INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE NINTH MEETING OF THE AIM SUB-GROUP (Virtual)

AIM SG/9 Virtual Meeting

(20 – 21 September 2022)

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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PART I - HISTORY OF THE MEETING

1. DURATION

1.1 The Ninth Meeting of the MIDANPIRG AIM Sub-Group (AIM SG/9) was successfully held virtually from 20 to 21 September 2022 from 9:00 to 11:30 UTC, using MS Teams.

2. OPENING

2.1 The meeting was opened by Mr. Abdalla Al Rashidi, Director AIM, GCAA, United Arab Emirates, who welcomed the participants and wished them a successful and fruitful meeting.

2.2 Mr. Mashhor Alblowi, Regional Officer Flight Safety, on behalf of Mr. Abubaker Farea, Mohamed, Regional Director Middle East Office, welcomed all participants to the AIM SG/9 meeting.

2.3 Mr. Mashhor Alblowi provided the meeting with an overview of the subjects that will be addressed during the meeting and highlighted the main expected outcomes.

2.4 Mr. Mashhor Alblowi commended the efforts being made by the AIM Forum go-team in achieving the aim of the NOTAM2021 campaign and to monitor progress. In addition to their effort is developing templates of GNSS NOTAM and conflict zones NOTAM and other considerable ongoing work.

2.5 Finally, Mr. Mashhor Alblowi thanked all participants for their attendance wishing them successful and productive meeting.

3. ATTENDANCE

3.1 The meeting was attended by a total of seventy-five (75) participants from fourteen (14) States (Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Syria, UAE and Yemen) and three (3) Organizations (IATA, IFATCA and ICAO). The list of participants is at **Attachment A.**

4. OFFICERS AND SECRETARIAT

4.1 The AIM SG/9 meeting was chaired by Mr. Abdalla Al Rashidi, Director AIM, GCAA, UAE. Mr. Radhouan Aissaoui, Regional Officer, Information Management was the Secretary of the meeting.

5. LANGUAGE

5.1 The discussions were conducted in English. Documentation was issued in English.

6. AGENDA

6.1 The following Agenda was adopted:

Agenda Item 1: Adoption of the Provisional Agenda and election of chairpersons

Agenda Item 2: Follow-up on DGCA-MID/5 and MIDANPIRG/19 Conclusions and Decisions relevant to AIM

Agenda Item 3: Global and Regional Developments related to AIM and SWIM

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

Agenda Item 5: Air Navigation Deficiencies

Agenda Item 6: Future Work Programme

Agenda Item 7: Any other Business

7. CONCLUSIONS AND DECISIONS – DEFINITION

7.1 The MIDANPIRG records its actions in the form of Conclusions and Decisions with the following significance:

a) **Conclusions** deal with matters that, according to the Group's terms of reference, merit directly the attention of States, or on which further action will be initiated by the Secretary in accordance with established procedures; and

b) **Decisions** relate solely to matters dealing with the internal working arrangements of the Group and its Sub-Groups

8. LIST OF CONCLUSIONS AND DECISIONS

DRAFT CONCLUSION 9/1: AIM TRAINING WEBINAR

DRAFT CONCLUSION 9/2: NOTAM TEMPLATE FOR GNSS INTERFERENCE

DRAFT CONCLUSION 9/3: NOTAM TEMPLATE TO DISSEMINATE INFORMATION RELATED TO RISKS TO CIVIL AVIATION OVER OR NEAR CONFLICT ZONES

DRAFT CONCLUSION 9/4: CCO-CDO PUBLICATION, CHARTING & DATABASE CODING

DRAFT DECISION 9/5: ESTABLISHMENT OF MID AIM FORUM

DRAFT CONCLUSION 9/6: MID REGIONAL IMPLEMENTATION PLAN FOR DIGITAL DATASETS

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA AND ELECTION OF CHAIRPERSONS

1.1 The subject was addressed in WP/1 presented by the Secretariat. The meeting reviewed and adopted the Agenda as at Para.6 of the History of the Meeting.

1.2 The meeting recalled that the AIM SG/6 meeting (Cairo, Egypt, 21 – 23 January 2020) unanimously elected Mr. Abdalla Al Rashdi, Director AIM, GCAA, UAE and Mr. Abdulla Hasan AlQadhi, Chief AIM and Airspace Planning, Civil Aviation Affairs, Bahrain, as the Chairperson and Vice-Chairperson of the AIM Sub-Group, respectively.

1.3 In accordance with the MIDANPIRG Procedural Handbook, Edition June 2022 (MID Doc 001), Part IV, Para. 6.2, the meeting unanimously agreed to extend the chairmanship of the Chairperson and Vice-Chairperson for three meetings.

REPORT ON AGENDA ITEM 2: FOLLOW-UP ON MIDANPIRG/19 CONCLUSIONS AN DECISIONS RELEVANT TO AIM

2.1 The subject was addressed in WP/2 presented by the Secretariat. The meeting noted the status of the MIDANPIRG/19 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 AND REGIONAL DEVELOPMENTS RELATED TO AIM AND SWIM

3.1 The subject was addressed in PPT/3, WP/6, WP/7, WP/8, PPT/9, WP/10, WP/11 and WP/12 presented by the Secretariat.

Global developments

3.2 The meeting was apprised of the activities of the Information Management Panel (IMP). It was noted that the IMP carries out its tasks through four working groups: WG-I (Information Architecture & Management), WG-S (Information Services under SWIM), WG-G (SWIM Governance) and WG-A (Aeronautical Information Management).

ICAO DOC 8126 – AIS MANUAL

3.3 The meeting noted the publication of the Seventh Edition, 2022 of Doc 8126 Aeronautical Information Services Manual available at ICAO-NET: https://portal.icao.int/icao-net/ICAO%20Documents/8126_cons_en.pdf

3.4 The meeting noted also that this manual has been revised to provide guidance for the successful implementation of AIM. It explains the provisions contained in Annex 15 and PANS-AIM, provides background information on certain specifications, helps illustrate their meaning and exemplifies means by which these specifications can be met. This manual is divided into four parts and its objective is to continue to provide guidance not only on legacy AIS processes, but also on new AIM practices, and to accommodate future developments within the context of SWIM. The target audience of this manual comprises AIS operational personnel, management bodies and regulatory authorities. The four parts are as follows:

a) Part I — Regulatory Framework for Aeronautical Information Services explains AIS responsibilities and functions and provides guidance for the organizational development of AIS including the transition to AIM;
b) Part II — Processing Aeronautical Data provides guidance for processing aeronautical data and aeronautical information while considering the operational provisions for the management of aeronautical information in a data-centric environment;
c) Part III — Aeronautical Information in a Standardized Presentation and Related Services provides guidance for aeronautical information to be distributed in a standardized presentation; and
d) Part IV — Digital Aeronautical Information Products and Related Services provides guidance for the distribution of digital products and services (under development).

ICAO DOC 9839 – QMS MANUAL

3.5 The meeting was apprised of the first Edition, 2022 of ICAO Doc 9839 QMS Manual as an unedited version (First Edition, 2022) that has been published on the ICAO portal (the document has not yet been approved in final form).

3.6 The meeting noted that the guidance material contained in the QMS manual has been developed to assist States in the planning and implementation of quality management system (QMS) for aeronautical information services (AIS) to fulfil the requirement in Annex 15 - Aeronautical Information Services for States to introduce QMS. The manual contains key elements to provide States with an understanding of the requirements for QMS. Its purpose is to support States in implementing and maintaining a QMS encompassing all functions of an AIS organization. The objective is to provide

the next intended users with the necessary assurance that the distributed aeronautical data and aeronautical information satisfy the pre-defined data quality requirements, which are contained in the Procedures for Air Navigation Services — Aeronautical Information Management (PANS-AIM, Doc 10066).

ICAO DOC 9991 – TRNG MANUAL

3.7 The meeting noted that the work on ICAO Doc 9991 AIS Training Manual has been completed. The Manual on the Aeronautical Information Services Training Manual is now available as an unedited version (the document has not yet been approved in final form).

3.8 The meeting noted also that this manual presents competency-based training and assessment (CBTA) methodology for AIS, which was first introduced with PANS-Training (Doc 9868) in 2016. It is planned to amend PANS Training, Part VI – Training and Assessment for other aviation personnel, to include the training requirements and procedures for AIS officers. References to the AIS training Manual will be added in the next editions of Annex 15 and PANS-AIM (Doc 10066). PANS - TRG (Doc 9868) will be amended to include in Part VI – Training and assessment for other aviation personnel, the competency - based training and assessment for aeronautical information services (AIS) personnel.

3.9 This manual is developed to provide AISPs with guidance on how to identify the competencies necessary for their environment and how to design the training and assessment needed for various AIS training phases. It contains guidance on generic instructional systems design, instructional techniques and guidance on administrative policies and procedures for training programmes. Organizations should ensure that their training programmes are aligned with the technical elements included in the guidance material. This will enable AIS technical personnel to effectively perform the functions required for the provision of aeronautical information services and products.

3.10 The meeting expressed the need for more guidance on how the aeronautical information services providers (AISPs) can use the ICAO competency framework to establish an adapted competency model that is appropriate for regulatory, operational, technical and organizational environments of AIS.

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

DRAFT CONCLUSION 9/1: AIM TRAINING WEBINAR

That, a Webinar on the new ICAO DOC 9991 – Training Manual and competency-based training and assessment (CBTA) methodology for AIS be organized in 2023.

DAIM ASBU AND BBB UPDATES

3.12 The meeting noted that the next review of the ICAO GANP is intended to be a minor one, i.e. version 6a, which is scheduled for applicability in 2022, after review at the 41st session of the ICAO Assembly. The review by the DAIM Thread Team resulted in some proposed changes listed in the tables below. To note, the changes to the BBBs were more substantial as the current version reflected a physical structure of an AIS from many decades ago and not the service-oriented approach required by Annex 15 and PANS-AIM today.

ELEMENT	DESCRIPTION	EDITS
DAIM-B1/1	Provision of quality-assured aeronautical data and	Description 1 and 2 can be deleted as QMS, WGS-84 and AIRAC are standards. Renumber 2 and 3.

	information	
DAIM-B1/7	NOTAM improvements	Add SWIM Dependencies as digital NOTAM can be provided as a SWIM information service similar to digital data set services: SWIM-B2/1 - Information service provision SWIM-B2/2 - Information service consumption
DAIM-B2/5	NOTAM replacement	Add SWIM Dependencies as replacement NOTAM system (ORIS) is intended to be provided as a SWIM information service: SWIM-B2/1 - Information service provision SWIM-B2/2 - Information service consumption

3.13 The meeting was advised that Version 7 of the GANP is planned to be a much broader review of the ASBU threads and their dependencies and is scheduled for applicability in 2025.

ICAO TRAINAIR Plus AIM Training Courses

3.14 The meeting was apprised of the ICAO TRAINAIR Plus new AIM Training Courses Aeronautical Information Quality Management (AIQM EN) and Data-Centric Aeronautical Information System Operations (AIS OPS) course targeting AIS Operational staff, Managers of an ANS or AIS provider, airport operator or CAA responsible and accountable for an organization involved in the aeronautical data chain and requiring competencies to deal with AIM issues.

3.15 The meeting noted that the Aeronautical Information Quality Management (AIQM EN) course will provide air navigation managers with the competencies to transition from a product-centric to a data-centric approach for aeronautical information services, supporting the digitization of the aeronautical data chain, as per Amendment 41 to Annex 15 and Doc 10066, PANS-AIM. The AIQM will be delivered virtually (online) or F2F over 2 Days / 16 Hours. After successful completion of the course, participants will be able to ensure quality of aeronautical data, within a data-centric environment in an AIS office.

3.16 The meeting noted also that Data-Centric Aeronautical Information System Operations (AIS OPS) course will provide AIS Operational staff with the competencies to achieve compliance with AIM requirements in a data-centric AIM, in accordance with Annex 15. The AIS OPS course will be delivered virtually (online) or F2F over 5 Days / 30 Hours. After successful completion of the course, participants will be able to:

- Describe the role of aeronautical information management in the ATM network;
- Engage in the transition from product-oriented AIS to data-centric AIM;
- Shorten their journey to achieve compliance with the AIM requirements and reduce the risk of non-compliance.

3.17 Interested in taking part in these courses were referred to ICAO GAT training website for registration at https://igat.icao.int/ated/TrainingCatalogue/Course/5640 and https://igat.icao.int/ated/TrainingCatalogue/Course/5639

Regional developments

NOTAM Template on GNSS interference

3.18 The meeting recalled that GNSS/GPS Interference was published in 10th MID Annual Safety Report (2021) as one of the emerging safety risks in ICAO MID region and that the RASG-MID released the guidance material to GNSS vulnerabilities to mitigate the safety and operational impact of GNSS service disruption. The guidance recommends pilots to report GNSS interference and ANSP to issue appropriate advisories and NOTAM.

3.19 The meeting noted that a huge number of outage events were reported by pilots in 2021. NOTAM had been issued by Member States' NOFs for the purposes of reporting GNSS service status notification. Furthermore, the promulgated NOTAM related to GNSS had various Q codes and terminologies (GPS unreliable, GPS Signal interference, GPS Jamming, Loss of GPS Signal, etc.,) making it difficult for operators to filter and search through the NOTAM and hence, the MIDANPIRG/19 meeting tasked the AIM SG in coordination with IATA to develop a standard NOTAM template to be used for GNSS Interference and to be attached to the RSA-14.

3.20 The meeting reviewed the proposed GNSS RFI NOTAM template as developed by the AIM Forum go-team.

3.21 To facilitate operators in filtering and searching through the NOTAM on GNSS Interference, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 9/2: NOTAM TEMPLATE FOR GNSS INTERFERENCE

*That, the NOTAM template at **Appendix 3A** be used to disseminate information on GNSS Interference.*

NOTAM Template to Disseminate Information Related to Risks to Civil Aviation over or near Conflict Zones

3.22 The meeting recalled that the MID Region Safety Strategy is included in MID-RASP 2020-2022 Edition, which identified Safety Enhancement Initiatives (SEIs) mapped to the Strategy including their respective actions; and in order to address organizational challenges/issues, regional operational risks, and emerging risks, 16 SEIs and 51 actions have been included in the MID-RASP.

3.23 The meeting noted that Action 4 of the G2-SEI-06 related to the Impact of security on safety tasked the AIM SG to develop a standard NOTAM text template to be used to share threats information emanated from conflict zones within State’s airspace to be presented for review to the SEIG/4 scheduled to held during period 23-25 Oct 2022, and further included in the MID-RASP 2023-2025 Edition.

3.24 The meeting reviewed the proposed NOTAM template to be used to disseminate Conflict Zone Information developed by the AIM Forum go-team.

3.25 In line with the above and to support the regional effort for exchange and promulgation of information regarding the nature and extent of threats arising from the conflict and its consequences for civil aviation, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 9/3: NOTAM TEMPLATE TO DISSEMINATE INFORMATION RELATED TO RISKS TO CIVIL AVIATION OVER OR NEAR CONFLICT ZONES

*That, the NOTAM template at **Appendix 3B** be used to disseminate information related to risks to civil aviation over or near conflict zones including the nature and extent of threats arising from the conflict and its consequences for civil aviation.*

CCO CDO Publication and Charting Template

3.26 The meeting recalled that the Middle East Air Navigation Planning and Implementation Regional Group MIDANPIRG/19 (Riyadh, Saudi Arabia, 14 – 17 February 2022) recognized the need for a harmonized AIP content related to CCO/CDO to ensure that identified good practices are shared and that Flight Crew / Flight Planners know where CCO/CDO-related text may be found in an AIP. Accordingly, the meeting agreed through MIDANPIRG Decision 19/11, to establish the CCO/CDO Ad Hoc Working Group tasked to develop guidance related to the publication of CCO/CDO information (text and Charts) in the AIP, in coordination with the relevant MIDANPIRG and RASG MID subsidiary bodies

3.27 The Ad-hoc Working Group has developed a proposal for harmonised AIP location (ENR1.5 for high level content and AD2.21 / 2.22 for Airport specific content), structure and content, and database coding as per ICAO Doc8168 PANS-OPS, Volume II, Part III, Section 2, and Chapter 5 and based on the work undertaken by the European CCO/CDO Task Force.

3.28 The meeting reviewed the proposed harmonized location, structure and content of CCO/CDO material in the AIP along with charting and database coding.

3.29 Based on the foregoing, and in order to provide ANSPs and Aerodrome Operators with guidance on where to publish, what content to publish and the requisite information for airspace users to enable the further implementation of CCO/CDO in airspace under their jurisdiction, the meeting agreed to the following Draft Conclusion:

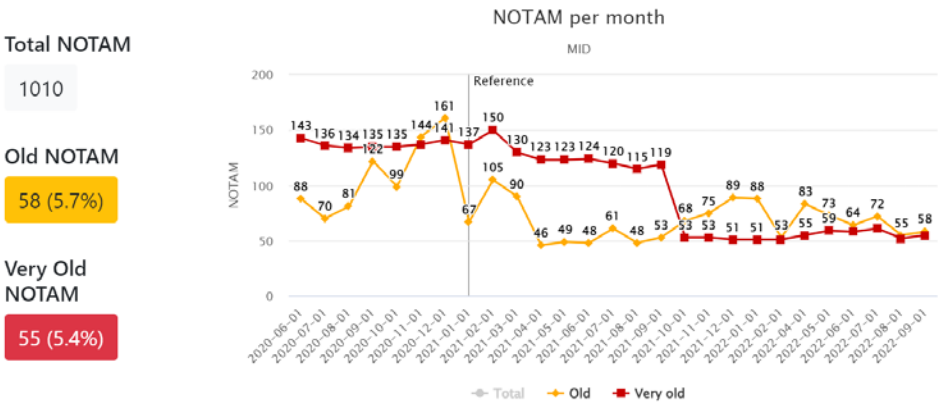
DRAFT CONCLUSION 9/4: CCO/CDO PUBLICATION, CHARTING & DATABASE CODING

*That, the AIP CCO/CDO material, structure and content along with the Database coding at **Appendix 3C** are recommended for the dissemination of information on CCO/CDO.*

NOTAM statistics and Improvements

3.30 The Meeting recalled that, ICAO launched the Global Campaign on NOTAM Improvement (NOTAM2021) on 8 April 2021. The campaign aims to reduce the number of old and very old NOTAM and enhance the effectiveness, usefulness, and reliability of NOTAM globally. To support States in achieving the aim of the NOTAM2021 campaign and to monitor progress, the web-based NOTAMeter tool has been rolled out by ICAO to keep track of the campaign's progress. The tool is available for public use at: https://www.icao.int/safety/iStars/Pages/Notameter.aspx

3.31 The meeting noted that for the MID Region, as of 1st September 2022 among the 1010 active NOTAM, 113 only are old and very old NOTAM representing 11.1%. A reduction of non-compliant NOTAM from 22.7% in 2020 to 11.1% in 2022.



3.32 The meeting commended the progress made by all States since the launch of the NOTAM campaign towards joint efforts to address NOTAM proliferation, in particular Qatar, Iraq, Oman and Libya (4 States with zero old or very old NOTAM).

3.33 The meeting recalled that ICAO MID had set up KPI mechanism to monitor old PERM NOTAM and reduce such old NOTAM by transferring to the appropriate publication or cancelling obsolete NOTAM.
− For KPI #1 PERM NOTAM issued prior to start of the year to be reduced by 30% by year end.
− For KPI #2 List PERM NOTAM issued valid for more than 6 AIRAC cycles or months.

3.34 The Meeting was presented with the results of the established KPIs based on ICAO NOTAMeter data.

KPI #1 PERM NOTAM issued prior to start of the year to be reduced by 30% by year end.

Baseline Date	No. of PERM A NOTAM	Target Date	Reduction Target
01-Jan-2022	187	31-Dec-2022	30%

Evaluation Date	No. of baseline NOTAM still valid	Reduction
01-Apr-2022	118	37%
01-Jun-2022	79	58%
01-Sep-2022	57	70%

For KPI #2 List PERM NOTAM issued valid for more than 6 AIRAC cycles or months.

International PERM NOTAM monitoring			Crossed Target	Within Target
Target to include in IAIP	**6**	AIRAC cycles/months	130	228
			36.31%	63.69%

3.35 The meeting noted the good progress in reducing the PERM NOTAM, exceeding the set target in the reduction percentage for the MID Region, however the progress on KPI #2 is slow as a number of PERM NOTAM have crossed the target period for inclusion or cancellation.

3.36 A concern was raised with regards the percentage of QXXXX NOTAM published during 2022 compared to the number of total NOTAM published during the same period. States were encouraged to avoid or reduce the use of QXXXX Q-codes and issue NOTAM with the most appropriate Q-codes to help in efficient retrieval of NOTAM in the PIB.

3.37 The meeting noted the outcome of the NOTAM campaign and the list of recommendations for States to continue in their efforts towards improving the quality of NOTAM (SL Ref.: AN 2/2 – 22/51 dated 12 May 2022. The recommendations include :

- Quality management and automation:
  a) once implemented as per Annex 15, 3.6.1, an aeronautical information service (AIS) quality management system (QMS) must be effective in identification and resolution of deficiencies of AIS products, including NOTAM. Verification and validation procedures shall be introduced to ensure the quality requirements of NOTAM are met;
  b) systematic reviews (routine manual check or automatic checks by NOTAM systems) should be established to continuously monitor and identify NOTAM passing their validity; and
  c) enhancement of NOTAM system (AIS database) would significantly improve monitoring of NOTAM and compliance with SARPs (validity, format, syntax, etc.).

- Safety oversight: States safety oversight system should include NOTAM reviews to ensure that NOTAM are issued in compliance with Annex 15 and Procedures for Air Navigation Services — Aeronautical Information Management (PANS-AIM) (Doc 10066).

- Training: AIS and International NOTAM Office (NOF) personnel shall be appropriately trained on a continuous basis in accordance with the competencies and knowledge required to perform their functions.

- Coordination with data originators:
  a) mature, well-understood and mutually agreed formal arrangements with data originators (aerodromes, air navigation service providers, military, etc.) shall be established (Annex 15, 2.1.5);
  b) formal arrangements must be supported and signed by the management of the data originators;
  c) awareness campaigns and coordination meetings (e.g., annual or bi-annual) must be held regularly with data originators; and
  d) development of NOTAM origination guidance is recommended to enhance originators' awareness and knowledge.

- Adherence to SARPs:
  a) use of NOTAM shall be limited to information of short duration and temporary nature, as per Annex 15, 6.3.2.2. Proper coordination with the data originator is necessary to terminate NOTAM in due time;
  b) information of a lasting character must be published via amendments to the Aeronautical Information Publication (AIP) (Aeronautical information regulation and control (AIRAC), regular), particularly information that is operationally significant;
  c) information that shall be distributed under AIRAC, as described in Annex 15, 6.2.1, must not be published by NOTAM;

d) NOTAM shall be limited to the type of information prescribed in Annex 15, 6.3.2.3;
e) NOTAM shall not be issued for the situations prescribed in Annex 15, 6.3.2.4;
f) issuing NOTAM for the following purposes must be avoided: protection from legal liability, political reasons, re-notification of information already published in the AIP (for emphasis), notification of information requiring AIRAC amendment, etc.;
g) NOTAM text should easily be understandable by the users (e.g., pilots, air traffic control) by making use of standard terminology and abbreviations;
h) information in the NOTAM should be self-contained and avoid referencing external information, e.g., AIP pages;
i) AIP amendments should be published with sufficient frequency to ensure that NOTAM are not used to publish permanent (PERM) information;
j) if a PERM NOTAM has been issued, it must be transferred to the appropriate publication without delay. Upon its publication, the NOTAM must be cancelled immediately on the AIP amendment publication/effective date (see Doc 8126, Part III, 6.3.7.2);
k) any NOTAM with an estimated (EST) end time, must be cancelled or replaced before the date-time specified to avoid promulgating the NOTAM for an indefinite period (see Doc 8126, Part III, 6.3.7.3);
l) AIRAC provisions must be adhered to when publishing operationally significant information;
m) AIP supplement should not be considered as a replacement for NOTAM, as far as practicable. Intended use of AIP supplement as described in Annex 15 and Procedures for Air Navigation Services — Aeronautical Information Management (PANS-AIM) (Doc 10066) must be taken into consideration; and
n) repetitive NOTAM replacement is against its initial intent (short duration/temporary in nature). A NOTAM must be issued for a maximum of three months validity and be replaced only for one more term (additional three months), if needed (see Doc 10066, 6.1.4.6).

3.38 States were urged to adhere to the State letter AN 2/2 – 22/51 recommendations and the meeting invited States requiring assistance to make their need known to the AIM Forum go-team through the ICAO MID Regional Office.

AI Quality & OPADD

3.39 The meeting noted that following an analysis of the published NOTAM from across the MID Region has shown many examples of the same or similar conditions and subjects being published in several different ways resulting in inconsistency impacting on the quality of aeronautical information.

3.40 Some examples of the same or similar subjects/conditions published by various regional NOTAM offices were presented.

3.41 Multiple interpretations and application of the ICAO Standards and Recommended Practices (SARPS) challenges several of the quality attributes particularly accuracy, format, resolution, traceability, reliability, consistency and predictability which results in poor quality aeronautical data.

3.42 In this context, and in view of the foregoing, the meeting encouraged States to use EUROCONTROL Guidelines for Operating Procedures for AIS Dynamic Data (OPADD), as complementary to the ICAO Standards and Recommended Practices (SARPs) defined in Annex 15 to the International Convention on Civil Aviation, Procedures for Air Navigation – Aeronautical Information Management (Doc 10066 – PANS-AIM) and in the Aeronautical Information Services Manual (Doc 8126).

3.43 The latest version of the OPADD can be downloaded from the Eurocontrol website (https://www.eurocontrol.int/publication/eurocontrol-guidelines-operating-procedures-ais-dynamic-data-opadd)

MID AIM Forum

3.44 The meeting recalled that under the MID RPTF Work Stream #4 the MID AIM Forum was created to allow for collaborative engagement on aeronautical information matters pertaining to the COVID restrictions and recovery. The MID RPFT work Stream #4 has since completed its mandate and been frozen.

3.45 It was recognized that high quality Aeronautical Information is dependant on the cooperation and collaboration of data originators and data publishers to meet the data users' needs.

3.46 Based on the above, and given the need for collaborative discussion and engagement on aeronautical information in MID Region, the meeting agreed to the following Draft Decision:

DRAFT DECISION 9/5: ESTABLISHMENT OF MID AIM FORUM

That, MID AIM Forum:

a) be established to improve collaboration aiming at improving the Quality of Aeronautical Information through identifying and addressing the availability, consistency and accuracy of published aeronautical information and sharing of best practices and challenges in the MID region;

b) be composed of:
- *IATA, ICAO, IFAIMA and CANSO,*
- *MID States (CAA and ANSP),*
- *Data users*
- *Organizations, with interests in MID aeronautical information/data and who provide subject matter experts as may be required, such as, but not limited to ACI, Eurocontrol / Group EAD, IFALPA, IFATCA and IFATSEA*

REPORT ON AGENDA ITEM 4: AIM PLANNING AND IMPLEMENTATION IN THE MID REGION

MID Region AIM Implementation Roadmap

4.1 The subject was addressed in WP/4 presented by the Secretariat.

4.2 The meeting recalled that the MIDANPIRG/18 endorsed the MID Region AIM Implementation Roadmap through Conclusion 18/19 and considering the major changes of the MID Region AIM Implementation Roadmap, urged States to provide the ICAO MID Office with their updated National AIM Implementation Roadmap, using a standard Template.

4.3 The meeting noted that all MID States provided their National AIM Implementation Roadmap except Syria and Yemen. The meeting urged those States to submit their National AIM Implementation Roadmap without delay and tasked the secretariat to assist Syria and Yemen to develop their National AIM Implementation Roadmaps.

4.4 The meeting noted also that Lebanon and Iraq submitted their National AIM Implementation Roadmaps.

4.5 In addition, Egypt, Kuwait, Libya, Oman, Qatar, Saudi Arabia, Sudan and UAE provided updates to their National AIM Implementation Roadmaps.

4.6 The meeting reviewed the Regional AIM Roadmap and highlighted the need to update the current roadmap from AIS to AIM to a roadmap for the transition from aeronautical information services (AIS) to a data-centric Aeronautical Information Management (AIM) environment upon the direction given in latest ICAO plans and provisions including the Doc 9750 (GANP).

4.7 The meeting noted that work is under way to update the Roadmap for the Transition from AIS to Digital AIM, which will be available in 2023.

ASBU Thread DAIM Implementation Monitoring

4.8 The subject was addressed in WP/5 presented by the Secretariat.

4.9 The meeting recalled that the MIDANPIRG/19 meeting reviewed and, through MIDANPIRG Conclusion 19/5, endorsed the Web-based MID Air Navigation Report (2021). The link to the web-based report 2021 can be accessed at https://www.icao.int/MIDANReport/Pages/default.aspx

4.10 The meeting noted that the MIDANPIRG/19 through Conclusion 19/6 urged States to provide the ICAO MID Office with relevant data necessary for the development of the MID Region Air Navigation Report (2022) (Status of ASBU Implementation), by 1 December 2022.

MID eANP Volume III

4.11 The meeting reviewed the status of AIM implementation in MID Region and based on the info provided by States updated the MID eANP Volume III (DAIM Tables), as at **Appendix 4A**.

4.12 The meeting noted that discrepancies between different sources (AN Report, surveys and eANP volume III) were identified in relation to the status of AIM implementation in MID Region. The meeting recalled that, the Regional Air Navigation Plan formally commits ICAO member States and in this context, any updates should be closely coordinated with the national aviation authorities.

Digital Data set implementation

4.13 The subject was addressed in WP/13 presented by the Secretariat on behalf of the Digital Datasets Implementation Ad-hoc Working Group (DDI Ad-hoc WG).

4.14 The meeting recalled that the MIDANPIRG/18 meeting through Decision 18/17, tasked the Digital Datasets Ad-hoc Working Group (DDI Ad-hoc WG) to develop a detailed Regional Implementation Plan for Digital Datasets and update the MID Doc 008, for review by the AIM SG.

4.15 The MIDANPIRG/19 meeting was apprised of the progress achieved by the DDI Ad-hoc WG in the development of a detailed Regional Implementation Plan for Digital Datasets and noted that a questionnaire is being developed concerning the intentions and plans of the Member States for the provision of the Digital AIS Data Sets specified in the Annex 15 (16th Edition) to ensure a coordinated deployment of the Digital AIS Data Sets in the MID Region. Furthermore and in order to give the chance to airspace users to reaching the technical capability for handling digital datasets and to evaluate their readiness for using digital datasets instead of AIP tables, the survey results of the European AIS clients and their readiness for using digital datasets instead of AIP tables, will be used to make best use of available resources and avoid duplication of efforts.

4.16 The meeting noted that a State letter was issued Ref.: AN 8/2 – 22/055 dated 29 March 2022 inviting States to complete a Questionnaire on their Plan for the provision of the AIS digital data sets and based on the results of the survey, the expert working group has been working on a detailed Regional Implementation Plan for Digital Datasets.

4.17 Based on results from the survey of MID Member States for the provision of the Digital AIS Data Sets specified in the Annex 15 (16th Edition) and as per the survey results of the European AIS clients and their readiness for using digital datasets instead of AIP tables, the meeting agreed on timelines for provision of the Digital Datasets provided in the table below:

Data set category	Scope	Format	Coding Specification	Provision date	Transition Period for Removal of tables from AIP
AIP data set	GEN 2.5, ENR 2.1, ENR 3.1, ENR 3.2, ENR 3.3, ENR 3.4, ENR 4.1, ENR 4.2, ENR 4.4, ENR 4.5, ENR 5.1, ENR 5.2, ENR 5.3.1, ENR 5.3.2, ENR 5.5, AD 2.17, AD 2.19, AD 3.16, AD 3.18	AIXM 5.1/5.1.1	EUROCONTROL Specification on AIP Dataset https://ext.eurocontrol.int/aixm_confluence/display/ACGAIP/Overview	2025 - 2028	5 years from the provision date of the AIP data set
Obstacle data set	Area 1: the entire territory of a State Areas 4, 2a + TKOF flight path + OLS for aerodromes regularly used by international civil aviation	AIXM 5.1/5.1.1	AIXM coding guidelines for obstacle data sets. https://ext.eurocontrol.int/aixm_confluence/	2022	5 years from the provision date of the AIP data set
	Areas 2b, 2c , 2d and 3 For aerodromes regularly used by international civil aviation			2024-2026	
Terrain data set	Area 1: the entire territory of a State	GeoTIFFor ESRI	-	2022	Not applicable

Data set category	Scope	Format	Coding Specification	Provision date	Transition Period for Removal of tables from AIP
	Areas 4, 2a + TKOF flight path + OLS for aerodromes regularly used by international civil aviation	ASCII Grid			
	Areas 2b, 2c , 2d and 3 For aerodromes regularly used by international civil aviation			2024-2026	
Aerodrome mapping data set	For aerodromes regularly used by international civil aviation	AIXM 5.1.1 and/or AMXM	TBD	2024-2026	Not applicable
IFP data set	a) procedure (all properties); b) procedure segment (all properties); c) final approach segment (all properties); d) procedure fix (all properties); e) procedure holding (all properties); and f) helicopter procedure (all properties) and the data publication requirements contained in PANS-OPS, Doc 8168, Volume II	AIXM 5.2	TBD	From 2025 to 2028	5 years from the provision date of the AIP data set

4.18 The meeting noted that the first draft of the Regional Implementation Plan for Digital Datasets is approaching finalisation and will be presented to the MID Members States at the end of December 2022 for their review.

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

DRAFT CONCLUSION 9/6: MID REGIONAL IMPLEMENTATION PLAN FOR DIGITAL DATASETS

That,

a) the DDI Ad-hoc WG complete the *Regional Implementation Plan for Digital Datasets by 31 December 2022;*
b) the Regional Implementation Plan for Digital Datasets be circulated to Member States for review; and
c) the Regional Implementation Plan for Digital Datasets be consolidated and presented to MIDANPIRG/20 for endorsement.

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

5.1 The subject was addressed in WP/14 presented by the Secretariat. The meeting recalled that, the MIDANPIRG/17 urged States to 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. It was underlined that a deficiency would be eliminated only when a State submit a formal Letter to the ICAO MID Office containing the evidence(s) that mitigation measures have been implemented for the elimination of this deficiency.

5.2 The meeting noted that total number of AIM deficiencies, endorsed by the MIDANPIRG/19, is fifty (50); forty-four (44) priority "A" and six (6) priority "B". Twenty-four (24) deficiencies related to TOD (based on the agreement to include new deficiencies related to the non-provision of TOD for Area 2a/TOFP and OLS); five (5) related to QMS; five (5) related to AIXM; six (6) related to WAC; three (3) related to pre-flight information services; two (2) related to AIP and aeronautical charts; three (3) related to AIRAC adherence; and two (2) related to WGS-84.

5.3 The meeting reviewed the list of deficiencies in the AIM field. The meeting noted with appreciation that Oman has implemented a QMS in AIS, UAE has effectively implemented the obstacle and terrain data sets for areas 2a, 2b, 2c and 2d, at all international aerodrome within the United Arab Emirates and Libya has implemented a system for AIRAC adherence.

5.4 The list of deficiencies in the AIM field as updated by the meeting is at **Appendix 5A**.

5.5 The meeting noted that the MIDANPIRG/19 meeting discussed the proposal of the ASPIG/3 meeting concerning a MID Air Navigation Deficiencies Management Process (MID AND-MP) as at **Appendix 5B** and agreed that all MIDANPIRG Sub-Groups need to study the proposal and provide their feedback in order for the ICAO MID Office to provide the MIDANPIRG/20 meeting with a consolidated proposal on the subject.

5.6 The meeting agreed that States should review the proposed MID Air Navigation Deficiencies Management Process (MID AND-MP) and report their recommendations to the secretariat. AIM SG Chairman and the Secretariat will review and study the recommendations and consolidate a proposal on the subject.

REPORT ON AGENDA ITEM 6: FUTURE WORK PROGRAMME

6.1 The subject was addressed in WP/15 presented by the Secretariat.

6.2 The meeting reviewed the AIM SG Terms of References (TORs) as at **Appendix 6A** and agreed that they are still valid and current.

6.3 Taking into consideration, the planned ICAO MID Regional events, which are of relevance to the activity of the AIM Sub-Group, in particular the Interregional AIM/SWIM Seminar/Workshop in 2023 and Global AIM 2023 (23-25 May 2023) in Cairo, it was agreed that the AIM SG/10 meeting be held, virtually, during the fourth quarter of 2023.

REPORT ON AGENDA ITEM 7: ANY OTHER BUSINESS

MID FPP Programme

7.1 The meeting noted the information provided by the MID FPP Manager Mr. Onitiu, Sorin-Dan, in his presentation on MID FPP programme and activities. It was recalled that the MID FPP Programme is governed by the Steering Committee (MID FPP SC), in accordance with its Terms of Reference contained in the ProDoc. The MID FPP has officially started operations on 17 January 2022 with the appointment of the MID FPP Manager who has initially assumed his duties remotely and arrived in Abu Dhabi, UAE, to report physically on duty in the MID FPP premises starting 17 May 2022.

7.2 The meeting noted also that the First meeting of the MID FPP Steering Committee (MID FPP SC/1) was held virtually on 26 and 27 January 2022 and the Second meeting of the MID FPP Steering Committee (MID FPP SC/2) was kindly hosted by the UAE from 15 to 16 June 2022 at the General Civil Aviation Authority (GCAA) premises in Sheikh Zayed Air Navigation Centre, Abu Dhabi. The inaugural ceremony of the MID FPP took place on 15 June 2022.

7.3 It was highlighted that the training package proposed by MID FPP has two-folded purpose (1) PANS OPS package for States developing basic & PBN procedure design capabilities and (2) providing to procedure design experts fundamental ARINC 424, Path and Termination (P/T) knowledge and its requirements interaction with design and charting.

7.4 The meeting invited member States to make their needs known to ICAO MID and MID FPP if they require IFPD project assistance or Staff training in PANS-OPS and PBN.

Provision of AIP/eAIP to ICAO MID Office

7.5 The meeting invited member States to continue to provide the MID Office of ICAO with Aeronautical Information Publications (eAIP, eAIP amendments, and supplements etc) in electronic format, or preferably granting the ICAO MID Office with the necessary access rights to avail of Aeronautical Information publication via internet, from the Aeronautical Information Service website.

MID Region AIM Focal points

7.6 Following a request by Jordan to share the contact details of the MID States AIM Focal Points, the meeting asked the secretariat to make available the list of AIM FPs.

7.7 The list of MID Region AIM FPs is attached to the report as **Appendix 7A**.

APPENDICES

APPENDIX 2A

FOLLOW-UP ACTION PLAN ON MIDANPIRG/17, 18 AND 19 CONCLUSIONS & DECISIONS

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 17/14	**INTERREGIONAL WORKSHOP/SEMINAR ON AIM/SWIM** That, an Interregional Workshop/Seminar on AIM/SWIM be organized in 2020-2021.	To review the latest developments related to AIM/SWIM	Workshop/ Seminar	ICAO	2023	**Ongoing** Planned for 2023 back to back with Global AIM 2023 (23-25May) in Egypt
D. 18/17	**DIGITAL DATASETS IMPLEMENTATION AD-HOC WORKING GROUP (DDI-AD-HOC WG)** That, the Digital Datasets Ad-hoc Working Group (DDI Ad-hoc WG): a) is tasked to develop a detailed Regional Implementation Plan for Digital Datasets and update the MID Doc 008, for review by the AIM SG; and b) be composed of: Abdulla Hasan AlQadhi (Bahrain), Moataz Abdel Aziz Ahmed (Egypt), Rouhalah Salehi (Iran), Mohammad Hussien Al Anezi (Kuwait), Bassem Ali Nasser (Lebanon), Faisal Al Busaidi (Oman), Pamela Erice (Qatar), Hind A.Almohaimeed (Saudi Arabia), Hamed Al Zubaidi and Syed Samiullah (UAE) ; and ICAO MID Office.	Development of a Regional Implementation Plan for Digital Datasets Update the MID Doc 008 - Guidance for AIM Planning and Impl in MID	Regional Digital Datasets Implementation Plan; and MID Doc 008 - Guidance for AIM Planning and Impl in MID	MIDANPIRG/20	Dec. 2022	**Ongoing** Outcome of the DDI Ad-hoc WG is provided at WP13
C. 18/8	**MIDANPIRG CART IMPLEMENTATION "PLAN OF ACTIONS"** That, in order to ensure States' ANS and related services provisions continuity and the preparedness for the recovery phases: a) the MIDANPIRG CART Implementation "Plan of Actions" at Appendix 5.1A is endorsed; and b) States, ANSPs, Airspace users, airport operators and all concerned stakeholders are urged to support the	Support States' ANS and related services provisions continuity, and the preparedness for the recovery phases				**Completed**

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
	implementation of the Plan of Actions at Appendix 5.1A, and exchange relevant operational data.					
C. 19/6	**WEB-BASED MID REGION AIR NAVIGATION REPORT - 2022** That, a) States be urged to provide the ICAO MID Office with: i) relevant data necessary for the development of the MID Region Air Navigation Report (2022) (Status of ASBU Implementation), by 1 December 2022; ii) the data necessary for the measurement of the KPIs (01, 02, 13 and 14) for the period June & July 2022, by the 1 October 2022; and b) the MID Air Navigation Report (2022) be presented to the MIDANPIRG/20 for endorsement.	Monitoring and Reporting of ASBU implementation in the MID Region	State Letter Data for WEB-BASED AN Report 2022 WEB-BASED AN Report 2022Air Navigation Report (2022)	ICAO States ICAO	Nov. 2022 Dec. 2022 Dec. 2022	**Ongoing**
C. 19/7	**UPDATED GUIDANCE FOR AIM PLANNING AND IMPLEMENTATION IN THE MID REGION (MID DOC 008)** That, the revised version of MID Doc 008 is endorsed.	Updated guidance and tools for AIM planning and implementation at the Regional and National levels	Guidance For AIM Planning and Implementation in the Mid Region (Mid Doc 008)	ICAO	May 2022	**Completed** Guidance For AIM Planning and Implementation in the Mid Region (Mid Doc 008) is posted on the ICAO MID website
C. 19/8	**MID REGION AIM DATABASE (MIDAD)** That: a) the ICAO MID Office and AIM SG continue to monitor the States' status of EAD migration and other related issues and provide regular updates to MIDANPIRG and DGCA MID	Stepwise approach for the implementation of Regional/Sub-	Status of migration to EAD	AIM SG	Continuous	**Ongoing** Only Jordan and Qatar migrated to EAD

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
	meetings; b) the activities of the MIDAD TF will not be resumed until the finalization of Phase A of the MIDAD Project (at least 7 States complete their migration to EAD); c) States are encouraged to develop their business case/cost-benefit analysis related to the transition from AIS to AIM, in accordance with the GANP 6th edition, MID Air Navigation Strategy and MID Region AIM Roadmap; d) States considering the migration to EAD as one of the options to support the transition from AIS to AIM/SWIM to engage directly with Eurocontrol (EAD) for the completion of the cost-benefit analysis; and e) States that have not yet established an automated AIM system are strongly encouraged to migrate to EAD.	Regional AIM Database		MIDAD TF	TBD	
C.19/9	**AIM CAPACITY-BUILDING ACTIVITIES IN 2022-2023** That, the following AIM-related workshops and webinars, be organized in 2022- 2023: a) transition from AIS to AIM Workshop (pending the issuance of the revised global roadmap); b) Workshop on Building Effective Safety Oversight of Aeronautical Information Services (AIS) and Aeronautical Information Management (AIM); and c) Webinar(s) on the provision of Terrain and Obstacle (TOD) and AIP Datasets.	Foster the transition from AIS to AIM and share knowledge and experience that will assist States in the effective transition from AIS to AIM	Workshops and webinars	ICAO	2022-2023	**Ongoing** Webinar on the provision of Terrain and Obstacle (TOD) and AIP Datasets successfully held on 19 May 2022.
D. 19/11	**ESTABLISHMENT OF CCO/CDO AD HOC WORKING GROUP** That, a CCO/CDO Ad Hoc Working Group: a) be established to develop guidance related to the publication of CCO/CDO information (text and Charts) in the AIP, in coordination with the relevant MIDANPIRG and RASG MID subsidiary bodies.	Support States' ANS to publish CCO/CDO information (text and Charts) so text	Guidance material related to the publication of CCO/CDO	CCO/CDO Ad Hoc Working Group	2022	**Ongoing**

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
	b) be composed of: — Chairpersons of the PBN SG*, AIM SG and ATM SG — Mrs. Sheila Brizo, (QCAA Qatar) — Mrs. Lindi-Lee Kirkman (IATA) — Mr. Muhammad Al Juhani (Saudi Arabia) — Secretariat	be easily found in the States AIPs	information (text and Charts)			

APPENDIX 3A

NOTAM TEMPLATE FOR GNSS INTERFERENCE

Item Q – Qualifier: the following qualifiers shall be mentioned in item Q:

Qualifier FIR: This Item shall contain the ICAO location indicator of the FIR within which the flights may be impacted by the RFI. If more than one FIR of the same country is impacted, the ICAO nationality letters of that country (e.g. OE) should be followed by 'XX'.

Qualifier NOTAM CODE: the following NOTAM code qualifiers (second and third letter) shall be used as appropriate for GNSS RFI event notification in the case of:

GNSS airfield specific operations – QGA [GNSS AIRFIELD]

GNSS area wide operations – QGW [GNSS AREA]

Followed by the appropriate fourth and fifth letters from the below list:

LF – interference from [INTERFERENCE FM]

AU – Not available (specify reason if appropriate) [NOT AVBL]

For cancellation NOTAM the following 4TH and 5th letters shall be used:

AK – Resumed normal operations [OKAY]

AL – Operative (or re-operative) subject to previously published limitations/conditions [OPR SUBJ PREVIOUS COND]

Qualifier TRAFFIC: the « IV » should be used as a traffic qualifier, indicating that both IFR and VFR traffic may be impacted by the RFI

Qualifier PURPOSE: the code NBO should be used to notify RFI events:

Qualifier SCOPE: Depending on the impacted area, one of the following codes should be used:

- A = if the event only impacts aerodrome(s) operations (used QGA)
- E = if the event only impacts en-route traffic (used QWA)
- AE = if the event impacts both Aerodrome and En-route traffic (used QWA)

Qualifier LOWER/UPPER: Depending on the jamming range and the traffic in the impacted area.

Qualifier GEOGRAPHICAL REFERENCE – Coordinates: this qualifier indicates the interference source coordinates. For NOTAM with 'Scope' 'A' the Aerodrome Reference Point (ARP) coordinates should be

inserted. For NOTAM with 'Scope' 'AE' or 'E' the centre of a circle whose radius encompasses the whole area of interference should be inserted.

Qualifier 'GEOGRAPHICAL REFERENCE' – Radius*: The radius of the impacted area should be inserted in this field.

Item A – Location

All FIR location indicators affected by the information should be entered in Item A), each separated by a space. In the case of a single FIR, the Item A) entry must be identical to the 'FIR' qualifier entered in Item Q). When an aerodrome indicator is given in Item A), it must be an aerodrome/heliport situated in the FIR entered in Item Q).

Item B – Start of Activity

A ten-digit date-time group giving the year, month, day, hour and minutes, at which the NOTAM comes into force, should be mentioned in Item B).

Item C – End of Validity

A ten-digit date-time group giving the year, month, day, hour and minute, at which the NOTAM ceases to be in force and becomes invalid, should be mentioned in Item C). This date and time should be later than that given in Item B).

Item E – NOTAM Text

The following standard text should be used according to Q-code:

QGAAU – GNSS NOT AVBL

QGWAU – GNSS NOT AVBL WITHIN: {specify route / geographical area (coordinates / waypoints)

or

QGALF – GNSS INTERFERANCE

QGWLF – GNSS INTERFERANCE WITHIN: specify route / geographical area (coordinates / waypoints)

When cancelling the NOTAM, the following standard text shall be used:

QGAAK or QGWAK – GNSS OKAY {when resuming normal operations}

QGAAL or QGWAK – GNSS OPR SUBJ PREVIOUS COND. {only to be used where conditions have been published}.

APPENDIX 3B

NOTAM TEMPLATE TO DISSIMINATE INFORMATION RELATED TO RISKS TO CIVIL AVIATION OVER OR NEAR CONFLICT ZONES

Item Q – Qualifier: the following qualifiers should be mentioned in item Q:

Qualifier FIR: This Item should contain the ICAO location indicator of the FIR within which the flights may be impacted.

Qualifier NOTAM CODE: the "QAFXX" should be used for conflict zone information.

Qualifier TRAFFIC: the « IV » should be used as a traffic qualifier, indicating that both IFR and VFR traffic are impacted

Qualifier PURPOSE: the code NBO should be used:

N = NOTAM selected for the immediate attention of flight crew members. Due to their importance, these NOTAM require the immediate attention of flight crew members. Flight crew members may request specific delivery of such NOTAM or their inclusion in specific Pre-flight Information Bulletins.

B = NOTAM of operational significance selected for PIB entry. The NOTAM will appear in a Pre-flight Information Bulletin containing all NOTAM relevant to a general Pre-flight Information Bulletin query. NOTAM qualified B, BO, or NBO will appear in the Pre-flight Information Bulletin.

O = NOTAM concerning flight operations. The NOTAM will appear in a PIB containing all relevant NOTAM. NOTAM with qualifiers BO or NBO will appear in the PIB.

Qualifier SCOPE: Navigation Warnings (W)

Qualifier LOWER/UPPER: Depending on the impacted area.

Qualifier GEOGRAPHICAL REFERENCE – Coordinates:

Item A – Location

The location indicators of FIR affected by the information should be entered in Item A

Item B – Start of Activity

A ten-digit date-time group giving the year, month, day, hour and minutes, at which the NOTAM comes into force, should be mentioned in Item B).

Item C – End of Validity

A ten-digit date-time group giving the year, month, day, hour and minute, at which the NOTAM ceases to be in force and becomes invalid, should be mentioned in Item C). This date and time should be later than that given in Item B).

Item E – NOTAM Text

SECURITY - HAZARDOUS SITUATION WI [State] / [name]FIR / AREA BOUND BY[coordinates/waypoints].

POTENTIAL RISK TO AVIATION FROM [REASON[1]]. FLIGHT OPERATIONS IN TO, OUT OF, WITHIN OR OVER THE DEFINED AREA ARE: RESTRICTED TO FLIGHTS AT OR ABOVE FLIGHT LEVEL [FL] WITH THE EXCEPTION[2] OF [ATS route designators] / PROHIBITED EXCEPT FOR [type of operations[3]]

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[1] Reason e.g. anti-aviation weaponry, military operations and armed conflicts
[2] Exceptions only included where applicable
[3] Types of operations e.g. military, humanitarian etc

APPENDIX 3C

CCO-CDO PUBLICATION, CHARTING & DATABASE CODING

Recommended AIP structure and content: ENR1.5

CCO/CDO application

- In every airport, where operationally feasible, RNAV SIDs and STARs will be published in order to facilitate CCO/CDO procedures. Where the publishing of CCO/CDO procedures is not available, CCO/CDO will be provided on a tactical basis wherever possible.

- Therefore, all aircraft are expected to fly a CCO/CDO profile to the extent possible. Compliance with CCO/CDO procedures is recommended provided they are compatible with ATC instructions and weather conditions are favourable.

- For more detailed information for each airport, see section 2.21 and 2.22 in the AD section of each aerodrome.

Recommended AIP structure and content: AD 2.21 / 2.22

Availability of published STAR procedures

- When the traffic situation permits and subject to ATC instructions, inbound aircraft are expected to fly a CDO profile during the hours of operation of each CDO arrival procedure to maintain as high an altitude as practical and adopt a low power, low drag, continuous descent approach profile.

- Outside of the published hours of operation and if the traffic situation allows, crews can ask specifically to perform CDO profiles and to maintain the speed as appropriate to facilitate the CDOs. This authorisation will be given whenever possible outside of those hours.

Published CDO arrival Procedures

- All published STARs can potentially be flown with a CDO profile, because STARs have mainly “at or above” altitude restrictions not forcing the aircraft to fly steady segments or to cross fixes at specified altitudes. Specified minimum procedure altitudes must be adhered unless cancelled by ATC.

- The crew shall comply with speed and altitude restrictions published or provided for the destination airport, unless specifically amended by ATC.

The above-proposed content should be considered an example with inclusion optional, depending on local needs and requirements. Figures are examples that can be tailored to specific ATM values depending upon local conditions.

Charting of Speed Constraint, Level Constraint and Distance-to-Go information

An example of Speed Constraint, Level Constraint and Distance-to-Go information chart depiction is provided at appendix 3A.

Note : Distance-to-Go (DTG) abbreviation should be added in the State AIP section GEN 2 with (*) to indicate that this Abbreviations is not contained in, PANS-ABC (Doc 8400).

Database Coding:

Continuous Climb Operations (CCO): Unless operational requirements dictate otherwise, procedures should use track to fix (TF) legs. Direct to fix (DF) and course to fix (CF) legs are also used to a more limited extent and may provide operational flexibility in situations where a TF leg does not meet operational requirements.

Continuous Descent Operations (CDO): Unless operational requirements dictate otherwise, the following database conventions should be used:

- Closed path CDO procedures: These procedures should be coded with track to fix (TF) legs and fly-by waypoints. STARs that terminate with a link to an instrument approach procedure should terminate at a fly-by waypoint. STARs that terminate with vector-based legs may be coded with fix to manual termination (FM) or heading to manual termination (VM) path terminators.

- Open path CDO procedures: After the Downwind termination waypoint (DTW) an FM path terminator should be coded. If ATC requires a defined path, a VM path terminator can be used instead.

Appendix 4A

DAIM Digital Aeronautical Information Management

In order to assist States in the planning for the transition from AIS to AIM in an expeditious manner, the following Tables, should be used:

1- **Table DAIM 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 (AIP, Terrain, Obstacles, AMDB, data-driven charting, etc.) for which the State is responsible. This Table will be used for the monitoring of the GANP and MID Region Air Navigation Strategy element DAIM-B1/1.

2- **Table DAIM 3-2** sets out the requirements for aeronautical data quality. It will be used for the monitoring of the GANP and MID Region Air Navigation Strategy element DAIM-B1/1.

3- **Table DAIM 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 GANP and MID Region Air Navigation Strategy element DAIM-B1/1.

4- **Table DAIM 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 GANP and MID Region Air Navigation Strategy elements DAIM-B1/3 and DAIM-B1/4.

5- **Table DAIM 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 GANP and MID Region Air Navigation Strategy elements DAIM-B1/3 and DAIM-B1/4.

6- **Table DAIM 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 GANP and MID Region Air Navigation Strategy elements DAIM-B1/3, DAIM-B1/4 and B1/5.

Table DAIM 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 (AIP, Terrain, Obstacles, AMDB, etc.). The minimum set of databases which should be integrated is defined in Annex 15.

Note 2 — The information related to the designation of the authoritative IAID should be published in the AIP (GEN 3.1)

3 Requirement for an IAID driven AIP production, shown by:
FI – Fully Implemented (eAIP: Text, Tables and Charts)
PI – Partially Implemented
NI – Not Implemented

Note 3 — AIP production includes, production of AIP, AIP Amendments and AIP Supplements

Note 4 — Charts' GIS-based database should be interoperable with AIP database

4 Requirement for an IAID driven NOTAM production, shown by:
FC – Fully Compliant
NC – Not Compliant

5 Requirement for an IAID driven SNOWTAM processing, shown by:
FI – Fully Implemented
NI – Not Implemented

6 Requirement for an IAID driven PIB production, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant

7 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

8 Requirement for ATS systems to be interoperable with the IAID, shown by:
FI – Fully Implemented

PI – Partially Implemented

NI – Not Implemented

9 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.

10 Remarks — additional information, including detail of "PC", "NC", "PI" and "NI", as appropriate.

TABLE DAIM-3-1

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

State	IAID	AIP	NOTAM	SNOWTAM	PIB	Procedure Design	ATS	Action Plan	Remarks
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
BAHARAIN	FI	FI	FC	FI	FC	FI	FI		**AIXM:** 5.1
EGYPT	FI	PI	FC	FI	FC	PI	PI		**AIXM:** 5.1 (by 2020) 3 and 7 by 2020
IRAN,	NI	NI	NC	NI	NC	NI	NI		**AIXM:** NI Separate semi-automated NOTAM/SNOWTAM system is operative
IRAQ	NI	NI	NC	NI	NC	NI	NI		**AIXM:** NI
JORDAN	FI	NI	FC	FI	FC	NI	NI	2021	**AIXM:** 4.5 (through EAD)
KUWAIT	NI	NI	FC	NI	PC	NI	NI		**AIXM:** NI (5.1 in progress)
LEBANON	NI	NI	NC	NI	NC	NI	NI		**AIXM:** 4.5
LIBYA	NI	NI	NC	NI	NC	NI	NI		**AIXM:** NI
OMAN	NI	NI	NC	NI	NC	NI	NI	Dec 2025	AIXM: NI (5.1 in Progress)
QATAR	FI	FI	FC	FI	FC	PI	NI	2023 – Procedure Design	**AIXM:** 5.1
SAUDI ARABIA	FI	FI	FC	PI	FC	FI	PI	AIXM 5.1: APR 2023	**AIXM:** 5.1 under implementation trial
SUDAN	FI	FI	FC	NI	FC	FI	FI		**AIXM:** 5.1
SYRIA	NI	NI	NC	NI	NC	NI	NI	No Action Plan	**AIXM:** NI
UAE	FI	FI	NC	NC	PC	PI	PI	PIB: AVBL at OMAA, OMDB, OMDW, OMFJ, other ADs ongoing; Procedure Design	**AIXM:** 5.1.1

State	IAID	AIP	NOTAM	SNOWTAM	PIB	Procedure Design	ATS	Action Plan	Remarks
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
								Available for OMDB and OMDW; ATS: ACC AVBL, ADs ongoing	
YEMEN	NI	NI	NC	NI	NC	NI	NI	No Action Plan	**AIXM:** NI

Table DAIM-3-2
Aeronautical Data Quality

EXPLANATION OF THE TABLE

Column:

1 Name of the State or territory.

2 Compliance with the requirement for implementation of QMS for Aeronautical Information Services including safety and security objectives, shown by:

FC – Fully compliant

NC – Not compliant

3 Compliance with the requirement for the establishment of formal arrangements with approved data originators concerning aeronautical data quality, shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

4 Implementation of digital data exchange with originators, shown by:

FI – Implemented

PI – Partially Implemented

NI – Not implemented

Note 1 — Information providing detail of "PI" and "NI" should be given in the Remarks column (percentage of implementation).

5 Compliance with the requirement for metadata, shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

6 Compliance with the requirements related to aeronautical data quality monitoring (accuracy, resolution, timeliness, completeness), shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

7 Compliance with the requirements related to aeronautical data integrity monitoring, shown by:

FC – Fully compliant

PC – Partially compliant

NC – Not compliant

8 Compliance with the requirements related to the AIRAC adherence, shown by:

FC – Fully compliant

NC – Not compliant

9 Action Plan — short description of the State's Action Plan with regard to aeronautical data quality requirements implementation, especially for items with a "PC", "PI", "NC" or "NI" status, including planned date(s) of full compliance, as appropriate.

10 Remarks — additional information, including detail of "PC", "NC", "PI" and "NI", as appropriate.

TABLE DAIM-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	FI	FC	FC	FC	FC		
EGYPT	FC	FC	PI	FC	PC	PC	FC	4, 6 and 7 by 2022	
IRAN,	FC	PC	NI	NC	FC	FC	FC		
IRAQ	NC	PC	NI	NC	NC	NC	FC		
JORDAN	FC	PC	NI	FC	FC	FC	FC	3, 4: 2021	
KUWAIT	FC	PC	NI	NC	NC	NC	FC		
LEBANON	NC	PC	NI	PC	PC	PC	FC		
LIBYA	NC	NC	NI	NC	NC	NC	NC	No Action Plan	
OMAN	FC	FC	NI	NC	PC	PC	FC	Dec 2025	
QATAR	FC	FC	PI	FC	FC	FC	FC	4: 2023	
SAUDI ARABIA	FC	FC	PI	FC	FC	FC	FC	(4) implemented for some of internal stakeholders. Completion by 2023	
SUDAN	FC	FC	PI	FC	FC	FC	FC	4: 2021	
SYRIA	NC	NC	NI	NC	NC	NC	NC	No Action Plan	
UAE	FC	FC	FI	FC	FC	FC	FC		
YEMEN	NC	NC	NI	PC	NC	NC	NC	No Action Plan	

Table DAIM-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 En-route 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 DAIM-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		
EGYPT	FC	FC	FC	FC		
IRAN	FC	FC	FC	FC		
IRAQ	FC	FC	FC	NC		
JORDAN	FC	FC	FC	FC		
KUWAIT	FC	FC	FC	FC		Last survey FEB 2015
LEBANON	FC	FC	FC	FC		
LIBYA	PC	PC	NC	NC	No Action Plan	
OMAN	FC	FC	FC	FC		
QATAR	FC	FC	FC	FC		Annual Validation/Survey
SAUDI ARABIA	FC	FC	FC	FC		
SUDAN	FC	FC	FC	FC		
SYRIA	FC	FC	FC	NC	No Action Plan	
UAE	FC	FC	FC	FC		
YEMEN	FC	FC	FC	FC		

Table DAIM-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 DAIM-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	NC	NC	Completion of area 4 (HECA & HESH): Dec. 2019	
IRAN	FC	FC	FC	FC		
IRAQ	NC	NC	NC	NC		
JORDAN	PC	PC	NC	NC	2021	
KUWAIT	FC	FC	FC	FC		
LEBANON	NC	N/A	NC	N/A	2 & 4: Q2-2019	
LIBYA	NC	N/A	NC	N/A		
OMAN	NC	N/A	NC	N/A	DEC 2023	
QATAR	FC	FC	FC	FC		
SAUDI ARABIA	FC	N/A	FC	N/A		
SUDAN	NC	N/A	NC	N/A	2021	
SYRIA	NC	N/A	NC	N/A	No Action Plan	
UAE	FC	FC	FC	FC		
YEMEN	NC	N/A	NC	N/A	No Action Plan	

Table DAIM-3-4-2

Provision of Terrain and Obstacle data sets for Area 2, the take-off flight path area (TOFP) and the obstacle limitation surfaces (OLS)

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 Terrain data sets for the take-off flight path area (TOFP), shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable

7 Compliance with requirement for the provision of Terrain data sets for the obstacle limitation surfaces (OLS) 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 2a, shown by:

FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant

9 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

10 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

11 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

12 Compliance with requirement for the provision of Obstacle data sets for the take-off flight path area (TOFP), shown by:

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

13 Compliance with requirement for the provision of Obstacle data sets for the obstacle limitation surfaces (OLS), shown by:

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

14 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.

15 Remarks— additional information, including detail of "PC", "PI" and "NC", "NI", as appropriate.

TABLE DAIM-3-4-2

Provision of Terrain and Obstacle data sets for Area 2, the take-off flight path area (TOFP) and the obstacle limitation surfaces (OLS)

State	Terrain data sets						Obstacle data sets						Action Plan	Remarks
	Area 2a	Area 2b	Area 2c	Area 2d	TOFP	OLS	Area 2a	Area 2b	Area 2c	Area 2d	TOFP	OLS		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
BAHARAIN	FC	NI	NI	NI	FI	FI	FC	FI	FI	FI	FI	FI		
EGYPT	PC	PI	PI	PI	NI	NI	NC	NI	NI	NI	NI	NI	To be completed by 2022	
IRAN,	FC	FI	FI	FI	NI	NI	FC	FI	FI	FI	NI	NI		
IRAQ	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	To be completed by 2024	
JORDAN	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	To be completed by 2022	Area 2a, 2b and 2c implemented for OJAI RWY 26R/08L
KUWAIT	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI		
LEBANON	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	To be completed by Dec 2021	
LIBYA	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	No Action Plan	
OMAN	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	DEC 2023	
QATAR	FC	FI	FI	FI	FI	FI	FC	FI	FI	FI	FI	FI		

SAUDI ARABIA	PC	PI	PI	PI	PI	PI	FC	FI	FI	FI	PI	PI	To be completed by 2023	Obstacle data sets for area 2a, TOFP and OLS are provided in: OERK, OEDF, OEMA OEJN 2023
SUDAN	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	2021	
SYRIA	NC	NI	NI	NI			NC	NI	NI	NI			No Action Plan	
UAE	FI	FI	FI	FI	FI	FI	FI	FI	FI	FI	FI	FI		Aeronautical surveys for e-TOD Area 2, 3 and 4 conducted, collected data reviewed, QA completed. Data available and maintained
YEMEN	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	No Action Plan	

Table DAIM-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 DAIM-3-4-3

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

State	Terrain data sets (Area 3)	Obstacle data sets (Area 3)	AMDB	Action Plan	Remarks
1	2	3	4	5	6
BAHARAIN	NI	FI	NI	To be completed by 2021	
EGYPT	NI	NI	NI	To be completed by 2022	
IRAN	FI	FI	NI	AMDB 2021	
IRAQ	NI	NI	NI		
JORDAN	PI	PI	NI		Area 3 implemented for OJAI RWY 26R/08L
KUWAIT	FI	FI	NI		
LEBANON	NI	NI	NI	Area 3: Q4-2019 AMDB: no plan	
LIBYA	NI	NI	NI	No Action Plan	
OMAN	NI	NI	NI	No Action Plan	
QATAR	FI	FI	FI	AMDB: 2021	
SAUDI ARABIA	PI	PI	NI	Area 3 2023 for OEJN AMDB: 2024	Obstacle area 3 are provided for: OERK, OEDF, OEMA OEJN : 2023 AMDB: 2024
SUDAN	NI	NI	NI	2021	
SYRIA	NI	NI	NI	No Action Plan	
UAE	FI	FI	NI	AMDB: completed by 2026	AMDB technical infrastructure (metadata, model) implemented in IAID, pending compatibility analysis AIXM 5.1 with revised

					AMDB model (RTCA DO-272D) when released.
YEMEN	NI	NI	NI	No Action Plan	

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APPENDIX 5A

Deficiencies in the AIM/MAP 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 : 5.3.3.4.3 5.3.3.4.5 5.3.3.4.10	-	Lack of provision of required obstacle data sets	May, 2014	-	O	Phase 1: Determine the required specification for Obstacles area 1 and 4 (1/1/2018 to 1/3/2018); Phase 2: provide the required specification to Consultancy office to determine the implementing entity (1/3/2018 to 1/3/2019); Phase 3: Determine the implementing entity and begin to produce new software for eTOD (1/03/2019 to 1/12/2019); Phase 4: finish the new software and begin to produce eTOD area 4 (from existing raw data from Cairo International Airport Company) (1/1/2020 to 1/6/2020); Phase 5 (in parallel with phase 4): begin to produce eTOD area 1 after get raw data (1/1/2020 to 31/12/2020) Terrain data sets are provided for Areas 1 and 4. Terrain data sets for area 2a, TOFP and OLS are not provided.	Egypt	Dec, ~~2022~~2023	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
2	ANNEX 15: Para. 5.3.3.3.2 5.3.3.3.3 5.3.3.3.8	-	Lack of provision of required terrain data sets	May, 2014	-	O	Phase 1: Determine the required specification for Obstacles area 1 and 4 (1/1/2018 to 1/3/2018); Phase 2: provide the required specification to Consultancy office to determine the implementing entity (1/3/2018 to 1/3/2019); Phase 3: Determine the implementing entity and begin to produce new software for eTOD (1/03/2019 to 1/12/2019); Phase 4: finish the new software and begin to produce eTOD area 4 (from existing raw data from Cairo International Airport Company) (1/1/2020 to 1/6/2020); Phase 5 (in parallel with phase 4): begin to produce eTOD area 1 after get raw data (1/1/2020 to 31/12/2020) Terrain data sets are provided for Areas 1 and 4. Terrain data sets for area 2a, TOFP and OLS are not provided.	Egypt	Dec, ~~2022~~2023	A

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

Deficiencies in the AIM/MAP 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 15: Para. 2.3.10 and 3.5.3	-	Lack of AIXM-based AIS Database	Dec, 2007	- Due to the international sanctions on Iran, purchas isn't possible.	O	Based on the Corrective action plan it's divided into two millstones, First; Setup up new software till DEC 2022, and Second Update the database by End of July 2024.~~Based on Corrective action plan it's divided on two millstone, First; Setup new software till July 2021, Second Update database by End of DEC2021~~	Iran	~~Dec, 2021~~2023 **July 2024**	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
2	ANNEX 15 : 5.3.3.3.2 5.3.3.3.3 5.3.3.3.8	-	Lack of provision of required terrain data sets	Jan, 2021	- Due to the international sanctions on Iran, purchas isn't possible.	O	~~Terrain data sets are available for Areas 1, 4 and 2a.~~ ~~Terrain data sets for TOFP and OLS are not provided~~. **Obstacle data sets are available for Areas 1, 4 and 2a. Obstacle data sets for TOFP and OLS are not provided.** **Based on Corrective action plan it's divided into two millstones, First; Setup new software till DEC 2022, Second Update the database by End of July 2024.**	Iran	~~Dec, 20212~~2022 **July 2024**	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
3	ANNEX 15 : 5.3.3.4.3 5.3.3.4.5 5.3.3.4.10	-	Lack of provision of required obstacle data sets	Jan, 2021	- Due to the international sanctions on Iran, purchas isn't possible.	O	~~Obstacle data sets are available for Areas 1, 4 and 2a.~~ ~~Obstacle data sets for TOFP and OLS are not provided.~~ Terrain data sets are available for Areas 1, 4 and 2a. Terrain data sets for TOFP and OLS are not provided. Based on Corrective action plan it's divided into two millstones, First; Setup new software till DEC 2022, Second Update the database by End of July 2024.	Iran	~~Dec, 2021~~2022 July 2024	A

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

Deficiencies in the AIM/MAP 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	Corrective Action Plan has not been formally provided by the State	Iraq	Dec, 2023	B
2	ANNEX 15: Para. 1.2.1.1	-	Implementation of geoid undulation referenced to the WGS-84 ellipsoid	Dec, 1997	-	F H O	Corrective Action Plan has not been formally provided by the State	Iraq	Dec, 2024	A
3	ANNEX 15: Para. 3.6	QMS Implementation	Lack of Implementation of QMS	Jan, 2003	-	F H O	Corrective Action Plan has not been formally provided by the State	Iraq	Dec, ~~2022~~2023	A
4	ANNEX 15: Para. 5.5	-	Non provision of pre-flight information service at international airports	Mar, 2004	-	F H O	Corrective Action Plan has not been formally provided by the State	Iraq	Dec, 2023	A
5	ANNEX 15: Para. 5.3.3.3.2 5.3.3.3.3 5.3.3.3.8	-	Lack of provision of required terrain data sets	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Iraq	Dec, 2024	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**
6	ANNEX 15: Para.5.3.3.4.3 5.3.3.4.5 5.3.3.4.10	-	Lack of provision of required obstacle data sets	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Iraq	Dec, 2024	A

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

Deficiencies in the AIM/MAP 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	Corrective Action Plan has not been formally provided by the State	Jordan	Dec, ~~2022~~2024	B
2	ANNEX 15: Para. 5.3.3.3.2 5.3.3.3.3 5.3.3.3.8	-	Lack of provision of required terrain data sets	May, 2014	-	F H	Corrective Action Plan has not been formally provided by the State	Jordan	Dec, ~~2022~~2024	A
3	ANNEX 15: Para. 5.3.3.4.3 5.3.3.4.5 5.3.3.4.10	-	Lack of provision of required obstacle data sets	May, 2014	-	F H	Corrective Action Plan has not been formally provided by the State	Jordan	Dec, ~~2022~~2024	A

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

Deficiencies in the AIM/MAP 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	Corrective Action Plan was provided in August 2016.	Lebanon	Dec, ~~2022~~2023	B
2	ANNEX 15: Para. 3.6	QMS Implementation	Lack of Implementation of QMS	Jan, 2003	(USOAP-CMA finding)	H	Corrective Action Plan was provided in August 2016.	Lebanon	Dec, ~~2022~~2023	A
3	ANNEX 15: Para. 5.3.3.3.2 5.3.3.3.3	-	Lack of provision of required terrain data sets	May, 2014	-	O	Corrective Action Plan was provided in August 2016.	Lebanon	Dec, ~~2022~~2023	A
4	ANNEX 15: 5.3.3.4.3 5.3.3.4.5	-	Lack of provision of required obstacle data sets	May, 2014	-	O	Corrective Action Plan was provided in August 2016.	Lebanon	Dec, ~~2022~~2023	A

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

Deficiencies in the AIM/MAP 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	Corrective Action Plan has not been formally provided by the State	Libya	Dec, 2023	B
2	ANNEX 15: Para. 3.6	QMS Implementation	Lack of Implementation of QMS	May, 2014	(USOAP-CMA finding)	O	Corrective Action Plan has not been formally provided by the State	Libya	Dec, 2023	A
~~3~~	~~ANNEX 15: Para 6.2~~	~~-~~	~~Lack of a system for AIRAC adherence monitoring~~	~~May, 2014~~	~~-~~	~~O~~	~~Corrective Action Plan has not been formally provided by the State~~	~~Libya~~	~~Dec, 2023~~	~~A~~
4	ANNEX 15: Para. 2.3.10 and 3.5.3	~~-~~	Lack of AIXM-based AIS Database	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Libya	Dec, 2023	A
5	ANNEX 15: Para. 5.3.3.3.2 5.3.3.3.3	-	Lack of provision of required terrain data sets	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Libya	Dec, 2023	A
6	ANNEX 15: Para. 5.3.3.4.3 5.3.3.4.5	-	Lack of provision of required obstacle data sets	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Libya	Dec, 2023	A

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

Deficiencies in the AIM/MAP 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. 2.3.10 and 3.5.3	-	Lack of AIXM-based AIS Database	Jul, 2005	-	O	A contract is going to be signed with a company specializing in this area for AIP Data Migration. AIM equipment installation will be completed by end of February 2017. The target is to have 70% of the data by June 2018	Oman	~~Dec, 2022~~Oct 2023	A
2	ANNEX 15: Para. 5.3.3.3.2 5.3.3.3.3	-	Lack of provision of required terrain data sets	May, 2014	-	O	An agreement with National survey authority is going to be established to assist for progressive implementation of terrain datasets for area1. The target is to have the required data by Dec 2019.	Oman	Dec, ~~2022~~2023	A
3	ANNEX 15: Para. 5.3.3.4.3 5.3.3.4.5	-	Lack of provision of required obstacle data sets	May, 2014	-	O	Area 1 obstacles are published in AIP Oman ENR 5.4 "Air Navigation (En-Route) Obstacles". Data originators for obstacles will be consulted for Area 1 obstacle completeness and update.	Oman	Dec, ~~2022~~2023	A

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

Deficiencies in the AIM/MAP 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. 5.3.3.3.2 5.3.3.3.3 5.3.3.3.8	-	Lack of provision of required terrain data sets	Dec, 2021	-	O	Terrain data sets are available for Areas 1. Terrain data sets for area 2a, TOFP and OLS are provided in: OERK, OEDF, OEMA, and OEJN. Updates of OEJN terrain digital data sets are expected to be available and published by: Q1-2021	Saudi Arabia	~~July, 2022~~	A
2	ANNEX 15 : 5.3.3.4.3 5.3.3.4.5 5.3.3.4.10	-	Lack of provision of required obstacle data sets	Dec, 2021	-	O	Obstacle data sets are provided for Areas 1 and 4. Obstacle data sets for area 2a, TOFP and OLS are provided in: OERK, OEDF, OEMA, and OEJN. Updates of OEJN terrain digital data sets are expected to be available and published by: Q1-2021	Saudi Arabia	~~July, 2022~~	A

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

Deficiencies in the AIM/MAP 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 15: Para. 5.3.3.3.2 5.3.3.3.3	-	Lack of provision of required terrain data sets	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Sudan	Dec, ~~2022~~2023	A
2	ANNEX 15: Para. 5.3.3.4.3 5.3.3.4.5	-	Lack of provision of required obstacle data sets	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Sudan	Dec, ~~2022~~2023	A

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

Deficiencies in the AIM/MAP 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 6.2	-	Lack of a system for AIRAC adherence monitoring	May, 1995	-	F H	Corrective Action Plan has not been formally provided by the State	Syria	~~July, 2022~~	A
2	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO1:1 000 000	May, 1995	-	F H S	Corrective Action Plan has not been formally provided by the State	Syria	~~Dec, 2022~~	B
3	ANNEX 15: Para. 3.6	QMS Implementation	Lack of Implementation of QMS	Jan, 2003	(USOAP-CMA finding)	F H	Corrective Action Plan has not been formally provided by the State	Syria	~~Dec, 2022~~	A
4	ANNEX 15: Para. 1.2.1.1	-	Implementation of geoid undulation referenced to the WGS-84 ellipsoid.	Jan, 2003	-	F H	Corrective Action Plan has not been formally provided by the State	Syria	~~Dec, 2022~~	A
5	ANNEX 15 Para. 5.2 and 6.3.1	-	Lack of consistency in AIP information and lack of regular and effective updating of the AIP.	Jul, 2005	-	H	Corrective Action Plan has not been formally provided by the State	Syria	~~Dec, 2022~~	A
6	ANNEX 15: Para. 2.3.10 and 3.5.3	-	Lack of AIXM-based AIS Database	Jul, 2005	-	F H	Corrective Action Plan has not been formally provided by the State	Syria	~~Dec, 2022~~	A
7	ANNEX 15: Para. 5.5	-	Non provision of pre-flight information service at international airports	Jul, 2005	-	F H	Corrective Action Plan has not been formally provided by the State	Syria	~~Dec, 2022~~	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. 5.3.3.3.2 5.3.3.3.3	-	Lack of provision of required terrain data sets	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Syria	~~Dec, 2022~~	A
9	ANNEX 15: Para. 5.3.3.4.3 5.3.3.4.5	-	Lack of provision of required obstacle data sets	May, 2014	-	O	Corrective Action Plan has not been formally provided by the State	Syria	~~Dec, 2022~~	A

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

Deficiencies in the AIM/MAP 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
~~1~~	~~ANNEX 15 :~~ ~~5.3.3.3.2~~ ~~5.3.3.3.3~~ ~~5.3.3.3.8~~	~~-~~	~~Lack of provision of required terrain data sets~~	~~Dec, 2021~~	~~-~~	~~O~~	~~Terrain data sets are provided for Areas 1, 4 and 2a.~~ ~~Terrain data sets for TOFP and OLS are not provided.~~ ~~Abu Dhabi Airports (Fully Compliant)~~ ~~Dubai Airports (Fully Compliant)~~ ~~OMSJ (Fully Compliant)~~ ~~OMFJ (Fully Compliant)~~ ~~OMRK (Not Compliant)~~ ~~All UAE Intl Airports are providing full Area 2 Terrain.~~	~~UAE~~	~~Dec, 2021~~	~~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
2	~~ANNEX 15:~~ ~~5.3.3.4.3~~ ~~5.3.3.4.5~~ ~~5.3.3.4.10~~	~~-~~	~~Lack of provision of required obstacle data sets~~	~~Dec, 2021~~	~~-~~	~~O~~	~~Obstacle data sets are provided for Areas 1, 4 and 2a.~~ ~~Obstacle data sets for TOFP and OLS are not provided.~~ ~~Abu Dhabi Airports (Fully Compliant)~~ ~~Dubai Airports (Fully Compliant)~~ ~~OMSJ (Fully Compliant)~~ ~~OMFJ (Fully Compliant)~~ ~~(Partially compliant, update survey required)~~ ~~All UAE Intl Airports are providing full Area 2 obstacles.~~	~~UAE~~	~~Dec, 2021~~	~~A~~

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

Deficiencies in the AIM/MAP 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 6.2	-	Lack of a system for AIRAC adherence monitoring	May, 1995	-	H O	Yemen advised to remove the deficiency. Formal letter from CAMA should be addressed to ICAO MID to remove the deficiency.	Yemen	~~Dec, 2021~~	A
2	ANNEX 4: Para. 16.2	-	Non-production of World Aeronautical Chart – ICAO1:1 000 000	May, 1995	-	F	Two options have been planned: 1-assitance from another state, or 2-Signing a contract with a specialized company for the production of this chart	Yemen	~~Dec, 2022~~	B
3	ANNEX 15: Para. 3.6	QMS Implementation	Lack of Implementation of QMS	Jan, 2003	-	F	An agreement with international quality company is going to be signed to assist for implementing of quality system within Yemen ANS -AIS	Yemen	~~Dec, 2022~~	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
4	ANNEX 4: Para. 11.2	-	Non-production of Instrument Approach Chart-ICAO for TAIZ Intl. Airport	Jan, 2003	-	O	CAMA has adopted a new project for Taiz int. airport and the production of new approach procedures according to PBN requirements planned as part of the project.	Yemen	Dec, 2025	A
5	ANNEX 15: Para. 5.5	-	Non provision of pre-flight information service at international airports	Mar, 2004	-	F H	Implemented in Sanaa and Aden int. airports. Expected to be implemented in the rest airports by dec.2022	Yemen	~~Dec, 2022~~	A
6	ANNEX 15: Para. 2.3.10 and 3.5.3	-	Lack of AIXM-based AIS Database	Jul, 2005	-	F	A contract is going to be signed with a company specializing in this area for AIP Data Migration.	Yemen	~~Dec, 2022~~	A
7	ANNEX 15 : Para 5.3.3.3.2 5.3.3.3.3	-	Lack of provision of required terrain data sets	May, 2014	-	O	An agreement with national survey authority is going to be established to assist for implementation	Yemen	Dec2023	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. 5.3.3.4.3 5.3.3.4.5	-	Lack of provision of required obstacle data sets	May, 2014	-	O	An agreement with national survey authority is going to be established to assist for implementation	Yemen	Dec2023	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.

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

APPENDIX 5B

THE MIDDLE EAST AIR NAVIGATION DEFICIENCIES MANAGEMENT PROCESS (MIDAND-MP)

1. Introduction

1.1 Based on the information resulting from the assessment carried out by ICAO on the input received from various regions regarding deficiencies in the air navigation field, it became evident that improvements were necessary in the following areas:

a) collection of information;
b) safety assessment of reported problems;
c) identification of suitable corrective actions technical/ operational/ financial/organizational), both short-term and long-term; and
d) method of reporting in the reports of ICAO planning and implementation regional groups (PIRGs).

1.2 This methodology is therefore prepared with the assistance of ICAO PIRGs and is approved by the ICAO Council for the efficient identification, assessment and clear reporting of air navigation deficiencies. It may be further updated by the Air Navigation Commission in the light of the experience gained in its utilization.

1.3 For the purpose of this methodology, the definition of deficiency is as follows:

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.

2. Collection and inclusion of information in the Data Base

2.1 Collection of the information for all the sources (**Regional office, States, Users, Professional provider organizations' sources):** Refer to the PART XX, Section 2 of the MIDANPIRG Procedural Handbook,

2.2 **MID Air Navigation Deficiencies Data Base (MANDD)**

2.2.1 In order to support the implementation of the Uniform Methodology for the identification, assessment and reporting of deficiencies, the MID Air Navigation Deficiencies Data Base (MANDD) that is a web-based platform provides an online tool for States and relevant stakeholders to manage Air Navigation Deficiencies in the region. The application is available at https://mandd.icao.int/. **Reporting of information on Deficiencies actions taken by the MID Office**

3.1 In order to enable the MIDANPIRG to make consistent evaluation of deficiencies, States and concerned International organizations including IATA, IFALPA and IFATCA, are expected to provide the information they have to the ICAO MID Regional Office for action as appropriate, during MIDANPIRG meetings.

3.2 The information should at least include description of the deficiency, risk assessment, possible solution, deadlines, responsible entities, agreed new action to be taken to resolve identified Deficiencies.

3.3 Newly identified deficiencies shall be sent to MID Office by the State/Organization Focal Point through the MANDD. Evidences to support the information provided should be forwarded via email to the ICAO MID Regional Office (icaomid@icao.int) or attached in the MANDD (as potentially upgraded).

3.4 The newly added deficiency in the MANDD will always have an "**N**" status for New at the point of entering the details in the reporting form. Once approved by the concerned Regional Officer, the deficiency will appear in the database list highlighted in "Yellow" and will be available for MANDD users in the delete, update, search and print options.

3.5 Once received and updated in the MANDD system by the ICAO MID Office, the request is forwarded to the appropriate Regional Officer for review and analysis as per the paragraph 2.1.1 of the MIDANPIRG Procedural Handbook. The ICAO MID Office may contact the source of the information and the concerned State for more details when required. The result of the evaluation is submitted with all the evidences to a committee formed by the Regional Office subject matter Experts and the Deputy Regional Director for review.

3.6 If the deficiencies are confirmed, the State is informed by the ICAO MID Regional Office and given a time period to take appropriate actions. If actions are taken in time, the case is closed and captured in the MANDD as proposed for deletion and will appear highlighted in "Yellow" as a strike through then notified to the MIDANPIRG meeting.

3.7 Otherwise, the case is submitted to the MIDANPIRG Meeting for consideration and endorsement using the List of reported Deficiencies extracted from the MANDD system. The MIDANPIRG' endorsed deficiencies are uploaded in the MANDD by the MID Office and the concerned State$_{(s)}$ are requested to submit a Corrective Action Plan within a given deadline.

3.8 The concerned State(s) shall follow-up the implementation of proposed mitigation actions, as established in the action plan and submit relevant evidences for consideration to the ICAO MID Office through the MANDD/by email.

3.9 In case of challenges with the implementation, the State Focal point should inform and coordinate with the Regional Officer managing the AND concerned Area (**AOP**, **ATM, AIM, CNS, MET** and **SAR**). Both, the State's Focal Points and Regional Officer should ensure that the information provided in the MANDD is continuously updated.

3.10 The agenda of MIDANPIRG meeting should include an item on air navigation deficiencies, including information reported by States and other stakeholders in accordance with PART XX, Section 2 of the MIDANPIRG Procedural Handbook, The review of the deficiencies should be a top priority for each MIDANPIRG meeting which should make an assessment of the safety impact, of the reviewed lists of deficiencies, for subsequent review by the ICAO Air Navigation Commission.

3.11 In line with the above, and keeping in mind the need to eventually make use of this information in the planning and implementation process, it is necessary that once a deficiency has been identified and validated, defined fields of information should be provided in the reports on deficiencies in the air navigation systems. The Model reporting table for use in the MIDANPIRG report and Actions by the ICAO MID Office are stated in the Part XX, Sections 5 and 6 of the MIDANPIRG Procedural Handbook.

Additional Guidance for Minimum Reporting on non-compliances

3.12 In order to encourage reporting, the Group has adopted a list of minimum reporting areas which is reflected at **Attachment A** to this Process. The intent of the list is **NOT** to replace reporting based on ICAO Council policy, but to encourage reporting, in recognition of Assembly Resolution A37-15 Appendix L, and noting the historical critically low level of reporting, as well as the expanse of SARPs and requirements on which reporting may be effected.

3.13 Without prejudice to the definition of "deficiency" as approved by the Council, States, Regulators and Air Navigation Service Providers (ANSPs), users, and professional organizations (IFALPA, IFATCA, IFATSEA, etc.) are encouraged to report on non-compliances in the areas listed in **Attachment A**, in addition to reporting any other deficiencies as defined by the Council.

4. Monitoring & Removal of MIDANPIRG endorsed Deficiencies from the Data base

4.1 The ICAO MID Office will monitor the implementation by the States of their corrective actions plans and report to MIDANPIRG. States shall implement their action plans and submit relevant evidences for consideration to the ICAO MID Regional Office by email to icaomid@icao.int .

4.2 The relevant Regional Officers should assess on the regular basis the implementation of the States action plans until their completion. Once the implementation completed, a documented report, comprising evidences should be submitted the ICAO MID Office for their review by the ICAO MID Regional Officers and the Deputy Regional Director. The review report is submitted to the MIDANPIRG meeting for appropriate action.

4.3 If deemed satisfactory, the deficiency is deleted from the MANDD at which point will appear as a strike though highlighted in "Yellow" and the information is provided to the State.

4.4 Once validated and confirmed by the MIDANPIRG meeting to be an existing deficiency based on provided evidences, a command is run in the system to remove the resolved (proposed for deletion) deficiencies from the Database by the Regional Office.

5. Assessment and prioritization

5.1 A general guideline would be to have three levels of priority organized on the basis of safety, regularity and efficiency assessment as follows:

> **"U" priority (Red)** = 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 (Orange) =** 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 (Green) = 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.

5.2 In addition, the MIDANPIRG's Sub-Groups including the ASPIG (Aerodromes Safety Planning and Implementation Group) should assess, as deemed necessary, the endorsed Deficiencies based on SMS principles. As practical as it can be, the assessment and prioritization of Deficiencies is based on the safety risk matrix contained in the Safety Management Manual (SMM), Doc 9859:

Table 1. Safety risk probability table

Likelihood	***Meaning***	***Value***
Frequent	Likely to occur many times (has occurred frequently)	**5**
Occasional	Likely to occur sometimes (has occurred infrequently)	**4**
Remote	Unlikely to occur, but possible (has occurred rarely)	**3**
Improbable	Very unlikely to occur (not known to have occurred)	**2**
Extremely improbable	Almost inconceivable that the event will occur	**1**

Note.— This is an example only. The level of detail and complexity of tables and matrices should be adapted to the particular needs and complexities of each organization. It should also be noted that organizations might include both qualitative and quantitative criteria.

Table 2. Example safety risk severity table

Severity	***Meaning***	***Value***
Catastrophic	• Aircraft / equipment destroyed • Multiple deaths	**A**
Hazardous	• A large reduction in safety margins, physical distress or a workload such that operational personnel cannot be relied upon to perform their tasks accurately or completely • Serious injury • Major equipment damage	**B**
Major	• A significant reduction in safety margins, a reduction in the ability of operational personnel to cope with adverse operating conditions as a result of an increase in workload or as a result of conditions impairing their efficiency • Serious incident • Injury to persons	**C**
Minor	• Nuisance • Operating limitations • Use of emergency procedures • Minor incident	**D**
Negligible	• Few consequences	**E**

Table 3. Example safety risk matrix

Safety Risk		***Severity***				
Probability		***Catastrophic A***	***Hazardous B***	***Major C***	***Minor D***	***Negligible E***
Frequent	**5**	5A	5B	5C	5D	5E
Occasional	**4**	4A	4B	4C	4D	4E
Remote	**3**	3A	3B	3C	3D	3E
Improbable	**2**	2A	2B	2C	2D	2E
Extremely improbable	**1**	1A	1B	1C	1D	1E

Note.— In determining the safety risk tolerability, the quality and reliability of the data used for the hazard identification and safety risk probability should be taken into consideration.

Table 4. Example of safety risk tolerability

Safety Risk Index Range	***Safety Risk Descriptio***	***Recommended Action***
5A, 5B, 5C, 4A, 4B, 3A	INTOLERABLE	Take immediate action to mitigate the risk or stop the activity. Perform priority safety risk mitigation to ensure additional or enhanced preventative controls are in place to bring down the safety risk index to tolerable.
5D, 5E, 4C, 4D, 4E, 3B, 3C, 3D, 2A, 2B, 2C, 1A	TOLERABLE	Can be tolerated based on the safety risk mitigation. It may require management decision to accept the risk.
3E, 2D, 2E, 1B, 1C, 1D, 1E	ACCEPTABLE	Acceptable as is. No further safety risk mitigation required.

APPENDIX 6A

AERONAUTICAL INFORMATION MANAGEMENT SUB-GROUP (AIM SG)

1. TERMS OF REFERENCE

1.1 The Terms of Reference of the AIM Sub-Group are:

a) ensure that the implementation of AIM in the MID Region is coherent and compatible with developments in adjacent regions, and is in line with the Global Air Navigation Plan (GANP), the Aviation System Block Upgrades (ASBU) framework and the MID Region Air Navigation Strategy;

b) monitor the status of implementation of the MID Region AIM-related ASBU Threads /elements included in the MID Region Air Navigation Strategy as well as other required AIM facilities and services; identify the associated difficulties and deficiencies and provide progress reports, as required;

c) keep under review the MID Region AIM performance objectives/priorities, develop action plans to achieve the agreed performance targets and propose changes to the MID Region AIM plans/priorities;

d) seek to achieve common understanding and support from all stakeholders involved in or affected by the AIM developments/activities in the MID Region;

e) provide a platform for harmonization of developments and deployments in the AIM domain;

f) monitor and review the latest developments in the area of AIM and procedure design issues associated to AIM, provide expert inputs for AIM-related issues; and propose solutions for meeting ATM operational requirements;

g) provide regular progress reports to the MIDANPIRG concerning its work programme; and

h) review periodically its Terms of Reference and propose amendments, as necessary.

1.2 In order to meet the Terms of Reference, the AIM Sub-Group shall:

a) monitor the status of implementation of the required AIM facilities, products and services in the MID Region;

b) assist States in the development of National AIM Plans/Roadmaps through the development and continuous update of the Regional AIM Roadmap identifying the priorities and timelines for implementation, in particular for the implementation of Digital Datasets;

c) assess and provide progress reports on the transition from AIS to AIM in the MID Region;

d) provide necessary assistance and guidance to States to ensure harmonization and interoperability in line with the GANP, the MID ANP and ASBU framework;

e) provide necessary inputs to the MID Region Air Navigation Strategy through the monitoring of the agreed Key Performance Indicators related to AIM;

f) identify and review those specific deficiencies and problems that constitute major obstacles to the provision of efficient AIM services, and recommend necessary remedial actions;

g) keep under review the adequacy of ICAO SARPs requirements in the area of AIM, taking into account, inter alia, changes in user requirements, the evolution of operational requirements and technological developments;

h) develop proposals for the updating of relevant ICAO documentation related to AIM, including the amendment of relevant parts of the MID ANP, as deemed necessary;

i) monitor and review technical and operating developments in the area of AIM and foster their implementation in the MID Region in a harmonized manner;

j) foster the integrated improvement of AIM services through proper training and qualification of the AIM personnel; and

k) Coordinate with relevant MIDANPIRG and RASG-MID Subsidiary bodies' issues with common interests.

2. COMPOSITION

2.1 The Sub-Group will compose of:

a) MIDANPIRG Member States;

b) concerned International and Regional Organizations as observers; and

c) other representatives from provider States and Industry may be invited on ad hoc basis, as observers, when required.

3. WORKING ARRANGEMENTS

3.1. The Chairperson, in close co-operation with the Secretary, shall make all necessary arrangements for the most efficient working of the Subgroup. The Subgroup shall at all times conduct its activities in the most efficient manner possible with a minimum of formality and paper work (paperless meetings). Permanent contact shall be maintained between the Chairperson, Secretary and Members of the Subgroup to advance the work. Best advantage should be taken of modern communications facilities, particularly video-conferencing (Virtual Meetings) and e-mails.

3.2. Face-to-face meetings will be conducted when it is necessary to do so.

APPENDIX 7A

MID REGION AIM FOCAL POINTS CONTACT DETAILS

STATE	NAME	TITLE	EMAIL	TEL/MOBILE	UPDATES
Bahrain	Abdulla Hassan Al Qadhi	Chief AIM & Airspace Planning	aalqadhi@mtt.gov.bh	T: +97317321108 M: +97336639955	Reply on 7/8/21 - SL dated June 2021
Egypt	Samer Hussein Emam	GM AIS ECAA	nav.samer.hussien.emam@civilaviation.gov.eg sameremam78@gmail.com	T: +20222678885 M: +201006022229	Updated on 9/3/2022
Iran	Meisam Shaker	Director AIM	ska.meisam@gmail.com m-shaker@cao.ir ais_iran@airport.ir	T: +982161022072 M:+989126454753	Reply on 15/11/21 – SL dated July 2021
	Rouhallah Salehi	AIS Manager	Salehi.r1357@gmail.com	M: +989126901459	
Iraq	Ali Walid Abdul Ameer	Head of AIS	ais.hq@gcans.gov.iq ais.hq@iraqcaa.com	T: +96418132122 M: +9647807488484	Reply on 10/11/21 – SL July 2021
	Layth Jabbar Hasan	AIM Inspector	Laithhasan886@yahoo.com	M: +9647905116098	
Jordan	Munther Al-Qaisi Tareq Al-Momani (Hanan Qasem)	AIS Officer AIS Officer (Chief AIS HQ)	m.al-qaysi@carc.gov.jo t.al-momani@carc.gov.jo ais.hq@carc.gov.jo	T: +96264010460 M: +962799816440 T: +96264872681 M: +962777504421 T: +962648972681	Reply on 5/9/21 - SL dated August 2021
Kuwait	Mustafa A. Al-tarrah	Head of Air Navigation Services Inspectors	ma.altarrah@dgca.gov.kw	M: +96599977440	Reply on 16/8/21 SL dated August 2021
	Hesham S. Buabbas	Air Navigation Services Inspectors	Hs.boabbas@dgca.gov.kw	M: +96599059529	
Lebanon	Bassem Nasser	Chief AIS	ais@beirutairport.gov.lb bnasser@beirutairport.gov.lb	T: +9611629067 M: +96176434154	Reply on 7/8/21 - SL dated August 2021

STATE	NAME	TITLE	EMAIL	TEL/MOBILE	UPDATES
Libya	Hassan Salem Said Alazabi	Chief of AIS / AIM Chief of ASID	ais@caa.gov.ly	M: +218925372650 M: +218925598543	Reply on 17/8/21 -SL dated August 2021
Oman	Jaffer Abdul Amir	Head AIS	jaffer@caa.gov.om	T: +968 24354945 M: +96899316040	Reply on 12/9/21 -SL dated August 2021
	Majid Rezaei	AIS/Chart Inspector	Majid.rezaei@caa.gov.om	Tel.: +968-24354021 Mob: +968-98172293	
Qatar	Faisal Mutlaq Al-Qahtani	Head of AIS	Faisal.Alqahtani@caa.gov.qa	T: +9744705888 M: +97455537060	Reply 17/8/21 to SL dated August 2021
	Pamela Erice	AIS Supervisor	pamela.erice@caa.gov.qa	T: +9744705588 M: +97466252971	
Saudi Arabia	Hadi Alghamdi	AIP Manager	haalghamdi@gaca.gov.sa		Reply 24/11/21 to SL August 2021
	Abdullah S. Al Alahmadi	Obstacle manager	asalahmadi@gaca.gov.sa	Tel: +966 11 525 3303	
	Abdullah Albathi	Aviation Information General manager	abalbathi@gaca.gov.sa	Mob: +966 554185190	
	Hind Almohaimeed	AIP Specialist	haalmohaimeed@gaca.gov.sa		
Sudan	Hayder Mohamed Abdalla	AIM Director	aishayder@gmail.com aishayder@scaa.gov.sd	T: +249183770534 M: +249912268269	Reply 22/8/21 -SL dated August 2021
	Haytham Mohamed Osman	AIM Inspector	haytham-aim@scaa.gov.sd	M: +249123277988	
Syria	Ghadeer Hussieno Hassan Hamoud	Head of AIS ATM DIR	Janasy47@gmail.com hamoud_hasan@yahoo.com	T:+9631154010180 M:+9963992349577 T: +9631154010180 M: +963115400752 +9963988235106	Reply 30/9/21 -SL dated August 2021

STATE	NAME	TITLE	EMAIL	TEL/MOBILE	UPDATES
UAE	Abdalla Al Rashidi	Director AIS	akaabi@szc.gcaa.ae	T: +97125996891 M: +971506119865	Reply 29/8/21- SL dated August 2021
Yemen	Younis Saeed Ahmed	Air Navigation Director	aisyemen@gmail.com younis-trans@gmail.com	T: +9672298600 M. +967777523776	Reply 18/8/21 -SL dated August 2021

ATTACHMENT A

AIM SG/9 Virtual Meeting

(20 - 21 September 2022, 09:00 – 11:30 UTC)

List of Participants

State Org/Industries	Contact	Title
Bahrain	Mr. Mohammed Ahmed Al Hallaq	A. Chief AIM & Airspace Planning
	Mr. Ali Abdulla Almutaie	AIM Supervisor
	Ms. Fatima Ali Mohammed	AIM Supervisor
	Mr. Mohammed Nabeel AlAbdulla	AIM Supervisor
	Mr. Mohammed Isa Haza	AIM Supervisor
	Mr. Abdulla Rashed Aljawder	AIM Supervisor
Egypt	Mr. Samer Hussein Emam	Acting Head of Flight Operations
	Mr. Ayman Emam Ibrahim	AIS General Manager
	Ms. Safaa Hanafy Abdo Saleh	Flight Plane and Operation General Director
	Ms. Sahar Mohamed Abdel Salam	D.G Search and Development
	Ms. Islam El Sayed Abdel Fattah	AIS Officer
	Mr. Ammar Sayed Abdelbaky	ECAA Inspector (AIS)
	Jehan Hassan Abd Elghany	AIS Inspector
Iran	Mr. Mehran Maleki	Statistics Data Expert
	Mr. Mohammad Motaghian	AIM Expert
	Mr. Mohammad Sadeghi	Expert in Charge of AIS Static Data
Iraq	Mr. Berivan Shafiq Tofiq	AIS Officer
	Mr. Laith Jabbar Hassan	Inspector in Flight Safety Department
	Mr. Ali Waleed	AIS-HQ Manager
Jordan	Mr. Ra'ed Ghazawi	A. Chief AIS HQ
	Mr. Tarik Mohammed Al-Rabee	AIS Officer
	Mr. Tareq Okleh Abdalah Al Momani	AIS Officer
Kuwait	Hesham S. Bo-abbas	Head of ANS
Lebanon	Mr. Bassem Nasser	Chief of AIS
Libya	Mr. Alhasan Salem Hareweda	Head of AIS Dept
	Moftah Ahmed	
Oman	Mr. Majid Rezaei	AIS Charter Inspector
	Mr. Faisal Hamed Al-Busaidi	AIS Officer
	Ms. Samiya Al Battashi	AIS Officer
	Ms. Anfal Khalaf Alsubhi	Chief of Air Navigation Charts
	Mr. Harith Al Harthy	

State Org/Industries	Contact	Title
Qatar	Mrs. Pamela Erice	AIM Supervisor
	Mr. Asiri Christo	AIM Officer
	Mr. Amila Abeykoon	AIM Officer
	Mr. Hiran Gamage	AIM Officer
	Mr. Roel Santiago	AIM Officer
	Mr. Roumel Mercado	AIM Officer
	Mrs. Ruba Ghannam	AIM Officer
	Mrs. Elsa Rotilles	AIM Officer
	Mr. Wazir Preena	AIM Officer
	Mr. Dushan Rajaskara	AIM Technican
	Mr. Pubudu Sandaruwan	AIM Officer
	Mrs. Sheila Brizo	PANS-OPS Specialist
	Mr. Tilak Priyankara	PANS-OPS Specialist
Saudi Arabia	Mr. Hadi A. Alghamdi	Manager of Saudi Aeronautical Information Publication
	Mr. Ibrahim Alshaya	AIM Manager
	Mr. Imed ben Saad	AFP and AIM Expert
	Ms. Hind Abdulaziz Almohaimeed	AIP Specialist
	Mr. Mohamed A. Ben Abdessalem	AIM Strategy Specialist
	Mr. Muhammad Al-Juhani	Flight Procedure Designer Inspector
	Mr. Osama Al-Shotairi	AIP Supervisor
	Mr. Ayed Mohammed Murfat	Aeronautical Charts Supervisor
	Mr. Turki Mohammed Al-Qahtani	Static Data Supervisor
	Mr. Abdullah A. Alharthi	NOTAM Supervisor
Syria	Mrs. Faten Hamdan	Chief of FPL Section
	Mrs. Ghadeer Hossieno	Chief of AIS Department
	Mrs. Sanna Alhelwani	Chief of AIS Section
	Mrs. Suzan Mahmoud	AIS Officer
UAE	Mr. Abdalla Salim Al Rashidi	Director AIM
	Mr. Dean Fernandes	Manager AIM Operations

State Org/Industries	Contact	Title
	Mr. Kedari Manthanwar	Assistant Manager - AIM Design
	Mr. Syed Samiullah	Senior Officer – PANS OPS
	Mr. Hamed Al Zubaidi	Assistant Manager PANS-OPS
	Ms. Maram Khaled Ali	AIM Publication Officer
	Mr. Robert Novac Bara	GCAA Airspace Inspector
	Mr. Balakrishnan Thalasayan	Analyst – AIM Operations
Yemen	Mr. Abdulkareem Nasher Mohamed	AIS Director
	Mr. Ashhab Shehab Saeed Omar	Air Navigation Operations Director
	Mr. Abdullah Mohammed Abdullah	Air Navigation CNS Manager
IATA	Ms. Lindi-Lee Kirkman	Manager Safety & Flight Operations-ATM Infrastructure
IFATCA	Mr. Raouf Helmy	IFATCA Representative Middle East
ICAO	Mr. Radhouan Aissaoui	RO/IM
	Mr. Ahmad Kaveh	RO/ATM
	Mrs. Manal Wissa	Programme Analysis Associate
	Mr. Sorin-Dan Onitiu	MID FPP Manager

- END -