriate.

TABLE B0-DATM-3-3
World Geodetic System-1984 (WGS-84)

State	FIR/ENR	Terminal	AD	GUND	Action Plan	Remarks
1	2	3	4	5	6	7
BAHARAIN	FC	FC	FC	FC		<i>Plan to be updated by 2016</i>
EGYPT	FC	FC	FC	FC		
IRAN, ISLAMIC REPUBLIC OF	FC	FC	FC	FC		
IRAQ	<i>PCFC</i>	<i>PCFC</i>	<i>PCFC</i>	NC	National AIM Roadmap 2014 2015	
JORDAN	FC	FC	FC	FC		
KUWAIT	FC	FC	FC	FC		Last survey FEB 2015
LEBANON	FC	FC	FC	<i>NCFC</i>	<i>National AIM Roadmap 2014</i>	
LIBYA	PC	PC	NC	NC	No Action Plan	
OMAN	FC	FC	FC	FC		
QATAR	FC	FC	FC	FC		Annual Validation/Survey Updates planned up to 2017
SAUDI ARABIA	FC	FC	FC	FC		
SUDAN	FC	FC	FC	FC		
SYRIAN ARAB REPUBLIC	FC	FC	FC	NC	No Action Plan	
UNITED ARAB EMIRATES	FC	FC	FC	FC		
YEMEN	FC	FC	FC	FC		

Table B0-DATM-3-4-1

Provision of Terrain and Obstacle data sets for Areas 1 and 4

EXPLANATION OF THE TABLE

Column

- 1 Name of the State or territory for which Terrain and Obstacle data sets for Areas 1 and 4 are required.
- 2 Compliance with requirement for the provision of Terrain data sets for Area 1, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
- 3 Compliance with requirement for the provision of Terrain data sets for Area 4, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
 - N/A – Not Applicable
- 4 Compliance with requirement for the provision of Obstacle data sets for Area 1, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
- 5 Compliance with requirement for the provision of Obstacle data sets for Area 4, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
 - N/A – Not Applicable
- 6 Action plan — short description of the State’s Action Plan with regard to compliance with the requirements for provision of Terrain and Obstacle data sets for Areas 1 and 4, especially for items with a “PC” or “NC” status, including planned date(s) of full compliance, as appropriate.
- 7 Remarks— additional information, including detail of “PC” and “NC”, as appropriate.

TABLE B0-DATM-3-4-1

Provision of Terrain and Obstacle data sets for Areas 1 and 4

State	Terrain data sets		Obstacle data sets		Action Plan	Remarks
	Area 1	Area 4	Area 1	Area 4		
1	2	3	4	5	6	7
BAHARAIN	FC	FC	FC	FC		
EGYPT	FC	FC	PCNC	PCNC	National AIM Roadmap- 2015 2017	<u>4 and 5 (HECA & HESH): 2019</u>
IRAN, ISLAMIC REPUBLIC OF	FC	FC	FC	FC		
IRAQ	NC	NC	NC	NC	National AIM Roadmap- 2014 2015	
JORDAN	NCPC	NCFC	NCPC	NCFC	National AIM Roadmap- 2014 2017	
KUWAIT	FC	FC	FC	FC		
LEBANON	NC	N/A	NC	N/A	National AIM Roadmap- 2014 2016	
LIBYA	NC	N/A	NC	N/A	No Action Plan	
OMAN	NC	N/A	NC	N/A	National AIM Roadmap- 2014 2016	
QATAR	FC	FC	FC	FC		
SAUDI ARABIA	FC	FC	FC	FC		
SUDAN	NC	N/A	NC	N/A	National AIM Roadmap- 2015 2017	
SYRIAN ARAB REPUBLIC	NC	N/A	NC	N/A	No Action Plan	
UNITED ARAB EMIRATES	PC	FC	PC	FC	National AIM Roadmap- 2014 2017	<u>A recurrent data acquisition eTOD Area 1 is planned</u>
YEMEN	NC	N/A	NC	N/A	No Action Plan	

Table B0-DATM-3-4-2

Provision of Terrain and Obstacle data sets for Area 2

EXPLANATION OF THE TABLE

Column

- 1 Name of the State or territory for which Terrain and Obstacle data sets for Area 2 are required.
- 2 Compliance with requirement for the provision of Terrain data sets for Area 2a, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
- 3 Compliance with requirement for the provision of Terrain data sets for Area 2b, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not implemented
 - N/A – Not Applicable
- 4 Compliance with requirement for the provision of Terrain data sets for Area 2c, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 5 Compliance with requirement for the provision of Terrain data sets for Area 2d, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 6 Compliance with requirement for the provision of Obstacle data sets for Area 2a, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
- 7 Compliance with requirement for the provision of Obstacle data sets for Area 2b, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not implemented
 - N/A – Not Applicable
- 8 Compliance with requirement for the provision of Obstacle data sets for Area 2c, shown by:
 - FI – Fully Implemented

PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable

- 9 Compliance with requirement for the provision of Obstacle data sets for Area 2d, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable
- 10 Action plan — short description of the State’s Action Plan with regard to compliance with the requirements for provision of Terrain and Obstacle data sets for Area 2, especially for items with a “PC”, “PI”, “NC” or “NI” status.
- 11 Remarks— additional information, including detail of “PC”, “PI” and “NC”, “NI”, as appropriate.

TABLE B0-DATM-3-4-2

Provision of Terrain and Obstacle data sets for Area 2

State	Terrain data sets				Obstacle data sets				Action Plan	Remarks
	Area 2a	Area 2b	Area 2c	Area 2d	Area 2a	Area 2b	Area 2c	Area 2d		
1	2	3	4	5	6	7	8	9	10	11
BAHARAIN	NC	NI	NI	NI	NCFC	NFI	NFI	NFI	National AIM Roadmap- 2015 2016	
EGYPT	PC	PI	PI	PI	NC	NI	NI	NI	National AIM Roadmap- 2015 2017	<u>To be completed by 2020</u>
IRAN, ISLAMIC REPUBLIC OF	NCFC	NFI	NFI	NFI	NCFC	NFI	NFI	NFI	National AIM Roadmap-2015	
IRAQ	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap- 2014 2015	
JORDAN	NCPC	NIPI	NIPI	NI	NCPC	NIPI	NIPI	NI	National AIM Roadmap- 2014 2017	<u>Area 2a, 2b and 2c implemented for OJAI RWY 26R/08L</u>
KUWAIT	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap- 2015 2016	
LEBANON	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap- 2014 2016	
LIBYA	NC	NI	NI	NI	NC	NI	NI	NI	No Action Plan	
OMAN	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap- 2014 2016	
QATAR	FC	FI	FI	FI	FC	FI	FI	FI		
SAUDI ARABIA	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap- 2014 2017	
SUDAN	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap- 2015 2017	
SYRIAN ARAB REPUBLIC	NC	NI	NI	NI	NC	NI	NI	NI	No Action Plan	
UNITED ARAB EMIRATES	NC	NI	NI	NI	NCFC	NFI	NFI	NIPI	National AIM Roadmap- 2014 2017	<u>eTOD Area 2 (all sub-areas) survey & data acquisition through international airport service providers</u>
YEMEN	NC	NI	NI	NI	NC	NI	NI	NI	No Action Plan	

Table B0-DATM-3-4-3
Provision of Terrain and Obstacle data sets for Area 3 and Airport Mapping
Databases (AMDB)

EXPLANATION OF THE TABLE

Column

- 1 Name of the State or territory for which Terrain and Obstacle data sets for Area 3 and AMDB are required.
- 2 Compliance with requirement for the provision of Terrain data sets for Area 3, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 3 Compliance with requirement for the provision of Obstacle data sets for Area 3, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 4 Implementation of AMDB, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 5 Action plan — short description of the State’s Action Plan with regard to compliance with the requirements for provision of Terrain and Obstacle data sets for Area 3 and AMDB implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status.
- 6 Remarks— additional information, including detail of “PI” and “NI”, as appropriate.

TABLE B0-DATM-3-4-3

Provision of Terrain and Obstacle data sets for Area 3 and Airport Mapping Databases (AMDB)

State	Terrain data sets (Area 3)	Obstacle data sets (Area 3)	AMDB	Action Plan	Remarks
1	2	3	4	5	6
BAHARAIN	NI	NI	NI	National AIM Roadmap- 2015 2016	
EGYPT	NI	NI	NI	National AIM Roadmap- 2015 2017	A3: 2019; AMDB: 2020
IRAN, ISLAMIC REPUBLIC OF	NI	NI	NI	National AIM Roadmap- 2015 2016	
IRAQ	NI	NI	NI	National AIM Roadmap- 2014 2015	
JORDAN	NI	NI	NI	National AIM Roadmap- 2014 2017	Area 3 implemented for OJAI RWY 26R/08L
KUWAIT	FI	FI	NI	National AIM Roadmap- 2015 2016	
LEBANON	NI	NI	NI	National AIM Roadmap- 2014 2016	
LIBYA	NI	NI	NI	No Action Plan	
OMAN	NI	NI	NI	National AIM Roadmap- 2014 2016	
QATAR	NI	FI	NI	National AIM Roadmap- 2015 2016	Q4/2017 AMDB implementation AMDB to be implemented last quarter of 2015
SAUDI ARABIA	NI	NI	NI	National AIM Roadmap- 2014 2017	
SUDAN	NI	NI	NI	National AIM Roadmap- 2015 2017	
SYRIAN ARAB REPUBLIC	NI	NI	NI	No Action Plan	
UNITED ARAB EMIRATES	NI	NI	NI	National AIM Roadmap- 2014 2017	AMDB technical infrastructure (metadata, model) implemented in IAID, pending compatibility analysis AIXM 5.1 with revised AMDB model (RTCA DO-272D) when released.
YEMEN	NI	NI	NI	No Action Plan	

B0 – FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration					
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets	Status	Remarks
AMHS capability	All States	Indicator: % of States with AMHS capability Supporting metric: Number of States with AMHS capability	70% of States with AMHS capability by Dec. 2017	73% (11 States)	Data Collection: MID eANP Table B0-FICE CNS Sub-Group
AMHS implementation /interconnection	All States	Indicator: % of States with AMHS implemented (interconnected with other States AMHS) Supporting metric: Number of States with AMHS implemented (interconnections with other States AMHS)	60% of States with AMHS interconnected by Dec. 2017	60 67% (9 10 States)	Data Collection: MID eANP Table B0-FICE CNS Sub-Group
Implementation of AIDC/OLDI between adjacent ACCs	As per the AIDC/OLDI Applicability Table A# ACCs	Indicator: % of priority 1 FIRs within which all applicable ACCs have implemented at least one interface to use AIDC/OLDI Interconnection have been implemented with neighboring ACCs Supporting metric: Number of AIDC/OLDI interconnections implemented between adjacent ACCs	67 0% by Dec. 202017	40 33% (5 States) 22% (9 connections)	Data Collection: MID eANP Table B0-FICE CNS Sub-Group

TABLE B0-FICE
EXPLANATION OF THE TABLE

- Column
- 1 Name of the State
- 2,3,4 Status of AMHS Capability and Interconnection and AIDC/OLDI Capability, where:
Y – Fully Implemented
N – Not Implemented
- 5 ~~Status~~ ~~Number~~ of ~~required~~ AIDC/OLDI ~~Interconnections~~ ~~implementation~~, where:
Y ~~If AIDC/OLDI is implemented at least with one neighbouring ACC~~
N ~~Not Implemented~~
- 6 ~~Number of implemented AIDC/OLDI Interconnection~~ ~~Action plan~~ ~~short description of the State's Action Plan with regard to the implementation of B0-FICE.~~
- 7 Remarks

State	AMHS Capability	AMHS Interconnection	AIDC/OLDI Capability	Required AIDC/OLDI Interconnections Implementation on	Action Plan AIDC/OLDI Implementation	Remarks
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5*</i>	<i>6</i>	<i>7</i>
Bahrain	Y	Y	Y	5 <u>5</u> Y	<u>1</u>	connection with ABU Dhabi
Egypt	Y	Y	Y	4 <u>4</u> Y	<u>1</u>	
Iran	N	N	Y	4 <u>4</u> N	<u>0</u>	Contract signed for AMHS
Iraq	N	N	N	2 <u>2</u> N	<u>0</u>	Thales Topsky ATM system
Jordan	Y	Y	Y	2 <u>2</u> N	<u>0</u>	
Kuwait	Y	Y	Y	2 <u>2</u> N	<u>0</u>	
Lebanon	Y	Y	Y	1 <u>1</u> Y	<u>0</u>	
Libya	Y	N	Y	0 <u>0</u> N	<u>0</u>	<u>0</u> Contract signed for AMHS
Oman	Y	Y	Y	4 <u>4</u> N	<u>1</u>	
Qatar	Y	Y	Y	2 <u>2</u> Y	<u>1</u>	local implementation for OLDI
Saudi Arabia	Y	Y	Y	7 <u>7</u> Y	<u>2</u>	local implementation for AIDC
Sudan	Y	Y	Y	4 <u>4</u> N	<u>0</u>	
Syria	N	N	N	0 <u>0</u> N	<u>0</u>	

UAE	Y	Y	Y	4 4	3 3	
Yemen	N	N	N	0 0	0 0	Contract signed for AMHS
Total Percentage/ Number	73%	67%	80%	4140% 4140%	9 9 (22%)	

** Note – the required AIDC/OLDI connection is detailed in the MID eANP Volume II Part III-CNS under Specific Regional Requirements.*

MID Region AIDC/OLDI Applicability Area (Priority 1 and 2 for Implementation)

As of July 2018

ACC	Adjacent ACCs						
Amman	Cairo (1)	Baghdad (2)	Damascus (2)	Jeddah (1)	Tel Aviv (2)		
Baghdad	Amman (2)	Ankara (1)	Damascus (2)	Jeddah (2)	Tehran (2)	Kuwait (1)	
Bahrain	Doha (1)	Emirates (1)	Jeddah (1)	Kuwait (1)	Riyadh (1)	Tehran (2) AFTN MSG	Dammam(2)
Beirut	Damascus (2)		Nicosia (1)				
Cairo	Amman (1)	Athena (2)	Jeddah (1)	Khartoum (1)	Nicosia (1)	Tel Aviv (2)	Tripoli (2)
Damascus	Amman (2)	Ankara (2)	Bagdad (2)	Beirut (2)	Nicosia (2)		
Doha*	Bahrain (1)	Emirates (1)	Jeddah (2)	Riyadh (2)			
Emirates	Bahrain (1)	Doha (1)	Jeddah (1)	Muscat (1)	Tehran (2) AFTN MSG		
Jeddah	Amman (1)	Asmara (2)	Baghdad (2)	Bahrain (1)	Cairo (1)	Doha (2)	Emirates (1)
	Khartoum (1)	Kuwait (2)	Muscat (1)	Riyadh (1)		Sana'a (2)	
Riyadh	Bahrain (1)	Doha (2)	Kuwait (2)	Jeddah (1)			
Khartoum	Addis (1)	Asmara (2)	Brazzaville (2)	Cairo (1)	Entebbe (2)	Jeddah (1)	Juba (1)
	Kinshasa (2)	N'Djamena (2)	Nairobi (2)	Tripoli (2)			
Kuwait	Baghdad (1)	Bahrain (1)	Jeddah (2)	Tehran (2)			
Muscat	Emirates (1)	Jeddah (1)	Karachi (2)	Mumbai (1)	Sana'a (2)	Tehran (1)	
Sana'a	Djibouti (Addis Ababa) (2)	Asmara (2)	Jeddah (2)	Mogadishu (2)	Mumbai (2)	Muscat (2)	
Tehran	Ankara (1)	Ashgabat (2)	Baghdad (2)	Bahrain (1)	Baku (2)	Emirates (2) AFTN MSG	Kabul (2)
	Karachi (1)	Kuwait (2)	Muscat (1)	Yerevan (2)			
Tripoli	Algiers (2)	Cairo (2)	Khartoum (2)	Malta (2)	N'Djamena (2)	Niamey (2)	Tunis (2)

(1) = Priority 1 for implementation based on the number of traffic movements and/or operational needs (Green color means already implemented)

(2) = Priority 2 for implementation based on the number of traffic movements or if other solution is in place such as exchange of information via AFTN

APPENDIX C

B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety					
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets	Status	Remarks
SADIS FTP	<i>All States</i>	Indicator: % of States having implemented SADIS FTP service Supporting metric: Number of States having implemented SADIS FTP service	100% By Dec. 2018	73 80 % (11 12 States)	Data Collection: MID eANP Table B0-AMET 3-1
QMS	<i>All States</i>	Indicator: % of States having implemented QMS for MET Supporting metric: number of States having implemented QMS for MET	80% by Dec. 2018	60% (9 States)	Data Collection: MID eANP Table B0-AMET 3-4
SIGMET	<i>All States with MWO(s) in MID Region</i>	Indicator: % of States having implemented SIGMET Supporting metric: number of States having implemented SIGMET	100% by Dec. 2018	86% (12 of 14 States)	Data Collection: MID eANP Table B0-AMET 3-5
WIND SHEAR	TBD	Indicator: TBD Supporting metric: TBD	TBD	TBD	Data Collection: MID eANP Table B0-AMET 3-6
OPMET	All States	Indicator: % of States having implemented METAR and TAF Supporting metric: number of States having implemented METAR and TAF	95% by Dec. 2018	80% (12 States)	Data Collection: MID eANP Table B0-AMET 3-7

APPENDIX C

Table B0-AMET 3-1

SADIS FTP

EXPLANATION OF THE TABLE

Column

- 1 Name of the State
 2 Status of implementation of SADIS FTP, where:
 Y – Yes, implemented
 N – No, not implemented

- 3 Action Plan
 4 Remarks

State	Status	Action Plan	Remarks
1	2	3	4
BAHRAIN	Y		
EGYPT	Y		
IRAN (ISLAMIC REPUBLIC OF)	N	No Action Plan	
IRAQ	Y		
JORDAN	Y		
KUWAIT	Y		
LEBANON	N	No Action Plan	
LIBYA	Y		
OMAN	Y		
QATAR	Y		
SAUDI ARABIA	N	Coordinating with SADIS Provider	
SUDAN	Y		
SYRIAN ARAB REPUBLIC	N	No Action Plan	
UNITED ARAB EMIRATES	Y		
YEMEN	Y		

Table B0-AMET 3-2

Volcanic Ash Advisory Centers

Not Applicable

EXPLANATION OF THE TABLE

Column

- 1 Name of the State responsible for the provision of a volcanic ash advisory centre (VAAC)
- 2 Name of the VAAC
Note: The name is extracted from the ICAO Location Indicators (Doc 7910).
- 3 ICAO location indicator of the VAAC
- 4 Status of implementation of volcanic ash advisory information, where:
FC—Fully compliant
PC—Partially compliant
NC—Not compliant
- 5 Status of implementation of volcanic ash advisory information in graphical format, where:
FC—Fully compliant
PC—Partially compliant
NC—Not compliant

State	Volcanic Ash Advisory Centre (VAAC)	ICAO Location Indicator	Status of Implementation	
			VAA	VAG
1	2	3	4	5
FRANCE	Toulouse	LFPW	FC	FC

Table B0-AMET 3-3

Tropical Cyclone Advisory Centers

Not Applicable

EXPLANATION OF THE TABLE

Column

- 1 Name of the State responsible for the provision of a tropical cyclone advisory centre (TCAC)
- 2 Name of the TCAC
Note: The name is extracted from the ICAO Location Indicators (Doc 7910).
- 3 ICAO location indicator of the TCAC
- 4 Status of implementation of tropical cyclone advisory information, where:
FC—Fully compliant
PC—Partially compliant
NC—Not compliant
- 5 Status of implementation of tropical cyclone advisory information in graphical format, where:
FC—Fully compliant
PC—Partially compliant
NC—Not compliant

State	Tropical Cyclone Advisory Centre (TCAC)	ICAO Location Indicator	Status of Implementation	
			TCA	TCG
1	2	3	4	5
INDIA	New Delhi	VIDP	FC	FC

Table B0-AMET 3-4**Quality Management System****EXPLANATION OF THE TABLE**

Column

- 1 Name of the State
 2, 3, 4, Status of implementation of Quality Management System of meteorological information –
 5 QMS: not started/ planning, ongoing/ partially implemented, Implemented/ISO 9001 Certified, Date of Certification.
 6 Action Plan
 7 Remarks

State	Not started/ planning	Ongoing/ partially implemented	Implemented/ ISO 9001 Certified		Action Plan	Remarks
			Status	Date of Certification		
1	2	3	4	5	6	7
BAHRAIN			√	2008		
EGYPT			√	23 May 2012 May 2015		
IRAN, ISLAMIC REPUBLIC OF			√	Oct 2015		
IRAQ	√				No Action Plan	
JORDAN			√	2 Apr 2014 14 April 2017		
KUWAIT			√	23 Aug 2013 22 Aug 2016		
LEBANON	√				No Action Plan	
LIBYA	√				No Action Plan	
OMAN		√			TBD	
QATAR			√	Dec 2011		
SAUDI ARABIA			√	Aug 2014		
SUDAN			√	5 June 2014		
SYRIAN ARAB REPUBLIC	√				No Action Plan	
UNITED ARAB EMIRATES			√	19 Dec 2012 18 Dec 2015		
YEMEN	√				No Action Plan	

Table B0-AMET 3-5
SIGMET Availability

EXPLANATION OF THE TABLE

Column

- 1 Name of the State
- 2 Status of implementation of SIGMET, where:
Y – Yes, implemented (at least one SIGMET received within a 5 month monitoring period, or as required)
N – No, not implemented (no SIGMET received within a 5 month monitoring period)
- 3 Status of implementation of SIGMET format, where:
Y – Yes, implemented (at least 95% of received SIGMET messages reveal the correct format (TTAAii CCCC in accordance to the MID SIGMET Guide; ATSU, MWO, FIR and FIR name in accordance to ICAO Doc 7910) for the first two lines of SIGMET)
N – No, not implemented (less than 95% of received SIGMET messages reveal the correct format for the first two lines of SIGMET)
- 4 Action Plan
- 5 Remarks

State	Implementation		Action Plan	Remarks
	SIGMET Reception	SIGMET Format		
1	2	3	4	5
BAHRAIN	Y	Y		
EGYPT	Y	Y		
IRAN, ISLAMIC REPUBLIC OF	Y	Y		
IRAQ	Y	Y		Verify the header for Iraq is WSIQ01 ORBI for FIR ORBB – if so, update to MID Doc 009
JORDAN	Y	Y		
KUWAIT	Y	Y		
LEBANON	Y	Y		
LIBYA	Y	N		Indicators HLMC for MWO and HLLL for FIR are not defined in ICAO Doc 7910
OMAN	Y	Y		
QATAR	N/A	N/A		These fields are not applicable to Qatar
SAUDI ARABIA	Y	Y		
SUDAN	Y	Y		
SYRIAN ARAB REPUBLIC	N	N	No Action Plan	
UNITED ARAB EMIRATES	Y	Y		
YEMEN	N	N	No Action Plan	

C-7

Table B0-AMET 3-6
WIND SHEAR Availability

TBD

Draft Table B0-AMET 3-7

OPMET Availability (METAR and TAF)

EXPLANATION OF THE TABLE

Column

- 1** Name of the State
- 2, 3** Status of availability of METAR and TAF for AOP aerodromes, where:
Y – Yes, implemented (95% availability of required METAR within a State; 95% availability of required TAF within a State)
N – No, not implemented
- 4** Remarks

State	Implementation		Remarks
	METAR	TAF	
1	2	3	4
BAHRAIN	Y	Y	
EGYPT	Y	Y	
IRAN, ISLAMIC REPUBLIC OF	Y	Y	
IRAQ	N	N	MEAR and TAF needed for ORBM
JORDAN	Y	Y	
KUWAIT	Y	Y	
LEBANON	Y	Y	
LIBYA	Y	Y	
OMAN	Y	Y	
QATAR	Y	Y	
SAUDI ARABIA	Y	Y	
SUDAN	Y	Y	
SYRIAN ARAB REPUBLIC	N	N	METAR & TAF needed for OSAP
UNITED ARAB EMIRATES	Y	Y	
YEMEN	N	N	METAR & TAF needed for OYAA, OYHD, OYRN, OYSN and OYTZ