



International Civil Aviation Organization

MIDANPIRG ATM/SAR/AIS Sub-Group

Twelfth Meeting (ATM/SAR/AIS SG/12)
(Cairo, Egypt, 21 – 24 November 2011)

Agenda Item 10: AIM Issues

AIM IMPLEMENTATION IN THE MID REGION

(Presented by the Secretariat)

SUMMARY

This paper presents the outcome of the AIS/MAP TF/6 meeting with regard to the progress made for the implementation of AIM in the MID Region.

Action by the meeting is at paragraph 3.

REFERENCES

- Report of the AIS/MAP TF/6 meeting

1. INTRODUCTION

1.1 The Sixth Meeting of the MIDANPIRG AIS/MAP Task Force was held in Cairo, Egypt, from 6 to 8 June 2011. The meeting was attended by a total of Thirty Two (32) participants, including experts from Nine (9) States (Bahrain, Egypt, Jordan, Kuwait, Oman, Qatar, Saudi Arabia United Arab Emirates, and Yemen.) and Three (3) Companies from the Industry (Avitech, AG, Frequentis, & Jeppesen).

2. DISCUSSION

2.1 The AIS/MAP TF/6 meeting re-iterated the need for the development of national plans for the transition from AIS to AIM and reviewed the progress made towards the implementation of the different steps of the ICAO Roadmap for the transition to AIM in the MID Region.

2.2 The meeting recalled that MIDANPIRG through Conclusion 12/34 urged MID States, that have not yet done so, to develop national plans to implement the transition from AIS to AIM and send them to the ICAO MID Regional Office before 31 March 2011, in order for the AIS/MAP Task Force to monitor the progress of transition from AIS to AIM in the MID Region and support regional and national planning. It was also noted that, through Decision 12/35, MIDANPIRG/12 tasked the AIS/MAP Task Force to develop performance goals for the transition from AIS to AIM in the MID Region and identify achievable Milestones.

2.3 The meeting noted that only Bahrain, Iran, Kuwait, Oman and Qatar provided their National AIM Plan/Roadmap to the ICAO MID Regional Office. Accordingly and as a follow-up action to the above MIDANPIRG/12 Conclusion and Decision, the ICAO MID Regional Office issued on 14 April 2011 State Letter Ref.: AN 8/4 – 11/091, requesting States to complete the questionnaire at **Appendix A** to this working paper, and send it back to the Regional Office prior to 15 May 2011.

2.4 Taking into consideration the low level of replies to the above-mentioned questionnaire, the meeting agreed to the following Draft Conclusion:

*DRAFT CONCLUSION 6/1: QUESTIONNAIRE ON THE TRANSITION FROM
AIS TO AIM*

That, States are urged to complete/update the questionnaire at Appendix 3A to the Report on Agenda Item 3 (Appendix A) and send it back to the ICAO MID Regional Office before 15 August 2011.

2.5 The meeting may wish to note that, so far, Bahrain, Egypt, Iran, Kuwait, Oman, Qatar and UAE replied to the questionnaire. However, some updates might be necessary.

2.6 The meeting, then, reviewed the progress made towards the implementation of the different phases and steps of the ICAO Roadmap for the transition from AIS to AIM:

Phase 1 — Consolidation

2.7 The meeting re-iterated that the implementation of the current ICAO Annex 4 and Annex 15 provisions represents a pre-requisite for the transition from AIS to AIM. This concerns mainly the following steps of Phase 1 — Consolidation:

- P-03 — AIRAC adherence monitoring;
- P-04 — Monitoring of States' differences to Annex 4 and Annex 15;
- P-05 — WGS-84 implementation;
- P-17 — Quality.

AIRAC adherence monitoring (P-03)

2.8 The meeting recalled that MIDANPIRG/12 noted that the late receipt of aeronautical information continues to be a problem for the aviation community in the MID Region. It was also noted that the AIRAC procedures have not yet been fully adhered to by a number of MID States. Accordingly, MIDANPIRG, through Conclusion 12/27, urged States that have not yet done so, to fully comply with the AIRAC procedures; organize awareness campaigns involving AIS and all technical Departments providing the raw data to the AIS for promulgation; and arrange for the signature of Service Level Agreements (SLA) between AIS and the data originators.

2.9 In the same vein, the meeting noted with concern that, frequently aeronautical information that should be published in accordance with the AIRAC system is published through normal AIP Amendments or even by NOTAM; and highlighted the safety implications of such proceedings. Furthermore, the meeting underlined that AIRAC adherence monitoring is a continuous task and accordingly, urged States, as part of their National performance monitoring process, to record and report all the cases of non-compliance with the AIRAC procedures, in order to take necessary preventive and corrective actions.

2.10 The meeting recognized that failure of a State to follow the AIRAC procedures is very troublesome for charts provided to the cockpits. In this respect, it was highlighted that the production, extraction and distribution of a navigation database is a complicated process which involves all players in the data supply chain – initial source providers (e.g. airports and ATM), State AIS/ANSPs, commercial data providers, Flight Management System (FMS) manufacturers and end users (e.g. airlines). It was underlined that the key element in this string of activities is the requirement for airlines to physically “load” databases into the FMS on every aircraft so it is available on the AIRAC effective date. The meeting further highlighted that once data is loaded in the FMS, it cannot be changed for 28 days. In addition, if data cannot be available on the AIRAC cycle, it has to wait another 28 days. This Annex 15 requirement is based on the complex set of steps it takes to get data loaded on aircraft on the 28-day cycle. It was re-iterated that, if data has been added to an AIRAC cycle and then postponed lately by the responsible State Authority, it would stay in the FMS for 28 days until it can be removed. In this respect, the meeting noted that in 2008 Jeppesen published 23 Nav-Data alerts based on erroneous or late source information on its website to notify its customers. In 2009 the number of alerts increased to 31 followed by another 31 in 2010. Thousands of flights had been affected by these alerts.

2.11 Based on the above, the meeting urged MID States to thoroughly plan all Aeronautical Information changes that fall under the AIRAC provisions, and publish them in compliance with the AIRAC procedures; in particular, when it comes to the planning of major changes for which a 56-day advanced notification is recommended. It was underlined that the planning process should involve all affected parties. The meeting urged MID States also to avoid late postponements of aeronautical information published through AIRAC AIP Amendment or Supplement.

2.12 The meeting noted that the system of AIRAC numbering differs from State to State and that many States are not complying with Annex 15 provisions related to NIL notification (para. 6.1.3). In this respect, it was underlined that, when information has not been submitted by the AIRAC date, a NIL notification shall be originated and distributed by NOTAM or other suitable means, not later than one cycle before the AIRAC effective date concerned. The meeting urged States also to comply with ICAO 8126 provisions related to the numbering of AIRAC AIP Amendments, using consecutive numbers from 01-13 in line with the AIRAC cycle, followed by a two digit number to denote the year of issue or validity, e.g. AIRAC AIP AMDT 05/11.

2.13 In connection with the above, the meeting recalled that Amendment No. 1 to the Fifteenth Edition of the Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM, Doc 4444, which encompasses a substantial revision to the ICAO flight plan (FPL), will become applicable on 15 November 2012. Taking into consideration the complexity of implementing the ICAO New FPL format worldwide and the efforts put by States to comply with Amendment No. 1 to PANS-ATM, effective 15 November 2012 the meeting agreed that States should avoid the use of the AIRAC date 15 November 2012 as an effective date for the introduction of significant changes to the aeronautical information publications. Accordingly, the meeting agreed to the following Draft Conclusion:

*DRAFT CONCLUSION 6/2: AVOIDANCE OF THE AIRAC DATE
15 NOVEMBER 2012*

That, taking into consideration the complexity of implementing the ICAO New FPL format, MID States be invited to avoid the use of the AIRAC date 15 November 2012 as an effective date for the introduction of significant changes to the aeronautical information publications.

Monitoring of States' differences to Annex 4 and Annex 15 (P-04)

2.14 The meeting was informed that the Secretary General of ICAO issued on 1 April 2011 State Letter Ref.: AN 1/1-11/28 on the establishment of the Electronic Filing Of Differences (eFOD) System, which is available online through the ICAO USOAP website (www.icao.int/soa), inviting States to use eFOD as an alternative means for filing of differences. In this respect, it was highlighted that eFOD has been developed to address the need for a more efficient means for reporting and researching differences to Standards and Recommended Practices (SARPs) and for replacing the existing paper-based mechanism. It also aims to reduce duplication of effort by allowing States to report compliance and differences data only once to serve obligations under the Convention and the USOAP Memorandum of Understanding (MOU).

WGS-84 implementation (P-05)

2.15 The meeting reviewed and updated the status of implementation of WGS-84 in the MID Region as at **Appendix B** to this working paper. In this respect, it was highlighted that WGS-84 has been fully implemented by seven (7) States; however, although, the remaining six (6) States have implemented the majority of WGS-84 requirements; some elements such as the geoid undulation, are yet to be implemented.

2.16 The meeting recalled that MIDANPIRG/11 and MIDANPIRG/12 underlined that the implementation of WGS-84 is an important pre-requisite for the implementation of Performance Based Navigation (PBN); and agreed that although the status of implementation of WGS-84 in the MID Region has been improved, it's deemed necessary that States that have not yet fully implemented the system, take all necessary measures to expedite the completion of WGS-84 implementation.

Quality (P-17)

2.17 The meeting recalled that Amendment 36 to Annex 15, which became effective on 18 November 2010, introduced new and revised provisions related to QMS. It was highlighted, in particular, that a new Recommended Practice was added stating that "*Quality management should be applicable to the whole aeronautical information data chain from data origination to distribution to the next intended user, taking into consideration the intended use of data*". In addition, the meeting noted that the collection and management of metadata became also a standard.

2.18 The meeting underlined that the provision of quality assured and timely aeronautical information/data to the aviation community is a significant enabling activity for the globalization of ATM. In this respect, the meeting recalled that MIDANPIRG/12 recognized that, while the importance and need for the provision of high quality aeronautical information is gaining momentum, the implementation of quality system appears to be a specific domain with low degree of implementation among MID States. The meeting reviewed and updated the status of implementation of QMS in the MID Region as follows:

	Not started	Planning	Ongoing/ partially implemented	Implemented	Certified	Remarks
Bahrain					√	
Egypt					√	
Iran					√	
Iraq	√					
Israel		√				
Jordan					√	
Kuwait		√				Dec 2013
Lebanon		√				
Oman			√			Dec 2012
Qatar					√	
Saudi Arabia			√			Aug 2011
Syria		√				
UAE					√	The QMS implemented is not fully compliant with Annex 15 requirements
Yemen			√			Dec 2013

2.19 The meeting noted that investigations performed by data integrators dealing with huge volumes of AIP data from nearly 200 States worldwide, showed that less than 50% of all AIPs are fully compliant with ICAO SARPs, the rest is either partly compliant or critical which has serious safety implications.

2.20 The meeting agreed that the lack of automated processes and lack of an effective Quality Management System that covers the data chain from data origination to AIS are the two most critical contributors to insufficient data quality.

2.21 In connection with the above, the meeting recalled that the QMS Action Group (QMS AG) was established with a view to support the implementation of QMS within MID States' AISs. The meeting further noted that MIDANPIRG, through Conclusion 12/31, invited States to organize at the National level, awareness campaigns and training programmes with the support of ICAO and the QMS AG, to promote and expedite the process of implementation of QMS for AIS. However, the meeting noted that the activities of the Action Group were very limited and that the tasks assigned to it were not completed. Accordingly, the meeting agreed to dissolve the QMS AG and encouraged States to exchange information related to QMS implementation and to share their experiences in this particular endeavour.

2.22 Based on the above, the meeting agreed to the following Draft Decision:

DRAFT DECISION 6/3: DISSOLUTION OF THE QMS ACTION GROUP

That, recognizing that the activities of the QMS AG were very limited, the QMS AG is dissolved.

2.23 The meeting re-emphasized the need for the provision of accurate, consistent, complete and timely digital aeronautical information and agreed that current limitations and drawbacks in the MID Region need to be eliminated or at least significantly reduced, in an expeditious manner, in order to support the expected growth in the region's aviation sector and to build a solid foundation for a rapidly increasing amount of PBN operations in an airspace that requires substantially an increasing capacity.

2.24 The meeting recalled that the implementation of QMS has been mandated by ICAO since 1997 and urged those States that have not yet done so, to take necessary measures to implement the required QMS in an expeditious manner. In this respect, the meeting agreed that as a regional performance target, all deficiencies related to the non-implementation of QMS should be eliminated by December 2013. Accordingly, the meeting agreed to the following Draft Conclusion, which is proposed to replace and supersede Conclusion 12/31:

DRAFT CONCLUSION 6/4: QMS IMPLEMENTATION

That, in accordance with Annex 15 provisions, States, that have not yet done so, be urged to take necessary measures to:

- a) organize at the National level, awareness campaigns and training programmes to promote and expedite the process of implementation of QMS for AIS;*
- b) implement/complete the implementation of the required QMS in an expeditious manner;*
- c) arrange for an ISO 9001 certification by an accredited certification body; and*
- d) ensure that quality management is applicable to the whole aeronautical information data chain from data origination to distribution to the next intended user, taking into consideration the intended use of data.*

2.25 Based on the review of the progress made towards the implementation of the ICAO Roadmap steps related to Phase 1 — Consolidation in the MID Region, the meeting recognized that deficiencies still exist with regard to the provision of AIS/MAP services in accordance with Annex 4 and Annex 15 requirements. In particular, it was highlighted that eight (8) States in the MID Region have not yet fully complied with Annex 15 provisions related to the implementation of QMS, while the provision of quality assured and timely aeronautical information/data to the aviation community is a significant enabling activity for the globalization of ATM.

2.26 In connection with the above, the meeting recalled that Article 28 of the Convention on International Civil Aviation obliges States to provide air navigation facilities and services in accordance with the Standards and Recommended Practices (SARPs) developed by ICAO, including those of Annex 4 and Annex 15. In this respect, the meeting recalled that, based on the analysis of the USOAP audit results in the different ANS fields, it was highlighted that the separation between the regulatory and service provisions functions and the non-establishment of an ANS safety oversight system represent the main reasons for the non-elimination of the identified deficiencies. In addition,

the lack of national regulations is an important contributing factor in many States. Accordingly, it was reiterated that the most effective and transparent means of ensuring compliance with applicable specifications/regulatory provisions, is the availability of a separate safety oversight entity and a well-defined safety oversight mechanism with support of appropriate legislation/regulations.

2.27 The meeting noted that currently, the certification of the Air Navigation Services (ANS) is not yet mandated by ICAO. However, in Europe it has been mandated through EC Regulation No 2096/2005 since December 2005.

2.28 The meeting noted that certification of ANS has been already mandated by Egypt since 2005 Regulation Ref.: ECAR 173. It was also noted that UAE had developed Regulations related to Certification of ANSPs providing safety critical services to aviation. The meeting further noted that Jordan and Saudi Arabia are also in the process of developing new Regulations related to ANS certification. In this respect, the meeting recalled that the DGCA-MID/1 meeting invited MID States to work together with ICAO, within the framework of MIDANPIRG for the development of a MID Region Strategy for the certification of ANSPs, taking into consideration UAE experience.

2.29 Based on the above, the meeting agreed that the inclusion of a requirement for the certification of AIM Services in the national regulations will ensure that the AIM Service Providers meet their obligations in accordance with the terms and conditions of the AIM Certificate. It will also vest the regulatory authority with the necessary power to enforce compliance with the regulations. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 6/5: CERTIFICATION OF THE AIM SERVICES

That, in order to improve the level of compliance with the Standards and Recommended Practices of Annex 4 and Annex 15 and pave the way for the transition from AIS to AIM, ICAO consider the inclusion of a requirement for the certification of AIM Services in Annex 15.

Phase 2 — Going digital

2.30 The meeting recalled that during Phase 2 of the transition to AIM, the main focus will be on the establishment of data-driven processes for the production of the current products in all States. States are encouraged “to go digital” by using computer technology or digital communications and introducing structured digital data from databases into their production processes. The emphasis is, therefore, on the introduction of highly structured databases and tools such as geographic information systems.

2.31 The introduction of database-driven processes will improve the value of current products by improving their quality and availability for current users. This will concern mainly the creation of national or regional databases used to produce the existing products and services, but with better quality and availability.

2.32 In this respect, the meeting noted that States are at different stages for the implementation of the following steps that compose Phase 2 — Going digital, of the ICAO Roadmap for the transition from AIS to AIM:

- P-01 — Data quality monitoring;
- P-02 — Data integrity monitoring;
- P-06 — Integrated aeronautical information database;
- P-07 — Unique identifiers;

- P-08 — Aeronautical information conceptual model;
- P-11 — Electronic AIP;
- P-13 — Terrain;
- P-14 — Obstacles;
- P-15 — Aerodrome mapping.

2.33 With regard to P-01 and P-02, it was clarified that the requirement is to monitor aeronautical data quality and data integrity from data origination to distribution to the next intended user.

2.34 It was also highlighted that for *P-06 — Integrated aeronautical information database (IAID)* and *P-08 — Aeronautical information conceptual model*, the establishment and maintenance of a database where digital aeronautical data from a State are integrated and used to produce current and future AIM products and services is the main step in Phase 2 of the transition to AIM. The meeting further noted that the database may be operated by States or by regional initiatives under delegation from States. In this respect, it was highlighted that the IAID of a State is a single access point for one or more databases (AIS, Terrain, Obstacles, AMDB, etc) and that in case some systems (ATS, PANS-OPS, etc) are using different databases, these systems should be interoperable with the IAID.

2.35 In connection with the above, the meeting recalled that taking into consideration the limitations and drawbacks related to the current operational structure and provision of AIS/AIM services in the MID Region, and the experience of adjacent Regions in the implementation of Regional AIS databases, especially the European AIS Database (EAD), the DGCA-MID/1 meeting agreed that a study/business case be carried out in the MID Region pertaining to the establishment of a MID Region AIS Database (MIDAD). In this respect, the meeting noted with appreciation that Jordan and Bahrain volunteered to take the lead in carrying out the study with the support of appropriate Consultant and in close coordination with ICAO.

2.36 The details about MIDAD are provided in a separate working paper (WP/19).

2.37 In the same vein, the meeting noted with concern that the activities of the AIS Automation Group (AISA AG), were very limited and that the tasks assigned to it were not completed Accordingly, the meeting agreed to the following Draft Decisions:

DRAFT DECISION 6/6: DISSOLUTION OF THE AIS AUTOMATION ACTION GROUP

That, recognizing that the activities of the AIS Automation Action Group (AISA AG) were very limited, the AISA AG is dissolved.

DRAFT DECISION 6/7: ESTABLISHMENT OF THE MIDAD STUDY GROUP

That, the MID Region AIS Database (MIDAD) Study Group (MIDAD SG) is established with Terms of Reference as at Appendix 3D to the Report on Agenda Item 3 (Appendix C).

2.38 The meeting recognized that P-11 — Electronic AIP is an important step of Phase 2. In this respect, it was recalled that a new Recommended Practice (paragraph 4.6) was introduced in Annex 15 through Amendment 36, for the provision of eAIP. The meeting noted that further Guidance material related to eAIP based on the EUROCONTROL specifications was reviewed by the AIS-AIM Study Group and will be incorporated into Doc 8126 through Amendment 3, which is expected to be issued in the second half of 2011.

2.39 In connection with the above, the meeting noted with satisfaction, that UAE has developed and published its eAIP in February 2011 and that trial versions of eAIP Bahrain, Egypt and Saudi Arabia have been developed and will be available for operational use, soon (end of 2011). The meeting further noted that the trial version of eAIP Bahrain is already available to users on CD and on the website. The meeting was informed also that a trial version of eAIP Jordan is being developed through the EAD and should be available by end of 2011 with a plan for operational use by mid 2012.

2.40 With regard to eTOD: P-13 — Terrain and P-14 — Obstacles, the meeting recalled that, as a follow-up action to MIDANPIRG/12 Conclusion 12/28 “*eTOD Checklist*” and Conclusion 12/29 “*eTOD Awareness Campaigns*”, a State Letter was issued on 19 April 2011 requesting States to inform the ICAO MID Regional Office, not later than 15 May 2011, about the actions taken/planned in order to implement these Conclusions; and send their updated eTOD implementation plan, specifying in particular, the status of implementation of Area 1 and Area 4, which are applicable since November 2008. The meeting noted that the number of replies to the above-mentioned State Letter was below expectation and accordingly updated the status of implementation of eTOD (Area 1 and Area 4) based on the information provided by the participating States. In addition, the meeting urged States, when completing the questionnaire on the transition from AIS to AIM to reflect their plans related to eTOD (P-13 and P-14).

2.41 In connection with the above, the meeting noted the following:

- Bahrain has fully implemented eTOD for Area 1 and Area 4 and the data is available through an eTOD management system, which offers tailored requests for users. However, the cost-recovery issue for the provision of eTOD to the users is not yet finalized.
- Egypt has published in its AIP the information related to the availability of eTOD for Area 1 and Area 4. However, the cost-recovery issue for the provision of eTOD to the users is not yet finalized.
- Jordan has completed the work for Area 1 and expects to complete Area 4 by mid 2012, date at which the eTOD data related to both Area 1 and Area 4 would be made available to the users against fees that have not yet been determined.
- Qatar has fully implemented eTOD for Area 1, Area 3 and Area 4. The data will be available on the web free of charge by September 2011.
- Saudi Arabia has completed the work related to Area 1 and Area 4.
- UAE has made available the eTOD data related to Area 1 free of charge on the web, as part of the Integrated Aeronautical Information Package.

2.42 Based on the above, the meeting invited States to issue specific Aeronautical Information Circulars (AIC) related to the implementation of eTOD to inform the users about the availability and “price” of the eTOD data.

2.43 With regard to the last step of phase 2, P-15 — Aerodrome mapping, it was highlighted that this *requirement is emerging from the industry in order for traditional aerodrome charts to be complemented by structured aerodrome mapping data that can be imported into electronic displays*. The meeting noted that currently the Aerodrome mapping related SARPs do not exist. However, it was recalled that the AIS-AIM SG/4 meeting supported the inclusion of a new Chapter in Annex 15 (Chapter 11) related to Aerodrome mapping, through Amendment 37 to Annex 15, with the following Recommended Practices: “*Aerodrome mapping data **should** be provided at aerodromes regularly used by international civil aviation where safety and/or performance-based operations suggest possible benefits*”; and “*Aerodrome mapping data **should** be supported by electronic terrain and obstacle data (eTOD) for Area 3 in order to ensure consistency and quality of all geographical data related to the aerodrome*”.

Phase 3 — Information management

2.44 The meeting recalled that during Phase 3 of the transition to AIM, the digital databases introduced in Phase 2 will be used for the transfer of information in the form of digital data. This should be based on a Standard aeronautical data exchange model to ensure interoperability between all systems not only for the exchange of full aeronautical data sets, but also for short-term notification of changes.

2.45 The meeting noted that although one or two steps of Phase 3— Information management, are being partially implemented by a number of States in the MID Region; the entire scope of phase 3, which is composed of the following Steps, could not be achieved before 2016-2020:

- P-09 — Aeronautical data exchange;
- P-10 — Communication networks;
- P-12 — Aeronautical information briefing;
- P-16 — Training;
- P-18 — Agreements with data originators;
- P-19 — Interoperability with meteorological products;
- P-20 — Electronic aeronautical charts; and
- P-21 — Digital NOTAM.

2.46 The meeting noted in particular that, through the ICAO AIS-AIM Study Group, AIXM has been proposed for adoption as ICAO Guidance Material supporting the transition to AIM. Accordingly, the guidance material on aeronautical conceptual and data exchange model for the development of databases and the establishment of data exchange services will be incorporated into Doc 8126 through Amendment 3.

2.47 With regard to P-21 — Digital NOTAM, the meeting noted that the digital NOTAM concept proposes to evolve from the provision of text NOTAM messages towards the provision of structured data, based on the Aeronautical Information Exchange Model (AIXM) version 5.1. However, the current NOTAM messages will continue to be issued for as long as operationally necessary, but they will be automatically generated from the digitally encoded data.

2.48 The meeting was informed that an implementation roadmap for digital NOTAM in the ECAC Area, in Europe, was developed in consultation with stakeholders and an incremental approach was endorsed. The scope for the Increment #1 of the digital NOTAM Implementation consists of eight categories of “events”:

- Airspace activation / reservations / warning areas / CTR (that are not H24);
- Route closures1 (CDR1, CDR 2, other routes);
- Navaid events (enroute and airport, including ILS);
- Airport/Runway closures;
- Taxiway closures;
- Obstacles;
- SNOWTAM;
- All other NOTAM as Text NOTAM associated with the feature.

2.49 It was also highlighted that detailed rules for the encoding of the information that is associated with these event scenarios are developed in the form of a digital NOTAM Event Specification. An implementation schedule is proposed for the first increment, which includes the EAD plans for delivering digital NOTAM (initial capability by 2012). The proposed objective is to achieve a complete implementation of the first increment by 2016.

2.50 Considering all of the foregoing, it was recognized that the the clarifications provided during the meeting related to the different steps of the ICAO Roadmap, were very useful and would help States to develop their National plans for the transition from AIS to AIM and provide updated information by completeing the questionnaire on the subject, which would allow the ATM/SAR/AIS SG/12 meeting scheduled for November 2011, to review the progress made towards AIM implementation in the MID Region and recommend possible course of action to expedite the implementation of the transition to AIM in a harmonized manner, including a realistic timeframe.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) review the progress made towards AIM implementation in the MID Region;
- c) endorse, as appropriate, the Draft Conclusions and Decisions emanating from the AIS/MAP TF/6 meeting.

APPENDIX A

QUESTIONNAIRE RELATED TO NATIONAL PLANS FOR THE TRANSITION FROM AIS TO AIM

Name of State	Date

Please answer the following questions and give details as appropriate:

1. National Plan for the transition from AIS to AIM	YES	NO
a) Have you developed a National Plan for the transition from AIS to AIM? If Yes, is it based on the ICAO Roadmap (Phases 1, 2 and 3) ?		

2. Phase 1 – Consolidation (2009)	
a) What do you consider a realistic timeframe for the implementation of Phase 1?	

b) What is the status of implementation of the following steps of Phase 1 in your State?			
Step	Implemented (specify how)	Planned (specify when/how)	Additional comments/clarification required
P-03 — AIRAC adherence monitoring			
P-04 — Monitoring of States' differences to Annex 4 and Annex 15			
P-05 — WGS-84 implementation			
P-17 — Quality			

3. Phase 2 – Going Digital (2009 - 2011)

a) What do you consider a realistic timeframe for the implementation of Phase 2?	
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b) What is the status of implementation of the following steps of Phase 2 in your State?			
Step	Implemented (specify how)	Planned (specify when/how)	Additional comments/clarification required
P-01 — Data quality monitoring			

b) What is the status of implementation of the following steps of Phase 2 in your State?			
Step	Implemented (specify how)	Planned (specify when/how)	Additional comments/clarification required
P-02 — Data integrity monitoring			
P-06 — Integrated aeronautical information database			
P-07 — Unique identifiers			
P-08 — Aeronautical information conceptual model			
P-11 — Electronic AIP			
P-13 — Terrain			

b) What is the status of implementation of the following steps of Phase 2 in your State?			
Step	Implemented (specify how)	Planned (specify when/how)	Additional comments/clarification required
P-14 — Obstacles			
P-15 — Aerodrome mapping			

4. Phase 3 – Information Management (2011 - 2016)	
a) What do you consider a realistic timeframe for the implementation of Phase 3?	

b) What is the status of implementation of the following steps of Phase 3 in your State?			
Step	Implemented (specify how)	Planned (specify when/how)	Additional comments/clarification required
P-09 — Aeronautical data exchange			
P-10 — Communication networks			
P-12 — Aeronautical information briefing			

b) What is the status of implementation of the following steps of Phase 3 in your State?			
Step	Implemented (specify how)	Planned (specify when/how)	Additional comments/clarification required
P-16 — TRAINING			
P-18 — Agreements with data originators			
P-19 — Interoperability with meteorological products			
P-20 — Electronic aeronautical charts			
P-21 — Digital NOTAM			

5. Do you expect any specific difficulty which could impede the transition from AIS to AIM?	YES	NO
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6. What kind of assistance/support do you expect from ICAO to expedite the transition from AIS to AIM?

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7. Do you have any suggestion to update/improve the ICAO Roadmap for the Transition from AIS to AIM?

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8. Any other suggestion on the subject?

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APPENDIX B

STATUS OF IMPLEMENTATION OF WGS-84 IN THE MID REGION

	FIR	ENR	TMA/CT A/CTZ	APP	RWY	AD/HEL	GUND	QUALITY SYSTEM	AIP	REMARKS
BAHRAIN	F	F	F	F	F	F	F	F	F	
EGYPT	F	F	F	F	F	F	F	F	F	
IRAN	F	F	F	N	F	F	F	F	F	
IRAQ	P	P	P	P	P	P	N	N	P	Implementation to be completed by 2011
JORDAN	F	F	F	F	F	F	F	F	F	
KUWAIT	F	F	F	F	F	F	F	F	F	
LEBANON	F	F	F	F	F	F	N	N	F	
OMAN	F	F	F	F	F	F	F	F	F	
QATAR	F	F	F	F	F	F	F	F	F	
SAUDI ARABIA	F	F	F	F	F	N	N	N	F	
SYRIA	F	F	F	F	F	F	N	N	F	Implementation of GUND is expected for 2010
UNITED ARAB EMIRATES	F	F	F	F	F	F	F	F	F	
YEMEN	F	F	F	F	F	F	F	N	F	

Legend:

F: Fully implemented

P: Partly implemented

N: Not implemented

APPENDIX C

MID REGION AIS DATABASE STUDY GROUP (MIDAD SG)

1. TERMS OF REFERENCE

The terms of Reference of the MIDAD SG are to:

- 1) carry out necessary coordination with States for the establishment of the MID Region AIS Database (MIDAD);
- 2) monitor the development of the MIDAD initial Study/Business case;
- 3) monitor the development of the detailed MIDAD study addressing all technical, operational, financial, human, legal and institutional issues, and provide necessary guidance;
- 4) develop the Call for Tender for the establishment of MIDAD;
- 5) negotiate the contract for the establishment of MIDAD with the chosen Contractor (MIDAD Service Provider); and
- 6) agree on the mechanism for the monitoring of MIDAD operations and maintenance.

2. COMPOSITION

The MIDAD SG is composed of:

- a) all MID States; and
- b) concerned International/Regional Organizations as observers.

Other representatives from industry and user Organizations having a vested interest in Aeronautical Information Management and experience in the development of Regional AIS Databases, could participate as observers, as necessary.

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