

INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE TENTH MEETING OF THE AIM SUB-GROUP

AIM SG/10 Meeting

(Cairo, Egypt, 28 – 29 February 2024)

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

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

TABLE OF CONTENTS

PART	Page I - HISTORY OF THE MEETING
1.	Place and Duration
2.	Opening
3.	Attendance
4.	Officers and Secretariat
5.	Language
6.	Agenda
7.	Conclusion and Decisions – Definition
8.	List of Conclusions and Decisions
PART	II - REPORT ON AGENDA ITEMS
	Report on Agenda Item 1
	Report on Agenda Item 22-1
	Report on Agenda Item 33-1/3-4
	Report on Agenda Item 4
	Report on Agenda Item 5 5-1
	Report on Agenda Item 6
	Report on Agenda Item 7
	APPENDICES
	Appendix 2A
	Appendix 5A
	Appendix 6A
ATTA	CHMENT
	List of Participants

PART I - HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Tenth Meeting of the MIDANPIRG AIM Sub-Group (AIM SG/10) was successfully held in Egypt, Cairo at ICAO MID Office from 28 to 29 February 2024.

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.
- Mr. Mohamed Smaoui, Deputy Regional Director, Middle East Office, welcomed all participants to the AIM SG/10 meeting and highlighted that the year 2024 marks the significant occasion of the 70th anniversary of the publication of ICAO Annex 15, representing a remarkable milestone in international aviation standards. Annex 15, which originally came into effect on April 1, 1954, has played a pivotal role in shaping and advancing aeronautical information management practices worldwide. This anniversary celebration underscores the enduring impact and relevance of Annex 15, highlighting decades of collaborative efforts by member states and aviation stakeholders to enhance safety, efficiency, and global interoperability in air navigation. This milestone serves as a testament to the continuous evolution and innovation within the aviation industry, driving progress and excellence in aeronautical information management.
- 2.3 Mr. Smaoui pointed out that, during this meeting, the main focus should be on the GNSS disruption in MID Region as well as the updates of the NOTAM Template on Conflict Zones and particularly the review of the outcomes of the Digital Datasets Implementation Ad-Hoc Working Group.
- 2.4 Mr. Smaoui expressed heartfelt gratitude to the states and industry, in namely, Saudi Arabia, UAE and Boeing that have accepted to share their experience and achievements. Recognizing the importance of collaboration and knowledge-sharing, the DRD emphasized the positive impact of such cooperation on advancing global aviation standards and practices; encouraging other states to follow.
- 2.5 Finally, Mr. Smaoui thanked all participants for their attendance wishing them successful and productive meeting.

3. ATTENDANCE

3.1 The meeting was attended by a total of thirty-four participants from seven (7) States (Egypt, Iran, Jordan, Libya, Oman, Saudi Arabia and UAE) and three (4) Organizations/Industries (ADL, Boeing, IATA, IFATCA). The list of participants is at **Attachment A.**

4. OFFICERS AND SECRETARIAT

4.1 The AIM SG/10 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

Agenda Item 2: Follow-up on DGCA-MID/6 and MIDANPIRG/20 Conclusions and Decisions relevant to AIM

Agenda Item 3: Global/Regional developments related to AIM and SWIM

- ICAO IMP updates
- ICAO Survey on Moving from a Magnetic to a True North Reference System for Heading and Tracking in Aviation Operations

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

- MID Region AIM Implementation Roadmap
- Planning for the ASBU DAIM Thread implementation-monitoring and reporting
- ASBU DAIM implementation in MID Region
- GNSS disruption in MID Region
- NOTAM Template on Conflict Zones
- UAE AIM Datasets Live Operation
- Data-Driven IAP Charts
- Outcomes of the Digital Datasets Implementation Ad-Hoc Working Group
- KSA Datasets Management and Exchange
- User Perspective on Digital Data Sets
- KSA WAC and Aeronautical Chart ICAO 1500 000
- NOTAM specification changes UAE
- PBN SID and STAR Charting issues

Agenda Item 5: Review of Air Navigation Deficiencies in the AIM Field

Agenda Item 6: Future Work Programme & AoB

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 DECISION 10/1: MID REGION ASBU DAIM ACTION GROUP

DRAFT CONCLUSION 10/2: REVISED NOTAM TEMPLATE FOR GNSS INTERFERENCE

DRAFT CONCLUSION 10/3: RISK COMMUNICATION MODEL TO DISSEMINATE

INFORMATION RELATED TO RISKS TO CIVIL AVIATION

OVER OR NEAR CONFLICT ZONES

DRAFT DECISION 10/4: MID REGIONAL IMPLEMENTATION PLAN FOR DIGITAL

DATASETS

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA

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.

REPORT ON AGENDA ITEM 2: FOLLOW-UP ON DGCA/6 AND MIDANPIRG/20 CONCLUSIONS AND DECISIONS RELEVANT TO AIM

2.1 The subject was addressed in WP/2 presented by the Secretariat. The meeting noted the status of the DGCA/6 and MIDANPIRG/20 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/REGIONAL DEVELOPMENTS RELATED TO AIM AND SWIM

3.1 The subject was addressed in PPT/3 and PPT/4 presented by the Secretariat.

AIS training

- 3.2 The meeting apprised of the activities of the WG-A (Aeronautical Information Management) established under the Information Management Panel (IMP). The meeting noted the outcomes of the fifteenth meeting of the Aeronautical Information Management Working Group (IMP/WG-A/15), held in Montreal during 23 27 October 2023.
- 3.3 The meeting recalled that the Manual on Aeronautical Information Services Training (Doc 9991) has been published and that discussions had taken place about AIS provisions to be incorporated in Procedures for Air Navigation Services Training (PANS-TRG, Doc 9868). The meeting noted that IMP/WG-A/15 reviewed the AIS provisions to be incorporated into PANS-TRG (Doc 9868) and the accompanying impact analysis and some inputs were provided to the Training Focus Group to consider before the PfA and impact assessment is presented to IMP. The IMP/WG-A/15 indicated that the impact assessment must address why it is beneficial to move to CBTA and should provide more guidance in terms of implementation.

Digital Data Set Services

- 3.4 The meeting noted that IMP/WG-A/15, reviewed the outcomes of the Digital Data Sets Focus Group which had finalized the drafting of the proposed guidance material for the ICAO Digital data sets as Part IV of the AIS Manual. The main task of the IMP/WG-A Focus Group Digital Data Sets (FG-DDS) is the development of guidance material for the provision of the digital data sets specified in the ICAO Annex 15 and in the PANS-AIM, in response to the IMP job card 009.01 "Digital Data Sets".
- 3.5 It was specified that the guidance material for Digital Data sets is organized into four main chapters and several supporting appendices. The first chapter, Introduction, explains which categories of digital data sets may be available as part of the aeronautical information products, their purpose and intended use. The second chapter, General aspects of system wide information management, explains the SWIM approach to digital data provisioning, its use in Air Traffic Management (ATM) and the application of this approach in the aeronautical information domain. The third chapter, Coding specifications for digital aeronautical data set, provides information about coding rules and recommendations for each data set, by reference to existing formal specifications and standards. The fourth chapter, Data set provision services, explains how the digital data sets may be provided applying SWIM information service concepts.
- 3.6 Due to the level of complexity associated with Instrument Flight Procedures, it was agreed by WG-A that Part IV of Doc 8126 will be presented to IMP with a reserved section for Instrument Flight Procedures coding guidelines. It was identified that IFPP will have to be involved in the planning and development of the coding guidelines.

NOTAM Replacement System

3.7 The meeting noted that Digital Operational Reporting Information System (DORIS) will be used when referring to the new NOTAM Replacement System. It has been pointed out that, DORIS has a high dependency on digital datasets being in place. When digital datasets are in place then DORIS will be used to update these datasets. The meeting noted also that a NOTAM replacement

concept document was developed by NOTAM REPLACEMENT SYSTEM (FG-NRS) and reviewed by IMP/WG-A/15 and it was recommended that the FG-NRS review the concept one final time before it is shared with other panels, as appropriate.

Advancing Aeronautical Charting in Annex 4

3.8 The meeting noted that work is in progress to identify aeronautical charts that could be replaced by data sets. In this respect, the meeting noted that the Focus Group on Aeronautical Charting (FG-AC) finalized the review of Chapters 3 and 4 of Doc 8697 and it is acknowledged that these charts could potentially be replaced by data sets.

Adjustments to ICAO Aviation System Block Upgrades (ASBU) –DAIM elements

- 3.9 The meeting noted the following adjustments to ICAO Aviation System Block Upgrades (ASBU) –DAIM elements:
- B1/1 Provision of quality-assured aeronautical data and information : supported the change to the level of maturity to 'ready for implementation'.
- B2/3 Aeronautical information to support higher airspace operations: supported to move this element to Block 4.
- B2/4 Aeronautical information requirements tailored to UTM: supported to change 'UTM' to 'lower airspace operations' in the name, updating the maturity level to 'Standardization' and moving this element to Block 3.
- B2/5 NOTAM replacement: supported moving this element to Block 3, however it is to be noted that the NOTAM replacement concept will consider AI/ML and any consequential changes to the ASBUs.

Magnetic to a True North Reference System

- 3.10 The meeting was apprised with a brief overview of the ICAO survey results on Moving from a Magnetic to a True North Reference System for Heading and Tracking in Aviation Operations.
- 3.11 It was noted that ICAO has circulated a survey, through State Letter AN 11/57-22/87, to seek feedback from States and their aviation industry on the level of support for ICAO to commence work on changing from a Magnetic to True North reference for heading and track in air operations. The aim of the survey is also to identify any concerns or challenges that may need to be addressed during any transition to True North. The findings from the survey will assist ICAO in determining the viability of moving to True North and may be used to guide ICAO in developing plans and strategies for a future transition.
- 3.12 It was highlighted that the ANC has approved the establishment of the True North Advisory Group (TRUE-AG), a multi-disciplinary expert group to assist ICAO in developing a framework for a safe and efficient global transition to True North. This group is tasked to develop an ICAO CONOPS and transition plan and assist ICAO in developing a realistic and safe framework for implementing true north globally.
- 3.13 The meeting invited States to follow-up and keep abreast of the Global activities related to AIM.

Workshop on Terrain and Obstacle Datasets (TOD)

- The Workshop on Terrain and Obstacle Datasets (TOD) has been conducted on 26-27 February 2024 at the ICAO MID Office in Cairo, Egypt. The workshop recognized that there are significant challenges for States in achieving compliance with SARPs related to TOD. These challenges are wide-reaching in scope and relate to technical, institutional and implementation aspects which represent the main impediments to the advancement of TOD provisions in the MID Region:
 - TOD Resources: Limited/scarce funding for Regulator/ANSP;
 - Lack of training and qualified staff;
 - Technical challenges (AIDB);
 - Cross-border coordination issues ;
 - Lack of guidance on TOD validation and verification, data maintenance and oversight;
 - Lack of regulatory expertise to establish a National TOD policy in close coordination with the main TOD stakeholders identified at national level, e.g. National Geodetic Authority, Aerodrome Operators, Air Navigations Services Provider, etc..and
 - Lack of TOD awareness and education to decision makers within States to create the political will to invest.
- 3.15 In order to facilitate TOD implementation and compliance, the participants asked that support and guidance be provided to address these issues and agreed that:
 - Additional workshops and training focused on Digital Data sets including Terrain and Obstacle Data are essential and needed to ensure States compliance;
 - Every State should develop a detailed TOD policy;
 - Agreements with Data Originators and their certifications are key elements for successful implementation of TOD;
 - Data Originators shall take the responsibility of the quality of the data produced and published;
 - Data Sets alone is not sufficient as TOD deliverable in the digital environment. Absence of any element of Digital Data Set means data is incomplete (completeness includes DPS, Schema, Metadata, data sets and Exchange Model);
 - The transition of AIS officers to data managers and the evolution of Aeronautical Information Management present exciting opportunities for the integration and use of advanced technologies, but it also demands a workforce equipped with new skills in information technology; and
 - State CAA policy planners and decision-makers should be closely involved in the planning and implementation of TOD

EUR/MID Workshop on Digital Datasets

3.16 The meeting noted that the Interregional EUR/MID Workshop on AIM Digital Datasets was successfully held at the premises of the ICAO MID Office in Cairo, Egypt on 21-22 May 2023.

- 3.17 The Workshop was scheduled back-to-back with the Global AIM Conference (Cairo, 23-25 May 2023). Sixty three (63) participants from 18 States, 4 organizations and 8 industry. States, Users and data houses shared their experience and issues in the implementation and using digital datasets.
- 3.18 Workshop presentations could be found at : <u>Pages Interregional EUR/MID Workshop</u> on Aeronautical Information Datasets (icao.int)

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. In addition, the meeting recalled also that in line with the AIM SG responsibilities towards MIDANPIRG, the AIM SG meeting should review and provide continuous updates (as appropriate) of the Regional AIM Roadmap.
- 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 Saudi Arabia provided its 2024 AIM Implementation Roadmap.

ASBU Thread DAIM Implementation Monitoring

- 4.5 The subject was addressed in WP/5 presented by the Secretariat.
- 4.6 The meeting noted that the ICAO MID Workshop on the Global Air Navigation Plan and National Air Navigation Plan (GANP & NANP) was successfully held in the ICAO Middle East Office in Cairo, Egypt, 5 8 March 2023. The Workshop reviewed and updated the MID ANP Volume III and MID Region Air Navigation Strategy (ICAO MID Doc 002).
- 4.7 The meeting was apprised of the updated ASBU DAIM Thread/Elements and the monitoring table as per the revised MID Region Air Navigation Strategy (ICAO MID Doc 002) and in line with the Global Air Navigation Plan (GANP 7th edition). The meeting reviewed and updated the status of AIM implementation in MID Region and based on the info provided by States updated the MID eANP Volume III (DAIM Tables).
- 4.8 The MID Region DAIM implementation status by element is presented below:

DAIM Elements	B1/1 Provision of quality-assured aeronautical data and information	B1/3 Provision of terrain digital data sets	B1/4 Provision of obstacle digital data sets
Average per Element	56.66 %	40 %	37.77 %
DAIM Thread Average		44.8 %	

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

- Planning: objectives set, priorities and targets planned at regional or sub-regional levels;
- Implementation monitoring and reporting: monitoring of the progress of implementation towards targets planned. This information should be used as the basis for reporting purposes (i.e.: global and regional air navigation reports and performance dashboards); and/or
- Guidance: providing regional guidance material for the implementation of specific system/procedures in a harmonized manner.
- 4.10 The meeting recalled that the management of Volume III is the responsibility of the MIDANPIRG and should be used as a tool for monitoring and reporting the status of implementation of the elements planned here above, through the use of tables/databases. The status of implementation is updated on a regular basis as endorsed by the MIDANPIRG.
- 4.11 The meeting noted that the ICAO MID eANP Vol. III contains already a section dedicated to AIM: B0-DATM related to the Service Improvement through Digital Aeronautical Information Management. It consists of the following tables:
- Table B0-DATM 3-1 Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)
- Table B0-DATM 3-2 Aeronautical Data Quality
- **Table B0-DATM 3-3** World Geodetic System-1984 (WGS-84)
- Table B0-DATM 3-4-1 Provision of Terrain and Obstacle data sets for Areas 1 and 4
- **Table B0-DATM 3-4-2** Provision of Terrain and Obstacle data sets for Area 2.
- Table B0-DATM 3-4-3 Provision of Terrain and Obstacle data sets for Area 3 and Airport Mapping Databases (AMDB)
- 4.12 The meeting agreed that the monitoring tables became obsolete for the following reasons:
 - The sixth edition of GANP replaces the thread DATM with the DAIM Digital Aeronautical Information Management, refining AIM implementation elements in a more consistent and comprehensive manner.
 - The provision of these tables plans duplicates similar action at the ICAO MID regional level with the AIRM
 - The monitoring should follow the evolution of the GANP and the revision of the MID Air Navigation Strategy.
 - B0 does not exist anymore since the GANP Sixth Edition.
- 4.13 Consequently, the meeting also agreed on the need to analyze the changes in the GANP and review the structure of -MID- B0-DATM Tables, develop appropriate tables for inclusion in ICAO eANP Vol. III. These tables should then be reviewed by the RANP/NANP TF and submitted for approval by the MIDANPIRG.
- 4.14 Moreover, the meeting recalled that the first meeting of RANP/NANP TF (Cairo, Egypt, 19 22 February 2024) underlined the need for the MIDANPIRG Sub Groups to allocate enough time in their agenda for the detailed discussion of the ASBU Threads relevant to their technical areas,

including the identification of priorities, definition of applicability areas, indicators, metrics, targets, etc.

- 4.15 In this regard, the meeting concurred, to create an action group to
 - review the structure of ASBU-MID- B0-DATM Tables and develop appropriate tables for inclusion in ICAO eANP Vol. III; and
 - analyse the ASBU DAIM Thread and Elements, including the identification of priorities, definition of applicability areas, indicators, metrics, targets, as well as the development of a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) for the ICAO ASBU (Aviation System Block Upgrade) DAIM (Data Analysis and Information Management) as well as the identification of KPAs and KPIs to enable States to organize the preparation of the ASBU DAIM Thread/Elements for its implementation, measure and document the efficiency benefits of the DAIM elements implemented.
- 4.16 Based on the above, the meeting agreed to the following Draft Decision:

DRAFT DECISION 10/1: MID REGION ASBU DAIM ACTION GROUP

That:

- a) the ASBU D-AIM Action Group is established to:
 - i. review and propose amendments to the MID Air Navigation Strategy parts related to AIM, including the identification of priorities, definition of applicability areas, indicators, metrics, targets, etc.,
 - ii. review and update the structure of the current ASBU-MID- B0-DATM Tables:
 - iii. support States in the development of their National Air Navigation Plans (NANP) parts related to AIM, through the development of sample SWOT analysis, identification of KPIs, baselines, solutions and targets
 - b) the Action Group is composed of the following Experts nominated by States/Organizations:
 - Chairperson of the AIM SG
 - Mr. Ali Tammam (Egypt)
 - Mr. Eslam Elsayed Abdel Fatah (Egypt)
 - Mr. Rouhallah Salehi (Iran)
 - Mr. Mahmmad Mahanpour (Iran)
 - Ms. Hind A. Almohaimeed (KSA)
 - Mr. Ibrahim Alshaya (KSA)
 - Mr. Hamed Al Zubaidi (UAE)
 - Mr. Ahmed Saleh Alshehhi (UAE)
 - Ms. Lindi-Lee Kirkman (IATA)
 - ICAO Secretariat (rapporteur)

ASBU DAIM implementation in MID Region

- 4.17 The subject was addressed in WP/6 presented by the IATA.
- 4.18 It was pointed out that the ICAO Standards and Recommended practices laid out in Annex 15 and Doc 8126 obligate States and by extension, the organs of the State such as Air Navigation,

Aerodrome, Search and Rescue, and Metrological Service Providers, etc. to ensure the availability of high quality, timely, accurate aeronautical information that meets the needs of the airspace user.

- 4.19 It was noted, however, that at an operational level, this is not always realized with many challenges across the region in terms of aeronautical information/data:
 - Inconsistencies in publication, formatting, and interpretation of SARPs
 - Data inaccuracies
 - Short notice changes, late publication, and non-adherence to AIRAC
 - Challenges in accessing AIP, NOTAM, SUP, etc
- 4.20 It has even been echoed that the regional transition from AIS to AIM and the migration to digitalized aeronautical information within the region is now more than ever critically urgent. Yet, the effective implementation of the elements of the ASBU DAIM referred to below is well overdue.
 - Provision of quality-assured aeronautical data and information: the provision of digital aeronautical information datasets (AIP, terrain, obstacles, aerodrome and instrument flight procedures)
 - NOTAM improvements: these not only will provide a solid foundation for realizing improvement in the quality, accuracy, and timeliness of current data but also prepares the way for future ASBU module implementation beyond the AIM domain.
- 4.21 With this in mind, the meeting urged States to effectively implement the Basic Building Blocks (BBB), which, describes the basis of any robust air navigation system and consists of the identification of essential services to be provided to international civil aviation in accordance with the SARPs of ICAO and the DAIM block 1 without delay.

GNSS disruption in MID Region

- 4.22 The subject was addressed in WP/7 presented by the Secretariat.
- 4.23 The meeting noted that since August 2023, a new variety of GPS spoofing is being reported by crews, where the signal is sufficiently strong and of sufficient integrity to feed the aircraft systems. The result is that within minutes, the IRS becomes unusable, and in many cases, all navigation capability on board is lost. Flight Crews have had to ask ATC for radar vectors. Given the types of airspace that these events are occurring in, this presents significant risk.
- 4.24 It was underlined that the spoofing is the broadcast of GNSS-like signals that cause avionics to calculate erroneous positions and provide false guidance. The effects of GNSS possible spoofing activities were observed by flight crew, including:
 - Fake GPS signal (spoofed) gives the FMS the indication it is 60nm off track;
 - Complete loss of navigational capability including IRS failure;
 - No reliable on board navigation ATC vectors required. One flight required ATC vectors all the way to their destination in Doha;
 - Potential airspace infringements due to GNSS degradation. One operator almost entering Iranian airspace without clearance.

- 4.25 The meeting recalled that the MIDANPIRG/20 endorsed through MIDANPIRG Conclusion 20/18 a NOTAM TEMPLATE FOR GNSS INTERFERENCE. Based on the recent new entry of GNSS Spoofing, the PBN SG/8 meeting held in Doha, Qatar, 12 13 December 2023, invited the AIM SG to consider updating the NOTAM Template for GNSS Interference to reflect the spoofing activities and its effect on safety of flight operations for instance, "GNSS MAY BE MISLEADING WITHIN" for spoofing events.
- 4.26 Based on the above, the meeting agreed on the following Draft Conclusion:

DRAFT CONCLUSION 10/2: REVISED NOTAM TEMPLATE FOR GNSS INTERFERENCE

That,

- a) ICAO and IATA in coordination with AIM SG Chairpersons to develop revised NOTAM template for GNSS interference including jamming and spoofing considering the global and regional developments; and
- b) ICAO MID Office circulate the revised NOTAM Template for GNSS interference through State Letter for implementation by States.

NOTAM Template on Conflict Zones

- 4.27 The subject was addressed in WP/8 presented by the Secretariat.
- 4.28 The meeting noted that following the outcomes of the 41st Session of the ICAO Assembly in 2022, which supported the proposal to prioritize the review of Doc 10084 Risk Assessment Manual on Civil Aircraft Operations Over or Near Conflict Zones, taking into consideration the work conducted by international and regional groups and organizations, the ICAO Doc 10084 was then reviewed, amended and published in 2023 as a third edition of Doc 10084.
- 4.29 Stress was laid on the new Appendix G f the Doc 10084 third edition which describes a systematically coordinated risk assessment and risk communication model that can be used by States. The model consists of three (3) risk levels with correlating governmental security measures expressed in a consistently structured risk communication text (including content, sequence and vocabulary).
- 4.30 Recalling that the twentieth Meeting of the Middle East Air Navigation Planning and Implementation Regional Group MIDANPIRG/20 (Muscat, Oman, 14 17 May 2023), endorsed through MIDANPIRG CONCLUSION 20/19, the NOTAM template to 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, the meeting has rightly recognised the need to follow the standardized lexicon in the publication of AIP, NOTAM or AIC products for a conflict zone to reduce operator confusion with understanding various State issued information-sharing and further agreed to the Draft Conclusion to replace and supersede the MIDANPIRG Conclusion 20/19:

DRAFT CONCLUSION 10/3: RISK COMMUNICATION MODEL TO DISSEMINATE INFORMATION RELATED TO RISKS TO CIVIL AVIATION OVER OR NEAR CONFLICT ZONES

That, the guidance contained in the Appendix G of the ICAO Doc 10084, Risk Assessment Manual on Civil Aircraft Operations Over or Near Conflict Zones, Third Edition, 2023, be used to disseminate information regarding the nature and extent of threats arising from the conflict and its consequences for civil aviation.

UAE AIM Datasets Live Operation

- 4.31 The subject was addressed in WP/9 presented by the UAE. The meeting was apprised of the UAE AIM high-level plan and experience with the main activities to set up the stage to go operational with the implementation of ICAO Digital Datasets as part of the strategic GCAA plan for enhancing AIM capabilities, along with the required actions for successful dataset implementation. UAE Digital Datasets are made available via information services following the introduction of the first system-wide information management (SWIM) in MID Region.
- 4.32 The meeting was also apprised of the High-level Plan and activities for Datasets Provision and on the associated challenges, provided below.
 - Cross border features ownership will challenging;
 - Common route update will raise this issues needs to be resolved;
 - Having common International Routes will lead on having Multiple Universally Unique Identifier which may be an issue while searching the Route by the Users.
 - Regular Minimum Security Baseline needs to update to avoid cyber-attacks;
 - Automated AIXM 5.1 Business Rules needs to be defined and unified:
 - Automated system needs to be created to validate AIP Dataset vs AIP Amendment which will be additional taken step towards quality controlled Data;
 - Traceability and accountability specification needs to be defined in case of manual modification of AIP Dataset;
 - For AIP Supplements more than three months for text and graphics what solution needs to adopted;
 - For SWIM Interfaces (PUB/SUB and Request/Reply) for updating in AIM Database new specification needs to be defined;
 - For users who does not have AIM Database or AIXM Compliant applications, how to share data with them;
 - How to adapt future AIXM 5.2 release and its migration.
- 4.33 The meeting congratulated UAE and commended their vision to plan for the future and for their drive to succeed.
- 4.34 The meeting agreed to task the DDI Ad-hoc WG to address the possible challenges and to propose a unified solutions for the region and seek the guidance and direction of the MIDANPIRG.

Data-Driven IAP Charts

- 4.35 The subject was addressed in WP/10 presented by the UAE. The meeting noted the progress made by the United Arab Emirates in implementing Data Driven IAP Charting, encountered challenges, and adopted solutions.
- 4.36 The meeting also acknowledged that the UAE has successfully finalized the migration of En-route Charts and has commenced the migration process for SID and STAR charts into Database Driven Charts. Furthermore, the UAE has conducted the necessary feasibility study for migrating RNP Approach Charts. Several challenges emerged during this process, underscoring the necessity for

harmonization and standardization, notably the absence of standardized guidance to unify AIXM coding and chart depiction. This lack of standardization hinders the propagation of unified information to end users.

4.37 The meeting agreed to assign the DDI Ad-hoc Working Group with the responsibility of tackling potential challenges and presenting unified solutions tailored to the region. Furthermore, it was agreed to seek guidance and direction from MIDANPIRG in this endeavor.

Outcomes of the Digital Datasets Implementation Ad-Hoc Working Group

- 4.38 The subject was addressed in WP/11 presented by the Secretariat. The meeting recalled that the MIDANPIRG/18 meeting, through Decision 18/17, established the Digital Datasets Ad-hoc Working Group (DDI Ad-hoc WG). The Digital Data Sets WG was tasked to develop a detailed Regional Implementation Plan for Digital Datasets. The meeting noted that based on the regional best practices and available provisions in ICAO and Eurocontrol guidance material, the DDI Ad-hoc WG finalised the drafting of Regional Implementation Plan for Digital Datasets, which is organised in several Parts, as follows:
 - Part 1: General Aspects of Digital Aeronautical Data Sets
 - Part 2: Provision of Terrain and Obstacle Data Sets
 - Part 3: Provision of Aerodrome Mapping Data Sets (AMD)
 - Part 4: Provision of Aeronautical Information Publication (AIP) Data Sets
 - Part 5: Provision of Instrument Flight Procedure Data Sets
 - Part 6: Database Driven Charting Implementation in MID Region
 - Part 7: Coordinated Deployment of the Digital Data Sets in Mid Region
- 4.39 Each part provides information about coding rules, guidelines, limitations, and possible workarounds for the data set. In addition, and to avoid complexity and reproduction of the existing material, relevant information are included together with the links to the websites as reference to help States finding useful resources. On top of that, the plan contains implementation steps of the digital data sets along with Data Set Specimen, as appropriate.
- 4.40 It has been pointed out that, to ensure a coordinated and harmonized deployment of the digital AIS data sets in MID Region, three key aspects were considered to ensure harmonization "what to provide", "how to provide it" and "when to provide it". The DDI Ad-hoc WG provided the Scope, Format, Coding Specification, and timelines for the provision of Digital Data Sets in MID Region.
- 4.41 The meeting commended the diligent efforts of the Digital Datasets Implementation Ad-hoc Working Group (DDI Ad-hoc WG). Acknowledging the challenges identified by the states in this process and recognizing the vital importance of addressing and overcoming them, the meeting proposed that the Working Group continue its endeavors to devise unified solutions tailored to the MID region.
- 4.42 Consensus was also achieved regarding a revised composition for the Digital Datasets Implementation Ad-hoc Working Group (DDI Ad-hoc WG). The aim is to ensure active engagement and contributions from all members, recognizing that this task demands dedicated effort and buy-in

from multiple stakeholders.

4.43 Based on the above, the meeting agreed to the following Draft Decision to replace and supersede the MIDANPIRG Decision 18/17:

DRAFT DECISION 10/4: MID REGIONAL IMPLEMENTATION PLAN FOR DIGITAL DATASETS

That the DDI Ad-hoc WG,

- a) finalize the Regional Implementation Plan for Digital Datasets taking into account the best practices and identified challenges and considering the Global and Regional developments; and
- b) be composed of:
- Chairperson of the AIM SG
- Ms. Hind A. Almohaimeed (KSA)
- Mr. Ibrahim Alshaya (KSA)
- Mr. Mohamed Ali Ben Abdessalem
- Mr. Hamed Al Zubaidi (UAE)
- Mr. Kedari Manthanwar (UAE)
- Mr. Taha Mohamed Taha (Egypt)
- Mr. Ali Tammam (Egypt)
- Mr. Mohamed Yasser Gawish (Egypt)
- Ms. Lindi-Lee Kirkman (IATA)
- Ms. Christine Groos (Boeing)
- Mr Sumit Khinvasara (member of IFAIMA)
- ICAO Secretariat (rapporteur)

Saudi Arabia Datasets Management and Exchange

- 4.44 The subject was addressed in PPT/12 presented by the Secretariat. The meeting was apprised of the Saudi Arabia new AIM system, Data sets generation status, the Data Distribution Portal/Data sets exchange, and the national datasets implementation roadmap.
- 4.45 The meeting noted that the AIM system ensures the automatic verification and validation capabilities which include the business rules validation against ICAO and AIXM 5.1 requirements.
- In addition, the new AIM system allows the use of a single integrated database for the management of all types of dynamic aeronautical information such as NOTAM, Pre-flight Information Bulletins (PIB) and MET which guarantee the consistency and integrity of the distributed aeronautical information. The meeting noted also that SANS is in progress to implement Data Distribution Portal (DDP) which will be used for the distribution of the generated datasets (AIP datasets, Obstacles datasets, IFP datasets, Aerodrome Mapping datasets) this tool will be available for the end users through registration and allow the download of the datasets. In addition, the DDP offers a geographic interface to display and visualize the data.
- 4.47 The meeting extended congratulations to Saudi Arabia for the successful deployment of the new AIM (Aeronautical Information Management) System and for the Agreement between SANS/AIM and Boeing for the validation of national AIM data datasets.

User Perspective on Digital Data Sets

- 4.48 The subject was addressed in PPT/18 presented by Boeing.
- 4.49 The meeting was apprised of the AIXM Possible Data Validation Checks. Here's an overview of what typically gets checked during AIXM data validation:
 - 1. **AIXM Schema Validation**: Check for AIXM syntax, Usage of non-standard symbols (AIXM-specific pattern requirement), Number of symbols of a string value, ...etc
 - 2. **Missing Links Validation:** Check for references to non-existing features
 - 3. AIXM Visualization for Geometry Correctness
 - 4. **Import Issues Check:** Allows to identify the Import issues which can prevent data upload UUID, UOM availability, wrong XML structure, etc.
 - 5. Geometry Completeness Validation Report include all features with geometry Check for features with missing geo properties
 - 6. **AIXM Business Rules Validation filtered for rules relevant for Boeing**Check for compliance with AIXM business rules: AIXM Model Business Rules, ICAO
 Annex 10, 11, 14, 15 Business Rules, FAA Business Rules Customized, etc.
- 4.50 It was highlighted that the AIXM data validation is a comprehensive process that encompasses multiple dimensions of data quality assurance, ranging from syntactical correctness and semantic consistency to geometric accuracy and compliance with standards. By rigorously evaluating these aspects, aviation stakeholders can ensure the reliability and usability of AIXM data for various applications, including airspace design, flight planning, and air traffic management.
- 4.51 The meeting took note of some examples of findings that could be identified during the AIXM data validation process:
 - 1. **Import Issues Check:** UOM not defined, Annotations for non-existing properties
 - 2. **AIXM Schema Validation:** Usage of language specific symbols: ÁÃÉÕçâé, Value should contain no more than specific number of symbols (depending on value): 10, 16, 60 or other Space characters in phone numbers: (0) 4 77 60 49 87
 - 3. **Missing Links Validation:** Non-standard references, without using UUIDs, References to features of bordering countries
 - 4. **Geometry Completeness Validation:** Incomplete geometry for some features:

AircraftStands,

No geometry at all for some critical features: Airspaces

5. AIXM Business Rules Validation

Elevation is in FT and vertical accuracy is in M

Route Segment Width Left and Width Right have different UOMs

No lower limit reference coded for Airspace

Missing accuracy of some values: field elevation

4.52 The meeting acknowledged the user requirements and recommendations, in particular:

1. Close Collaboration with Data Providers

- Early announcement of plans to transition to AIXM data format
- Regular feedback on data testing and discussion about findings
- Data issue clarifications
- Communication in general

2. Additional Requirements in the Near Future

- Certified data
- Transparent data ownership
- Web services provided by ANSP (e.g. SWIM, API)
- Timelines
- 4.53 The meeting expressed gratitude towards Boeing for their valuable contributions.

KSA WAC and Aeronautical Chart ICAO 1500 000

- 4.54 The subject was addressed in PPT/13 presented by Saudi Arabia.
- 4.55 During the presentation, an overview of the KSA Aeronautical Chart production plan was provided, detailing the strategies and methodologies employed for chart development. Emphasis was placed on the maintenance of World Aeronautical Charts (WAC) and Aeronautical Charts according to ICAO standards at a scale of 1:500,000, ensuring accuracy and reliability for airspace users. However, certain limitations were acknowledged, prompting a discussion on areas for improvement, which include:
 - a) The charts may not reflect real-time changes such as temporary airspace restrictions or aerodrome closures. Pilots should consult NOTAM, AIP SUP, and the Kingdom of Saudi Arabia AIP for the most up-to-date information.
 - b) The level of detail provided on the charts may vary in certain regions. Pilots should exercise caution when operating in areas with limited chart coverage.
 - c) Information for territories outside of the Kingdom of Saudi Arabia is published for information only and has not been verified.
- 4.56 The presentation also outlined the future plan for KSA Aeronautical Charts, highlighting proposed enhancements and updates to meet evolving aviation needs. Additionally, challenges encountered in chart production and distribution were addressed, accompanied by recommendations to overcome these obstacles and optimize the charting process for enhanced safety and efficiency in air navigation within Saudi Arabia.
- 4.57 The meeting commended this achievement, recognizing it as a significant milestone in advancing the quality and accessibility of aeronautical information within Saudi Arabia.

NOTAM specification changes UAE

- 4.58 The subject was addressed in WP/14 presented by the Secretariat. The meeting took note of the UAE's experience in preparing and implementing amendments to NOTAM specifications in accordance with ICAO Doc. 8126 Ed.07. focuses on the Qualifiers Lower/Upper Limit within the Q-Line, it explores the mechanisms employed by the UAE to apply these changes efficiently.
- 4.59 ICAO Doc.8126 Ed.07 amended some NOTAM specifications and provided guidelines to facilitate understanding of the message and support automated PIB processing while maintaining clear readability. The change which had a very significant impact is on the Q-Line: Qualifiers Lower Limit and Upper Limit.
- 4.60 The meeting noted UAE's experience preparing for the significant NOTAM Specifications Change specifically the calculation of Q-Line Lower/Upper Limits.

4.61 The meeting encouraged States to share their experience in managing the conversion procedures of Lower and Upper limits and invited Saudi Arabia to share their experience in implementing amendments to NOTAM specifications.

PBN SID and STAR Charting issues

- 4.62 The subject was addressed in PPT/15 presented by the Secretariat. The meeting noted that the discrepancies were identified in PBN SID/STAR charts published in MID States' AIPs. These inconsistencies encompassed various aspects such as chart titles, chart identifications, and PBN Boxes.
- 4.63 The meeting noted also that ICAO State Letter 2023/07 provided requirements in Annex 4 and PANS OPS (Doc 8168) concerning PBN box and charting of PBN SIDs and STARs, however specimen charts were not included.
- 4.64 The meeting agreed that the lack of harmonization in SID/STAR charts can pose challenges for AUs. It might be confusing for pilots and ATC.
- 4.65 Given that the harmonization is crucial for promoting safety, efficiency, and standardization, there is a need for ongoing efforts to promote harmonization and consistency in the publication of PBN SID/STAR charts. Furthermore, the meeting resoundingly endorsed the Draft Decision 8/4 of the PBN SG/8 meeting to establish Ad Hoc Working Group, underscoring its commitment to proactively address pertinent issues. The meeting further supported the nomination of experts to join this crucial initiative as follows:

DRAFT DECISION 8/4: PBN SID AND STAR CHARTING AD HOC WORKING GROUP

That a PBN SID and STAR Charting Ad Hoc Working Group,

- a) be established to develop guidance/Specimen of PBN SID and STAR Charts, in coordination with the AIM Sub Group.
- b) be composed of:
 - Chairpersons of the PBN SG and the AIM SG
 - Mrs. Pamela Erice (Qatar)
 - Mr. Sagr Obaid Al Marashda (UAE)
 - Mr. Kedari Manthanwar (UAE)
 - Mr. Muhammad Aljuhani (KSA)
 - Mr. Ayed Murfat (KSA)
 - Mr. Raed Ghazawi (Jordan)
 - Mr. Sulaiman Selmi (Oman)
 - Mr. Suwarn Raj Upadhyay (Oman)
 - Mr. Taha Mohamed Taha (Egypt)
 - ICAO Secretariat
- c) present its outcome to the PBN SG/9 and AIM SG/11 meetings.

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

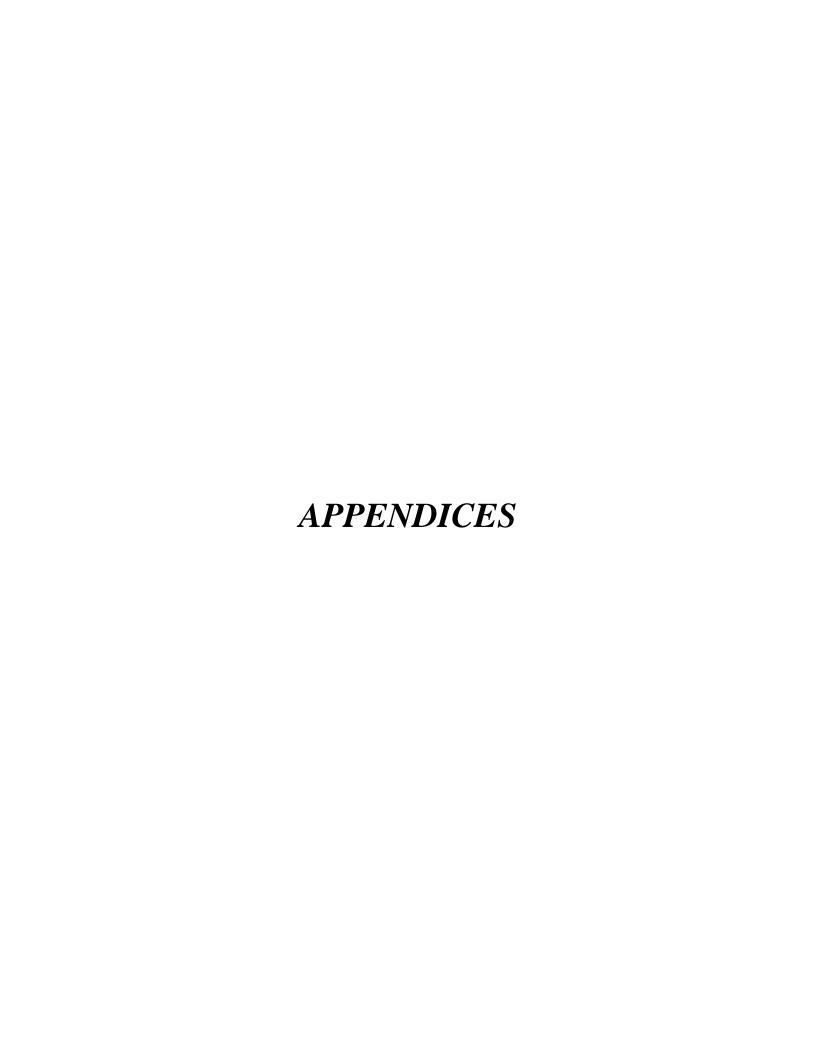
- 5.1 The subject was addressed in WP/xx presented by the Secretariat. The meeting recalled.
- 5.2 The subject was addressed in WP/16 presented by the Secretariat. The meeting recalled that, the MIDANPIRG/17 urged States to use the MID Air Navigation Deficiency Database (MANDD) for the submission of 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.
- The meeting noted that the total number of AIM deficiencies is forty-eight (48); forty-two (42) priority "A" and six (6) priority "B". Twenty-two (22) deficiencies related to eTOD (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.
- The Meeting noted with appreciation that Saudi Arabia has successfully implemented and published the data for terrain and obstacle in Area 1, and in the international airports (OEDF, OERK, OEMA and OEJN). Therefore, deficiencies will be proposed for remaoval at the MIDANPIRG/21 meeting in March 2024.
- 5.5 The meeting reviewed and updated the list of deficiencies in the AIM field as at **Appendix 5A**.

REPORT ON AGENDA ITEM 6: FUTURE WORK PROGRAMME

- The subject was addressed in WP/17 presented by the Secretariat.
- 6.2 The meeting reviewed the AIM SG Terms of References (TORs) as at **Appendix 6A** and no proposed changes were provided.
- 6.3 The meeting agreed that the AIM SG/11 meeting is tentatively scheduled to be held during Q1 2025. The venue will be the ICAO MID Regional Office in Cairo unless a State is willing to host the meeting.

REPORT ON AGENDA ITEM 7: ANY OTHER BUSINESS

- 7.1 Under other business, the meeting discussed cross-border coordination and exchange of aeronautical data and information centered on enhancing collaboration and harmonization among aviation stakeholders across MID Region.
- 7.2 The meeting acknowledged the importance of establishing standardized procedures and protocols to facilitate seamless data exchange, ensuring accuracy, consistency, and timeliness of aeronautical information shared between States. The meeting emphasized the significance of effective communication channels, data sharing agreements, and interoperable systems to support efficient cross-border operations and enhance safety and efficiency in international airspace. Overall, the discussions underscored the need for collaborative efforts and coordinated actions to optimize cross-border coordination and enhance the exchange of aeronautical data and information for the benefit of global aviation.
- 7.3 Considering the above, the meeting tasked the secretariat to develop a template of Cross-Border Formal Agreement which aims at facilitating cross-border coordination and collaboration among aviation authorities and stakeholders. This agreement will serve as a framework for establishing harmonized procedures and protocols for the exchange of aeronautical data and information across international borders within MID member states.



APPENDIX 2A

FOLLOW-UP ACTION PLAN ON MIDANPIRG/20 CONCLUSIONS & DECISIONS

No.	Conclusions and Decisions	CONCERNS/ CHALLENGES (RATIONALE)		ERABLE/ ITIATED BY	TARGET DATE	STATUS/REMARKS
C. 20/7	REVISED MID AIR NAVIGATION STRATEGY That, the Revised MID Air Navigation Strategy (Doc 002) is endorsed and be published by the ICAO MID Office.	Identification of priority 1 ASBU threads/elements, their baseline and linked KPA/KPI, monitoring and reporting at Regional level.	Revised MID Air Navigation Strategy (ICAO MID DOC 002)	ICAO	May. 2023	Completed Revised MID Air Navigation Strategy (ICAO MID DOC 002) is posted and accessible through: https://www.icao.int/MID/MIDAN PIRG/Documents/eDocuments/MI D%20Doc%20002%20- %20MID%20Air%20Navigation% 20Strategy%20- %20Feb%202021.pdf
C. 20/8	REVISED MID ANP VOL III That, the Revised MID ANP Vol III is endorsed and be published by the ICAO MID Office.	Need to update the ANP Vol III to align with the GANP and the Performance Based Approach	Revised MID ANP Vol III	ICAO	May. 2023	Completed Revised MID ANP Vol III is endorsed and published: https://www.icao.int/MID/Docume nts/eANP/MID%20eANP%20VO L%20III.pdf
C. 20/10	WEB-BASED MID REGION AIR NAVIGATION REPORT – 2022 That, the Web-based MID Air Navigation Report (2022) is endorsed.	To publish the status of ASBU implementation in the MID Region for 2022	MID Air Navigation Report (2022)	ICAO	May. 2023	Completed MID Air Navigation Report (2022) is published and accessible through https://www.icao.int/MID/Documents/2023/AN%20Report%202022/MID%20AN%20Report%202022-V0.4-Kaveh-MS%20inputs-27Nov23.pdf

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)		ERABLE/	TARGET DATE	STATUS/REMARKS
C 20/11	WEB-BASED MID REGION AIR NAVIGATION REPORT (2023)					actioned
	That, a) States be invited to provide the ICAO MID Office with the following data for the development of the MID Region Air Navigation Report (2023) by 1 December 2023: i. Status of ASBU Implementation; and ii. States' implementation of the Performance Based approach using the agreed Template as at Appendix 6.1A b) the MID Air Navigation Report (2023) be presented to the	Monitoring and Reporting on ASBU and PBA implementation in the MID Region	Data for WEB-BASED AN Report 2023 AN Report ICAO		November 2023 Dec. 2023 January. 2024	The RANP/NANP TF/1 meeting reviewed the MID Region Air Navigation Report (2023).
D 20/12	MIDANPIRG/21 for endorsement. RANP/NANP TASK FORCE		2023			actioned
	That, a) RANP/NANP Task Force be established to ensure alignment of the MID Region Air Navigation Strategy and MID ANP Vol III with the latest edition of the GANP and assist States developing NANPs; b) the terms of reference of the RANP/NANP Task Force be developed during the first meeting of RANP/NANP Task Force; and c) States support the RANP/NANP Task Force through: i. assignment of Focal Point to contribute to the work of the Task Force; and ii. sharing states' experience and provision of required data in timely manner.	Ensure alignment of the MID Region Air Navigation Strategy and MID ANP Vol III with the latest edition of the GANP and assist States developing NANPs	Revised ANP Vol III and Doc002	MID States, ICAO MID	2024	
C 20/17	WEBINAR ON AIM TRAINING MANUAL, FIRST EDITION, 2023					Completed
	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.	Provide guidance for States on how the aeronautical information services providers (AISPs) can use the ICAO	Webinar on the new ICAO DOC 9991 – Training Manual	ICAO	2023	Webinar on the new ICAO DOC 9991 –Training Manual and competency-based training and assessment (CBTA) methodology for AIS conducted on 8 June 2023

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)		ERABLE/ ITIATED BY	TARGET DATE	STATUS/REMARKS
		competency framework to establish an adapted competency model				
C 20/18	NOTAM TEMPLATE FOR GNSS INTERFERENCE					Completed
	That, the NOTAM template at Appendix 6.2A be used to disseminate information on GNSS Interference.	To provide States with a standard NOTAM template to be used for GNSS Interference to facilitate operators in filtering and searching through the NOTAM on GNSS Interference		ICAO	May 2023	State Letter Ref.: AN 8/2.1-23/165 dated 10 August 2023
C 20/19	NOTAM TEMPLATE TO DISSEMINATE INFORMATION RELATED TO RISKS TO CIVIL AVIATION OVER OR NEAR CONFLICT ZONES					Completed
	That, the NOTAM template at Appendix 6.2B 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.	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	NOTAM template to disseminate information related to risks to civil aviation over or near conflict zones	ICAO	May 2023	State Letter Ref.: AN 8/2.1-23/165 dated 10 August 2023
C 20/20	CCO/CDO PUBLICATION, CHARTING & DATABASE					Completed

No.	Conclusions and Decisions	CONCERNS/ CHALLENGES (RATIONALE)		ERABLE/ ITIATED BY	TARGET DATE	STATUS/REMARKS
	CODING That, the AIP CCO/CDO material, structure and content along with the Database coding and Charting at Appendix 6.2C are recommended for the dissemination of information on CCO/CDO.	Support States' ANS to publish CCO/CDO information (text and Charts) so text be easily found in the States AIPs	Guidance material related to the publication of CCO/CDO information (text and Charts)	ICAO	May 2023	State Letter Ref.: AN 8/2.1-23/166 dated 10 August 2023
D 20/21	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; and 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.	To strengthen and expand collaborative discussions and engagement on aeronautical information in MID Region	Forum	ICAO/IATA	May 2023	Actioned
C 20/22	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 2023; and	Development of a Regional Implementation Plan for Digital Datasets	Regional Implementation Plan for AIM Digital Datasets;	MIDANPIRG/21	March 24	On-going Updates provided in WP related to the outcomes of DDI Ad-hoc WG

2A-5

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	ERABLE/ TIATED BY	TARGET DATE	STATUS/REMARKS
	b) the Regional Implementation Plan for Digital Datasets be reviewed by the AIM SG before submission to MIDANPIRG for endorsement.				

APPENDIX A

Deficiencies in the AIM field

EGYPT

I tem No	Identif	Identification Deficiencies				Corrective Act	ion			
	Requirement	Facilities/ Services	Description	Date first reported		s/ Rationale for elimination	Facilities/ Services	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; Phase 2: provide the required specification to Consultancy office to determine the implementing entity; Phase 3: Determine the implementing entity and begin to produce new software for eTOD; Phase 4: finish the new software and begin to produce eTOD area 4 (from existing raw data from Cairo International Airport Company); Phase 5 (in parallel with phase 4): begin to produce eTOD area 1 after get raw data Terrain data sets are provided for Areas 1 and 4. Terrain data sets for area 2a, TOFP and OLS are not provided.	Egypt	Q4 2025	A

2	ANNEX 15: Para. 5.3.3.3.2 5.3.3.3.3 5.3.3.8	-	Lack of provision of required terrain data sets	Jan 2021	-	0	Phase 1: Determine the required specification for Obstacles area 1 and 4; Phase 2: provide the required specification to Consultancy office to determine the implementing entity; Phase 3: Determine the implementing entity and begin to produce new software for eTOD; Phase 4: finish the new software and begin to produce eTOD area 4 (from existing raw data from Cairo International Airport Company); Phase 5 (in parallel with phase 4): begin to produce eTOD area 1 after get raw data Terrain data sets are provided for Areas 1 and 4. Terrain data sets for area 2a, TOFP and OLS are not provided.	Egypt	Q4 2025	A
---	---------------------------------------------	---	-------------------------------------------------	----------	---	---	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------	---------	---

Deficiencies in the AIM field

IRAN

	Item No	Identif	Identification Deficiencies			Corrective Action					
		Requirement	Facilities/ Services	Description	Date first reported		s/ Rationale for elimination	Facilities/ Services	Executing body	Date of completion	Priority for action
,		ANNEX 15: Para. 2.3.10 and 3.5.3	II =	Lack of AIXM-based AIS Database	Dec 2007	-	О	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.	Iran	Dec 2025	A

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

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	Jan 2021	-	0	Obstacle data sets are available for Areas 1, 4 and 2a. Obstacle data sets for TOFP and OLS are not provided.	Iran	Dec 2026	A
3	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	-	0	Terrain data sets are available for Areas 1, 4 and 2a. Terrain data sets for TOFP and OLS are not provided.		Dec 2026	A

Deficiencies in the AIM field

IRAQ

	tem No	Identification Identification			Corrective Action						
		Requirement	Facilities/ Services	Description	Date first reported	Remarks/ Rationale for non-elimination		Facilities/ Services	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	-	FHS	Corrective Action Plan has not been formally provided by the State	Iraq	Dec 2024	В

2	ANNEX 15: Para. 1.2.1.1	-		Dec 1997	-	FHO	Corrective Action Plan has not been formally provided by the State	Iraq	Dec 2024	А
3	ANNEX 15: Para. 3.6	17 11/15	Lack of Implementation of QMS	Jan 2003	-	FHO	Corrective Action Plan has not been formally provided by the State	Iraq	Dec 2024	A
4	ANNEX 15: Para. 5.5	-		Mar 2004	-	FHO	Corrective Action Plan has not been formally provided by the State	Iraq	Dec 2024	A
5	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	-	0	Corrective Action Plan has not been formally provided by the State	Iraq	Dec 2024	A

6	ANNEX 15: Para. 5.3.3.3.2 5.3.3.3.3 5.3.3.8		Lack of provision of required terrain data sets	May 2014	-	0	Corrective Action Plan has not been formally provided by the State	Iraq	Dec 2024	А	
---	---------------------------------------------	--	-------------------------------------------------	-------------	---	---	--------------------------------------------------------------------	------	----------	---	--

JORDAN

Item No	Identif	ication	Data first Pamarks / Pationals for				Corrective Act	ion		
	Requirement	Facilities/ Services	Description	Date first reported		s/ Rationale for elimination	Facilities/ Services	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	-	FH	Corrective Action Plan has not been formally provided by the State	Jordan	Dec 2024	В
2	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	-	FΗ	Corrective Action Plan has not been formally provided by the State	Jordan	Dec 2024	A

3	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	-	II F H	Corrective Action Plan has not been formally provided by the State	Jordan	Dec 2024	A	
---	-----------------------------------------------	---	-------------------------------------------------	-------------	---	--------	--------------------------------------------------------------------	--------	----------	---	--

LEBANON

Item No	Identif	ication		Deficiend	cies		Corrective Act	ion		
	Requirement	Facilities/ Services	Description	Date first reported		s/ Rationale for elimination	Facilities/ Services	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	-	II H	Corrective Action Plan was provided in August 2016.	Lebanon	Dec 2024	В
,	ANNEX 15: Para. 3.6	QMS Implementation	Lack of Implementation of QMS	Jan 2003	(USOAP- CMA finding)		Corrective Action Plan was provided in August 2016.	Lebanon	Dec 2024	A

3	ANNEX 15: 5.3.3.4.3 5.3.3.4.5	-	Lack of provision of required obstacle data sets	May 2014	-	()	Corrective Action Plan was provided in August 2016.	Lebanon	Dec 2024	A
4	ANNEX 15: Para. 5.3.3.3.2 5.3.3.3.3	-	Lack of provision of required terrain data sets	May 2014	-	()	Corrective Action Plan was provided in August 2016.	Lebanon	Dec 2024	A

LIBYA

Item No	Identif	ication		Deficiencies Date first Remarks/ Rationale for			Corrective Act	ion		
	Requirement	Facilities/ Services	Description	Date first reported		s/ Rationale for elimination	Facilities/ Services	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	-		Plan to Sign a contract with a specialized company for the production of this chart.	Libya	Dec 2024	В
2	ANNEX 15: Para. 5.3.3.4.3 5.3.3.4.5	-	Lack of provision of required obstacle data sets	May 2014	-	II ()	Corrective Action Plan has not been formally provided by the State	Libya	Dec 2024	А
3	ANNEX 15: Para. 5.3.3.3.2 5.3.3.3.3	-	Lack of provision of required terrain data sets	May 2014	-	II ()	Corrective Action Plan has not been formally provided by the State	Libya	Dec 2024	A

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

4	ANNEX 15: Para. 2.3.10 and 3.5.3			May 2014	-	11 ()	The installation of AIM equipment has been completed, Awaiting for Data Migration	Libya	Dec 2024	A
5	ANNEX 15: Para. 3.6	QMS Implementation	Lack of Implementation of QMS	May 2014	(USOAP- CMA finding)	О	An agreement with an International quality company is Established to assist for Progressive implementation of Quality systems within LYCAA; AIS QMS is expected to be fully Implemented by DEC 2024	Libya	Dec 2024	A

OMAN

Item No	Identif	ication		Deficiencies Data first Demarks/ Patienals for			Corrective Act	ion		
	Requirement	Facilities/ Services	Description	Date first reported	-	s/ Rationale for -elimination	Facilities/ Services	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	-	0	Scope of work has been developed; Tender has been floated; Contract to be signed with a company to start AIP data migration and provision of the AIXM-based AIS Database	Oman	June 2024	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	-	0	TOD implementation working group has been established; TOD implementation focal points have been nominated; TOD policy to be developed; Tender to be floated; Contract to be signed with a company to provide obstacle data sets for Area 1, 2a, TOFP and OLS penetrations at aerodromes.	Oman	Dec 2025	A

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

3	ANNEX 15: Para. 5.3.3.3.2 5.3.3.3.3		Lack of provision of required terrain data sets	May 2014	-	Ο	TOD implementation working group has been established; TOD implementation focal points have been nominated; TOD policy to be developed; Tender to be floated; Contract to be signed with a company to provide terrain data sets for Area 1, 2a, TOFP and OLS penetrations at aerodromes.	Oman	Dec 2025	A
---	-------------------------------------	--	-------------------------------------------------	-------------	---	---	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------	----------	---

SAUDI ARABIA

Item No	Identif	ication		Deficien	cies		Corrective Act	ion		
	Requirement	Facilities/ Services	Description	Date first reported		s/ Rationale for elimination	Facilities/ Services	Executing body	Date of completion	Priority for action
4	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	-	θ	III	Saudi Arabia	Dec 2023	A

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	Dec 2021	~	θ		Saudi Arabia	Dec 2023	A
---	------------------------------------------------	---	-------------------------------------------------	-----------------------------------	---	---	--	---------------------------------------	---------------------	---

SUDAN

Item No	Identif	ication		Deficienc	cies		Corrective Act	ion		
	Requirement	Facilities/ Services	Description	Date first reported		s/ Rationale for elimination	Facilities/ Services	Executing body	Date of completion	Priority for action
1	ANNEX 15: Para. 5.3.3.4.3 5.3.3.4.5	-	Lack of provision of required obstacle data sets	May 2014	-	()	Corrective Action Plan has not been formally provided by the State	Sudan	Dec 2024	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	-	0	Corrective Action Plan has not been formally provided by the State	Sudan	Dec 2024	А	
---	-------------------------------------	--	-------------------------------------------------	-------------	---	---	--------------------------------------------------------------------	-------	----------	---	--

SYRIA

I tem No	I INENTIFICATION		Deficiencies				Corrective Action			
	Requirement Facilities/ Services		Description	Date first reported	ll l		Facilities/ Services	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	-		Corrective Action Plan has not been formally provided by the State	Syria	Dec 2024	В
2	ANNEX 15: Para 6.2	-	Lack of a system for AIRAC adherence monitoring	May 1995	-	FΗ	Corrective Action Plan has not been formally provided by the State	Syria	Dec 2024	A
3	ANNEX 15: Para. 1.2.1.1	-	Implementation of geoid undulation referenced to the WGS-84 ellipsoid.	Jan 2003	-	 - H	Corrective Action Plan has not been formally provided by the State	Syria	Dec 2024	A

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

4	ANNEX 15: Para. 3.6	QMS Implementation	Lack of Implementation of QMS	Jan 2003	(USOAP- CMA finding)	FН	Corrective Action Plan has not been formally provided by the State	Syria	Dec 2024	А
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	-	Н	Corrective Action Plan has not been formally provided by the State	Syria	Dec 2024	A
6	ANNEX 15: Para. 2.3.10 and 3.5.3	-	Lack of AIXM-based AIS Database	Jul 2005	-	FН	Corrective Action Plan has not been formally provided by the State	Syria	Dec 2024	A
7	ANNEX 15: Para. 5.5	-	Non provision of pre- flight information service at international airports	Jul 2005	-	FН	Corrective Action Plan has not been formally provided by the State	Syria	Dec 2024	A
8	ANNEX 15: Para. 5.3.3.4.3 5.3.3.4.5	-	Lack of provision of required obstacle data sets	May 2014	-	0	Corrective Action Plan has not been formally provided by the State	Syria	Dec 2024	A

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

9	ANNEX 15: Para. 5.3.3.3.2 5.3.3.3.3	-	Lack of provision of required terrain data sets	May 2014	-		Corrective Action Plan has not been formally provided by the State	Syria	Dec 2024	А
	Deficiencies in the AIM field									
						UAE				
Item No	Identif		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date first Remarks/ Rationale for reported non-elimination			Facilities/ Services	Executing body	Date of completion	Priority for action
					Deficienc	ies in the AIM fie	ld			
	1		1			YEMEN				
Item No	Identif	fication		Deficienc	ies		Corrective Act	ion		
	Requirement	Facilities/ Services	Description	Date first reported		s/ Rationale for elimination	Facilities/ Services	Executing body	Date of completion	Priority for action
	ANNEX 4: Para.		Non-production of World Aeronautical Chart – ICAO1:1 000	May 1995		 -	Corrective Action Plan has not been formally provided by the State	Yemen	Dec 2024	В

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

2	ANNEX 15: Para 6.2	-	Lack of a system for AIRAC adherence monitoring	May 1995	-	НО	Corrective Action Plan has not been formally provided by the State	Yemen	Dec 2024	A
3	ANNEX 4: Para. 11.2	-	Non-production of Instrument Approach Chart-ICAO for TAIZ Intl. Airport	Jan 2003	-	0	Corrective Action Plan has not been formally provided by the State	Yemen	Dec 2025	A
4	ANNEX 15: Para. 3.6	QMS Implementation	Lack of Implementation of QMS	Jan 2003	-	F	Corrective Action Plan has not been formally provided by the State	Yemen	Dec 2024	A
5	ANNEX 15: Para. 5.5	-	Non provision of pre- flight information service at international airports	Mar 2004	-	FН	Corrective Action Plan has not been formally provided by the State	Yemen	Dec 2024	A
6	ANNEX 15: Para. 2.3.10 and 3.5.3	-	Lack of AIXM-based AIS Database	Jul 2005	-	F	Corrective Action Plan has not been formally provided by the State	Yemen	Dec 2024	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	-	0	Corrective Action Plan has not been formally provided by the State	Yemen	Dec 2024	A

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

8	ANNEX 15 : Para. 5.3.3.4.3 5.3.3.4.5	-	Lack of provision of required obstacle data sets	May 2014	-	()	Corrective Action Plan has not been formally provided by the State	Yemen	Dec 2024	А	
---	--------------------------------------------	---	--------------------------------------------------	-------------	---	-----	--------------------------------------------------------------------	-------	----------	---	--

APPENDIX A

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;
 - 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;
 - 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

- 1. 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.





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

(Cairo, Egypt, 28 - 29 February 2024)

List of Participants

State Org/Industries		Name	Title
	1.	Mr. Eslam Elsayed Abdel Fatah	AIS/AIM Officer
	2.	Mr. Hossam Mohamed Omran	Head of Air Navigation
	3.	Ms. Sahar Mostafa Mohamed	Head of Aerodrome
	4.	Mr. Abdelaziz Mahmoud Abo Elmal	General Manager of Airspace & AIS
Egypt	5.	Mr. Mohamed Yasser F. Gawish	AIM Publication Manager
	6.	Ms. Safaa Hanafy	Flight Plan General Manager
	7.	Ms. Jehan Hassan Abdel Elghany	AIS Inspector
	8.	Mr. Ali Tammam	ANS Inspector
	9.	Mr. Rana Mohammad	ANS Inspector
Iran	10.	Mr. Ali Rahmania Nia	IT Manager
II all	11.	Mr. Mahmmad Mahanpour	Aerodrome Inspector in IRI
Jordan	12.	Mr. Raed Ghazawi	Chief AIS HQ
0014411	13.	Mr. Moheeb Khaled M. Bani Melhem	AIS Officer
	14.	Mr. Nagi Zaghdun	Head of AIS
	15.	Mr. Ahmed Miftah	AIS Officer
Libya	16.	Mr. Emad Miftah Elqaddafi	Head of NOTAM Unit
	17.	Mr. Samir H. M. Mugssbi	AIS
	18.	Mr. Said Azabi	AIS OFFICER
Oman	19.	Mr. Nasser Mohammed Albusaidi	AIM Acting Director
Oman	20.	Mr. Mohammed Ahmed Bait Dashisha	AIM
	21.	Mr. Hadi A. Alghamdi	Head of AIP Section
	22.	Ms. Hind A. Almohaimeed	AIP Senior Inspector
Saudi Arabia	23.	Mr. Mohamed Ali Ben Abdessalem	AIM Strategy Specialist
	24.	Mr. Ibrahim Alshaya	AIM Manager
	25.	Mr. Ayed Murfat	Aeronautical Charts Supervisor
	26.	Mr. Abdalla Al Rashidi	Director AIM
UAE	27.	Mr. Hamed Al Zubaidi	Assistant Manager – PANS OPS
	28.	Mr. Ahmed Saleh Alshehhi	Senior Manager Airspace

State Org/Industries		Name	Title
ADL	29.	Mr. Sumit Khinvasara	Managing Director
BOEING (virtual)	30.	Ms. Christine Groos	Aviation Data Supplier Management
IATA	31.	Ms. Lindi-Lee Kirkman	Regional Head of Flight Operations-ATM and Infrastructure MENA
IFATCA	32.	Mr. Raouf Nashed	IFATCA Representative, ME
ICAO	33.	Mr. Radhouan Aissaoui	Regional Officer Information Management
ICAO	34.	Mrs. Manal Wissa	Programme Analysis Associate