



International Civil Aviation Organization

AIR NAVIGATION SYSTEMS IMPLEMENTATION GROUP

Second Meeting (ANSIG/2)
(Cairo, Egypt, 6 – 8 December 2016)

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 MID Region Air Navigation Strategy was endorsed by the MIDANPIRG/15 as MID Doc 002 to be the framework identifying the regional air navigation priorities, performance indicators and targets. The Strategy includes Tables for eleven priority 1 ASBU Modules along with their associated elements, applicability, performance Indicators, supporting Metrics and performance Targets.

2. DISCUSSION

2.1 Performance 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.

B0-DATM

2.2 B0-DATM (Service Improvement through Digital Aeronautical Information Management) 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.

2.3 For the purpose of performance monitoring and reporting, seven (7) elements have been included in the MID Region Air Navigation Strategy: *National AIM Implementation Plan/Roadmap, AIXM, eAIP, QMS, WGS-84, eTOD and inclusion of Digital NOTAM in National AIM Implementation Plan/Roadmap*. Performance Indicators/Supporting Metrics, Targets and status of their implementation are detailed in **Appendix A**.

Implementation reporting/monitoring

2.4 MIDANPIRG AIM Sub-Group is the main Regional monitoring body for the collection of data related to the B0-DATM implementation in the MID Region.

2.5 At the national level, AIS/AIM Focal Points are responsible for following-up the B0-DATM implementation issues and forwarding necessary data on the implementation of B0-DATM to the ICAO MID Regional Office, as and when required.

Data collection mechanism

2.6 Detailed information on the monitoring of B0-DATM is included in Volume III of the MID eANP, including necessary supporting enablers (i.e. tables, databases, etc.), in order to be used as planning tools for the measurement of the air navigation systems performance. Concerned MID eANP Tables related to the status of implementation of the different B0-DATM elements are at **Appendix A**.

B0-FICE

2.7 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 Interfacility 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.

2.8 The implementation of B0-FICE reduces controller workload, increases data integrity and supports reduced separations translating directly to cross sector or boundary capacity flow increase. B0-FICE increases efficiency, as the reduced separation can also be used to more frequently offer aircraft flight levels closer to the optimum; in certain cases, this also translates into reduced en-route holding and increased safety by better knowledge of more accurate flight plan information.

2.9 For the purpose of performance monitoring and reporting, three (3) elements have been included in the MID Region Air Navigation Strategy: *AMHS Capability, AMHS Implementation/Interconnection and Implementation of AIDC/OLDI between adjacent ACCs*. Performance Indicators/Supporting Metrics, Targets and status of their implementation are detailed in **Appendix B**.

Implementation reporting/monitoring

2.10 MIDANPIRG CNS Sub-Group is the main Regional monitoring body for the collection of data related to the B0-FICE implementation in the MID Region.

2.11 At the national level, CNS Focal Points are responsible for following-up the B0-FICE implementation issues and forwarding necessary data on the implementation of B0-FICE to the ICAO MID Regional Office, as and when required.

Data collection mechanism

2.12 Detailed information on the monitoring of B0-FICE is included in Volume III of the MID eANP, including necessary supporting enablers (i.e. tables, databases, etc.), in order to be used as planning tools for the measurement of the air navigation systems performance. Concerned MID eANP Tables related to the status of implementation of the different B0-FICE elements are at **Appendix B**.

B0-AMET

2.13 B0-AMET (Meteorological information supporting enhanced operational efficiency and safety) 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.

2.14 For the purpose of performance monitoring and reporting, three (3) elements have been included in the MID Region Air Navigation Strategy: *SADIS 2G and/or Secure SADIS FTP, QMS, and SIGMET*. The cessation of SADIS 2G on 31 July 2016 required an update to the first element and is now called *SADIS FTP*. In addition, MSG/5 agreed to include the implementation of SIGMET in Volume III B0-AMET (MSG Conclusion 5/13 refers).

Implementation reporting/monitoring

2.15 MIDANPIRG MET Sub-Group is the main Regional monitoring body for the collection of data related to the B0-AMET implementation in the MID Region.

2.16 At the national level, MET Focal Points are responsible for following-up the B0-AMET implementation issues and forwarding necessary data on the implementation of B0-AMET to the ICAO MID Regional Office, as and when required.

2.17 With reference to the status of implementation of SADIS FTP, the meeting may recall that States were informed of the cessation of the SADIS 2G service effective 31 July 2016 at 1200 UTC and revised definition of the SADIS acronym to Secure Aviation Data Information Service (Ref.: AN 10/2 – 16/126 dated 21 April 2016). Therefore, MET SG/6 draft Conclusion 6/1 in this regard has been addressed. Those States that are not registered with SADIS FTP (reference <http://www.icao.int/airnavigation/METP/MOG/Pages/SADIS.aspx> - SADIS inventory) included Iran, Lebanon and Syria.

2.18 With reference to measuring the implementation of QMS for MET, the meeting may note that Iran has provided their ISO 9001 certification date of October 2015.

2.19 With reference to measuring the implementation of SIGMET, the Secretariat will work with the Regional OPMET Centre (ROC) Jeddah and possibly ROC Vienna in obtaining statistics.

2.20 Performance Indicators/Supporting Metrics, Targets and status of implementation are detailed in **Appendix C**.

Data collection mechanism

2.21 Detailed information on the monitoring of B0-AMET is included in Volume III of the MID eANP, including necessary supporting enablers (i.e. tables, databases, etc.), in order to be used as planning tools for the measurement of the air navigation systems performance.

2.22 With reference to MID Regional requirements for half-hourly METAR (MSG Conclusion 5/12 refers), only Iraq and Sudan responded to State Letter ref.: ME 3/2.3 – 16/075. They indicated that one aerodrome in their State provides half-hourly METAR (HSSS in Sudan and ORBI in Iraq). Rather than measure the implementation of half-hourly METAR which would be limited to a small subset of AOP aerodromes in the MID Region, the following text could be used in the next amendment proposal to paragraph 2.2 of Volume II, Part V (MET) of the eANP:

In the MID Region, routine observations, issued as a METAR as indicated in Table MET II-2, should be made throughout the 24 hours of each day at intervals of one hour or, at intervals of one half-hour where warranted using

criteria such as number of operations at an aerodrome, frequency of weather change and use of METAR in VOLMET...

2.23 The concerned MID eANP Tables related to the status of implementation of the different B0-AMET elements are at **Appendix C**.

Implementation challenges

2.24 In B0-DATM, main issues are the implementation of AIXM and the eAIP. The implementation of eTOD in area 1 and the QMS in AIS are other issues of the B0-DATM implementation in the MID Region.

2.25 AIDC/OLDI implementation is the main issue of the B0-FICE in the MID Region. In this regard, the FDPS needs to have a set of AIDC and/or OLDI messages and the communication link is needed.

2.26 The meeting may wish to note that challenges related to the implementation of SADIS FTP are minimal. Cost associated with this service is cost recoverable. Furthermore, guidance and contact information are readily available on the SADISOPSG website at <http://www.icao.int/airnavigation/METP/MOG/Pages/SADIS.aspx> (SADIS User Registration Form v7).

2.27 With reference to the implementation of QMS for MET, implementation challenges may include human resource constraints and the need for QMS to be placed as a priority by the responsible institution.

2.28 With reference to the implementation of SIGMET for MET, implementation challenges may include human resource constraints and training. As SIGMET pertains to warning aviation of hazards, a priority on implementation in this regard is necessary by the responsible institution.

2.29 The MSG/5 meeting noted that, according to the implementation status of the Block 0 Modules of the Performance Improvement Area 2 (Globally Interoperable Systems and Data – Through Globally Interoperable System Wide Information Management), the main challenges are related to implementation of QMS in AIS and MET, human resources constraints, financial issues and difficulties faced by States in the transition from AIS to AIM.

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; and
- c) recommend measures to expedite the implementation process and meet the agreed performance targets.

APPENDIX A

<i>B0 – DATM: Service Improvement through Digital Aeronautical Information Management</i>					
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets	Status	Remarks
1- National AIM Implementation Plan/Roadmap	<i>All States</i>	Indicator: % of States that have National AIM Implementation Plan/Roadmap Supporting Metric: Number of States that have National AIM Implementation Plan/Roadmap	80% by Dec. 2016 90% by Dec. 2018	4780% (712 States)	AIM Sub-Group
2-AIXM	<i>All States</i>	Indicator: % of States that have implemented an AIXM-based AIS database Supporting Metric: Number of States that have implemented an AIXM-based AIS database	60% by Dec. 2015 80% by Dec. 2017 100% by Dec. 2019	47% (7 States)	Data Collection: MID eANP Table B0-DATM 3-1 AIM Sub-Group
3-eAIP	<i>All States</i>	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)	60% by Dec. 2016 80% by Dec. 2018 100% by Dec. 2020	2733% (45 States)	Data Collection: MID eANP Table B0-DATM 3-1 AIM Sub-Group
4-QMS	<i>All States</i>	Indicator: % of States that have implemented QMS for AIS/AIM	70% by Dec. 2016	5360% (89 States)	Data Collection: MID eANP Table B0-DATM 3-2 AIM Sub-Group

		Supporting Metric: Number of States that have implemented QMS for AIS/AIM	90% by Dec. 2018		
5-WGS-84	<i>All States</i>	<p>Indicator: % of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD)</p> <p>Supporting Metric: Number of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD)</p> <p>Indicator: % of States that have implemented WGS-84 Geoid Undulation</p> <p>Supporting Metric: Number of States that have implemented WGS-84 Geoid Undulation</p>	<p>Horizontal: 100% by Dec. 2017</p> <p>Vertical: 90% by Dec. 2018</p>	<p>ENR: 93% (14 States)</p> <p>Terminal: 87% (13 States)</p> <p>Aerodromes: 87% (13 States)</p> <p>Geoid Undulation: 80% (12 States)</p> <p>Horizontal: 87% (13 States)</p> <p>Vertical: 73% (11 States)</p>	Data Collection: MID eANP Table B0-DATM 3-3 AIM Sub-Group
6-eTOD	<i>All States</i>	<p>Indicator: % of States that have implemented required Terrain datasets</p> <p>Supporting Metric: Number of States that have implemented required Terrain datasets</p> <p>Indicator: % of States that have implemented required Obstacle datasets</p> <p>Supporting Metric: Number of States</p>	<p>Area 1 : Terrain: 50% by Dec. 2015, 70% by Dec. 2018</p> <p>Obstacles: 40% by Dec. 2015, 60% by Dec. 2018</p>	<p>Area 1: Terrain: 40% (6 States)</p> <p>Obstacles: 33% (5 States)</p> <p>Area 4: Terrain: 4078% (67 States)</p> <p>Obstacles:</p>	Data Collection: MID eANP Table B0-DATM 3-4-1 AIM Sub-Group

		that have implemented required Obstacle datasets	Area 4: Terrain: 50% by Dec. 2015, 100% by Dec. 2018 Obstacles: 50% by Dec. 2015, 100% by Dec. 2018	33 67% (5 6 States)	
7-Digital NOTAM*	<i>All States</i>	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	80% by Dec. 2016 90% by Dec. 2018	60 80% (9 12 States)	Data Collection: AIM Sub-Group

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, 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 – 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 (eAIP), shown by:
 - FI – Fully Implemented (eAIP: Text, Tables and Charts)
 - PI – Partially Implemented
 - NI – Not Implemented

Note 4 – AIP production includes, production of AIP, AIP Amendments and AIP Supplements
- 4 Requirement for an IAID driven NOTAM production, shown by:
 - FC – Fully Compliant
 - NC – Not Compliant
- 5 Requirement for an IAID driven SNOWTAM production, shown by:
 - FC – Fully Compliant
 - NC – Not compliant
- 6 Requirement for an IAID driven PIB production, shown by:
 - FC – Fully 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
- 8 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

- 9 Requirement for ATS systems to be interoperable with the IAID, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
- 10 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.
- 11 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	1.1 I AID	1.2 e AIP	1.3 NOTAM	1.4 SNOWTAM	1.5 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>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
BAHARAIN	PI	FI	FC	FC	FC	FC	PI	FI	National AIM Roadmap-2015	AIXM: 4.5 (5.1 by Dec. 2015)
EGYPT	FI	PI	NC	NC	FC	NC	NI	PI	National AIM Roadmap-2015	AIXM: 5.1 3 by 2015, 4-9 by 2016
IRAN, ISLAMIC REPUBLIC OF	NI	NI	NC	NC	NC	NC	NI	NI	National AIM Roadmap-2016	AIXM: NI
IRAQ	NI	NI	NC	NC	NC	NC	NI	NI	National AIM Roadmap-2014	AIXM: NI
JORDAN	PI	NI	FC	FC	FC	PC	NI	NI	National AIM Roadmap-2014	AIXM: Database via EAD
KUWAIT	PI	NI	FC	NC	PC	NC	NI	NI	National AIM Roadmap-2015	AIXM: NI (5.1 by Dec. 2015)
LEBANON	PI	FI	NC	NC	FC	FC	FI	NI	National AIM Roadmap-2016	AIXM: 4.5
LIBYA	NI	NI	NC	NC	NC	NC	NI	NI	No Action Plan	AIXM: NI
OMAN	NI	NI	NC	NC	NC	NC	NI	NI	National AIM Roadmap-2014	AIXM: NI (5.1 in progress)
QATAR	PI	PI	FC	PC	FC	PC	PI	NI	National AIM Roadmap-2016	AIXM: 5.1
SAUDI ARABIA	FI	FI	FC	FC	FC	FC	FI	FI	National AIM Roadmap-2014	AIXM: 4.5
SUDAN	PI	NI	FC	NC	FC	PC	PI	PI	National AIM Roadmap-2015	AIXM: NI (planned; Mar 2016) 1. AIS DB integrated with MET & ATM 2. Contract Signed for eAIP, AIXM connected with Charting SYS. 7. Contract signed. 8. Ongoing project
SYRIAN ARAB REPUBLIC	NI	NI	NC	NC	NC	NC	NI	NI	No Action Plan	AIXM:NI
UNITED ARAB EMIRATES	PI	FI	NC	NC	PC	PC	NI	PI	National AIM Roadmap-2014	AIXM: 5.1 AMDB: 2016-2021 eTOD integration: 2016 PIB: AVBL at OMMA, OMDDB, OMDW; other ADs 2020 Charing: 2016 Procedure Design 2020 ATS: ACC AVBL, ADs 2020 Digital NOTAM 2016-2021
YEMEN	NI	NI	NC	NC	NC	NC	NI	NI	No Action Plan	AIXM:NI

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

State	1.6 QMS	1.7 Establishment of formal agreements	1.8 Digital data exchange with originators	1.9 Metadata	1.10 Data quality monitoring	DATA INTEGRITY MONITORING	AIRAC ADHERENCE	ACTION PLAN	REMARKS
1.11	1.12	1.13	1.14	5	6	7	8	9	10
BAHARAIN	FC	FC	PI	PC	PC	PC	FC	National AIM Roadmap-2015	
EGYPT	FC	PC	PI	FC	PC	PC	FC	National AIM Roadmap-2015	3, 4, 6 and 7 by 2016
IRAN, ISLAMIC REPUBLIC OF	FC	PC	NI	NC	NC	NC	FC	National AIM Roadmap-2016	
IRAQ	NC	NC	NI	NC	NC	NC	FC	National AIM Roadmap-2014	
JORDAN	FC	NC	NI	PC	FC	FC	FC	National AIM Roadmap-2014	
KUWAIT	FC	PC	NI	NC	NC	NC	FC	National AIM Roadmap-2015	
LEBANON	NC	NC	NI	NC	NC	NC	FC	National AIM Roadmap-2016	
LIBYA	NC	NC	NI	NC	NC	NC	NC	No Action Plan	
OMAN	NC	NC	NI	NC	NC	NC	FC	National AIM Roadmap-2014	- QMS: Dec 2016 - SLA 65% by Dec 2016.
QATAR	FC	PC	PI	FC	PC	PC	FC	National AIM Roadmap-2016	SLA with MIL in progress
SAUDI ARABIA	FC	PC	NI	FC	FC	FC	FC	National AIM Roadmap-2014	SLA will be completed end 2015
SUDAN	FC	FC	NI	NC	FC	FC	FC	National AIM Roadmap-2015	
SYRIAN ARAB REPUBLIC	NC	NC	NI	NC	NC	NC	NC	No Action Plan	
UNITED ARAB EMIRATES	FC	PC	NI	FC	FC	FC	FC	National AIM Roadmap-2014	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		Plan to be updated by 2016
EGYPT	FC	FC	FC	FC		
IRAN, ISLAMIC REPUBLIC OF	FC	FC	FC	FC		
IRAQ	PC	PC	PC	NC	National AIM Roadmap-2014	
JORDAN	FC	FC	FC	FC		
KUWAIT	FC	FC	FC	FC		Last survey FEB 2015
LEBANON	FC	FC	FC	NC	National AIM Roadmap-2016	
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	PC	PC	National AIM Roadmap-2015	
IRAN, ISLAMIC REPUBLIC OF	FC	FC	FC	FC		
IRAQ	NC	NC	NC	NC	National AIM Roadmap-2014	
JORDAN	NC	NC	NC	NC	National AIM Roadmap-2014	
KUWAIT	FC	FC	FC	FC		
LEBANON	NC	N/A	NC	N/A	National AIM Roadmap-2016	
LIBYA	NC	N/A	NC	N/A	No Action Plan	
OMAN	NC	N/A	NC	N/A	National AIM Roadmap-2014	Area 1: Dec 2016
QATAR	FC	FC	FC	FC		
SAUDI ARABIA	FC	FC	FC	FC		
SUDAN	NC	N/A	NC	N/A	National AIM Roadmap-2015	
SYRIAN ARAB REPUBLIC	NC	N/A	NC	N/A	No Action Plan	
UNITED ARAB EMIRATES	PC	FC	PC	FC	National AIM Roadmap-2014	
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
BAHARAI N	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-2015	
EGYPT	PC	PI	PI	PI	NC	NI	NI	NI	National AIM Roadmap-2015	
IRAN, ISLAMIC REPUBLIC OF	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-2016	Areas 2A, 2B, 2C &SD Fi by Dec. 2016
IRAQ	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-2014	
JORDAN	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-2014	
KUWAIT	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-2015	
LEBANON	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-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	Area 2a, 2b, 2c and 2d: Dec 2016
QATAR	FC	FI	FI	FI	FC	FI	FI	FI		
SAUDI ARABIA	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-2014	
SUDAN	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-2015	
SYRIAN ARAB REPUBLIC	NC	NI	NI	NI	NC	NI	NI	NI	No Action Plan	
UNITED ARAB EMIRATES	NC	NI	NI	NI	NC	NI	NI	NI	National AIM Roadmap-2014	
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.

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TABLE B0-DATM-3-4
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	
EGYPT	NI	NI	NI	National AIM Roadmap-2015	
IRAN, ISLAMIC REPUBLIC OF	NI	NI	NI	National AIM Roadmap-2016	Area 3: Dec 2016
IRAQ	NI	NI	NI	National AIM Roadmap-2014	
JORDAN	NI	NI	NI	National AIM Roadmap-2014	
KUWAIT	FI	FI	NI	National AIM Roadmap-2015	
LEBANON	NI	NI	NI	National AIM Roadmap-2016	
LIBYA	NI	NI	NI	No Action Plan	
OMAN	NI	NI	NI	National AIM Roadmap-2014	Area 3: Dec 2016
QATAR	NI	FI	NI	National AIM Roadmap-2016	AMDB to be implemented last quarter of 2015
SAUDI ARABIA	NI	NI	NI	National AIM Roadmap-2014	
SUDAN	NI	NI	NI	National AIM Roadmap-2015	
SYRIAN ARAB REPUBLIC	NI	NI	NI	No Action Plan	
UNITED ARAB EMIRATES	NI	NI	NI	National AIM Roadmap-2014	
YEMEN	NI	NI	NI	No Action Plan	

APPENDIX B

B0 – FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration					
<i>Elements</i>	<i>Applicability</i>	<i>Performance Indicators/Supporting Metrics</i>	<i>Targets</i>	<i>Status</i>	<i>Remarks</i>
AMHS capability	<i>All States</i>	Indicator: % of States with AMHS capability Supporting metric: Number of States with AMHS capability	70% of States with AMHS capability by Dec. 2017	60 73% (9 11 States)	Data Collection: MID eANP Table B0-FICE CNS Sub-Group
AMHS implementation /interconnection	<i>All States</i>	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	40 60% (6 9 States)	Data Collection: MID eANP Table B0-FICE CNS Sub-Group
Implementation of AIDC/OLDI between adjacent ACCs	<i>All ACCs</i>	Indicator: % of FIRs within which all applicable ACCs have implemented at least one interface to use AIDC/OLDI with neighboring ACCs Supporting metric: Number of AIDC/OLDI interconnections implemented between adjacent ACCs	70% by Dec. 2017	27 33% (4 5 States)	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 of AIDC/OLDI Implementation, where:
 Y – If AIDC/OLDI is implemented at least with one neighbouring ACC
 N – Not Implemented
 - 6 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	AIDC/OLDI Implementation	Action Plan	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	N		
Egypt	Y	Y	Y	Y		
Iran	N	N	Y	N		Contract signed for AMHS
Iraq	N	N	N	N		
Jordan	Y	Y	Y	N		
Kuwait	Y	Y	Y	N		
Lebanon	Y	N	Y	Y		
Libya	Y	N	Y	N		
Oman	Y	Y	Y	N		
Qatar	Y	Y	Y	Y		local implementation for OLDI
Saudi Arabia	Y	Y	Y	Y		local implementation for AIDC
Sudan	Y	Y	Y	N		AMHS Int. Feb 2015
Syria	N	N	N	N		
UAE	Y	Y	Y	Y		Local implementation for OLDI
Yemen	N	N	N	N		Contract signed for AMHS
Total Percentage	73%	60%	80%	33%		

APPENDIX C

B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety					
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets	Status	Remarks
1- SADIS 2G and Secure SADIS FTP	All States	Indicator: % of States that have implemented SADIS 2G satellite broadcast or Secure SADIS FTP service Supporting Metric: Number of States that have implemented SADIS 2G satellite broadcast or Secure SADIS FTP service	90% by Dec. 2015 100% by Dec. 2017	87% (13 States) 80% (12 States)	Data Collection: MID eANP Table B0-AMET 3-1
2-QMS	All States	Indicator: % of States that have implemented QMS for MET Supporting Metric: Number of States that have implemented QMS for MET	60% by Dec. 2015 80% by Dec. 2017	53% (8 States) 60% (9 States)	Data Collection: MID eANP Table B0-AMET 3-4
3 - SIGMET	All MWOs in MID Region	Indicator: % of FIRs in which SIGMET is implemented Supporting metric: number of FIRs SIGMET is implemented	90% by Dec. 2016 100% by Dec. 2018	TBD (total 14 FIRs)	Data Collection: MID eANP Table B0-AMET 3-5 (being developed)

Table B0-AMET 3-1

~~SADIS 2G~~ and ~~Secure~~ SADIS FTP

EXPLANATION OF THE TABLE

Column

- 1 Name of the State
- 2,3 Status of implementation of ~~SADIS 2G~~ and/or ~~Secure~~ SADIS FTP, where:
Y – Yes, implemented
N – No, not implemented

State	Implementation	
	SADIS 2G	Secure SADIS FTP
1	2	3 2
BAHRAIN	Y	Y
EGYPT	Y	Y
IRAN (ISLAMIC REPUBLIC OF)	Y N	N
IRAQ	Y	Y
JORDAN	N	Y
KUWAIT	Y	Y
LEBANON	N	N
LIBYA	Y	Y
OMAN	Y	Y
QATAR	Y	N Y
SAUDI ARABIA	Y	Y
SUDAN	Y	Y
SYRIAN ARAB REPUBLIC	Y N	N
UNITED ARAB EMIRATES	Y	Y
YEMEN	Y	N Y

Table B0-AMET 3-2

Volcanic Ash Advisory Centers

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

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 – QMS: not started/ planning, ongoing/ partially implemented, Implemented/ISO 9001 Certified, Date of Certification.
 5
 6 Action Plan
 7 Remarks

State	1.1 Not started/ planning	1.2 Ongoing/ partially implemented	1.3 Implemented/ ISO 9001 Certified		Action Plan	Remarks
			1.4 Status	1.5 Date of Certification		
1.6 1	1.7 2	1.8 3	1.9 4	1.10 5	1.11 6	1.12 7
BAHARAIN			√	2008		
EGYPT			√	23 May 2012		
IRAN, ISLAMIC REPUBLIC OF		↯	√	Oct 2015	No Action Plan	
IRAQ	√				No Action Plan	
JORDAN			√	2 Apr 2014		
KUWAIT			√	23 Aug 2013		
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		
YEMEN	√				No Action Plan	

Table B0-AMET 3-5

SIGMET

EXPLANATION OF THE TABLE

Column

- 1 Name of the FIR
- 2 Status of implementation of SIGMET, where:
 Y – Yes, implemented
 N – No, not implemented

State	Implementation
1	2
AMMAN (OJAC)	
BAGHDAD (ORBB)	
BAHRAIN (OBBB)	
BEIRUT (OLBB)	
CAIRO (HECC)	
DAMASCUS (OSTT)	
EMIRATES (OMAE)	
JEDDAH (OEJD)	
KHARTOUM (HSSS)	
KUWAIT (OKAC)	
MUSCAT (OOMM)	
SANA A (OYSC)	
TEHRAN (OIXX)	
TRIPOLI (HLLL)	