



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**THE MIDDLE EAST AIR NAVIGATION PLANNING
AND IMPLEMENTATION REGIONAL GROUP
(MIDANPIRG)**

**REPORT OF THE SECOND MEETING OF
AIM SUB-GROUP (AIM SG/2)**

(Kish Island, Iran, 31 August – 2 September 2015)

The views expressed in this Report should be taken as those of the MIDANPIRG AIM Sub-Group and not of the Organization. This Report will, however, be submitted to the MIDANPIRG and any formal action taken will be published in due course as a Supplement to the Report.

Approved by the Meeting
and published by authority of the Secretary General

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TABLE OF CONTENTS

Page

PART I - HISTORY OF THE MEETING

1.	Place and Duration	1
2.	Opening.....	1
3.	Attendance	1
4.	Officers and Secretariat	1
5.	Language.....	1
6.	Agenda	2
7.	Conclusions and Decisions - Definition	2
8.	List of Draft Conclusions and Draft Decisions.....	2

PART II - REPORT ON AGENDA ITEMS

Report on Agenda Item 1	1-1
Report on Agenda Item 2	2-1
Report on Agenda Item 3	3-1/3-4
Report on Agenda Item 4	4-1/4-8
Report on Agenda Item 5	5-1
Report on Agenda Item 6.....	6-1
Report on Agenda Item 7.....	7-1

APPENDICES

Appendix 2A	
Appendices 4A – 4L	
Appendix 5A	

ATTACHMENT

List of Participants	Attachment A
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PART I – HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Second Meeting of the MIDANPIRG AIM Sub-Group (AIM SG/2) was successfully held at the Kish International Convention Center in Kish Island, Iran, 31 August – 2 September 2015.

2. OPENING

2.1 Mr. Ali Abedzadeh, Vice Minister of Roads and Urban Development and President of Civil Aviation Organization (CAO) of Iran opened the meeting. He welcomed all the participants to Iran and the Kish Island in his opening. Mr. Abedzadeh highlighted that today's air navigation is much more dependent to aeronautical information than before. He mentioned that with the evolution of the new modern navigation methods and systems such as PBN and FMS databases, Aeronautical Information Management (AIM) has become more important and is playing a vital role in these data dependent navigation systems and the collaborative decision making. Mr. Abedzadeh indicated that the AIM Sub-Group has a very important role to follow-up and monitor the progress of AIM implementation in the MID Region. Finally, he wished the meeting all the success in its deliberations.

2.2 Mr. Mohamed Smaoui, ICAO Deputy Regional Director, Middle East Office, also addressed the meeting in the opening thanking Iran for hosting the meeting and for the warm welcome and excellent hospitality extended to the ICAO team and all the participants. He highlighted that the AIM Sub-Group at its second meeting after the endorsement of the new MIDANPIRG organizational chart has a challenging work programme in order to promote AIM implementation in the MID Region in a harmonized manner and provide a stimulus to AIM planning and implementation.

2.3 Mr. Smaoui referred to the endorsement of the fourth edition of the Global Air Navigation Plan by the 38 Assembly including the Aviation System Block Upgrades (ASBUs) Methodology. He underlined that the meeting is expected to monitor the status of implementation of the B0-DATM Elements in the MID Region and ensure that the associated performance targets are met. He re-iterated that the difficulties encountered by States in the implementation of the B0-DATM Elements should be identified and appropriate action be taken. Finally, Mr. Smaoui wished the meeting all the success.

2.4 In closing, Mr. Smaoui thanked the participants for their presence and wished the meeting every success in its deliberations.

3. ATTENDANCE

3.1 The meeting was attended by a total of thirty six (36) participants from seven (7) States (Egypt, Iran, Kuwait, Lebanon, Oman, Sudan and United Arab Emirates) and two (2) International Organizations (IATA and IFAIMA). The list of participants is at **Attachment A** to the Report.

4. OFFICERS AND SECRETARIAT

4.1 The meeting was chaired by Mr. Abdalla Al Rashidi, Director AIM, GCAA, UAE. Mr. Abbas Niknejad, Regional Officer Aeronautical Information Management/Air Traffic Management (RO/AIM/ATM) was the Secretary of the meeting, supported by Mr. Mohamed Smaoui, Deputy Regional Director (DEPRD).

5. LANGUAGE

5.1 Discussions were conducted in English and documentation was issued in English.

6. AGENDA

6.1 The following Agenda was adopted:

- Agenda Item 1: Adoption of the Provisional Agenda
- Agenda Item 2: Follow-up on DGCA-MID/3, MIDANPIRG/15 and MSG/4 Conclusions and Decisions relevant to AIM
- Agenda Item 3: Global/Regional developments related to AIM and SWIM
- Agenda Item 4: Performance Framework for AIM implementation in the MID Region
- Agenda Item 5: Review of Air Navigation Deficiencies in the AIM Field
- Agenda Item 6: Future Work Programme
- Agenda Item 7: Any other business

7. CONCLUSIONS AND DECISIONS – DEFINITION

7.1 All MIDANPIRG Sub-Groups and Task Forces record their actions in the form of Conclusions and Decisions with the following significance:

- a) **Conclusions** deal with the matters which, in accordance with the Group's terms of reference, merit directly the attention of States on which further action will be initiated by ICAO in accordance with established procedures; and
- b) **Decisions** deal with matters of concern only to the MIDANPIRG and its contributory bodies

8. LIST OF DRAFT CONCLUSIONS AND DRAFT DECISIONS

- DRAFT CONCLUSION 2/1: DRAFT MID REGION GUIDANCE FOR AIM IMPLEMENTATION*
- DRAFT CONCLUSION 2/2: AIRAC ADHERENCE MONITORING*
- DRAFT CONCLUSION 2/3: PUBLICATION OF FIR BOUNDARY POINTS*
- DRAFT CONCLUSION 2/4: PUBLICATION RESOLUTION FOR FIR BOUNDARY POINTS*
- DRAFT CONCLUSION 2/5: EXPANSION OF THE MID REGIONAL PERFORMANCE DASHBOARD – AIM PART*
- DRAFT DECISION 2/6: MIDAD SUPPORT TEAM (MIDAD ST)*
- DRAFT CONCLUSION 2/7: NATIONAL MIDAD COMMITTEE/TEAM*
- DRAFT CONCLUSION 2/8: INTERREGIONAL SEMINAR ON “SERVICE IMPROVEMENT THROUGH INTEGRATION OF DIGITAL AIM, MET AND ATM INFORMATION”*

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA

1.1 The meeting reviewed and adopted the Provisional Agenda as at Para. 6 of the History of the Meeting.

**REPORT ON AGENDA ITEM 2: FOLLOW-UP ON DGCA-MID/3, MIDANPIRG/15 AND MSG/4
CONCLUSIONS AND DECISIONS RELEVANT TO AIM**

2.1 The meeting noted the status of the DGCA-MID/3, MIDANPIRG/15 and MSG/4 Conclusions and Decisions relevant to AIM and the follow up actions taken by concerned parties as at **Appendix 2A**.

REPORT ON AGENDA ITEM 3: GLOBAL DEVELOPMENTS RELATED TO AIM***AIS-AIM SG/10 and AIS-AIM SG/11******Annex 15 restructuring, development of the new PANS AIM and Data Catalogue***

3.1 The meeting was apprised of the outcome of the tenth and eleventh meetings of the Aeronautical Information Services-Aeronautical Information Management Study Group (AIS-AIMSG/10, Montreal, Canada, 10-14 November 2014 & AIS-AIMSG/11, Montreal, Canada, 27 April-1 May 2015).

3.2 The meeting received with appreciation two presentations via web conferencing by Mr. Paul Bosman, Chairman of the AIS-AIMSG and Mr. Rudolf Schneeberger, ITV Consultant. Mr. Bosman provided a briefing on the activities of the AIS-AIMSG and associated Global and Regional developments related to AIM and SWIM. Mr. Schneeberger also provided the meeting with the latest development related to the AIM Data Catalogue.

3.3 The meeting recalled that, the AIS-AIM Study Group set a strategy to restructure Annex 15 to include only requirements and performance specifications related to AIS/AIM in 6 new Chapters. First part of Annex 15 restructuring (Chapters 1 to 3) was published through Amendment 37 to Annex 15 (applicable date 14 November 2013):

- Chapter 1 General.
- Chapter 2 Responsibilities and Functions.
- Chapter 3 Aeronautical Information Management.
- Chapter 4: Aeronautical data and information scope and collection.
- Chapter 5: Temporality and Distribution
- Chapter 6: Information Services

3.4 The meeting noted that PANS AIM has also been developed to include procedures, processes, formats and technical specifications. It was noted that the restructured Annex 15 (+30 pages) and the new PANS AIM (+100 pages) would be finalized by the end 2015. Some of the principles of the restructuring are as follows:

- Split Data collection process from data provision
- Move from Product to Data Centric
- Digital Data services:
 - Several Datasets: Aeronautical (AIP), Terrain, Obstacles, Aerodrome Mapping, Instrument Flight Procedure Design
 - Progressive introduction of the requirements for digital data publication
 - Incentive - allowed to remove certain AIP tables, if data is made available digitally
 - Short-term operational significant update - [Digital NOTAM]
- Emphasis on English Language
- Safety Management provisions

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- Data quality separated from Quality/Safety Management
 - I-AIP replaced by Aeronautical Information Products
 - Strengthening Formal arrangements with data originators
 - Data protection provisions updated (CRC)
 - Some Doc8126 AIP text (multiple volumes, page numbering, formatting, etc.) lifted to PANS-AIM level

3.5 The meeting was informed that an AIM Data Catalogue is developed to be included in PANS AIM Appendix 1. The Data Catalogue shall be considered as a reference for all provisions related to aeronautical data origination and publication. The Data Catalogue provides a common language that can be used by data providers/originators and AIS. So, Data Catalogue would also facilitate formal arrangements between AIS/AIM units with data originators.

3.6 It was noted that the Data Catalogue consolidates data that may be collected and maintained by AIS and is the source of the accuracy and integrity requirements for determination and reporting of aeronautical data to AIS. It is also the source of the resolution and integrity requirements for publication and charting of products including aeronautical data included in Annex 15. Information sub-domains of the Data Catalogue are as follows:

- a) Aerodromes
- b) Airspaces
- c) ATS Routes
- d) Instrument Flight Procedures
- e) Navigation Aids / Systems
- f) Obstacles
- g) Geographic Information

3.7 The meeting noted that the target effective and applicability dates for the amendment to Annex 15 and introduction of PANS AIM and Data Catalogue are July 2017 and November 2018, respectively.

Pending ICAO Guidance Material

3.8 The meeting noted with concern that the following ICAO Documents were released by the AIS-AIMSG to the ICAO Secretariat and are still not yet finalized/issued:

- New Quality Manual (Doc 9839) – English draft by Q3-2015
- AIS Manual – Amdt 3 (Doc 8126) – to follow Quality Manual
- New Training Manual (Doc 9991) – English draft by Q3-2015
- Aeronautical Chart manual – Amdt 3 (Doc 8697) – With editorial
- Update of WGS-84 Manual (Doc 9674) – To be updated
- Update of Public Usage of Internet (Doc 9855) – On work program of IMP

3.9 List of Study Notes and Information Papers issued for the AIS-AIMSG/10 and 11 meetings, as well as the Summary of Discussions, are available on the ICAO website at: <http://www.icao.int/safety/ais-aimsg/Pages/default.aspx>.

Amendment Proposals to ANNEX 4 and 15

3.10 The meeting noted the proposal Ref.: SP 65/4-15/22 dated 13 May 2015 to amend Annex 4 — *Aeronautical Charts*, Annex 11 — *Air Traffic Services*, Annex 15 — *Aeronautical Information Services* and the *Procedures for Air Navigation Services — Aircraft Operations*, Volume I — *Flight Procedures* and Volume II — *construction of Visual and Instrument Flight Procedures* (PANS-OPS, Doc 8168) regarding: procedure design and oversight Standards and Recommended Practices (SARPs); harmonization chart/database avionics requirements; existing work; work related to maintenance and update of provisions; development of new performance-based navigation (PBN) design criteria to support current and future PBN operations; and provision of information for the strategic development of PBN, developed by the twelfth meeting of the Instrument Flight Procedures Panel (IFPP/12); and the proposal Ref.: AN 4/1.1.55-15/30 dated 29 May 2015 to amend Annex 14 — *Aerodromes*, Volume I — *Aerodrome Design and Operations*; the *Procedures for Air Navigation Services (PANS) — Aerodromes* (PANS-Aerodromes, Doc 9981); Annex 3 — *Meteorological Service for International Air Navigation*; Annex 6 — *Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes* and Part II — *International General Aviation — Aeroplanes*; Annex 8 — *Airworthiness of Aircraft*; Annex 15 — *Aeronautical Information Services*; and the *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444) relating to improvements in assessing and reporting runway surface conditions, including SNOWTAM format and coding, developed by the Friction Task Force of the Aerodrome Design and Operations Panel (ADOP).

3.11 In this regard, the proposed changes to Annex 15 related to 1) the use of enhanced Global reporting format for assessing and reporting Runway surface conditions; 2) the new SNOWTAM format; 3) 8 hours validity of the SNOWTAM were highlighted; and the need for the States to review their NOTAM system to accommodate the proposed changes, in due time after final approval of the Proposal for Amendment was underlined.

Information Management Panel (IMP)

3.12 The meeting recalled that, the ICAO Air Navigation Commission agreed to the establishment of the Information Management Panel (IMP), to elaborate on necessary concepts and develop a global and interoperable approach to ensure effective management of information within the global air navigation system. The IMP undertakes tasks related to the global transition from AIS to AIM, based upon Recommendations 3/1, 3/2, 3/3 and 3/9 of the Twelfth Air Navigation Conference in 2012 (AN-Conf/12).

3.13 The meeting was apprised of the outcome of the first meeting of the Information Management Panel (IMP/1) (Montreal, Canada, 26-30 January 2015). It was noted that the meeting agenda was focused on five main work areas:

- a) SWIM concept
- b) NOTAM
- c) Information Exchange
- d) Service requirements; and
- e) Governance and Institutional Issues

3.14 The meeting noted that, four (4) Working Groups were established by the IMP/1 meeting to work on the following:

-
- Information Services and NOTAM
 - Information Architecture & Management
 - SWIM Awareness & Communication
 - SWIM Governance

3.15 Working and Information Papers issued for the IMP/1 meeting as well as the meeting Report are available on the ICAO website at: <http://www.icao.int/airnavigation/IMP/Pages/default.aspx>

3.16 The meeting highlighted that it is necessary for States, to start including some SWIM-related issues in their National Plans. The meeting agreed also that the AIM SG/3 meeting should consider the inclusion of some SWIM-related issues in the TORs of the AIM SG.

Global AIM Hanoi 2015

3.17 The meeting was apprised of the outcome of the Global AIM 2015 (Hanoi, Vietnam, 9-11 June 2015). The presentations, Summary and Conclusions and Recommendations of the Conference are available on the IFAIMA website at: <http://www.ifaima.org/index.php/global-aim/item/177-global-aim-ha-noi-2015>

3.18 The meeting noted that further to the submission of a Study Note by IFAIMA to the AIS-AIM SG/11 related to English Language Proficiency for AIS/AIM Staff, the subject is being addressed at the level of ICAO Headquarter.

REPORT ON AGENDA ITEM 4: PERFORMANCE FRAMEWORK FOR AIM IMPLEMENTATION IN THE MID REGION

National AIM Implementation Roadmap

4.1 The meeting recalled that, the MSG/4 meeting agreed that States should focus on the implementation of phase II of the ICAO Roadmap for the transition from AIS to AIM and agreed to the following MSG Conclusion:

MSG CONCLUSION 4/17: NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

That, States:

- a) be invited to take into consideration the “MID Region AIM implementation Roadmap” at Appendix 4L in planning for the transition from AIS to AIM in a prioritized manner; and*
- b) that have not yet done so, be urged to provide the ICAO MID Regional Office with their National AIM Implementation Roadmap using the Template at Appendix 4K, before 1 March 2015.*

4.2 The meeting noted that twelve (12) States have provided their National AIM Implementation Roadmaps to the ICAO MID Regional Office. National AIM Implementation Roadmaps provided by the States are at **Appendix 4A**. It was highlighted that the “*National AIM Implementation Roadmap Template*” at **Appendix 4B** was a useful tool for the States for the development of their National AIM Implementation Roadmap. The meeting further urged States to implement the provisions of the MSG Conclusion 4/17, in particular States were urged to provide the ICAO MID Regional Office with any update, to their National AIM implementation Roadmap, before **31 December 2015**.

4.3 The meeting reviewed the “*MID Region AIM implementation Roadmap*” endorsed by the MSG/4 meeting (Cairo, Egypt, 24-26 November 2014) at **Appendix 4C** and agreed that it is still current and valid.

MID Region Guidance for AIM Implementation

4.4 The meeting recalled that the MIDANPIRG/15 meeting (Bahrain, 8-11 June 2015) agreed that the plans, procedures, guidance materials, etc. related to the Middle East Region be published as Regional Documents (MID Docs) and be posted on the ICAO Secure Portal (RO_MID) at: https://portal.icao.int/RO_MID/Pages/MIDDocs.aspx.

4.5 The meeting noted with appreciation that, in order to support AIM Implementation in the MID Region, the Secretariat developed Draft Guidance Material on the AIM Implementation “*MID Region guidance for AIM implementation*”. The Document provides necessary information on the main concepts and operational elements of AIM and is intended to consolidate the main guidance material related to AIM (one-stop shop). It contains also the tools developed at regional level to assist States in the implementation process.

4.6 The meeting reviewed the draft “*MID Region guidance for AIM implementation*” and agreed to the following Draft Conclusion:

DRAFT CONCLUSION 2/1: DRAFT MID REGION GUIDANCE FOR AIM

IMPLEMENTATION

*That, States be urged to review the “MID Region guidance for AIM implementation” at **Appendix 4D**, and provide the ICAO MID Regional Office with their comments/inputs, including their needs/expectations and best practices/success stories, before **31 December 2015**, for the development of the final version.*

Status of AIM Implementation in the MID Region

4.7 The meeting recalled that the MIDANPIRG/15 meeting endorsed a revised version of the MID Air Navigation Strategy (MID Doc 002) and agreed to the following Conclusion:

CONCLUSION 15/10: MID REGION AIR NAVIGATION STRATEGY

That,

- a) the revised MID Region Air Navigation Strategy:*
 - i. is endorsed as the framework identifying the regional air navigation priorities, performance indicators and targets; and*
 - ii. be published as MID Doc 002*
- b) MID States be urged to:*
 - i. develop their National Air Navigation Performance Framework, ensuring the alignment with and support to the MID Region Air Navigation Strategy; and*
 - ii. provide the ICAO MID Regional Office, on an annual basis (by the end of November), with relevant data necessary for regional air navigation planning, reporting and monitoring.*

4.8 Detailed information on the monitoring of certain ASBU modules has been included in Volume III of the MID eANP, in order to be used as planning tools for the measurement of the air navigation systems performance.

4.9 The meeting reviewed the B0-DATM Elements, Indicators and Targets of the MID Air Navigation Strategy at **Appendix 4E**.

4.10 The meeting reviewed and updated the status of implementation of the B0-DATM Elements in the MID Region at **Appendix 4F**.

AIRAC adherence monitoring

4.11 The meeting noted the concerns raised by IATA related to the repetitive occurrence of late publication of aeronautical information of operational significance and the non-adherence with the AIRAC provisions in the MID Region. Accordingly, the meeting agreed on the need for continuous monitoring of AIRAC adherence. In this respect, it was highlighted that the AIRAC adherence monitoring system should be part of the Quality Management System. In addition, the meeting underlined the need for the users/IATA to report to concerned State(s) and the ICAO MID Regional Office any case of non-adherence to the AIRAC provisions.

4.12 The meeting recalled that MIDANPIRG/15, through Conclusion 15/17, urged States to take necessary measures for the signature of formal arrangements between AIS/AIM and the data

originators, commensurate with the Aerodrome operators, Air Navigation Service Providers (ANSPs) and the Military Authority. In this respect, the meeting highlighted the need for AIS/AIM to 1) raise the awareness of the Data Originators regarding the AIRAC provisions and 2) include necessary procedures related to AIRAC adherence in the arrangement with the Data Originators.

4.13 Based on the above, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 2/2: AIRAC ADHERENCE MONITORING

That:

- a) *States be urged to:*
 - i. *implement a system for AIRAC adherence monitoring; and*
 - ii. *report on annual basis (by 31 December) to the ICAO MID Regional Office the case(s) of late publication of aeronautical information of operational significance and non-adherence to the AIRAC provisions*
- b) *IATA report to the concerned State(s) and the ICAO MID Regional Office any case of late publication of aeronautical information of operational significance and non-adherence to the AIRAC provisions.*

MID eANP

4.14 The meeting recalled that the 12th Air Navigation Conference (AN-Conf/12) agreed to Recommendation 6/1 [Regional performance framework – planning methodologies and tools] regarding the alignment of regional air navigation plans (ANP) with the Fourth Edition of the Global Air Navigation Plan (GANP) (Doc 9750).

4.15 The meeting noted that the ICAO Council approved the new eANP Template (Volumes I, II and III) and corresponding procedure for amendment on 18 June 2014 (202nd session, fourth meeting).

4.16 The meeting recalled that the MIDANPIRG/15 meeting reviewed and endorsed the MID eANP VOL I, II and III. Accordingly, the meeting agreed to the following Conclusion:

CONCLUSION 15/11: ENDORSEMENT OF THE MID eANP

That,

- a) *the new MID ANP VOL I, II and III available at: <http://www.icao.int/MID/MIDANPIRG/Pages/Final%20Report/MID-eANP.aspx> are endorsed; and*
- b) *the ICAO MID Regional Office process the necessary Proposals for Amendment, in accordance with the procedure for amendment approved by the Council, for formal approval by the end of 2015.*

4.17 The meeting reviewed the AIM Parts of the MID eANP Volumes I and II.
Publication of FIR Boundary Coordinates

4.18 The meeting noted that in accordance with Annex 15, Appendix 7, Table A7-1,

Publication **Resolution** for Flight Information Region (FIR) boundary points is **1 minute**. However, in accordance with Annex 11, Appendix 5, Table 1, the **accuracy** for FIR boundary points is **2 Km**.

4.19 The meeting recalled that the MIDANPIRG/15 meeting agreed that during the process of endorsement/approval of the MID eANP, ICAO (HQ) would identify the inconsistencies, if any, in the lateral limits coordinates of the different FIRs/UIRs (Tables ATM I-1 and SAR I-1) and the MID Regional Office would coordinate with the concerned States to seek a resolution.

4.20 The meeting reviewed the Guidelines for the publication of FIR boundary points, at **Appendix 4G** and agreed that the Guidelines should be taken into consideration in the publication of the FIR boundary points in the AIPs.

4.21 The meeting further reviewed Table ATM I-1 *MID Region Flight Information Regions (FIRs)/ Upper Information Regions (UIRs)* at **Appendix 4H** highlighting the inconsistencies between adjacent FIRs and agreed to the following Draft Conclusions:

DRAFT CONCLUSION 2/3: PUBLICATION OF FIR BOUNDARY POINTS

That, States be urged to:

- a) *take into consideration the Guidelines at **Appendix 4G** for the description of their FIR boundaries;*
- b) *review the Table ATM I-1 MID Region Flight Information Regions (FIRs)/ Upper Information Regions (UIRs) at **Appendix 4H** and coordinate with neighboring States, as appropriate, the definition of common FIR boundaries; and*
- c) *provide the ICAO MID Regional Office with their updates and comments before **30 September 2015**.*

DRAFT CONCLUSION 2/4: PUBLICATION RESOLUTION FOR FIR BOUNDARY POINTS

That, ICAO consider the amendment of Annex 15 provisions related to the publication resolution for Flight Information Region (FIR) boundary points to be 1 second instead of 1 minute (DMS).

Regional Performance Dashboards

4.22 The meeting recalled that, the 38th Assembly approved the Regional Performance Dashboards. These Dashboards aim to provide a glance of both Safety and Air Navigation Capacity and Efficiency strategic objectives, using a set of indicators and targets based on the regional implementation of the Global Aviation Safety Plan (GASP) and the Global Air Navigation Plan (GANP).

4.23 The meeting noted that ICAO introduced the Regional Performance Dashboards as a framework of nested reporting of results with an increased focus on implementation. The Dashboards currently show the globally agreed targeted performance at the regional level and contain graphics and maps with a planned expansion to include regionally agreed targets and the Aviation System Block upgrades (ASBU) Block 0 Modules. The dashboards can be accessed on the ICAO website at <http://www.icao.int/safety/Pages/Regional-Targets.aspx>.

4.24 The meeting recalled that the MIDANPIRG/15 meeting agreed that the Dashboard

should reflect also the status of implementation of the regionally agreed priority 1 ASBU Block 0 modules. Accordingly, the meeting urged States to provide the ICAO MID Regional Office with necessary data on the implementation of all the priority 1 ASBU Block 0 modules and requested ICAO to expand the Dashboard to include all the MID Region-specific indicators, metrics and targets. Accordingly, the meeting agreed to the following Conclusion:

CONCLUSION 15/19: REGIONAL PERFORMANCE DASHBOARDS

That, ICAO expedite the expansion of the regional performance dashboards to include the MID Region-specific indicators, metrics and targets, for which the necessary data is available.

4.25 Based on the above, the meeting agreed that, AIM National Roadmap, AIXM 5+, eAIP, eTOD Area 1 and 4 should be added to the MID Region Dashboard. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 2/5: EXPANSION OF THE MID REGIONAL PERFORMANCE DASHBOARD – AIM PART

That, the AIM National Roadmap, AIXM 5+, eAIP and eTOD Area 1 and 4, be added to the MID Region Performance Dashboard.

MID Region AIM Database (MIDAD)

4.26 The meeting reviewed and endorsed the outcome of the MIDAD TF/3 meeting (Kish Island, Iran, 29-30 September 2015).

MIDAD Support Team

4.27 The meeting recalled that, taking into account that the majority of the tasks assigned by the DGCA-MID/2 meeting to the Four Leading States (Bahrain, Qatar, Saudi Arabia and UAE) have been successfully accomplished, and considering that the DGCA-MID/3 meeting has decided that the legal framework for the MIDAD Project will no longer be provided by the Leading States since MIDAD will be managed as a TCB project under the MAEP framework, the MIDANPIRG/15 meeting, through Conclusion 15/25, agreed that the MIDAD ST composition be amended to include Bahrain, Jordan, Iran, Kuwait, Oman, Qatar, Saudi Arabia, Sudan, UAE and the ICAO MID Regional Office. The meeting agreed to assign members to the MIDAD ST from the list of MIDAD Focal Points and that Mr. Abbas Niknejad, Regional Officer AIM/ATM, ICAO MID Regional Office, be designated as the Rapporteur of the ST. In this respect, the meeting noted that some members of the MIDAD ST have changed position/function within their Civil Aviation Authority and accordingly, the ICAO MID Regional Office was requested to double check with States if the information related to their MIDAD Focal Point is up-to-date.

4.28 Based on the above, the meeting agreed to the following Draft Decision to replace and supersede MIDANPIRG Decision 15/25 and MSG Conclusion 4/18:

DRAFT DECISION 2/6: MIDAD SUPPORT TEAM (MIDAD ST)

That, the MIDAD Support Team (MIDAD ST):

- a) be composed of the MIDAD Focal Points from Bahrain, Iran, Jordan, Kuwait,*

Oman, Qatar, Saudi Arabia, Sudan, UAE and the ICAO MID Regional Office as at Appendix 4I; and

- b) *provide necessary support to the MIDAD Task Force to successfully complete Phase 2 of the MIDAD Project.*

4.29 The meeting agreed that the work of the MIDAD ST shall be carried out mainly through exchange of correspondence, between its Members using all means of communication (emails, Teleconferencing, etc.).

4.30 The meeting recognized the need for States to establish a National multidisciplinary MIDAD Committee/Team to address all issues related to MIDAD (operational, financial, institutional, etc.) and provide necessary support to their MIDAD Focal Point who is supposed to be the Rapporteur of the National MIDAD Committee/Team. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 2/7: NATIONAL MIDAD COMMITTEE/TEAM

That, States be encouraged to establish a National MIDAD Committee/Team to provide necessary support to their MIDAD Focal Point in defining the State's position with regard to any issue/option related to the management of the MIDAD Project and development of the MIDAD Detailed Study.

Evaluation of the Tenders

4.31 The meeting was apprised of the status of the evaluation of Tenders of the MIDAD Detailed Study, presented by the MIDAD Task Force Chairman. The meeting recalled that, based on the Specifications of the Detailed Study, a Call for Tender (CfT) for the MIDAD Detailed Study was published by UAE on 25 November 2014. Offers were received from Two (2) Companies by 1 March 2015.

4.32 The meeting noted that, in parallel with the CfT process, an evaluation methodology was developed and endorsed by the four leading States and the MIDAD ST.

4.33 The meeting noted that Clarification Sessions with the bidders were held in Abu Dhabi, UAE on 10 and 11 August 2015.

4.34 The meeting agreed with the MIDAD TF/3 meeting on the results of the evaluation process and the Company to be selected for the development of the MIDAD Detailed Study, pending final endorsement by the MAEP SC/2 meeting.

Funding Options for the MIDAD Detailed Study

4.35 The meeting recalled that the DGCA-MID/3 meeting (Doha, Qatar, 27-29 April 2015), through Conclusion 3/4, agreed that the MIDAD Project (Detailed Study, implementation, operation, etc.) be managed as a TCB project under the MAEP framework and that the final decision on the funding mechanism of the MIDAD Project should be addressed by the MIDAD TF/3 and MAEP SC/Board meetings.

4.36 It was highlighted that the MIDANPIRG/15 meeting (Bahrain, 8-11 June 2015) agreed that the following should be considered in developing funding option(s) for the MIDAD Detailed Study:

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- a) the MIDAD Project Memorandum of Agreement (MOA) as signed by the MIDAD Participating States;
 - b) the contribution of States be based on their economic figures; the volume of traffic and the Gross Domestic Product per capita (GDP);
 - c) proposals received from States (formal proposal, discussions, etc.) and in particular from the GCC States;
 - d) the method of collection of contributions;
 - e) the political/security stability of the committed States and their ability to pay contributions;
 - f) possibility of advance contribution from a number of State with a possibility for recovery;
 - g) late joining of additional States;
 - h) possible delays in the payment/collection of contributions;
 - i) legal/institutional framework; and
 - j) initial thoughts about a cost-recovery mechanism.

4.37 It was highlighted that the DGCA-MID/3 meeting reviewed and endorsed the MAEP Memorandum of Agreement (MOA) and agreed that the MAEP MOA shall come into effect on the date it is signed by at least five (05) States. In this respect, the meeting noted that, as of today, Egypt, Sudan and UAE signed the MAEP MOA. Concern was raised about the remaining ten (10) MIDAD States that have not yet signed the MAEP MOA. The meeting agreed that this should be addressed by the MAEP SC/Board.

4.38 The meeting endorsed the outcome of the MIDAD TF/3 meeting related to funding options for the development of the MIDAD Detailed Study. In this respect, States were divided into two groups (A and B) based on the GDP per capita, traffic and volume of Aeronautical Information, as at **Appendix 4J**.

4.39 Taking into consideration the criteria endorsed by MIDANPIRG/15 for the funding of the MIDAD Detailed Study and the inputs received from States with regard to the preferred funding option, the meeting agreed with the three Funding Options, developed by the MIDAD TF/3 meeting, at **Appendix 4K**, to be proposed to the MAEP SC/2 meeting (Cairo, Egypt, 20-22 October 2015) for final decision.

4.40 The meeting agreed that, as part of the Project, TCB should be responsible not only for Project Management support, but also to provide technical support for the Contract negotiation, evaluation of deliverables during the development of the detailed study, assessment of proposed options/scenarios, etc.

Action Plan/Timelines related to the MIDAD Project

4.41 The meeting reviewed the Action Plan/Timelines related to the MIDAD Project Phase 2, developed by the MIDAD TF/3 at **Appendix 4L**.

Interregional Seminar on “Service improvement through integration of digital AIM, MET and ATM Information”

4.42 The meeting recalled that the Performance Improvement Area 2 (Globally Interoperable Systems and Data – Through Globally Interoperable System Wide Information Management) of the ASBU Methodology focuses on the ASBU Modules which mainly support Collaborative Decision Making (CDM) through Information Management (i.e. Aeronautical Information, MET, Flight and Flow, etc.) in a SWIM environment.

4.43 The 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. It was highlighted that the implementation of Block 1 (2018) will be also very challenging.

4.44 The meeting agreed that an Interregional Seminar on “**Service Improvement through Integration of Digital AIM, MET and ATM Information**” be organised in 2017. The objective of the Seminar will be to monitor/review implementation status of the ASBU Block 0 Modules of the PIA 2 (i.e. B0-DATM, B0-AMET and B0-FICE) and associated challenges/lessons learned and to focus on the pre-requisites for an efficient and timely planning for the implementation of the Block 1 Modules of the PIA 2 (B1-DATM, B1-AMET, B1-SWIM and B1-FICE).

4.45 Based on the above, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 2/8: INTERREGIONAL SEMINAR ON “SERVICE IMPROVEMENT THROUGH INTEGRATION OF DIGITAL AIM, MET AND ATM INFORMATION”

That, an Interregional Seminar on “Service improvement through integration of digital AIM, MET and ATM Information” be organised in 2017.

REPORT ON AGENDA ITEM 5: REVIEW OF AIR NAVIGATION DEFICIENCIES IN THE AIM FIELD

5.1 The meeting recalled that, the MIDANPIRG/15 reviewed the outcome of the different MIDANPIRG subsidiary bodies related to air navigation deficiencies and noted that the majority of the CAPs were not specifying a set of clear actions from States with specific timelines for the elimination of the deficiencies. Accordingly, MIDANPIRG/15 agreed that the information reflected in the CAP column be deleted and urged States to use the MANDD to propose specific CAP for each deficiency, through Conclusion 15/35:

CONCLUSION 15/35: AIR NAVIGATION DEFICIENCIES

That, States be urged to:

- a) use the MID Air Navigation Deficiency Database (MANDD) for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies, including the submission of a specific Corrective Action Plan (CAP) for each deficiency; and*
- b) submit a Formal Letter to the ICAO MID Regional Office containing the evidence(s) that mitigation measures have been implemented for the elimination of deficiency(ies) when requesting the elimination of deficiency(ies) from the MANDD.*

5.2 The meeting reviewed and updated the list of deficiencies in the AIM field as at **Appendix 5A**.

5.3 Considering that the implementation of an Aeronautical Information Conceptual/Exchange Model is the main pre-requisite for AIS Automation, the meeting agreed that the Deficiencies related to AIS Automation be described as “Lack of implementation of an AIXM-based AIS Database”. Furthermore, in order to ensure an effective monitoring of AIRAC Adherence, it was agreed to change the description of the Deficiencies related to AIRAC adherence to “Lack of implementation of an AIRAC adherence monitoring system”.

5.4 The meeting further urged States to implement the provisions of the MIDANPIRG Conclusion 15/35, in particular the submission of a specific Corrective Action Plan (CAP) for each deficiency, including the timeline for implementation (date of completion).

REPORT ON AGENDA ITEM 6: FUTURE WORK PROGRAMME

6.1 The meeting reviewed the AIM SG Terms of References (TORs) and agreed that they are still valid and current. However, it was agreed that, the AIM SG/3 meeting should consider the inclusion of some SWIM-related tasks in the TORs of the AIM SG to support the planning framework on information management, such as the definition of a business model to provide accredited, quality-assured and timely information required by actors within the air navigation system and used to support operations on a system-wide basis; and the development of transition strategies and guidance necessary for the implementation of SWIM and new information exchange formats, including future avionic requirements.

6.2 Taking into consideration, the planned ICAO MID Regional events which are of relevance to the activity of the AIM Sub-Group, in particular the MSG/5, ANSIG/2 and MIDANPIRG/16 meetings, it was agreed that the AIM SG/3 meeting be held during the first half of 2017. The venue will be Cairo, unless a State is willing to host the meeting.

REPORT ON AGENDA ITEM 7: ANY OTHER BUSINESS

7.1 Nothing has been discussed under this agenda item.

APPENDICES

APPENDIX 2A

FOLLOW-UP ACTION PLAN ON DGCA-MID/3 CONCLUSION

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONCLUSION 3/4 – MIDAD PROJECT</p> <p>That,</p> <p>a) the MIDAD Project be managed as a TCB project under the MAEP framework;</p> <p>b) the final decision on the funding mechanism of the MIDAD Project be addressed by the MIDAD TF and MAEP SC/Board;</p> <p>c) States committed to the MIDAD Project ensure that their representatives to the upcoming MIDAD TF and MAEP SC/Board meetings have the authority to decide on the funding of the MIDAD Detailed Study; and</p> <p>d) a progress report on the MIDAD Project be presented to the DGCA-MID/4 meeting.</p>	<p>Implement the Conclusion</p>	<p>ICAO, MIDAD TF Chairman and MAEP Board Chairman</p> <p>MIDAD TF and MAEP SC/Board</p> <p>States</p> <p>ICAO</p>	<p>MIDAD Project</p> <p>MIDAD Funding mechanism</p> <p>Progress report</p>	<p>Oct. 2015</p> <p>2017</p>	<p>Ongoing</p>

FOLLOW-UP ACTION PLAN ON MIDANPIRG/15 CONCLUSIONS AND DECISIONS

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONCLUSION 15/10: MID REGION AIR NAVIGATION STRATEGY</p> <p>That,</p> <p>a) the revised MID Region Air Navigation Strategy:</p> <p>i. is endorsed as the framework identifying the regional air navigation priorities, performance indicators and targets; and</p> <p>ii. be published as MID Doc 002</p> <p>b) MID States be urged to:</p> <p>i. develop their National Air Navigation Performance Framework, ensuring the alignment with and support to the MID Region Air Navigation Strategy; and</p> <p>ii. provide the ICAO MID Regional Office, on an annual basis (by the end of November), with relevant data necessary for regional air navigation planning, reporting and monitoring.</p>	Implement the Conclusion	<p>MIDANPIRG/15</p> <p>ICAO</p> <p>ICAO</p> <p>States</p> <p>States</p>	<p>MID AN Strategy</p> <p>MID Doc 002</p> <p>State Letter</p> <p>National Performance Framework</p> <p>Feedback</p>	<p>Nov. 2015</p> <p>Nov. 2015</p>	<p>Actioned</p> <p>SL AN 1/7–15/191 dated 25 June 2015</p> <p>MID Doc 002 published</p>
<p>CONCLUSION 15/11: ENDORSEMENT OF THE MID eANP</p> <p>That,</p> <p>a) the new MID ANP VOL I, II and III available at: http://www.icao.int/MID/MIDANPIRG/Pages/Final%20Report/MID-eANP.aspx are endorsed; and</p> <p>b) the ICAO MID Regional Office process the necessary Proposals for Amendment, in accordance with the procedure for amendment approved by the Council, for formal approval by the end of 2015.</p>	Issue Proposals for Amendment	ICAO	Proposals for Amendment	Dec. 2015	Ongoing

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONCLUSION 15/17: FORMAL ARRANGEMENTS BETWEEN AIS AND DATA ORIGINATORS</p> <p>That, States be urged to:</p> <p>a) take necessary measures for the signature of formal arrangements between AIS/AIM and the data originators, commensurate with the Aerodrome operators, Air Navigation Service Providers (ANSPs) and the Military Authority; and</p> <p>b) inform the ICAO MID Regional Office of the actions taken before 31 December 2015.</p>	Implement the Conclusion	ICAO States	State Letter Feedback	Dec. 2015	Actioned SL AN 8/4.1-15/205 dated 6 July 2015 One (1) reply (Qatar)
<p>CONCLUSION 15/19: REGIONAL PERFORMANCE DASHBOARDS</p> <p>That, ICAO expedite the expansion of the regional performance dashboards to include the MID Region-specific indicators, metrics and targets, for which the necessary data is available.</p>	Implement the Conclusion	ICAO	Dashboards with Regional indicators, metrics and targets	Dec. 2015	Ongoing
<p>DECISION 15/25: MIDAD SUPPORT TEAM (MIDAD ST)</p> <p>That, the MIDAD Support Team (MIDAD ST)</p> <p>a) be composed of members from Bahrain, Jordan, Iran, Kuwait, Oman, Qatar, Saudi Arabia, Sudan, UAE and the ICAO MID Regional Office; and</p> <p>b) provide necessary support to the MIDAD Task Force to successfully complete Phase 2 of the MIDAD Project.</p>	MIDAD ST to provide necessary support	MIDANPIRG/15	MIDAD ST composition		Ongoing
<p>CONCLUSION 15/26: EAD-MIDAD MEMORANDUM OF COOPERATION (MOC)</p> <p>That, a Memorandum of Cooperation (MOC) on sharing/exchange of Aeronautical Information/Services between EAD and MIDAD be signed by the ICAO MID Regional Director (on behalf of MIDAD States) with EUROCONTROL.</p>	Sign MOC	ICAO	MOC signed		Ongoing

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>CONCLUSION 15/35: AIR NAVIGATION DEFICIENCIES</p> <p>That, States be urged to:</p> <p>a) use the MID Air Navigation Deficiency Database (MANDD) for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies, including the submission of a specific Corrective Action Plan (CAP) for each deficiency; and</p> <p>b) submit a Formal Letter to the ICAO MID Regional Office containing the evidence(s) that mitigation measures have been implemented for the elimination of deficiency(ies) when requesting the elimination of deficiency(ies) from the MANDD.</p>	<p>Implement the Conclusion</p>	<p>ICAO</p> <p>States</p>	<p>State Letter</p> <p>CAP and necessary updates/ evidences</p>	<p>When necessary</p>	<p>Ongoing</p>

FOLLOW-UP ACTION PLAN ON MSG/4 CONCLUSIONS AND DECISIONS

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>MSG CONCLUSION 4/16: DRAFT METHODOLOGY FOR REPORTING AND ASSESSING THE PROGRESS RELATED TO THE TRANSITION FROM AIS TO AIM</p> <p>That, States be urged to provide the ICAO MID Regional Office with their comments/inputs related to the “Methodology for reporting and assessing the progress related to the transition from AIS to AIM” and the Finalization/Compliance Criteria, at Appendices 4I and 4J, respectively.</p>	Implement the Conclusion	ICAO States	State Letter Feedback	TBD	<p>Actioned</p> <p>AN 8/4-15/210 dated 8 July2015</p>
<p>MSG CONCLUSION 4/17: NATIONAL AIM IMPLEMENTATION ROADMAP</p> <p>That, States:</p> <p>a) be invited to take into consideration the “MID Region AIM implementation Roadmap” at Appendix 4L in planning for the transition from AIS to AIM in a prioritized manner; and</p> <p>b) that have not yet done so, be urged to provide the ICAO MID Regional Office with their National AIM Implementation Roadmap using the Template at Appendix 4K, before 1 March 2015.</p>	Implement the Conclusion	ICAO States	State Letter Feedback	Mar 2015	<p>Actioned</p> <p>ME 3/1-15/034 dated 1 Feb 2015</p> <p>12 States provided National Roadmap</p>
<p>MSG CONCLUSION 4/18: MIDAD FOCAL POINTS</p> <p>That, for an improved coordination between all Stakeholders related to the MIDAD Project, States that have not yet done so, be urged to designate MIDAD Focal Points (FPPs) before 31 December 2014.</p>	Implement the Conclusion	ICAO States	State Letter Feedback	Dec 2014	<p>Actioned</p> <p>AN 8/4.2.1-14/341 dated 24 Dec 2014</p> <p>12 States and 4 Organizations nominated FPPs</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p>MSG DECISION 4/19: TERMS OF REFERENCE OF THE MIDAD TASK FORCE</p> <p>That, the Terms of Reference of the MIDAD Task Force be updated as at Appendix 40.</p>	<p>Implement the work programme of the MIDAD TF</p>	<p>MSG/4</p>	<p>TOR of the MIDAD TF endorsement</p>	<p>Nov 2014</p>	<p>Completed</p>

Bahrain NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

Phase/Step	Step No.	Timeline					Start	End	Remarks	
		2014	2015	2016	2017	2018				
Phase I										
AIRAC adherence	P-03	FC						2012	-----	Since 2012, AIRAC AMDT 05/12 – eAIP
WGS-84 implementation	P-05	FC						2007	-----	Since 2007
QMS	P-17	FC						2005	-----	Since 2005
Phase II										
Data Quality Monitoring	P-01	PC						2012	-----	Target to be Full Compliant by 2018
Data Integrity Monitoring	P-02	PC						2012	2018	
AIXM	P-06	FC						2012	-----	Since 2012 AIXM 4.5+ and by July 2015 AIXM 5.1
Unique identifiers	P-07	PC						2012	-----	Target to be Full Compliant by 2018
Aeronautical information conceptual model	P-08	PC						2012	-----	
eAIP	P-11	FC						2012	-----	Since 2012, AIRAC AMDT 05/12
Terrain A-1	P-13	FC						2012	-----	Since 2012
Obstacle A-1	P-14	FC						2012	-----	Since 2012
Terrain A-4	P-13	FC						2012	-----	Since 2012
Obstacle A-4	P-14	FC						2012	-----	Since 2012
Terrain A-2	P-13	Not Applicable N/A								Not Applicable because BIA CAT I ILS , Area 2 applicable for CAT II or III
Obstacle A-2	P-14	N/A								Not Applicable because BIA CAT I ILS ,, Area 2 applicable for CATII

Phase/Step	Step No.	Timeline					Start	End	Remarks	
		2014	2015	2016	2017	2018				
									or III	
Terrain A-3	P-13	FC						2012	-----	Since 2012
Obstacle A-3	P-14	FC						2012	-----	Since 2012
AD Mapping	P-15	PC						2012	2018	Achieved 70% of the target by having data of the RWY & TWYs
Phase III										
Aeronautical data exchange	P-09	PC						2012	2017	Target to be Full Compliant by 2017
Communication networks	P-10	FC						2012	-----	Dual Network
Aeronautical information briefing	P-12	FC						2010	-----	Since 2010
Training	P-16	FC						2010	-----	
Agreement with data originators	P-18	FC						2012	-----	Since 2012, AIRAC AMDT 05/12 – eAIP
Interoperability with meteorological products	P-19	PC						2010	2018	Achieved 100% of text data, and by 2018 will be Fully Compliant with meteorological charts
Electronic aeronautical charts	P-20	FC						2012	-----	Since 2012, AIRAC AMDT 05/12 – eAIP
Digital NOTAM	P-21	FC						2010	-----	Since 2010

EGYPT NATIONAL AIM IMPLEMENTATION ROADMAP

Phase/Step	Step No.	Timeline					Start	End	Remarks	
		2015	2016	2017	2018	2019				
Phase I										
AIRAC adherence	P-03							Completed	Fully Compliant	
WGS-84 implementation	P-05							Completed	Fully Compliant and all the coordinates in AIP are in WGS84	
QMS	P-17							Completed	ISO9001/2000 (2007- 2011) ISO9001/2008 (2011- till now)	
Phase II										
Data Quality Monitoring	P-01							2010	2018	Target: fully implement SLAs with all data originators and starting negotiation with the users by 2018
Data Integrity Monitoring	P-02							2010	2018	CRC is fully implemented and starting implementation with data originators with target to reach 60% by the end of 2018, a new automated system is in progress for automating the relation between Originators and AIS
AIXM	P-06							Completed		AIXM V4.5 was used for AIP production since 2006; upgraded to 5.1 since 2014 with exception of charting production (still using CAD only)
Unique identifiers	P-07							Completed		Fully implemented since 2006
Aeronautical information conceptual model	P-08							2006	-	
eAIP	P-11							2006	2016	AIP on CD since 2007; Target for full automated eAIP by the end of 2015
Terrain A-1	P-13							Completed		
Obstacle A-1	P-14									
Terrain A-4	P-13							Completed		
Obstacle A-4	P-14									
Terrain A-2	P-13									Area 2a will be implemented in Egypt

Phase/Step	Step No.	Timeline					Start	End	Remarks	
		2015	2016	2017	2018	2019				
Obstacle A-2	P-14								Area 2a will be implemented in Egypt	
Terrain A-3	P-13									
Obstacle A-3	P-14									
AD Mapping	P-15								Not started yet the target is to start by the end of 2016 with reaching 40% by the end of 2019	
Phase III										
Aeronautical data exchange	P-09									
Communication networks	P-10									
Aeronautical information briefing	P-12									
Training	P-16									
Agreement with data originators	P-18									SLA are made with about 50% of data originators with target to reach 100% by the end of 2018
Interoperability with meteorological products	P-19									
Electronic aeronautical charts	P-20									
Digital NOTAM	P-21									Egypt has been contributed in all initial trials made by Eurocontrol and has an automated system capable to produce DNOTAM in future

Dated 8 September 2015

Legend		Not Started
		In Progress
		Implemented

IRAN AIM IMPLEMENTATION ROADMAP

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Phase I									
AIRAC adherence	P-03	█	█	█	█	█			Implemented
WGS-84 implementation	P-05	█	█	█	█	█	2000	2015	Implemented
QMS	P-17	█	█	█	█	█			Implemented
Phase II									
Data Quality Monitoring	P-01	█	█	█	█	█	2008	2020	
Data Integrity Monitoring	P-02	█	█	█	█	█	2008	2020	
AIXM	P-06	█	█	█	█	█	2008	2017	Version 5.1 ⁺
Unique identifiers	P-07	█	█	█	█	█	2008	2017	
Aeronautical information conceptual model	P-08	█	█	█	█	█	2008	2017	
eAIP	P-11	█	█	█	█	█	2008	2017	
Terrain A-1	P-13	█	█	█	█	█		2015	Implemented
Obstacle A-1	P-14	█	█	█	█	█		2015	Implemented
Terrain A-4	P-13	█	█	█	█	█		2015	Implemented for OIIE CAT II
Obstacle A-4	P-14	█	█	█	█	█		2015	Implemented for OIIE CAT II
Terrain A-2	P-13	█	█	█	█	█		2015	Implemented for all 9Intl AD _S
Obstacle A-2	P-14	█	█	█	█	█		2015	Implemented for all 9Intl AD _S
Terrain A-3	P-13	█	█	█	█	█		2015	Implemented for all 9Intl AD _S
Obstacle A-3	P-14	█	█	█	█	█		2015	Implemented for all 9Intl AD _S
AD Mapping	P-15	█	█	█	█	█	2008	2017	
Phase III									

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Aeronautical data exchange	P-09						2010	2020	
Communication networks	P-10						2010	2020	
Aeronautical information briefing	P-12						2008	2017	
Training	P-16						2008	2020	
Agreement with data originators	P-18						2008	2016	80% Implemented- Just Military left
Interoperability with meteorological products	P-19						2008	2017	
Electronic aeronautical charts	P-20						2008	2017	
Digital NOTAM	P-21						2014	2020	

IRAQ NATIONAL AIM IMPLEMENTATION ROADMAP

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Phase I									
AIRAC adherence	P-03	█	█	█	█	█	2009	-	Already implemented
WGS-84 implementation	P-05				█	█	2016	2020	The target is to have 40% by 2017, 80% by 2019 and 100% by 2020
QMS	P-17		█	█	█	█	2014	2018	The target is to have 50% by 2016, 70% by 2017 and 100% by 2018
Phase II									
Data Quality Monitoring	P-01				█	█	2016	2018	The target is to have 50% by 2016, 70% by 2017 and 100% by 2018
Data Integrity Monitoring	P-02				█	█	2016	2018	The target is to have 50% by 2016, 70% by 2017 and 100% by 2018
AIXM	P-06				█	█	2016	2018	The target is to have full implementation by mid 2018
Unique identifiers	P-07				█	█	2016	2018	The target is to have full implementation by mid 2018
Aeronautical information conceptual model	P-08				█	█	2016	2018	The target is to have full implementation by mid 2018
eAIP	P-11		█	█	█	█	2014	2018	The target is to have full implementation by mid 2018
Terrain A-1	P-13				█	█	2016	2020	The target is to have 40% by 2016, 70% by 2018 and 100% by 2020
Obstacle A-1	P-14				█	█	2016	2020	The target is to have 40% by 2016, 70% by 2018 and 100% by 2020
Terrain A-4	P-13				█	█	2016	2020	The target is to have 40% by 2016, 70% by 2018 and 100% by 2020
Obstacle A-4	P-14				█	█	2016	2020	The target is to have 40% by 2016, 70% by 2018 and 100% by 2020

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Terrain A-2	P-13						2016	2020	<p>Area 2a, The target is to have 40% by 2016, 70% by 2018 and 100% by 2020</p> <p>Area 2b, The target is to have 40% by 2016, 70% by 2018 and 100% by 2020</p> <p>Area 2c, The target is to have 40% by 2016, 70% by 2018 and 100% by 2020</p> <p>Area 2d, The target is to have 40% by 2016, 70% by 2018 and 100% by 2020</p>
Obstacle A-2	P-14						2016	2020	<p>Area 2a, The target is to have 40% by 2016, 70% by 2018 and 100% by 2020</p> <p>Area 2b, The target is to have 40% by 2016, 70% by 2018 and 100% by 2020</p> <p>Area 2c, The target is to have 40% by 2016, 70% by 2018 and 100% by 2020</p> <p>Area 2d, The target is to have 40% by 2016, 70% by 2018 and 100% by 2020</p>
Terrain A-3	P-13						2016	2020	The target is to have 40% by 2016, 70% by 2018 and 100% by 2020
Obstacle A-3	P-14						2016	2020	The target is to have 40% by 2016, 70% by 2018 and 100% by 2020
AD Mapping	P-15						2016	2020	The target is to have 40% by 2016, 70% by 2017 and 100% by 2020
Phase III									
Aeronautical data exchange	P-09						2016	2020	The target is to have 40% by 2017, 60% by 2018 and 100% by 2020
Communication networks	P-10						2015	2018	The target is to have 40% by mid of 2016, 60% by mid of 2017 and 100% by of 2018

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Aeronautical information briefing	P-12						2015	2018	The target is to have 40% by 2016, 60% by 2017 and 100% by 2018
Training	P-16						2006	2019	Iraq has already implemented 30%, and the target is to implement 70% by 2017 and 100% by 2019
Agreement with data originators	P-18						2009	-	Already implemented
Interoperability with meteorological products	P-19						2016	2020	The target is to have 40% by 2016, 70% by 2018 and 100% by 2020
Electronic aeronautical charts	P-20						2016	2020	The target is to have 40% by 2016, 70% by 2018 and 100% by 2020
Digital NOTAM	P-21						2016	2020	The target is to have 40% by 2017, 70% by 2018 and 100% by 2020

JORDAN AIS NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Phase I									
AIRAC adherence	P-03	Implemented							Implemented since JAN, 2008
WGS-84 implementation	P-05	Implemented							Implemented since 1998
QMS	P-17	Implemented							Implemented since JUN, 2010
Phase II									
Data Quality Monitoring	P-01	Implemented							Implemented since AUG, 2010
Data Integrity Monitoring	P-02	Implemented							Implemented since JUN, 2010
AIXM	P-06	Implemented							Implemented since AUG, 2010
Unique identifiers	P-07						2016	2018	
Aeronautical information conceptual model	P-08	Implemented							Implemented since AUG, 2010
eAIP	P-11						2015	2018	
Terrain A-1	P-13						2006	2015	
Obstacle A-1	P-14						2006	2015	
Terrain A-4	P-13						2006	2017	
Obstacle A-4	P-14						2006	2017	
Terrain A-2	P-13						2016	2018	Please specify implementation of Area 2a, 2b, 2c and/or 2d
Obstacle A-2	P-14						2016	2018	Please specify implementation of Area 2a, 2b, 2c and/or 2d
Terrain A-3	P-13						2016	2018	

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Obstacle A-3	P-14						2016	2018	
AD Mapping	P-15						2018	2020	
Phase III									
Aeronautical data exchange	P-09	Implemented							Implemented since AUG, 2010
Communication networks	P-10	Implemented							Implemented since AUG, 2010
Aeronautical Information Briefing	P-12	Implemented							Implemented since AUG, 2010
Training	P-16						2014	2018	
Agreement with data originators	P-18						2014	2015	
Interoperability with meteorological products	P-19						2017	2018	
Electronic aeronautical charts	P-20						2015	2016	
Digital NOTAM	P-21						2016	2017	

KUWAIT DGCA NATIONAL AIM IMPLEMENTATION ROADMAP

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Phase I									
AIRAC adherence	P-03								Completed
WGS-84 implementation	P-05								Completed
QMS	P-17								Completed
Phase II									
Data Quality Monitoring	P-01						2012	2017	In Progress
Data Integrity Monitoring	P-02						2012	2017	In Progress
AIXM	P-06						2012	2016	In Progress (AIS Automation)
Unique identifiers	P-07						2012	2016	In Progress (AIS Automation)
Aeronautical information conceptual model	P-08						2016	2018	In Progress (AIS Automation)
eAIP	P-11						2012	2016	In Progress (AIS Automation)
Terrain A-1	P-13								Completed
Obstacle A-1	P-14								Completed
Terrain A-4	P-13								Completed
Obstacle A-4	P-14								Completed
Terrain A-2	P-13						2015	2018	In Progress
Obstacle A-2	P-14						2015	2018	In Progress

LEBANON NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Phase I									
AIRAC adherence	P-03								FC
WGS-84 implementation	P-05								To be maintained before 2017
QMS	P-17								2018-2020
Phase II									
Data Quality Monitoring	P-01						2018	2020	
Data Integrity Monitoring	P-02						2018	2020	
AIXM	P-06						2018	2020	Current Version 4.5 need upgrade to 5.1
Unique identifiers	P-07								Khaldeh
Aeronautical information conceptual model	P-08								To be Discussed
eAIP	P-11								Digital pdf on CD
Terrain A-1	P-13						2017	2018	To be Implemented on 2018
Obstacle A-1	P-14						2017	2018	
Terrain A-4	P-13						2017	2018	
Obstacle A-4	P-14						2017	2018	
Terrain A-2	P-13								Please specify implementation of Area 2a, 2b, 2c and/or 2d
Obstacle A-2	P-14								Please specify implementation of Area 2a, 2b, 2c and/or 2d
Terrain A-3	P-13								
Obstacle A-3	P-14								NC

Phase/Step	Step No.	Timeline					Start	End	Remarks	
		2014	2015	2016	2017	2018				
AD Mapping	P-15								To be Discussed	
Phase III										
Aeronautical data exchange	P-09									
Communication networks	P-10									
Aeronautical information briefing	P-12									
Training	P-16									
Agreement with data originators	P-18									
Interoperability with meteorological products	P-19									
Electronic aeronautical charts	P-20									
Digital NOTAM	P-21									

OMAN NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Phase I									
AIRAC adherence	P-03						-	-	Implemented since 2011
WGS-84 implementation	P-05						-	-	Implemented since 1999
QMS	P-17						2014	2016	part of the ORAT project (On going)
Phase II									
Data Quality Monitoring	P-01						2015	2016	part of the ORAT project (On going)
Data Integrity Monitoring	P-02						2015	2016	part of the ORAT project (On going)
AIXM	P-06						2015	2016	AIXM 5.1 COMSOFT equipment The target is to have 75% by 2016
Unique identifiers	P-07						2014	2016	part of the ORAT project (On going)
Aeronautical information conceptual model	P-08						2015	2016	part of the ORAT project (On going)
eAIP	P-11						2015	2016	part of the ORAT project (On going)
Terrain A-1	P-13						2014	2016	
Obstacle A-1	P-14						2014	2016	
Terrain A-4	P-13						2014	2016	
Obstacle A-4	P-14						2014	2016	
Terrain A-2	P-13						2014	2016	Area 2a, 2b, 2c and 2d part of the ORAT project (On going)
Obstacle A-2	P-14						2014	2016	Area 2a, 2b, 2c and 2d part of the ORAT project (On going)
Terrain A-3	P-13						2014	2016	part of the ORAT project (On going)

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Obstacle A-3	P-14						2014	2016	part of the ORAT project (On going)
AD Mapping	P-15						2015	2017	part of the ORAT project (On going)
Phase III									
Aeronautical data exchange	P-09						2015	2016	part of the ORAT project (On going)
Communication networks	P-10						2015	2016	part of the ORAT project (On going)
Aeronautical information briefing	P-12						2015	2016	part of the ORAT project (On going)
Training	P-16						2014	2016	part of the ORAT project (On going)
Agreement with data originators	P-18						2014	2016	part of the ORAT project (On going) The target is to have 65% by 2016
Interoperability with meteorological products	P-19						2015	2016	part of the ORAT project (On going)
Electronic aeronautical charts	P-20						2015	2017	part of the ORAT project (On going)
Digital NOTAM	P-21						2015	2017	part of the ORAT project (On going)

QATAR NATIONAL AIM IMPLEMENTATION ROADMAP

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Phase I									
AIRAC adherence	P-03						2010	-	Already Implemented
WGS-84 implementation	P-05						2009	-	Already Implemented
QMS	P-17						2011	-	Already Implemented
Phase II									
Data Quality Monitoring	P-01						2011	2015	
Data Integrity Monitoring	P-02						2011	2015	
Integrated aeronautical information database	P-06						2012	2015	AIMDB
Unique identifiers	P-07						2012	2015	
Aeronautical information conceptual model	P-08						2012	2015	
eAIP	P-11						2013	-	Already Implemented
Terrain A-1	P-13						2009	-	Already Implemented
Obstacle A-1	P-14						2009	-	Already Implemented
Terrain A-4	P-13						2009	-	Already Implemented
Obstacle A-4	P-14						2009	-	Already Implemented
Terrain A-2a,b,c,d	P-13						2013	-	Already Implemented
Obstacle A-2a,b,c,d	P-14						2013	-	Already Implemented
Terrain A-3	P-13						2009	-	Already Implemented

Phase/Step	Step No.	Timeline					Start	End	Remarks		
		2014	2015	2016	2017	2018					
Obstacle A-3	P-14	█	█	█	█	█	█	█	2009	-	Already Implemented
AD Mapping	P-15	█	█	█	█	█	█	█	2012	2015	
Phase III											
Aeronautical data exchange	P-09	█	█	█	█	█	█	█	2012	2015	AIXM 5.1
Communication networks	P-10	█	█	█	█	█	█	█	2012	2016	
Aeronautical information briefing	P-12	█	█	█	█	█	█	█	2012	2016	
Training	P-16	█	█	█	█	█	█	█	2012	2016	
Agreement with data originators	P-18	█	█	█	█	█	█	█	2010	-	Already Implemented
Interoperability with meteorological products	P-19	█	█	█	█	█	█	█	2014	2016	
Electronic aeronautical charts	P-20	█	█	█	█	█	█	█	2012	2016	
Digital NOTAM	P-21										

SAUDI ARABIA NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Phase I									
AIRAC adherence	P-03								Implemented
WGS-84 implementation	P-05								Implemented
QMS	P-17								Implemented
Phase II									
Data Quality Monitoring	P-01								Implemented
Data Integrity Monitoring	P-02								Implemented
AIXM	P-06								Implemented
Unique identifiers	P-07								Implemented
Aeronautical information conceptual model	P-08								Implemented
eAIP	P-11								Implemented
Terrain A-1	P-13								Implemented
Obstacle A-1	P-14								Implemented
Terrain A-4	P-13								Implemented
Obstacle A-4	P-14								Implemented
Terrain A-2	P-13								Planned Area 2a, 2b, 2c and 2d
Obstacle A-2	P-14								Planned Area 2a, 2b, 2c and 2d
Terrain A-3	P-13								Planned
Obstacle A-3	P-14								Planned
AD Mapping	P-15								Planned
Phase III									

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Aeronautical data exchange	P-09								
Communication networks	P-10								
Aeronautical information briefing	P-12								
Training	P-16								
Agreement with data originators	P-18								
Interoperability with meteorological products	P-19								
Electronic aeronautical charts	P-20								Planned
Digital NOTAM	P-21								Planned

SUDAN NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Phase I									
AIRAC adherence	P-03	█	█	█	█	█			Already Implemented
WGS-84 implementation	P-05	█	█	█	█	█			Already Implemented
QMS	P-17	█	█	█	█	█			Already Implemented
Phase II									
Data Quality Monitoring	P-01		█	█	█	█			
Data Integrity Monitoring	P-02		█	█	█	█			
AIXM	P-06		█	█	█	█			Contract Signed
Unique identifiers	P-07		█	█	█	█			
Aeronautical information conceptual model	P-08		█	█	█	█			
eAIP	P-11		█	█	█	█			Contract Signed
Terrain A-1	P-13						█	█	
Obstacle A-1	P-14						█	█	
Terrain A-4	P-13						█	█	
Obstacle A-4	P-14						█	█	
Terrain A-2	P-13								Please specify implementation of Area 2a, 2b, 2c and/or 2d
Obstacle A-2	P-14								Please specify implementation of Area 2a, 2b, 2c and/or 2d
Terrain A-3	P-13						█	█	
Obstacle A-3	P-14						█	█	

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
AD Mapping	P-15								
Phase III									
Aeronautical data exchange	P-09								
Communication networks	P-10								
Aeronautical information briefing	P-12						2005	-	Already Implemented
Training	P-16						2014	Ongoing	
Agreement with data originators	P-18						2015	2015	
Interoperability with meteorological products	P-19						2012	-	Already Implemented
Electronic aeronautical charts	P-20								
Digital NOTAM	P-21								

UAE NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

Phase/Step	Step No.	Timeline					Start	End	Remarks
		2014	2015	2016	2017	2018			
Phase I									
AIRAC adherence	P-03	█	█	█	█	█			Fully implemented
WGS-84 implementation	P-05	█	█	█	█	█			Fully implemented
QMS	P-17	█	█	█	█	█			Fully implemented
Phase II									
Data Quality Monitoring	P-01	█	█	█	█	█			Fully implemented
Data Integrity Monitoring	P-02	█	█	█	█	█			Fully implemented
AIXM	P-06	█	█	█	█	█			Fully implemented
Unique identifiers	P-07	█	█	█	█	█			Fully implemented
Aeronautical information conceptual model	P-08	█	█	█	█	█			Fully implemented
eAIP	P-11	█	█	█	█	█			Fully implemented
Terrain A-1	P-13	█	█	█	█	█			Fully implemented
Obstacle A-1	P-14	█	█	█	█	█			Fully implemented
Terrain A-4	P-13	█	█	█	█	█			Fully implemented
Obstacle A-4	P-14	█	█	█	█	█			Fully implemented
Terrain A-2	P-13	█	█	█	█	█	2012	2015	According to UAE National plan Full Area 2 & 3 to be implemented
Obstacle A-2	P-14	█	█	█	█	█	2012	2015	According to UAE National plan Full Area 2 & 3 to be implemented
Terrain A-3	P-13	█	█	█	█	█	2012	2015	According to UAE National plan Full Area 2 & 3 to be implemented
Obstacle A-3	P-14	█	█	█	█	█	2012	2015	According to UAE National plan Full Area 2 & 3 to be implemented

Phase/Step	Step No.	Timeline												Start	End	Remarks				
		2014			2015			2016			2017						2018			
AD Mapping	P-15																2016	2021	According to UAE National plan	
Phase III																				
Aeronautical data exchange	P-09																	2016	2021	According to UAE National plan
Communication networks	P-10																	2016	2021	According to UAE National plan
Aeronautical information briefing	P-12																	2012	2015	According to UAE National plan
Training	P-16																	2012	2015	According to UAE National plan
Agreement with data originators	P-18																	2012	2015	According to UAE National plan
Interoperability with meteorological products	P-19																	2016	2021	According to UAE National plan
Electronic aeronautical charts	P-20																	2012	2015	According to UAE National plan
Digital NOTAM	P-21																	2016	2021	According to UAE National plan

APPENDIX 4B

NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

Phase/Step	Step No.	Timeline												Start	End	Remarks	
		2014			2015			2016			2017						2018
Phase I																	
AIRAC adherence	P-03																
WGS-84 implementation	P-05																
QMS	P-17																
Phase II																	
Data Quality Monitoring	P-01																
Data Integrity Monitoring	P-02																
AIXM	P-06																
Unique identifiers	P-07																
Aeronautical information conceptual model	P-08																
eAIP	P-11																
Terrain A-1	P-13																
Obstacle A-1	P-14																
Terrain A-4	P-13																
Obstacle A-4	P-14																
Terrain A-2	P-13																Please specify implementation of Area 2a, 2b, 2c and/or 2d
Obstacle A-2	P-14																Please specify implementation of

Phase/Step	Step No.	Timeline												Start	End	Remarks			
		2014			2015			2016			2017						2018		
																			Area 2a, 2b, 2c and/or 2d
Terrain A-3	P-13																		
Obstacle A-3	P-14																		
AD Mapping	P-15																		
Phase III																			
Aeronautical data exchange	P-09																		
Communication networks	P-10																		
Aeronautical information briefing	P-12																		
Training	P-16																		
Agreement with data originators	P-18																		
Interoperability with meteorological products	P-19																		
Electronic aeronautical charts	P-20																		
Digital NOTAM	P-21																		

Legend		Not Started
		In Progress
		Implemented

APPENDIX 4C
MID REGION AIM IMPLEMENTATION ROADMAP FOR THE TRANSITION FROM AIS TO AIM

	2014				2015				2016				2017				2018				Priority	Remarks
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
AIXM	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	1	The target is to have 60% by 2015, 80% by 2017 and 100% by 2019
eAIP	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	1	The target is to have 60% by 2016, 80% by 2018 and 100% by 2020
Terrain A-1	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	2	The target is to have 50% by 2015, 70% by 2018
Obstacle A-1	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	2	The target is to have 40% by 2015, 60% by 2018
Terrain A-4	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	2	The target is to have 50% by 2015, 100% by 2018
Obstacle A-4	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	2	The target is to have 50% by 2015, 100% by 2018
Terrain A-2a	White	White	White	White	White	White	White	White	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	3	The target is to have 30% by 2017, 50% by 2018
Obstacle A-2a	White	White	White	White	White	White	White	White	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	3	The target is to have 30% by 2017, 50% by 2018
Data Quality Monitoring	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	3	Target for 2018: To be implemented by 50% of the States that have implemented QMS at least for the segment originator-AIS (excluding the segment AIS-End user)
Data Integrity Monitoring	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	3	
Agreement with data originators	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	3	
Terrain and Obstacle for Areas 2b, 2c, 2d and 3	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	4	Optional based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs
Aerodrome Mapping	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	4	Optional based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs

White: Not started Yellow: Initial Target Orange: Intermediate Target Green: Target for full implementation



INTERNATIONAL CIVIL AVIATION ORGANIZATION

MIDDLE EAST AIR NAVIGATION PLANNING
AND IMPLEMENTATION REGIONAL GROUP
(MIDANPIRG)

MID REGION GUIDANCE FOR AIM IMPLEMENTATION

EDITION SEPTEMBER, 2015

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontier or boundaries.

RECORD OF AMENDMENTS

Edition Number	Edition Date	Description	Pages Affected
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TABLE OF CONTENTS

FOREWARD	6
Abbreviations and Acronyms	7
CHAPTER 1 – ICAO AIM Concept.....	9
Introduction.....	9
Transition from AIS to AIM	9
ICAO Roadmap for the transition from AIS to AIM.....	9
AIS-AIM Study Group	11
Information Management Panel (IMP).....	11
CHAPTER 2 – AIM Implementation in the MID Region	12
Introduction.....	12
MID Region AIM Implementation Roadmap	12
Methodology for assessing and reporting the progress of transition from AIS to AIM	14
Global Air Navigation Report	14
Regional Performance Dashboard	14
MID eANP.....	14
CHAPTER 3 – ASBU Methodology and AIM/SWIM related ASBU Modules	22
ASBU Methodology	22
MID Region Air Navigation Strategy	22
Block 0 AIM related Module	22
B0-DATM Implementation.....	22
<i>Aeronautical Information Exchange Model (AIXM)</i>	24
<i>electronic AIP (eAIP)</i>	25
<i>Quality Management System (QMS)</i>	26
<i>World Geodetic System-1984 (WGS-84)</i>	26
<i>electronic Terrain and Obstacle Dataset (eTOD)</i>	26

AIM/SWIM related Modules	27
CHAPTER 4 – AIM National Planning and Implementation.....	29
National Planning/Business Plan	29
Air Navigation Deficiencies.....	29
Human Resource and Training	29
APPENDICES	30
Appendix A – National AIM Implementation Roadmap Template.....	31
Appendix B – Sample State’s Corrective Action Plan.....	33
References.....	34

DRAFT

FOREWARD

The MID Region Guidance for AIM Implementation has been developed in 2015 to harmonize Transition from AIS to AIM in the MID Region and to addresses Global and Regional issues related to planning and implementation of Aeronautical Information Management. This Regional AIM guidance material explains concept and operational elements of AIM and provides guidance and tools for their implementation at the Regional and National levels.

This Document consolidates updates and supersedes all previous guidance materials on the AIM implementation in the MID Region (National AIM Roadmap Template, Regional AIM Roadmap, etc.). The MID Region Guidance for AIM Implementation will be reviewed and updated, whenever deemed necessary, by the AIM Sub-Group.

First version of the guidance material, consolidated by the ICAO MID Regional Office, was endorsed by **XXX meeting**.

The AIM guidance material was prepared in accordance with ICAO provisions related to AIM, the Global Air Navigation Plan, Aviation System Block Upgrades (ASBU) methodology, MID Region Air Navigation Plan and the MID Region Air Navigation Strategy, in addition to the twelfth Air Navigation Conference (AN-Conf/12) Recommendation 3/8 related to AIM. States are invited to take necessary measures to implement provisions of this document and notify their experiences and practices related to transition from AIS to AIM.

Abbreviations and Acronyms

The abbreviations and acronyms used in this document along with their expansions are given in the following List:

AI	Aeronautical Information
AICM	Aeronautical Information Conceptual Model
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AIS	Aeronautical Information Services
AIS-AIM SG	AIS to AIM Study Group
AIM	Aeronautical Information Management
AIM SG	Aeronautical Information Management Sub-Group
AIXM	Aeronautical Information Exchange Model
AN-Conf/11	Eleventh Air Navigation Conference
AN-Conf/12	Twelfth Air Navigation Conference
ANP	Air Navigation Plan
ANSP	Air Navigations Services Provider
ASBU	Aviation System Block Upgrade
ATM	Air Traffic management
eAIP	electronic Aeronautical Information Publication
eANP	electronic Air Navigation Plan
eTOD	electronic Terrain and Obstacle Data
GANP	Global Air Navigation Plan
GANR	Global Air Navigation Report
GIS	Geographic Information System
GML	Geography Markup Language
IM	Information Management
IMP	Information Management Panel
ISO	International Standards Organization
MET	Meteorology
MIDAD	MID Region AIM Database
MIDANPIRG	Middle East Air Navigation Planning and Implementation Regional Group

MIL	Military
MSG	MIDANPIRG Steering Group
PBN	Performance-Based Navigation
QMS	Quality Management System
RWY	Runway
SARPs	Standards and Recommended Practices
SMART	Specific, Measurable, Achievable, Relevant and Timely
SWIM	System Wide Information Management
TORs	Terms of Reference
UML	Unified Modeling Language
WGS-84	World Geodetic System-1984
XML	Extensible Markup Language

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CHAPTER 1

ICAO AIM CONCEPT

INTRODUCTION

1.1 The Eleventh Air Navigation Conference (AN-Conf/11) held in Montréal, 22 September to 3 October 2003, endorsed the Global ATM Operational Concept (Doc 9854) and recognized that, in the global air traffic management (ATM) system environment envisioned by the operational concept, aeronautical information service (AIS) would become one of the most valuable and important enabling services. As the global ATM system foreseen in the operational concept was based on a collaborative decision-making environment, the timely availability of high-quality and reliable electronic aeronautical, meteorological, airspace and flow management information would be necessary. Some recommendations of AN-Conf/11 addressed the importance of aeronautical information in particular.

1.2 Aeronautical Information Management (AIM) during its evolution has been defined as the provision of the right Aeronautical Information (quality assured), at the right place (digital), at the right time (timeliness). ICAO Annex 15 defines AIM as the dynamic, integrated management of aeronautical information through the provision and exchange of quality-assured digital aeronautical data in collaboration with all parties.

1.3 The Twelfth Air Navigation Conference (AN-Conf/12) held in Montréal, 19 to 30 November 2012, through Recommendation 3/8, supported and pushed:

- Transition from AIS to AIM by implementing a fully automated digital aeronautical data chain;
- Implementing necessary processes to ensure the quality of aeronautical data; and
- Engage in intraregional and interregional cooperation for an expeditious transition from AIS to AIM in a harmonized manner and to using digital data exchange and consider regional or subregional AIS databases as an enabler for the transition from AIS to AIM information from the origin to the end users

TRANSITION FROM AIS TO AIM

ICAO Roadmap for the transition from AIS to AIM

1.4 The aeronautical information/data based on paper and telex-based text messages can not satisfy anymore the requirements of the ATM integrated and interoperable system. AIS is required to evolve from the paper product-centric service to the data-centric aeronautical information management (AIM) with a different method of information provision and management.

1.5 ICAO published in 2009 the “*Roadmap for the transition from AIS to AIM*”. The changes foreseen are such that this development is being referred to as the transition from aeronautical information services (AIS) to aeronautical information management (AIM). It identifies the major milestones recommended for a uniform evolution across all regions of the world and specific steps that need to be achieved for implementation.

1.6 The Roadmap envisaged the transition into three phases and twenty one steps. Three phases of action are envisaged for States and ICAO to complete the transition to AIM:

– *Phase 1 — Consolidation*

Phase 1 is the pre-requisite for the transition from AIS to AIM (implementation of the current SARPs). In Phase 1, QMS implementation is still a challenge for some States.

– *Phase 2 — Going digital*

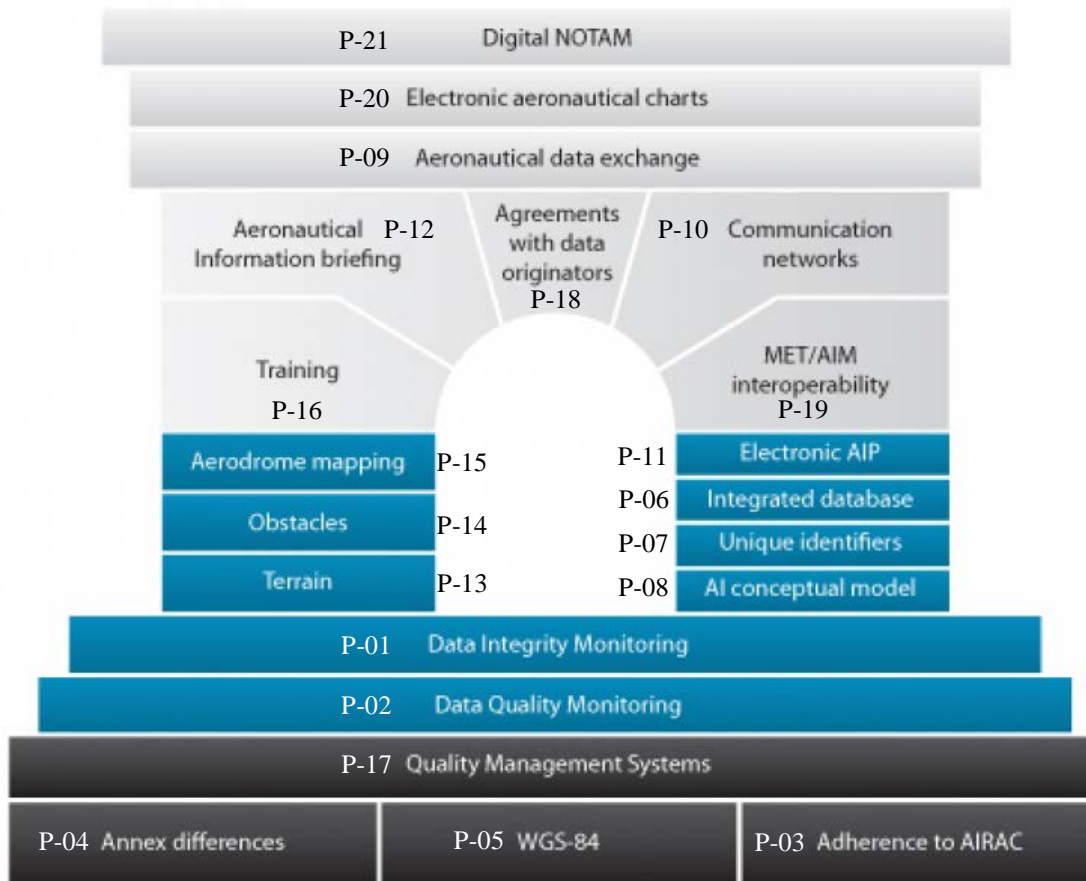
Main components of the Phase 2 are:

- Data-driven processes for the production of the current products;
- Introduction of structured digital data from databases into AIS/AIM processes;
- Introduction of highly structured databases and tools such as GIS;
- Electronic Terrain and Obstacle Datasets; and
- Implementation of aeronautical information conceptual model (AICM).

– *Phase 3 — Information management*

Main components of the Phase 3 are:

- Enabling AIM functions to address the new requirements of the Global ATM Operational Concept in a net-centric information environment;
- Transfer of information in the form of digital data based on the established databases; and
- Aeronautical data exchange model ensuring interoperability between all systems.



Positioning of the 21 steps of the roadmap in the three phases

AIS-AIM Study Group

1.7 The Air Navigation Commission in 2008 agreed to the establishment of AIS-AIM SG in order to assist with the development of:

- A global strategy/roadmap for the transition from AIS to AIM;
- SARPs and guidance material related to the provision of a standard AICM and standard AIXM to enable the global exchange of data in digital format; and
- Other SARPs, guidance material and training material necessary to support AIM implementation.

1.8 Some achievements of the AIS-AIM Study Group are:

- ICAO Roadmap for transition from AIS to AIM;
- Amendments to Annex 15:
 - Amendment 36: New provisions related to the operational use of the public Internet; volcanic ash deposition; QMS; use of automation enabling digital data exchange; eAIP; NOTAM Format; and eTOD.
 - Amendment 37: Annex 15 restructuring; Chapter 1 (General), Chapter 2 (Responsibilities and functions) and Chapter 3 (Aeronautical Information Management) introduced in Nov 2014;
 - Amendment XX: Chapters 4 (Scope of AI and data), Chapter 5 (AI Products and services) and Chapter 6 (AI updates) instead of current Chapters 4-11 (in progress).
- Development of Aeronautical Data Catalogue (in progress)
- Development of PANS AIM (in progress)
- Development of Training Manual, Quality Manual, update of AIS Manual (Doc 8126) (in progress)

1.9 Materials related to the AIS-AIM SG including the meetings' Study Notes, Information Papers and Summary of Discussions are available on the ICAO AIM website at:

<http://www.icao.int/safety/ais-aimsg/Pages/default.aspx>

Information Management Panel (IMP)

1.10 The Air Navigation Commission in 2014 agreed to the establishment of the Information Management Panel (IMP) to elaborate on necessary concepts and develop a global and interoperable approach to ensure effective management of information within the global air navigation system. The IMP will undertake tasks relating to the global transition from AIS to AIM, based upon Recommendations 3/1, 3/2, 3/3 and 3/9 of the Twelfth Air Navigation Conference in 2012 (AN-Conf/12). Materials related to the IMP including the meetings' Working/Information Papers and Reports are available on the ICAO AIM website at:

<http://www.icao.int/airnavigation/IMP/Pages/default.aspx>

CHAPTER 2

AIM IMPLEMENTATION IN THE MID REGION

INTRODUCTION

2.1 Since the introduction of the Aeronautical Information Management, numerous Regional initiatives have been carried out to facilitate and assist MID States with the implementation of AIM. Some of the initiatives are, but not limited, as follows:

- MID AIM Seminar (Cairo, Egypt, 21-23 October 2008)
- Survey on difficulties faced by States in the transition from AIS to AIM (2011)
- MIDAD Project
 - o Initial MIDAD Study (carried out in 2011)
 - o MIDAD Detailed Study (ongoing)
 - o Establishment of MIDAD SG*/STG/TF
- ICAO EUR/MID AIM/SWIM Seminar (Istanbul, Turkey, 14-17 May 2013)
- Regional initiative to assist States with the development of AIM National Plans/Roadmaps
- Establishment of AIM Sub-Group by MIDANPIRG/14 (Jeddah, Saudi Arabia, 15-19 December 2013) with new TORs
- MID Region AIM Implementation Roadmap

MID REGION AIM IMPLEMENTATION ROADMAP

2.2 AIM SG/1 meeting (Cairo, Egypt, 6-8 May 2014) with a focus on the implementation of phase II of the Roadmap for the transition from AIS to AIM, developed “MID Region AIM implementation Roadmap”. The MSG/4 meeting (Cairo, Egypt, 24-26 November 2014) endorsed the “MID Region AIM implementation Roadmap” and invited States to take into consideration the Roadmap in planning for the transition from AIS to AIM in a prioritized manner.

MID REGION AIM IMPLEMENTATION ROADMAP

	2014				2015				2016				2017				2018				Priority	Remarks
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
AIXM	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	1	The target is to have 60% by 2015, 80% by 2017 and 100% by 2019
eAIP	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	1	The target is to have 60% by 2016, 70% by 2018 and 100% by 2020
Terrain A-1	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	2	The target is to have 50% by 2015, 70% by 2018
Obstacle A-1	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	2	The target is to have 40% by 2015, 60% by 2018
Terrain A-4	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	2	The target is to have 50% by 2015, 100% by 2018
Obstacle A-4	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	2	The target is to have 50% by 2015, 100% by 2018
Terrain A-2a	White	White	White	White	White	White	White	White	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	3	The target is to have 30% by 2017, 50% by 2018
Obstacle A-2a	White	White	White	White	White	White	White	White	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	3	The target is to have 30% by 2017, 50% by 2018
Data Quality Monitoring	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	3	Target for 2018: To be implemented by 50% of the States that have implemented QMS at least for the segment originator-AIS (excluding the segment AIS-End user)
Data Integrity Monitoring	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	3	
Agreement with data originators	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	3	Target for 2018: 50% of the States that have implemented QMS
Terrain and Obstacle for Areas 2b, 2c, 2d and 3	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	4	Optional based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs
Aerodrome Mapping	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	White	4	Optional based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs

White: Not started Yellow: Initial Target Orange: Intermediate Target Green: Target for full implementation

METHODOLOGY FOR ASSESSING AND REPORTING THE PROGRESS OF TRANSITION FROM AIS TO AIM

2.3 “Methodology for assessing and reporting the progress of transition from AIS to AIM” aims to develop a uniform method and plan for the reporting by the States on the progress achieved for the AIM transition, based on the ICAO Roadmap for Transition from AIS to AIM. The ICAO air navigation planning and implementation performance framework requires that reporting, monitoring, analysis and review activities be conducted on a cyclical, annual basis (ICAO DOC 9750). The Methodology is used while collecting data for the purpose of Global Air Navigation Report, Regional Performance Dashboard, MID eANP, etc.

2.4 MIDANPIRG/15 meeting (Bahrain, 8-11 June 2015) reviewed a draft Methodology for reporting and assessing the progress related to the transition from AIS to AIM, developed by AIM SG/1, as an initial MID Regional framework for monitoring the progress achieved for the AIM transition.

Global Air Navigation Report

2.5 In light of all important safety and efficiency goals, set forth by the Global Safety plan and the Global Air Navigation Plan, ICAO has sought to drive improved accountability and transparency with respect to how the global network is succeeding against its strategic goals. Global Air Navigation Report was introduced in 2014, on an annual basis, to begin measuring global aviation’s progress against its consensus-driven ASBU, Performance-based Navigation (PBN), AIM and other efficiency priorities. The Global Air Navigation Report can be accessed through ICAO Website at:

http://www.icao.int/airnavigation/Documents/ICAO_AN%20Report_EN_final_30042014.pdf

Regional Performance Dashboard

2.6 The 38th Assembly approved the Regional Performance Dashboards. The Dashboards aim to provide a glance of both Safety and Air Navigation Capacity and Efficiency strategic objectives, using a set of indicators and targets based on the regional implementation of the Global Aviation Safety Plan (GASP) and the Global Air Navigation Plan (GANP).

2.7 ICAO introduced the Regional Performance Dashboards as a framework of nested reporting of results with an increased focus on implementation. The initial version of the dashboard shows the globally agreed targeted performance at the regional level and contains graphics and maps with a planned expansion to include regionally agreed targets and the Aviation System Block upgrades (ASBU) Block 0 Modules (i.e. AIM National Plan/Roadmap, AIXM, eAIP, eTOD, WGS-84 and QMS).

2.6 For the first edition of the Regional Performance Dashboards, the implementation of 3 steps from Phase I of the ICAO Roadmap for transition from AIS to AIM (AIRAC, QMS and WGS-84) is monitored. The dashboard can be accessed on the ICAO website at:

<http://www.icao.int/safety/Pages/Regional-Targets.aspx>.

MID eANP

2.7 Further to the 12th Air Navigation Conference (AN-Conf/12) Recommendation 6/1 [Regional performance framework – planning methodologies and tools] regarding the alignment of regional air navigation plans (ANP) with the Fourth Edition of the Global Air Navigation Plan (GANP) (Doc 9750), the ICAO Council approved the new eANP Template (Volumes I, II and III) and corresponding procedure for amendment on 18 June 2014 (202nd session, fourth meeting). MIDANPIRG/15 reviewed and endorsed the MID eANP VOL I, II and III which is available on the ICAO Secure Portal at: <https://portal.icao.int/space/anp/Pages/Home.aspx>

METHODOLOGY FOR REPORTING AND ASSESSING THE PROGRESS RELATED TO THE TRANSITION FROM AIS TO AIM

I. Introduction

Transition from Aeronautical Information Services (AIS) to Aeronautical Information Management (AIM) is a high-priority area for air navigation progress. This is a strategic positioning initiative to drive the delivery of improved aeronautical information in terms of quality, timeliness and the identification of new services and products to better serve aeronautical users (ICAO Global Air Navigation Report-2014). This methodology aims to develop a method and plan for the reporting by the States on the progress achieved for transition from AIS to AIM, based on the ICAO Roadmap for Transition from AIS to AIM.

II. Need for reporting and assessing the progress related to the transition from AIS to AIM

The ICAO air navigation planning and implementation performance framework requires that reporting, monitoring, analysis and review activities be conducted on a cyclical, annual basis (ICAO DOC 9750). Data gathered would have a number of uses, inter alia:

- **ICAO monitoring functions:** a purpose of this Methodology is to meet the ICAO monitoring requirements related to air navigation planning and implementation. Reporting and monitoring results will be analyzed by ICAO and aviation stakeholders and then utilized in developing the annual Global Air Navigation Report, as well (ICAO DOC 9750).
- **Global Air Navigation Report (GANR):** all or part(s) of data would be reflected in the Global Air Navigation Report (GANR). The report results will provide an opportunity for the world civil aviation community to compare progress across different ICAO Regions in the establishment of air navigation infrastructure and performance-based procedures (ICAO DOC 9750).
- **Regional Performance Dashboards:** all or part(s) of data would be reflected in the Regional Performance Dashboards.

III. Methodology approach

Main approach of this Methodology in data collection and reporting is quantitative, based on the SMART rule. All Elements and Metrics/Indicators used for reporting should be Specific, Measurable, Achievable, Relevant and Time-bounded. Moreover, the Methodology has to reflect 4Ws (Why, What, Who and When) related to each Element. Accordingly, some steps of the ICAO Roadmap for the transition from AIS to AIM (i.e. P-02 Data integrity monitoring, P-07 Unique identifiers, P-08 AICM, P-10 Communication networks, P-16 Training and P-19 Interoperability with meteorological products) are not considered for reporting purposes, whereas they are already part of other steps and/or measurement of which could not be carried out in a quantitative manner.

IV. Data collection strategy

In order to avoid confusion using numerous reporting forms for data collection from States, the data collection intended by this Methodology would be carried out through current data collection tools (i.e. eANP Tables, etc.). Special excel sheets in support of the collection of data may be used, if needed

V. Structure of the Methodology Plan

The structure of the Methodology Plan consists of the following elements:

- 1- Element (Phase/Step/Step No.): refers to the Phase number (1-3), Step and Step number (1-21) of the ICAO Roadmap for transition from AIS to AIM. Some steps of the ICAO Roadmap for the transition from AIS to AIM (i.e. P-02, P-07, P-08, P-10, P-16 and P-19) are not considered for reporting purposes, whereas they are already part of other steps and/or measurement of which could not be carried out in a quantitative manner.
- 2- Metric/Indicator: refers to the status of compliance/implementation of step and could be e.g. FC: Fully Compliant; PC: Partially Compliant; NC: Not Compliant; FI: Fully Implemented; PI: Partially Implemented; NI: Not Implemented and N/A: Not Applicable.
- 3- Source of data (How to collect data): the main tool for the collection of data would be eANP Tables. Special excel sheets in support of the collection of data may be used, if needed.
- 4- Who will collect data: data should be collected by ICAO HQ/ICAO Regional Office.
- 5- When to collect data: data for each report would be collected in December.
- 6- Year of publishing Report: the year, on which the Reports (Global Air Navigation Report & Regional Performance Dashboard) would be published.
- 7- Remarks: any additional information, e.g. in case of status of implementation is PC; list of sub-elements that have been implemented.

VI. Methodology plan for annual reporting

Element (Phase/Step/Step No.)		Metric/ Indicator	Source of data (How to collect data)	Who will collect data*	Year of the Report	Remarks	
1		2	3	4	5	6	
Phase 1							
AIRAC adherence		P-03	FC/NC	eANP	ICAO HQ/RO	2014	
WGS-84 implementation		P-05	FC/PC/NC	eANP	ICAO HQ/RO	2014	
QMS		P-17	FC/NC	eANP	ICAO HQ/RO	2014	
Phase 2							
Data quality monitoring		P-01	FI/NI	TBD	TBD	TBD	
Data integrity monitoring		P-02	N/A	N/A	N/A	N/A	
Integrated aeronautical information database	AIXM-based AIS Database	P-06	FI/NI	eANP	ICAO HQ/RO	2015	<i>Structured Aeronautical Information Database with digital exchange capabilities (e.g. AIXM)</i> Ongoing
	Implementation of IAID		FI/PI/NI	TBD	TBD	TBD	
Unique identifiers		P-07	N/A	N/A	N/A	N/A	Linked to P-06
Aeronautical information conceptual model		P-08	N/A	N/A	N/A	N/A	Linked to P-06
Electronic AIP		P-11	FI/NI	eANP	ICAO HQ/RO	2015	Ongoing-2015
Terrain	Area 1	P-13	FC/NC	eANP	ICAO HQ/RO	2015	Ongoing-2015
	Area 4	P-13	FC/PC/NC	eANP	ICAO HQ/RO	2015	<i>In case of PC, list name of ADs</i> Ongoing-2015
	Area 2a	P-13	FC/PC/NC	eANP	ICAO HQ/RO	2016	<i>In case of PC, list name of ADs</i>
	Take-off flight path area	P-13	FC/PC/NC	eANP	ICAO HQ/RO	2016	<i>In case of PC, list name of ADs</i>

Element (Phase/Step/Step No.)	Metric/ Indicator	Source of data (How to collect data)	Who will collect data*	Year of the Report	Remarks	
1	2	3	4	5	6	
An area bounded by the lateral extent of the aerodrome obstacle limitation surfaces	P-13	FC/PC/NC	eANP	ICAO HQ/RO	2016	<i>In case of PC, list name of ADs</i>
Area 1	P-14	FC/NC	eANP	ICAO HQ/RO	2015	Ongoing-2015
Area 4	P-14	FC/PC/NC	eANP	ICAO HQ/RO	2015	<i>In case of PC, list name of ADs</i> Ongoing-2015
Area 2a	P-14	FC/PC/NC	eANP	ICAO HQ/RO	2016	<i>In case of PC, list name of ADs</i>
Obstacles objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area	P-14	FC/PC/NC	eANP	ICAO HQ/RO	2016	<i>In case of PC, list name of ADs</i>
penetrations of the aerodrome obstacle limitation surfaces	P-14	FC/PC/NC	eANP	ICAO HQ/RO	2016	<i>In case of PC, list name of ADs</i>
Aerodrome mapping	P-15	FI/PI/NI	TBD	TBD	TBD	<i>In case of PC, list name of ADs</i>
Phase 3						
Aeronautical data exchange	P-09	FI/PI/NI	TBD	TBD	TBD	<i>In case of PC, list name of Units (Data Originators/Users)</i>
Communication networks	P-10	N/A	N/A	N/A	N/A	N/A
Aeronautical information briefing	P-12	FI/PI/NI	TBD	TBD	TBD	<i>In case of PC, list name of ADs</i>

Element (Phase/Step/Step No.)	Metric/ Indicator	Source of data (How to collect data)	Who will collect data*	Year of the Report	Remarks
1	2	3	4	5	6
Training	P-16 N/A	N/A	N/A	N/A	N/A
Agreement with data originators	P-18 FI/PI/NI	eANP	ICAO HQ/RO	2016	<i>In case of PC, list name of Data Originator(s)</i>
Interoperability with meteorological products	P-19 N/A	N/A	N/A	N/A	N/A
Electronic aeronautical charts	P-20 FI/NI	TBD	TBD	TBD	
Digital NOTAM	P-21 FI/NI	TBD	TBD	TBD	
<i>FC: Fully Compliant; PC: Partially Compliant; NC: Not Compliant; FI: Fully Implemented; PI: Partially Implemented; NI: Not Implemented; N/A: Not Applicable</i> <i>* Data collection will be carried out by ICAO Headquarters and Regional Offices.</i>					

VII. Data collection timeframe

Year of reporting	Element	Step No.	Remarks
2014	AIRAC adherence WGS-84 implementation QMS	P-03 P-05 P-17	Completed
2015	AIXM-based AIS Database Electronic AIP Terrain (Area 1 and Area 4) Obstacles (Area 1 and Area 4)	P-06 P-11 P-13 P-14	Ongoing
2016	Terrain (Area 2a) Obstacles (Area 2a) Agreement with data originators	P-13 P-14 P-18	
2017 +	TBD	TBD	

VIII. Finalization/Compliance Criteria

The Criteria by which finalization and compliance with the Metric (Step) can be realized.

Element (Step)	Finalization criteria or Implementation/Compliance Criteria (for the 2015-2016 Metrics)
AIXM-based AIS Database	National aeronautical data and information is stored and maintained in AIXM-based AIS database.
Electronic AIP	National AIP GEN 3.1.3 'Aeronautical publications' provides information about the availability of the National AIP in electronic format (eAIP)
Terrain Dataset Area 1	National AIP GEN 3.1.6 'Electronic terrain and obstacle' provides information on how the dataset can be obtained
Terrain Dataset Area 4	National AIP GEN 3.1.6 'Electronic terrain and obstacle' provides information on how the dataset for specific CAT II/III RWY can be obtained. States should indicate in remarks the number of existing CAT II/III RWY. N/A for States

	with no CAT II/III RWY.
Terrain Dataset Area 2 ¹	National AIP GEN 3.1.6 ‘Electronic terrain and obstacle’ provides information on how the dataset can be obtained. States should indicate in remarks the number of AD eligible for provision of Area 2 data. This number should come from the Regional eANP Table AOP II-1 – for aerodromes with one of the following designation: — RS: international scheduled air transport, regular use — RNS: international non-scheduled air transport, regular use — RG: international general aviation, regular use.
Obstacle Dataset Area 1	National AIP GEN 3.1.6 ‘Electronic terrain and obstacle provides information on how the dataset can be obtained
Obstacle Dataset Area 4	National AIP GEN 3.1.6 ‘Electronic terrain and obstacle data’ provides information on how the dataset for specific CAT II/III RWY can be obtained. States should indicate in remarks the number of existing CAT II/III RWY. N/A for States with no CAT II/III RWY.
Obstacle Dataset Area 2 ²	National AIP GEN 3.1.6 ‘Electronic terrain and obstacle provides information on how the dataset can be obtained. States should indicate in remarks the number of AD eligible for provision of Area 2 data. This number should come from the Regional eANP Table AOP II-1 – for aerodromes with one of the following designation: — RS: international scheduled air transport, regular use — RNS: international non-scheduled air transport, regular use — RG: international general aviation, regular use.
Agreement with data originators	TBD

¹ Data set requirements in accordance with Annex 15 (10.1.5)

² Data set requirements in accordance with Annex 15 (10.1.6)

CHAPTER 3

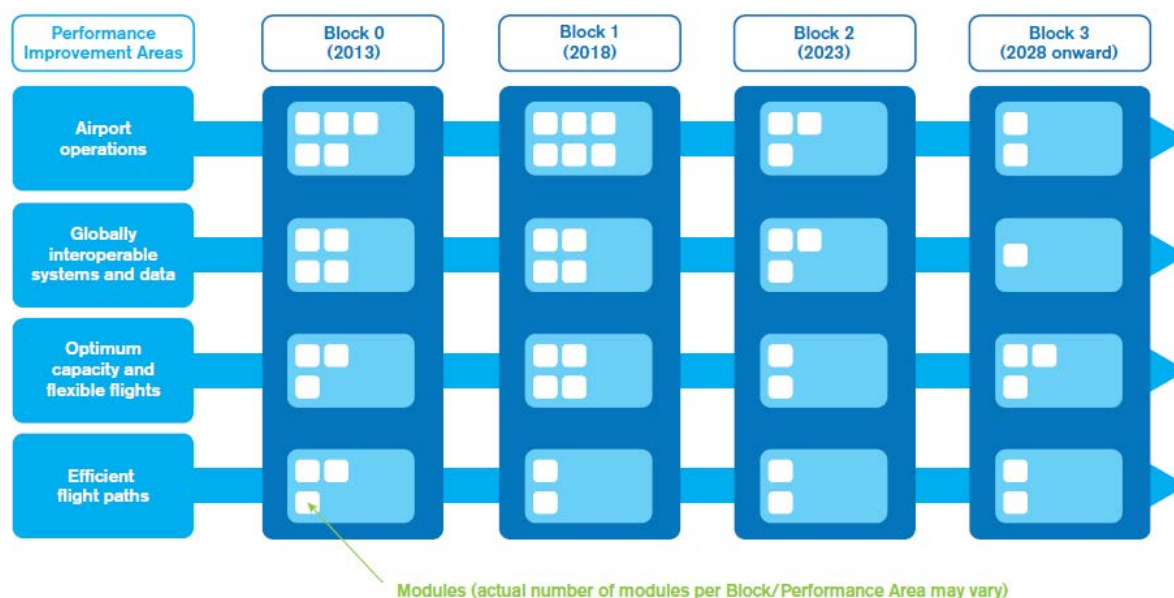
ASBU METHODOLOGY AND AIM/SWIM RELATED ASBU MODULES

ASBU METHODOLOGY

3.1 ICAO introduced the Aviation System Block Upgrades (ASBU) methodology in the fourth edition of the Doc 9750 (Global Air Navigation Plan), endorsed by the ICAO Assembly in 2013, as a systemic manner to achieve a harmonized implementation of the air navigation services. An ASBU designates a set of improvements that can be implemented globally from a defined point in time to enhance the performance of the ATM system.

3.2 The GANP represents a rolling, 15-year strategic methodology which leverages existing technologies and anticipates future developments based on State/industry agreed operational objectives. The Block Upgrades are organized in five-year time increments starting in 2013 and continuing through 2028 and beyond.

3.3 ASBU methodology defines improvements, through modules, over four blocks in four performance improvements areas:



MID REGION AIR NAVIGATION STRATEGY

3.4 MID Region Air Navigation Strategy (MID Doc 002) was endorsed by the MSG/4 meeting (Cairo, Egypt, 24-26 November 2014) to introduce Block 0 ASBU Modules implementation priorities, elements, indicators and targets for the MID Region. It recognizes 11 (out of 18) Block 0 Modules as priority 1 in the MID Region (for more information refer to the MID Doc 002 in the ICAO Secure Portal at: https://portal.icao.int/RO_MID/Pages/MIDDocs.aspx).

BLOCK 0 AIM RELATED MODULE

B0-DATM Implementation

3.5 Block 0 contains 18 Modules and serves as the enabler and foundation for the envisioned future aviation systems. B0-DATM is a priority 1 ASBU Module in accordance with the

MID Region Air Navigation Strategy (MID Doc 002). MID Doc 002 defines the B0-DATM as follows:

Description and purpose

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

Main performance impact:

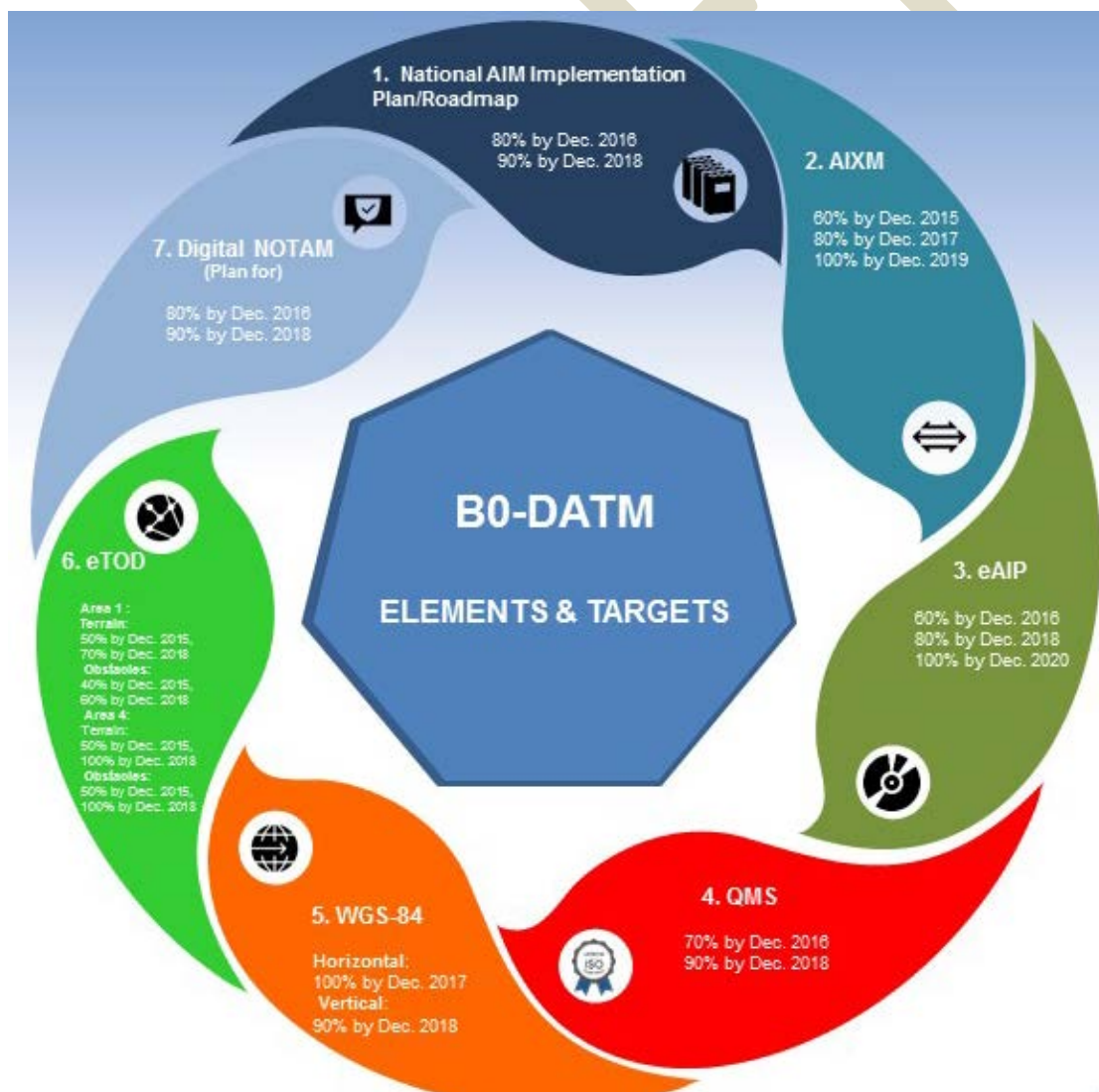
KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
N	N	Y	Y	Y

Applicability consideration:

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

B0 – DATM: Service Improvement through Digital Aeronautical Information Management			
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets
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
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
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
4-QMS	<i>All States</i>	Indicator: % of States that have implemented QMS for AIS/AIM Supporting Metric: Number of States that have implemented QMS for AIS/AIM	70% by Dec. 2016 90% by Dec. 2018
5-WGS-84	<i>All States</i>	Indicator: % of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD) Supporting Metric: Number of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD) Indicator: % of States that have implemented WGS-84 Geoid Undulation Supporting Metric: Number of States that have implemented WGS-84 Geoid Undulation	Horizontal: 100% by Dec. 2017 Vertical: 90% by Dec. 2018

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 that have implemented required Obstacle datasets</p>	<p>Area 1 : Terrain: 50% by Dec. 2015, 70% by Dec. 2018 Obstacles: 40% by Dec. 2015, 60% by Dec. 2018</p> <p>Area 4: Terrain: 50% by Dec. 2015, 100% by Dec. 2018</p> <p>Obstacles: 50% by Dec. 2015, 100% by Dec. 2018</p>
7-Digital NOTAM*	<i>All States</i>	<p>Indicator: % of States that have included the implementation of Digital NOTAM into their National Plan for the transition from AIS to AIM</p> <p>Supporting Metric: Number of States that have included the implementation of Digital NOTAM into their National Plan for the transition from AIS to AIM</p>	<p>80% by Dec. 2016</p> <p>90% by Dec. 2018</p>



Aeronautical Information Exchange Model (AIXM)

3.6 The aeronautical information exchange model (AIXM) is designed to enable the management and distribution of aeronautical information services data in digital format. AIXM takes advantages of established information engineering standards and supports current and future aeronautical information system requirements. The major tenets are:

- a) an exhaustive temporality model, including support for the temporary information contained in NOTAM;
- b) alignment with ISO standards for geospatial information, including the use of the geography markup language (GML);
- c) support for the latest ICAO and user requirements for aeronautical data including obstacles, terminal procedures and airport mapping databases; and
- d) modularity and extensibility.

3.7 AIXM covers the ICAO requirements for the “data necessary for the safety, regularity and efficiency of international air navigation”, existing industry standards (e.g. ARINC 424) and emerging data needs. It has constructs for: aerodromes, navigation aids, terminal procedures, airspace and route structures, ATM and related services, air traffic restrictions and other data.

3.8 AIXM has two components:

- a) The AIXM UML Model provides a formal description of the information.
- b) The AIXM XML Schemas are an encoding format for aeronautical data.

3.9 AIXM 5 takes advantages of established information engineering standards and supports current and future aeronautical information system requirements.

electronic AIP (eAIP)

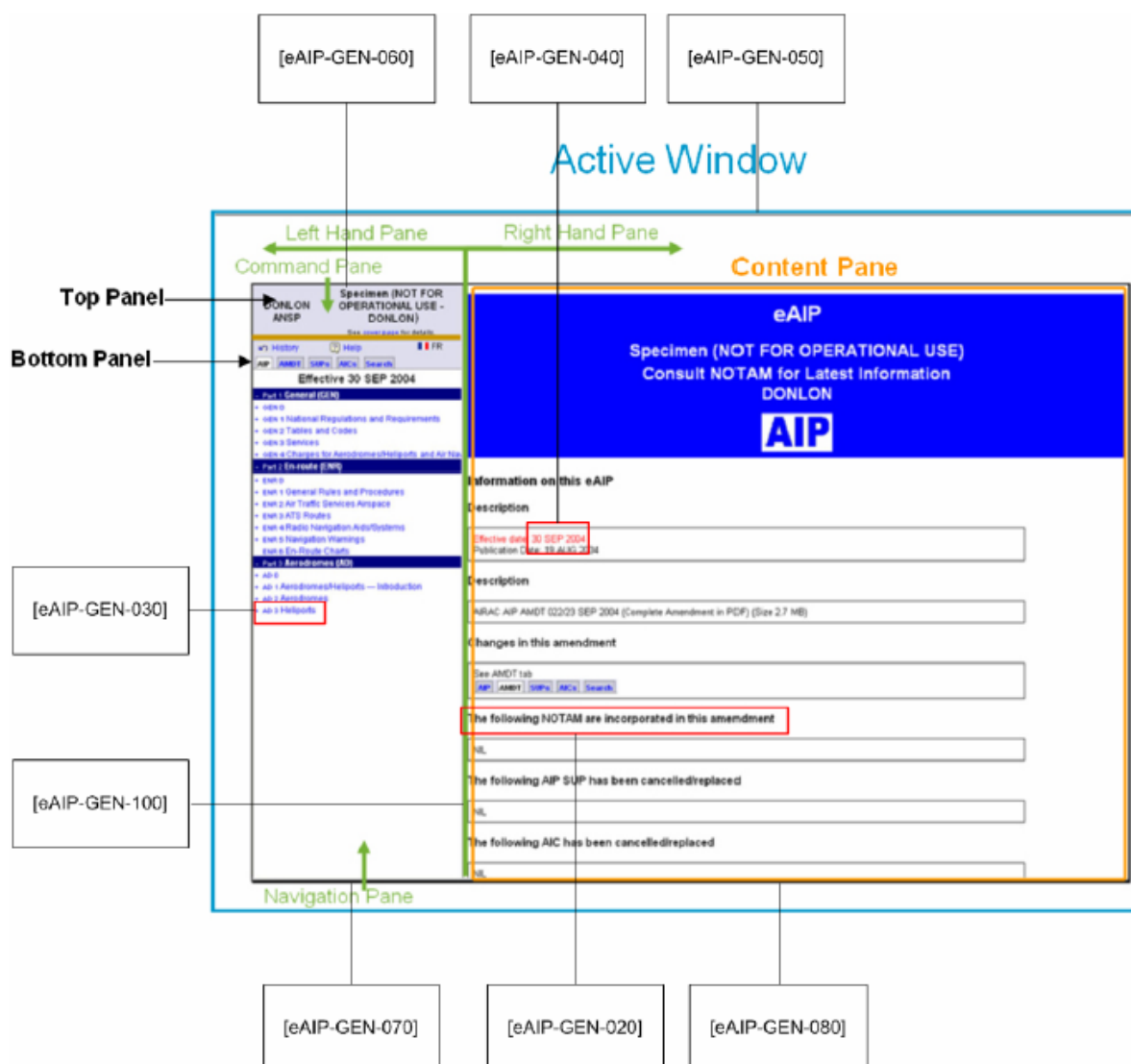
3.10 The AIP, AIP Amendment, AIP Supplement and AIC should also be published in a format that allows for displaying on a computer screen and printing on paper. When provided, the eAIP should be available on a physical distribution medium (CD, DVD, etc.) and/or online on the Internet. When provided, the information content of the eAIP and the structure of chapters, sections and sub-sections shall follow the content and structure of the paper AIP. The eAIP shall include files that allow for printing a paper AIP.

Note 1 - This composite electronic document is named “Electronic AIP” (eAIP) and may be based on a format that allows for digital data exchange.

Note 2 - The eAIP is not intended to support the Digital Notice to Airmen (NOTAM) process, as Digital NOTAM require a database of aeronautical information and are, therefore, not reliant on the eAIP.

3.11 Aeronautical data and aeronautical information within the AIPs, AMDTs and SUPs should be made available, as a minimum, “in a way that allows the content and format of the documents to be directly readable on a computer screen”.

3.12 General requirements associated with the **display of the eAIP** are reflected below:



3.13 The eAIP, as a minimum, should have help and search facility and provide history of current and previous amendments to users. It should also include a table of content. Format, display and content requirement for AIP Pages, AIP SUP, AIP Amendment and AIC should be in accordance with Annex 15, Doc 8126 and other related SARPs.

Quality Management System (QMS)

3.14 Quality management systems shall be implemented and maintained encompassing all functions of an aeronautical information service. The execution of such quality management systems shall be made demonstrable for each function stage.

Note 1 - An ISO 9000 certificate issued by an accredited certification body would be considered an acceptable means of compliance.

Note 2 - Guidance material is contained in the Manual on the Quality Management System for Aeronautical Information Services (Doc 9839).

Note 3 - Necessary measures should be taken for the signature of formal arrangements concerning data quality between AIS/AIM and the data originators, commensurate with the Aerodrome operators, Air Navigation Service Providers (ANSPs) and the Military Authority.

World Geodetic System-1984 (WGS-84)

3.15 World Geodetic System — 1984 (WGS-84) shall be used as the horizontal (geodetic) reference system for international air navigation. Consequently, published aeronautical geographical coordinates (indicating latitude and longitude) shall be expressed in terms of the WGS-84 geodetic reference datum.

3.16 WGS-84 shall be introduced in the published coordinates in AIP in the following sections:

- a) Enroute
- b) Terminal
- c) Aerodrome
- d) Geoid Undulation

Note - Comprehensive guidance material concerning WGS-84 is contained in the World Geodetic System - 1984 (WGS-84) Manual (Doc 9674).

electronic Terrain and Obstacle Dataset (eTOD)

3.17 eTOD is an electronic set(s) of terrain and/or obstacle data for the defined coverage areas and with the defined data specifications to fulfill the needs of electronic air navigation applications for digital data. The coverage areas for sets of electronic terrain and obstacle data shall be specified as:

- Area 1: the entire territory of a State;
- Area 2: within the vicinity of an aerodrome, subdivided as follows;
 - Area 2a: a rectangular area around a runway that comprises the runway strip plus any clearway that exists.
 - Area 2b: an area extending from the ends of Area 2a in the direction of departure, with a length of 10 km and a splay of 15 per cent to each side;
 - Area 2c: an area extending outside Area 2a and Area 2b at a distance of not more than 10 km from the boundary of Area 2a; and
 - Area 2d: an area outside the Areas 2a, 2b and 2c up to a distance of 45 km from the aerodrome reference point, or to an existing TMA boundary, whichever is nearest;
- Area 3: the area bordering an aerodrome movement area that extends horizontally from the edge of a runway to 90 m from the runway centre line and 50 m from the edge of all other parts of the aerodrome movement area.
- Area 4: The area extending 900 m prior to the runway threshold and 60 m each side of the extended runway centre line in the direction of the approach on a precision approach runway, Category II or III.

3.18 Electronic terrain data shall be provided for Area 1 and 4. The obstacle data shall be provided for obstacles in Area 1 higher than 100 m above ground.

Note - Comprehensive guidance material concerning eTOD is contained in Annex 15 and the Guidelines for electronic terrain, obstacle and aerodrome mapping information (Doc 9881).

AIM/SWIM RELATED MODULES

3.19 Performance Improvement Area 2 (Globally Interoperable Systems and Data – Through Globally Interoperable System Wide Information Management) focuses on ASBU Modules which mainly support Collaborative Decision Making (CDM) through Information Management (i.e. Aeronautical Information, MET, Flight and Flow, etc.) in a SWIM environment:

DRAFT

Performance Improvement Area 2: Globally Interoperable Systems and Data – Through Globally Interoperable System Wide Information Management			
Block 0 (2013)	Block 1 (2018)	Block 2 (2023)	Block 3 (2028)
B0-FICE Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	B1-FICE Increased Interoperability, Efficiency and Capacity through FF-ICE, Step 1 application before Departure	B2-FICE Improved Coordination through multi-centre Ground-Ground Integration: (FF-ICE/1 and Flight Object, SWIM)	B3-FICE Improved Operational Performance through the introduction of Full FF-ICE
B0-DATM Service Improvement through Digital Aeronautical Information Management	B1-DATM Service Improvement through Integration of all Digital ATM Information		
	B1-SWIM Performance Improvement through the application of System-Wide Information Management (SWIM)	B2-SWIM Enabling Airborne Participation in collaborative ATM through SWIM	
B0-AMET Meteorological information supporting enhanced operational efficiency and safety	B1-AMET Enhanced Operational Decisions through Integrated Meteorological Information (Planning and Near-term Service)		B3-AMET Enhanced Operational Decisions through Integrated Meteorological Information (Near-term and Immediate Service)

CHAPTER 4**AIM NATIONAL PLANNING AND IMPLEMENTATION*****NATIONAL PLANNING/BUSINESS PLAN*****4.1** TBD*(Ref to Appendix A – National AIM Implementation Roadmap Template)****Air Navigation Deficiencies*****4.2** TBD*(Ref to Appendix B – Corrective action plan)****HUMAN RESOURCE AND TRAINING*****4.3** TBD

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APPENDICES

DRAFT

APPENDIX A
NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

Phase/Step	Step No.	Timeline												Start	End	Remarks	
		2014			2015			2016			2017						2018
Phase I																	
AIRAC adherence	P-03																
WGS-84 implementation	P-05																
QMS	P-17																
Phase II																	
Data Quality Monitoring	P-01																
Data Integrity Monitoring	P-02																
AIXM	P-06																
Unique identifiers	P-07																
Aeronautical information conceptual model	P-08																
eAIP	P-11																
Terrain A-1	P-13																
Obstacle A-1	P-14																
Terrain A-4	P-13																
Obstacle A-4	P-14																
Terrain A-2	P-13																Please specify implementation of Area 2a, 2b, 2c and/or 2d

Phase/Step	Step No.	Timeline												Start	End	Remarks	
		2014			2015			2016			2017						2018
Obstacle A-2	P-14																Please specify implementation of Area 2a, 2b, 2c and/or 2d
Terrain A-3	P-13																
Obstacle A-3	P-14																
AD Mapping	P-15																
Phase III																	
Aeronautical data exchange	P-09																
Communication networks	P-10																
Aeronautical information briefing	P-12																
Training	P-16																
Agreement with data originators	P-18																
Interoperability with meteorological products	P-19																
Electronic aeronautical charts	P-20																
Digital NOTAM	P-21																

Legend		Not Started
		In Progress
		Implemented

APPENDIX B

SAMPLE STATE'S CORRECTIVE ACTION PLAN

DEFICIENCY DESCRIPTION		PRIORITY <i>(U/A/B)</i>
		RATIONALE <i>F:Financial, H:HR, S:State, O:Other</i>
STATE'S COMMENTS/OBSERVATION		
CORRECTIVE ACTION(S) PROPOSED	ACTION OFFICE/BODY	DATE OF COMPLETION

References

- ICAO Annex 15 – Aeronautical Information Services
- ICAO Doc 9750 – Global Air Navigation Plan
- ICAO Roadmap for the transition from AIS to AIM
- EUROCONTROL Specifications for the electronic Aeronautical Information Publication (eAIP)
- MIDANPIRG/15 Report
- MID Doc 002 – MID Region Air Navigation Strategy
- MSG/4 Report
- <http://www.aixm.aero>
- http://www.icao.int/airnavigation/Documents/ICAO_AN%20Report_EN_final_30042014.pdf
- <http://www.icao.int/airnavigation/IMP/Pages/default.aspx>
- <http://www.icao.int/safety/ais-aimsg/Pages/default.aspx>
- <http://www.icao.int/safety/Pages/Regional-Targets.aspx>
- https://portal.icao.int/RO_MID/Pages/MIDDocs.aspx
- <https://portal.icao.int/space/anp/Pages/Home.aspx>

APPENDIX 4E

B0-DATM IMPLEMENTATION ELEMENTS

<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	80% (12 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
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	27% (4 States)	Data Collection: MID eANP Table B0-DATM 3-1
4-QMS	<i>All States</i>	Indicator: % of States that have implemented QMS for AIS/AIM Supporting Metric: Number of States that have implemented QMS for AIS/AIM	70% by Dec. 2016 90% by Dec. 2018	53% (8 States)	Data Collection: MID eANP Table B0-DATM 3-2

<p>5-WGS-84</p>	<p><i>All States</i></p>	<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>Horizontal*: 80% (12 States)</p> <p>Vertical**: 73% (11 States)</p>	<p>Data Collection: MID eANP Table B0-DATM 3-3</p> <p>* Horizontal: ENR, Terminal and AD</p> <p>** Vertical: Geoid Undulation</p>
<p>6-eTOD</p>	<p><i>All States</i></p>	<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 that have implemented required Obstacle datasets</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 4: Terrain: 50% by Dec. 2015, 100% by Dec. 2018</p> <p>Obstacles: 50% by Dec. 2015, 100% by Dec. 2018</p>	<p>Area 1: Terrain: 40% (6 States) Obstacles: 33% (5 States)</p> <p>Area 4: Terrain: 47% (7 States) Obstacles: 40% (6 States)</p>	<p>Data Collection: MID eANP Table B0-DATM 3-4-1</p>

4E-3

7-Digital NOTAM*	<i>All States</i>	<p>Indicator: % of States that have included the implementation of Digital NOTAM into their National Plan for the transition from AIS to AIM</p> <p>Supporting Metric: Number of States that have included the implementation of Digital NOTAM into their National Plan for the transition from AIS to AIM</p>	<p>80% by Dec. 2016</p> <p>90% by Dec. 2018</p>	<p>80% (12 States)</p>	<p>Data Collection: AIM Sub-Group</p>
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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, 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, 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, shown by:
 - FC – Fully compliant (eAIP: Text, Tables and Charts)
 - PC – Partially compliant
 - NC – Not compliant

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	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>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
BAHARAIN	PI	FC	FC	FC	FC	FC	PI	FI	National AIM Roadmap-2015	AIXM: 4.5 (5.1 by Dec. 2015)
EGYPT	FI	PC	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	NC	NC	NC	NC	NC	NI	NI	National AIM Roadmap-2015	AIXM: NI
IRAQ	NI	NC	NC	NC	NC	NC	NI	NI	National AIM Roadmap-2014	AIXM: NI
JORDAN	PI	NC	FC	FC	FC	PC	NI	NI	National AIM Roadmap-2014	AIXM: Database via EAD
KUWAIT	PI	NC	FC	NC	PC	NC	NI	NI	National AIM Roadmap-2015	AIXM: NI (5.1 by Dec. 2015)
LEBANON	NI	NC	NC	NC	NC	NC	NI	NI	National AIM Roadmap-2014	AIXM: 4.5
LIBYA	NI	NC	NC	NC	NC	NC	NI	NI	No Action Plan	AIXM: NI
OMAN	NI	NC	NC	NC	NC	NC	NI	NI	National AIM Roadmap-2014	AIXM: NI (5.1 in progress)
QATAR	PI	PC	FC	PC	FC	PC	PI	NI	National AIM Roadmap-2015	AIXM: 5.1
SAUDI ARABIA	FI	FC	FC	FC	FC	FC	FI	FI	National AIM Roadmap-2014	AIXM: 4.5
SUDAN	PI	NC	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	NC	NC	NC	NC	NC	NI	NI	No Action Plan	AIXM:NI
UNITED ARAB EMIRATES	PI	FC	NC	NC	PC	PC	NI	PI	National AIM Roadmap-2014	AIXM: 5.1 AMDB: 2016-2021 eTOD integration: 2016 PIB: AVBL at OMMA, OMDB, OMDW; other ADs 2020

										Charing: 2016 Procedure Design 2020 ATS: ACC AVBL, ADs 2020 Digital NOTAM 2016-2021
YEMEN	NI	NC	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
 - PC – Partially 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
 - PC – Partially 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	QMS	Establishment of formal agreements	Digital data exchange with originators	Metadata	Data quality monitoring	Data integrity monitoring	AIRAC adherence	Action Plan	Remarks
1	2	3	4	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-2015	
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-2014	
LIBYA	NC	NC	NI	NC	NC	NC	NC	No Action Plan	
OMAN	PC	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-2015	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-2014	
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-2014	
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
BAHARAIN	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-2015	
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-2014	
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.

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-2015	
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-2014	
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-2015	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 4G

GUIDELINES FOR THE PUBLICATION OF FIR BOUNDARY POINTS

- 1) Where FIR is a list of geographical coordinates:
 - a) The list of points and their coordinates must follow a clockwise sequence.
 - b) The list must have a beginning point and an ending point that are the same coordinate.
 - c) The latitude and longitude coordinates must be reported in **DMS (degrees, minutes and seconds)**.
 - d) Where an FIR shares a common point with another neighbouring FIR, coordinates should be mutually agreed.

***Note:** Transfer of Control Points, ATS route significant points or waypoints may not necessarily be aligned with boundaries delineation.*
 - e) Where delineation of FIR/UIR follows an arc of specific dimension, it should be defined as follows:

[starting point of ARC] following an arc of a circle at a radius of [distance] NM centered on [coordinates in DMS] and ending at point [coordinates in DMS].
- 2) Where FIR is described using “sovereign” boundaries
 - a) The description should be simple
 - i) *Follow sovereign boundary between [State 1] and [State 2]).*¹
 - b) Where delineation of FIR/UIR is made by reference to sovereign boundaries common to neighbouring FIR/UIR, the delineation shall be mutually agreed upon.
 - c) Where an FIR/UIR follows a sovereign boundary, the United Nations international boundary data set is referred to by ICAO.

¹ Use short names of States as shown at: <http://www.icao.int/about-icao/pages/member-states.aspx>

Review of MID Table ATM I-1

The table below shows columns from the MID ATM table, with two additional columns in gray: 1) “Comments” notes the clarification needed with regards to the lateral limits coordinates, and 2) # of FIR/UIR Description Requirements refers to the description of FIRs as listed in the Guidelines.

NOTE: The MID Table for the eANP will not include the additional columns.

MID TABLE ATM I-1

FIR/UIR Location Indicator	Lateral limits coordinates	COMMENTS FROM ICAO	# of FIR/UIR Description Requirement	Remarks
1	2		See FIR/UIR Definition #	3
Amman (OJAC)	<p>FIR/UIR Amman</p> <p>292125N 0345743E On the Gulf of Aqaba</p> <p>291102N 0360420E 293002N 0363021E</p> <p>295203N 0364521E 300003N 0373021E</p> <p>302003N 0374021E 303003N 0380021E</p> <p>313003N 0370021E 320002N 0390021E</p> <p>TO 320911N 0391206E At Jordan, Saudi Arabia and Iraqi boundaries. Then the point 321349N 0391804E At the Southern corner of the Jordanian-Iraqi boundaries and along Jordanian-Syrian-Israeli boundaries then back to starting point 292125N 0345743E.</p>	<p>Coordinates should match with FIR JEDDAH</p>	<p>1a</p> <p>1d</p> <p>2c</p> <p>2a</p>	Source: the State’s AIS Publication
Baghdad (ORBB)	<p>FIR/UIR Baghdad</p> <p>Along the Iraqi boundaries with Iran, Kuwait, Saudi Arabia, Syria and Turkey.</p> <p>See coordinate description FIR Jeddah and FIR Kuwait</p>	<p>Coordinates should be defined in the description for Baghdad FIR for perfect alignment of FIRs delineation shared with FIRs Jeddah and Kuwait</p>	<p>1a</p> <p>1d</p> <p>2a</p>	Source: the State’s AIS Publication
Bahrain (OBBB)	<p>FIR/UIR Bahrain</p> <p>284400N 0494000E 270500N 0505500E 265500N 0511000E 260400N 0535700E 254900N 0530600E 240300N 0514700E</p> <p>thence along the Saudi Arabia / UAE national borders to the point where</p>			<p>MID ANP PfA 00/1 ATS approved 7 March 2005 and</p> <p>Source: the</p>

FIR/UIR Location Indicator	Lateral limits coordinates	COMMENTS FROM ICAO	# of FIR/UIR Description Requirement	Remarks
1	2		See FIR/UIR Definition #	3
	the national borders of Oman, Saudi Arabia and UAE meet to 224200N 0551200E, then the Saudi Arabia / Oman territorial boundary to 190000N 052000E 253000N 0490000E 263330N 0452130E 275000N 0455500E 275000N 0490800E thence along the limit of the Saudi Arabia territorial waters to 281500N 0485200E then back to starting point 284400N 0494000E	Description should match with the one in FIR Jeddah and Muscat This coordinate should match with FIR Kuwait and add starting point coordinate	1a 1d 2b 2d 2c 3a	State's AIS Publication (AIP ENR 2.1-1 dated 17 October 2013) PfA (Serial MID Basic ANP 13/03 – ATM/SAR)-realignment of Bahrain and Jeddah FIRs pending approval
Beirut (OLBB)	FIR/UIR Beirut The geographical Lebanese/Syrian borders, then along the Lebanese/Palestinian borders, and a semicircular Arc, radius 45 NM centered KAD VOR		1d 2b 2c 2a 1e	Not Source: the State's AIS Publication
Cairo (HECC)	FIR/UIR Cairo *Northern border 340000N 0241000E 340000N 0271000E 333000N 0300000E *Eastern border 315000N 0335900E 313600N 0343000E then follow the International border to: 293000N 0345500E 293000N 0350000E 280600N 0343500E 220000N 0380000E *Southern border 220000N 0380000E 220000N 0250000E *Western border 220000N 0250000E 314000N 0251000E 340000N 0241000E	Coordinate should match with FIR Tripoli	1d 2a	Source: the State's AIS Publication
Damascus (OSTT)	FIR/UIR Damascus From 355500N 0354000E to 355600N 0355500E then along the national border of Syria with Turkey and Iraq to a point 332200N 0384800E, then along the national border of Syria with Jordan to 324100N 0353800E then along the		1a 1d 2b 2c 2a	Source: the State's AIS Publication

FIR/UIR Location Indicator	Lateral limits coordinates	COMMENTS FROM ICAO	# of FIR/UIR Description Requirement	Remarks
1	2		See FIR/UIR Definition #	3
	Western Syrian border to 331500N 0353700E then along the Lebanese Syrian border to a point 343800N 0355700E then to a point 343800N 0354300E then northwards along a line maintaining 12 NM from the coastline, to 355500N 0354000E			
Emirates (OMAE)	FIR/UIR Emirates 262100N 0560600E 253600N 0561300E 250000N 0563500E 240000N 0553500E 224200N 0551200E to the point where the national borders of Oman, Saudi Arabia and UAE meet, then along the national border between Saudi Arabia and UAE to 240300N 0514700E 254900N 0530600E 260400N 0535700E 253800N 0552000E 262100N 0560600E		2d 2b 2e	Source MID ANP Serial No. EUR 85/02-ATS/88-COM/400-MET/75-SAR/16-AIS/1 dated 9 December 1986 and PfA Serial 00/1 ATS approved 7 march 2005
Jeddah (OEJD)	FIR/UIR Jeddah 292124N 0345718E 291131N 0360356E 293001N 0362956E 295201N 0364456E 300002N 0372956E 302002N 0373956E 303002N 0375956E 313002N 0365956E 320002N 0385956E 320915N 0391203E 315653N 0402447E 312223N 0412627E 310642N 0420508E 291155N 0444318E 290340N 0462534E 290604N 0463311E then along the national boundary between Kuwait and Saudi Arabia and then along the limit of Saudi Arabian territorial waters to: 275000N 0490800E 275000N 0455500E 263330N 0452130E 253000N 0490000E 190000N 0520000E clockwise to 184720N 0504700E 183700N 0490700E 181000N 0481100E 172700N 0473600E 170700N 0472800E 165700N 0471100E 165700N 0470000E 171700N 0464500E 171400N 0462200E 171500N 0460600E 172000N 0452400E 172600N 0451300E 172600N 0443900E 172420N	Coordinates do not match with neighboring FIR Amman Coordinates should be defined as in this description within Baghdad FIR for perfect alignment with Jeddah FIR This coordinate does not match with shared FIR Kuwait and Baghdad Coordinates should be defined as in this description within Sanaa' FIR for perfect alignment with Jeddah FIR	1a 1d 2b 2c 2a 3a	Source: the State's AIS Publication (AIP ENR 2.1-1 dated 11 March 2010) PfA (Serial MID Basic ANP 13/03 – ATM/SAR) realignment of Bahrain and Jeddah FIRs pending approval

FIR/UIR Location Indicator	Lateral limits coordinates	COMMENTS FROM ICAO	# of FIR/UIR Description Requirement	Remarks
1	2		See FIR/UIR Definition #	3
	0443400E 172600N 0442800E 172600N 0442158E then follow Saudi Arabia and Republic of Yemen international boundaries in accordance with Jeddah treaty to the coast line boundary: 162415N 0424620E 162415N 0420900E 161724N 0414700E 160000N 0420000E 154700N 0415300E 153955N 0413947E 160000N 0410000E 200000N 0383000E 220000N 0380000E 280600N 0343500E then back to starting point 292124N 0345718E	This coordinate does not match with shared FIR Asmara coordinate Coordinates should match with FIR Amman and FIR Cairo		
Khartoum (HSSS)	FIR/UIR Khartoum 154500N 0240000E 200000N 0240000E 200000N 0250000E 220000N 0250000E 220000N 0380000E 200000N 0383000E 125500N 0360000E 080000N 0330000E 040000N 0360500E 040000N 0301200E Common national boundary: SUDAN /KINSHASA SUDAN/CONGO DROF SUDAN /BRAZZAVILLE SUDAN/CENTRAL AFRICA SUDAN/NDJMENA.	Replace text with the following to be consistent with the other MID FIR descriptions: Example: Then follow international boundary between Sudan and Congo, DRC, Central Africa and Chad then back to starting point 154500N 0240000E.	1a 2a	Source: the State's AIS Publication
Kuwait (OKAC)	FIR/UIR Kuwait 290604N 0463319E 291502N 0464211E 294319N 0470024E 295105N 0470454E 300001N 0470920E 300613N 0472217E 300613N 0474228E 300113N 0475528E 295924N 0480042E 300146N 0480434E 300120N 0480952E 295110N 0482451E 295121N 0484503E 291300N 0494000E 290000N 0492700E 284400N 0494000E 281500N 0485203E then following the Saudi Arabia territorial waters and Kuwait / Saudi Arabia International boundary to the point 290604N 0463319E	This coordinate does not match with shared FIR Jeddah and Baghdad These highlighted FIR Kuwait coordinates define the border shared with Baghdad FIR Shared coordinate with FIR Tehran and along FIR boundary of Baghdad Coordinates should match with FIR Bahrain As above in GREEN	1a 1b 2b 2d 2c 2a 3a	Source: Limited MID RAN Jan 1996 the State's AIS Publication
Muscat (OOMM)	FIR/UIR Muscat 250000N 0563500E 253600N 0561300E 262100N 0560600E 264100N 0562700E 261000N			Source: the State's AIS Publication

FIR/UIR Location Indicator	Lateral limits coordinates	COMMENTS FROM ICAO	# of FIR/UIR Description Requirement	Remarks
1	2		See FIR/UIR Definition #	3
	0564500E 253500N 0564500E 250000N 0573000E 244000N 0612000E 233000N 0612000E 233000N 0643000E 194800N 0600000E 174000N 0570000E 154000N 0533000E 163800N 0530400E 172200N 0524400E 190000N 0520000E thence along the common national boundary Sultanate of Oman/Kingdom of Saudi Arabia and along the common national boundary Sultanate of Oman/United Arab Emirates to 224200N 0551200E 240000N 0553500E 250000N 0563500E	Coordinate should match with Sanaa' FIR Description should match with BAHRAIN FIR	1d 2d 2b 2c 2a	
Sanaa' (OYSC)	FIR/UIR Sanaa' 190000N 0520000E 173000N 0443500E 173500N 0430800E 164100N 0430800E 160800N 0412900E 145106N 0422354E 141542N 0423630E 123600N 0431800E 123142N 0432712E 121036N 0440206E 114500N 0441100E 114730N 0444348E 115900N 0470800E 121100N 0504500E 120718N 0510242E 120000N 0513000E 120000N 0600000E 161400N 0600000E 194800N 0600000E 174000N 0570000E 164618N 0552436E 160718N 0541648E 154000N 0533100E 163324N 0530612E 190000N 0520000	Add Coordinates should be defined in the description within Sana'a FIR for perfect alignment as in descriptions of Jeddah FIR and AFI FIR Asmara, Addis Ababa, Mogadishu See Appendix C for an example of this issue. Please verify with FIR Mogadishu coordinates for perfect alignment Coordinate should match with Muscat FIR for perfect alignment	1a 1d 2b 2c 2a 2e	Source: the State's AIS Publication MID ANP
Tehran (OIIX)	FIR/UIR Tehran 372100N 0535500E 382630N 0485230E thence along the Islamic Republic of Iran / Azerbaijan, Armenia, Turkey and Iraq territorial borders to Persian gulf to 295110N 0484500E 291300N 0494000E 290000N 0492700E 270500N 0505500E 265500N 0511000E 253800N 0552000E 264100N 0562700E 261000N 0564500E 253500N 0564500E 250000N 0573000E 244000N 0612000E, thence along the Islamic Republic of Iran / Pakistan,	Coordinates are not consistent with FIR Kuwait	1d 2b 2c 2a	Source: the State's AIS Publication

FIR/UIR Location Indicator	Lateral limits coordinates	COMMENTS FROM ICAO	# of FIR/UIR Description Requirement	Remarks
1	2		See FIR/UIR Definition #	3
	Afghanistan and Turkmenistan territorial borders to 372100N 0535500E			
Tripoli (HLLL)	FIR/UIR Tripoli 342000N 0113000E 342000N 0233500E 340000N 0241000E 314100N 0250800E 200000N 0250000E 200000N 0240000E 193000N 0240000E 220000N 0190000E 220000N 0113000E to Western Border Libya-GSPAJ along Western Border Libya-GSPAJ to 322200N 0113000E 342000N 0113000E	This coordinate should match with FIR Cairo	1d 2b 2c 2a	Source: the State's AIS Publication

APPENDIX 4I

MID Region AIM Database (MIDAD) Focal Points

	States	Main Focal Point			Alternate Focal Point (Optional)		
		Name	Title	Email/Tel/Mobile	Name	Title	Email/Tel/Mobile
1	Bahrain	Mohammed Ahmed Alhallagh	Acting Head AIM Operation	alhallagh@caa.gov.bh T: + 973 17329037 M: +973 39684688	Mohamed Yusuf Bumtaia	Head Airspace Planning	mbumtai@caa.gov.bh T: +973 17 321179 M: +973 37735556
2	Iran	Ali Azami	Expert of AIS	aliazamy@yahoo.com T: 00982166025108 M :+98-9122655694	Mohammad Esmail Movahedifar	Expert of AIS	movahedifar48@yahoo.com T: 00982166025108 M: :+98-9126953881
3	Jordan	Hanan Qasem	Chief AIS HQ	ais.hq@carc.gov.jo T: +96264872681			
4	Kuwait	Salah Almushaiti	Chief AIM	sh.almushity@dgca.gov.kw Mobil: +96566681897			
5	Oman	Jaffer A.amir Salman		Jaffer.caa.gov.om +96899316040			
6	Qatar	Faisal Alqahtani	Head of AIS	Faisal.alqahtani@caa.gov.qa T: + 974 44656221			
7	Saudi Arabia	Ghorman Al-Shehri	Director of AIS	galshehri@gaca.gov.sa T: +96626290564			
8	Sudan	Hayder Mohammed Abdalla	AIM Director	aishyder@gmail.com T: +249 123499246 M: +249912268269			
9	UAE	Abdalla Al Rashidi	Director AIM	akaabi@szc.gcaa.ae T: +97125996891 M: +971506119865			
	Organization	Main Focal Point			Alternate Focal Point		
		Name	Title	Email/Tel/Mobile	Name	Title	Email/Tel/Mobile
1	ICAO MID	Abbas Niknejad (Rapporteur)	RO/AIM/ATM	aniknejad@icao.int T: +202 22674841/5/6 Ext. 4105 M: +201 019993932			

GROUPING OF STATES								
	State	1- GDP/capita (USD) (Rank)*		2- Traffic			3- Volume of AI**** (Size of FIR, Number of airports, ATS routes, etc.)	Overall
				Departures (2013) (Rank)**	Overflight (15 Jan-15 Feb 14) (Rank)***			
1	Bahrain	23 040 (6)	H	39143 (8)	25442 (4)	H	H	A
2	Egypt	3 256 (12)	L	106036 (4)	27271 (3)	H	H	A
3	Iran	6 578 (10)	M	129431 (3)	24727 (5)	H	H	A
4	Iraq	6 625 (9)	M	29091 (10)	12694 (7)	L	H	B
5	Jordan	4 909 (11)	L	35411 (9)	4546 (11)	L	L	B
6	Kuwait	56 367 (2)	H	41568 (7)	10666 (8)	M	L	A
7	Lebanon	9 764 (8)	M	27745 (11)	105 (13)	L	L	B
8	Libya	13 303 (7)	M	27440 (12)	0 (14)	L	M	B
9	Oman	23 624 (5)	H	42865 (6)	31735 (2)	H	H	A
10	Qatar	92 633 (1)	H	89615 (5)	- (-)	H	M	A
11	Saudi Arabia	25 946 (4)	H	269326 (2)	32351 (1)	H	H	A
12	Sudan	1 695 (14)	L	16968 (13)	4776 (10)	L	M	B
13	Syria	2 126 (13)	L	454 (15)	4095 (12)	L	L	B
14	UAE	41 692 (3)	H	272352 (1)	24369 (6)H	H	H	A
15	Yemen	1 341 (15)	L	14522 (14)	5620 (9)	L	M	B

References:
 * ICAO States Today (2015)
 ** ICAO iSTARS SPACE
 *** SMR 2015
 **** States' AIPs

FUNDING OPTIONS FOR THE MIDAD DETAILED STUDY

GROUP A: 7 STATES (BAHRAIN, IRAN, KUWAIT, OMAN, QATAR, SAUDI ARABIA AND UAE)

GROUP B: 5 STATES (IRAQ, JORDAN, LEBANON, SUDAN and YEMEN)

** Egypt, Libya and Syria have not yet signed the MIDAD MOA.*

OPTION A: MIDAD States-Group A (Equal Contribution)

- MIDAD States-Group A (Bahrain, Iran, Kuwait, Oman, Qatar, Saudi Arabia and UAE) pay 100% of the cost, on equal basis (14.3% each).

Note – A clear re-imbusement plan for the shares of Group B States (including direct payment by concerned States, on a voluntary basis, the possibility to use the ICAO SAFE Fund, contributions/donations by IATA, Boeing, Airbus, etc.).

OPTION B: All MIDAD States-Group A and B (Based on GDP, Traffic and volume of AI)

- each MIDAD State-Group A (Bahrain, Iran, Kuwait, Oman, Qatar, Saudi Arabia and UAE) pay 12.2% of the cost; and
- each MIDAD States-Group B (Iraq, Jordan, Lebanon, Sudan and Yemen) pay 3 % of the cost.

OPTION C: All MIDAD States-Group A and B (Equal Contribution)

- MIDAD States-Group A and B (Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon Oman, Qatar, Saudi Arabia, Sudan, UAE and Yemen) pay 100% of the cost, on equal basis (8.4% each).

APPENDIX 4L

Action Plan/Timelines related to the MIDAD Project Phase 2

	Action	Deliverable	Responsible	Timeline	Remarks
1	Interviews with the companies	Clarifications	ITV and Four Leading States	15/06/15	Completed
2	Initial Evaluation of the offers by Four Leading States and MIDAD ST and proposal for the selected company	Evaluation/Analysis report and proposal of the selected company	Four Leading States with the support of the MIDAD ST	31/08/15	Completed
3	Final Evaluation and proposal regarding the company to be selected	Final Evaluation and proposal of the company to be selected	MIDAD TF/3	30/08/15	Completed
4	Recommend to the MAEP SC/2 funding options for the Detailed Study	Funding options	MIDAD TF/3	30/08/15	Completed
5	Coordination to identify the preferred funding option	Preferred funding option	States	20/10/15	
6	Selection of the company to develop the MIDAD Detailed Study	Name of Company	MAEP SC/2	22/10/15	* Main milestone on which depend all the following actions
7	Agreement on the funding option for the development of the Detailed Study	Funding option	MAEP SC/2	22/10/15	
8	Development of the MIDAD Detailed Study ProDoc	MIDAD Detailed Study ProDoc	ICAO MID, TCB, MIDAD TF Chairman and MAEP Board Chairman,	15/11/15	
9	Letter of Intent to the awarded company (before the deadline of the validity of Tenders (300 Days))	Letter of Intent	UAE, ICAO MID and TCB	25/12/15	
10	Handover to TCB of the documentation related to: CfT documentation, received Offers, evaluation, clarification sessions, etc.	Documentation handed over to TCB	MIDAD TF Chairman, ICAO MID and TCB	25/12/15	

	Action	Deliverable	Responsible	Timeline	Remarks
11	Issuance of Invoices	Invoices	TCB	Jan 2016	
12	Collection of contributions	Contributions collected	TCB and States	Q2-2016	
13	Contract negotiation and signature process	Contract signed	TCB, MAEP Board Chairperson and the MIDAD ST	Sep 2016	As soon as practicable, no later than 30 September 2016
14	Continuous coordination between the awarded Company, TCB and the States for the development of the Detailed Study including the selection of the preferred scenarios/options for implementation	Consultation/Coordination	Company, TCB, States and ICAO MID	Continuous until delivery of the Detailed Study	
15	Report progress to the MIDANPIRG/16 meeting	Progress report	MIDAD TF Chairman/ ICAO	25/12/16	
16	Review of draft Detailed Study and identification of viable Scenarios/options for implementation (Phase 3)	Draft Detailed Study	TCB and MIDAD TF/4	Mar 2017	
17	Report progress to the DGCA-MID/4 meeting	Progress Report	DGCA-MID/4	Q3-2017	
18	Completion of the Detailed Study (deliverables)	Detailed Study (deliverables)	Awarded Company	May 2017	
19	Review of the Detailed Study	Comments for the development of the final version of the Detailed Study	TCB and MIDAD ST	July 2017	
20	Finalization of the Detailed Study (deliverables)	Final version of the Detailed Study (deliverables)	Awarded Company	Sep 2017	
21	Report progress to the MAEP Board	Go/No Go Decision and Implementation Plan	MAEP Board	Q4-2017	

APPENDIX 5A

Deficiencies in the AIM Field

BAHRAIN

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the AIM Field

EGYPT

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 15: Para. 10.1.3, Para. 10.1.9	-	Lack of the required Obstacle Datasets for eTOD Area 1 and Area 4	May, 2014	-	O	No Corrective Action Plan submitted by the State	Egypt	Dec, 2016	A

⁽¹⁾ Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIM Field

IRAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 4: Para. 3.2	-	Non-production of Aerodrome Obstacle Chart-ICAO Type A	May, 1995	-	O	No Corrective Action Plan submitted by the State	Iran	Dec, 2016	A
2	ANNEX 15: Para. 3.6.5 ANNEX 15: Para. 3.6	-	Lack of AIS automation Lack of AIXM-based AIS Database	Dec, 2007	-	O	No Corrective Action Plan submitted by the State	Iran	Dec, 2016	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the AIM Field

IRAQ

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	May, 1995	-	F H S	No Corrective Action Plan submitted by the State	Iraq	Dec, 2016	B
2	ANNEX 4: Para. 13.2	-	Non-production of Aerodrome/ Heliport Chart - ICAO	May, 1995	-	F H O	No Corrective Action Plan submitted by the State	Iraq	Dec, 2016	A
3	ANNEX 15: Para 1.2.1 Para 1.2.2	-	Implementation of WGS-84	Dec, 1997	-	F H O	No Corrective Action Plan submitted by the State	Iraq	Dec, 2016	A
4	ANNEX 15: Para. 3.7	-	Implementation of a Quality System	Jan, 2003	-	F H O	No Corrective Action Plan submitted by the State	Iraq	Dec, 2016	A
5	ANNEX 4: Para. 11.2	-	Non-production of Instrument Approach Chart-ICAO	Jan, 2003	-	F H O	No Corrective Action Plan submitted by the State	Iraq	Dec, 2016	A
6	ANNEX 15: Para. 8.1	-	Non provision of pre-flight information service at international airports	Mar, 2004	-	F H O	No Corrective Action Plan submitted by the State	Iraq	Dec, 2016	A
7	ANNEX 15: Para. 10.1.3 Para. 10.1.9	-	Lack of the required Terrain Datasets for eTOD Area 1 and Area 4	May, 2014	-	O	No Corrective Action Plan submitted by the State	Iraq	Dec, 2016	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action	
8	ANNEX 15: Para. 10.1.3 Para. 10.1.9	-	Lack of the required Obstacle Datasets for eTOD Area 1 and Area 4	May, 2014	-	O	No Corrective Action Plan submitted by the State	Iraq	Dec, 2016	A

⁽¹⁾ Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIM Field

JORDAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO1:1 000 000	Feb, 2008	-	F H	No Corrective Action Plan submitted by the State	Jordan	Dec, 2015	B
2	ANNEX 15: Para. 10.1.3 Para. 10.1.9	-	Lack of the required Terrain Datasets for eTOD Area 1 and Area 4	May, 2014	-	F H	No Corrective Action Plan submitted by the State	Jordan	Dec, 2015	A
3	ANNEX 15: Para. 10.1.3 Para. 10.1.9	-	Lack of the required Obstacle Datasets for eTOD Area 1 and Area 4	May, 2014	-	F H	No Corrective Action Plan submitted by the State	Jordan	Dec, 2015	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the AIM Field

KUWAIT

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

⁽¹⁾ Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIM Field

LEBANON

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO1:1 000 000	May, 1995	-	H	No Corrective Action Plan submitted by the State	Lebanon	Dec, 2016	B
2	ANNEX 15: Para. 3.7	-	Implementation of a Quality System	Jan, 2003	(USOAP-CMA finding)	H	No Corrective Action Plan submitted by the State	Lebanon	Dec, 2016	A
3	ANNEX 15: Para. 1.2.2	-	Implementation of geoid undulation referenced to the WGS-84 ellipsoid.	Jan, 2003	-	H	No Corrective Action Plan submitted by the State	Lebanon	Dec, 2016	A
4	ANNEX 15: Para. 10.1.3	-	Lack of the required Terrain Datasets for eTOD Area 1	May, 2014	-	O	No Corrective Action Plan submitted by the State	Lebanon	Dec, 2016	A
5	ANNEX 15: Para. 10.1.3	-	Lack of the required Obstacle Datasets for eTOD Area 1	May, 2014	-	O	No Corrective Action Plan submitted by the State	Lebanon	Dec, 2016	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the AIM Field

LIBYA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	May, 2014	-	O	No Corrective Action Plan submitted by the State	Libya	Dec, 2016	B
2	ANNEX 15: Para. 3.7	-	Implementation of a Quality System	May, 2014	(USOAP-CMA finding)	O	No Corrective Action Plan submitted by the State	Libya	Dec, 2016	A
3	ANNEX 15: Para 6.	-	Lack of implementation of AIRAC System Lack of a system for AIRAC adherence monitoring	May, 2014	-	O	No Corrective Action Plan submitted by the State	Libya	Dec, 2016	A
4	ANNEX 15: Para. 3.6.5 ANNEX 15: Para. 3.6	-	Lack of AIS automation Lack of AIXM-based AIS Database	May, 2014	-	O	No Corrective Action Plan submitted by the State	Libya	Dec, 2016	A
5	ANNEX 15: Para. 10.1.3	-	Lack of the required Terrain Datasets for eTOD Area 1	May, 2014	-	O	No Corrective Action Plan submitted by the State	Libya	Dec, 2016	A
6	ANNEX 15: Para. 10.1.3	-	Lack of the required Obstacle Datasets for eTOD Area 1	May, 2014	-	O	No Corrective Action Plan submitted by the State	Libya	Dec, 2016	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the AIM Field

OMAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 15: Para. 3.7	-	Implementation of a Quality System	Jan, 2003	(USOAP-CMA finding)	O	The Public Authority for Civil Aviation has contracted with the Avitech Company for the development and implementation of a Quality Management System (QMS). QMS manuals and documentation are currently in draft form with approval and implementation expected in January 2016	Oman	Dec, 2016	B
2	ANNEX 15: Para. 3.6.5 ANNEX 15: Para. 3.6	-	Lack of AIS automation Lack of AIXM-based AIS Database	Jul, 2005	-	O	The Public Authority for Civil Aviation is working with the Comsoft Company to complete the process of AIS automation. Completion is estimated for January 2016.	Oman	Dec, 2016	B
3	ANNEX 15: Para. 10.1.3	-	Lack of the required Terrain Datasets for eTOD Area 1	May, 2014	The required terrain datasets for eTOD Areas 1 and 4 will be a long-term project.	O	In 2014 The Public Authority for Civil Aviation received eTOD presentations from 2 different service providers. There has been no formal decision on when eTOD for Areas 1 and 4 will be implemented.	Oman	Dec, 2016	B

⁽¹⁾ Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action	
4	ANNEX 15: Para. 10.1.3	-	Lack of the required Obstacle Datasets for eTOD Area 1	May, 2014	The required obstacle datasets for eTOD Areas 1 and 4 will be a long-term project.	O	In 2014 The Public Authority for Civil Aviation received eTOD presentations from 2 different service providers. There has been no formal decision on when eTOD for Areas 1 and 4 will be implemented.	Oman	Dec, 2016	B

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the AIM Field

QATAR

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

⁽¹⁾ Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIM Field

SAUDI ARABIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 15: Para. 8.1	-	Pre-flight information service not provided at International Airports	Nov, 2007	-	O	No Corrective Action Plan submitted by the State	Saudi Arabia	Dec, 2016	A

⁽¹⁾ Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIM Field

SUDAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO 1:1 000 000	May, 2014	-	O	No Corrective Action Plan submitted by the State	Sudan	Dec, 2016	B
2	ANNEX 15: Para. 3.7	-	Implementation of a Quality System	May, 2014	(USOAP-CMA finding)	O	No Corrective Action Plan submitted by the State	Sudan	Dec, 2016	A
3	ANNEX 15: Para. 3.6.5 ANNEX 15: Para. 3.6	-	Lack of AIS automation Lack of AIXM-based AIS Database	May, 2014	-	O	No Corrective Action Plan submitted by the State	Sudan	Dec, 2016	A
4	ANNEX 15: Para. 10.1.3	-	Lack of the required Terrain Datasets for eTOD Area 1	May, 2014	-	O	No Corrective Action Plan submitted by the State	Sudan	Dec, 2016	A
5	ANNEX 15: Para. 10.1.3	-	Lack of the required Obstacle Datasets for eTOD Area 1	May, 2014	-	O	No Corrective Action Plan submitted by the State	Sudan	Dec, 2016	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Deficiencies in the AIM Field

SYRIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ANNEX 15: Para 6.	-	Lack of implementation of AIRAC System Lack of a system for AIRAC adherence monitoring	May, 1995	-	F H	No Corrective Action Plan submitted by the State	Syria	Dec, 2016	A
2	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO1:1 000 000	May, 1995	-	F H S	No Corrective Action Plan submitted by the State	Syria	Dec, 2016	B
3	ANNEX 15: Para. 3.7	-	Implementation of a Quality System	Jan, 2003	(USOAP-CMA finding)	F H	No Corrective Action Plan submitted by the State	Syria	Dec, 2016	A
4	ANNEX 15: Para. 1.2.2	-	Implementation of geoid undulation referenced to the WGS-84 ellipsoid.	Jan, 2003	-	F H	No Corrective Action Plan submitted by the State	Syria	Dec, 2016	A
5	ANNEX 15: Para 4.2.9 & 4.3.7	-	Lack of regular and effective updating of the AIP	Jul, 2005	-	F H O	No Corrective Action Plan submitted by the State	Syria	Dec, 2016	A
6	ANNEX 15: Para. 4.	-	Lack of consistency between the different Sections of the AIP containing the same information.	Jul, 2005	-	H	No Corrective Action Plan submitted by the State	Syria	Dec, 2016	A
7	ANNEX 15: Para. 3.6.5 ANNEX 15: Para. 3.6	-	Lack of AIS automation Lack of AIXM-based AIS Database	Jul, 2005	-	F H	No Corrective Action Plan submitted by the State	Syria	Dec, 2016	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial “H”= Human Resources “S”= State (Military/political) “O”= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
8	ANNEX 15: Para. 8.1	-	Non provision of pre-flight information service at international airports	Jul, 2005	-	F H	No Corrective Action Plan submitted by the State	Syria	Dec, 2016	A
9	ANNEX 15: Para. 10.1.3	-	Lack of the required Terrain Datasets for eTOD Area 1	May, 2014	-	O	No Corrective Action Plan submitted by the State	Syria	Dec, 2016	A
10	ANNEX 15: Para. 10.1.3	-	Lack of the required Obstacle Datasets for eTOD Area 1	May, 2014	-	O	No Corrective Action Plan submitted by the State	Syria	Dec, 2016	A

⁽¹⁾ Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIM Field

UAE

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

⁽¹⁾ Rationale for non-elimination: "F"= Financial

"H"= Human Resources

"S"= State (Military/political)

"O"= Other unknown causes

Deficiencies in the AIM Field

YEMEN

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action	
1	ANNEX 15: Para 6.	-	Lack of implementation of AIRAC System Lack of a system for AIRAC adherence monitoring	May, 1995	-	H O	No Corrective Action Plan submitted by the State	Yemen	Dec, 2016	A
2	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO1:1 000 000	May, 1995	-	F	No Corrective Action Plan submitted by the State	Yemen	Dec, 2016	B
3	ANNEX 15: Para. 3.7	-	Implementation of a Quality System	Jan, 2003	-	F	No Corrective Action Plan submitted by the State	Yemen	Dec, 2016	A
4	ANNEX 4: Para. 11.2	-	Non-production of Instrument Approach Chart-ICAO	Jan, 2003	Yemen has produced the Instrument Approach Chart- ICAO except for TAIZ Intl Airport	O	No Corrective Action Plan submitted by the State	Yemen	Dec, 2016	A
5	ANNEX 15: Para. 8.1	-	Non provision of pre-flight information service at international airports	Mar, 2004	-	F H	No Corrective Action Plan submitted by the State	Yemen	Dec, 2016	A
6	ANNEX 15: Para. 3.6.5 ANNEX 15: Para. 3.6	-	Lack of AIS automation Lack of AIXM-based AIS Database	Jul, 2005	-	F	No Corrective Action Plan submitted by the State	Yemen	Dec, 2016	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
7	ANNEX 15: Para. 10.1.3	-	Lack of the required Terrain Datasets for eTOD Area 1	May, 2014	-	O	No Corrective Action Plan submitted by the State	Yemen	Dec, 2016	A
8	ANNEX 15: Para. 10.1.3	-	Lack of the required Obstacle Datasets for eTOD Area 1	May, 2014	-	O	No Corrective Action Plan submitted by the State	Yemen	Dec, 2016	A

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

Note:* Priority for action to remedy a deficiency is based on the following safety assessments:

'U' priority = Urgent requirements having a direct impact on safety and requiring immediate corrective actions.

Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for air navigation safety.

'A' priority = Top priority requirements necessary for air navigation safety.

Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.

'B' priority = Intermediate requirements necessary for air navigation regularity and efficiency.

Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation regularity and efficiency.

Definition:

A deficiency is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation.

⁽¹⁾ Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

LIST OF PARTICIPANTS

NAME	TITLE & ADDRESS
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LEBANON Mr. Bassem Ali Nasser	Head of AIS Directorate General of Civil Aviation Beirut – LEBANON
Mr. Kamal Abdallah Nassereddine	Chief ATM Directorate General of Civil Aviation Beirut – LEBANON
OMAN Mr. Jaffer Abdul Amir Salman Moosani	Acting Chief AIS Public Authority for Civil Aviation Muscat, SULTANATE OF OMAN

NAME	TITLE & ADDRESS
Mr. Said Mussalam Altamimi	AIS Officer Public Authority for Civil Aviation Muscat, SULTANATE OF OMAN
SUDAN Mr. Hayder Mohamed Abdalla	AIM Director Sudan Civil Aviation Authority Khartoum - SUDAN
UNITED ARAB EMIRATES Mr. Abdalla Salim Al Rashidi	Director AIM General Civil Aviation Authority Abu Dhabi UNITED ARAB EMIRATES
ORGANIZATIONS IATA Mr. Jihad Faqir	Head of Safety & Flight Operations IATA, MENA Amman 11194, JORDAN
IFAIMA Mr. Ahmed Allam	IFAIMA MID Regional Director QATAR

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