INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE FIFTH MEETING OF THE MIDANPIRG STEERING GROUP MSG/5

(Cairo, Egypt, 18 - 20 April 2016)

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

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

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PART I - HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Fifth meeting of the MIDANPIRG Steering Group (MSG/5) was held at the Meeting Room of the ICAO Middle East Regional Office in Cairo, Egypt, from 18 to 20 April 2016.

2. OPENING

2.1 The meeting was opened by Mr. Mohamed Khalifa Rahma, the new ICAO Regional Director, Middle East Office, who welcomed the participants to Cairo and wished them a successful and fruitful meeting.

2.2 Mr. Rahma welcomed also Mr. Ahmed Al Jallaf, First Vice Chairperson of MIDANPIRG who chaired the meeting for the first time, since the Chairprson, Mr. Ali Ahmed, from Bahrain has retired. Mr. Rahma extended his grtatitude to Mr. Ali Ahmed for all his contributions to MIDANPIRG and the MID Region in general and wished him a very happy retirement.

2.3 Mr. Rahma recalled that, in accordance with its Terms of Reference, MSG should, inter-alia, direct the work of the MIDANPIRG subsidiary bodies in the best manner, commensurate with the overall MIDANPIRG work programme, with clearly defined tasks, deliverables and target dates. He highlighted also that MSG can approve, on behalf of MIDANPIRG, those Draft Conclusions/Decisions emanating from MIDANPIRG subsidiary bodies, which necessitate urgent follow-up action(s).

2.4 Mr. Rahma highlighted the most important subjects to be addressed by the MSG/5 meeting as part of its agenda, in particular, the review of the MID Region Air Navigation Strategy and the need to develop a mechanism for the amendment of the MID eANP Volume III. He wished the meeting all the success.

3. ATTENDANCE

3.1 The meeting was attended by a total of Nineteen (19) participants from nine (9) States (Bahrain, Egypt, Jordan, Kuwait, Lebanon, Qatar, Saudi Arabia, Sudan and United Arab Emirates) and three (3) Organizations (CANSO, IATA and IFAIMA). The list of participants is at **Attachment A.**

4. OFFICERS AND SECRETARIAT

4.1 In the absence of the MIDANPIRG Chairman, Mr. Ali Ahmed who retired from the Civil Aviation Affairs, Bahrain, the First Vice Chairman, Mr. Ahmed Al Jallaf, Assistant Director General Air Navigation, General Civil Aviation Authority, UAE, chaired the meeting.

4.2 Mr. Mohamed Smaoui, ICAO Middle East Deputy Regional Director was the Secretary of the Meeting, assisted by:

Mr. Raza A. Gulam	-	Regional Officer, Communications, Navigation and Surveillance (CNS)
Mr. Adel Ramlawi	-	Regional Officer, Aerodrome and Ground Aids (AGA)
Mr. Elie El Khoury	-	Regional Officer, Air Traffic Management and Search and Rescue (ATM/SAR)

Mr. Abbas Niknejad - Regional Officer, Aeronautical Information Management/Air Traffic Management (AIM/ATM)

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 the outcome of MIDANPIRG/15 and MSG/4 Meetings

Agenda Item 3: Global and Regional Developments

Agenda Item 4: Air Navigation Safety Matters and Coordination with RASG-MID

Agenda Item 5: MID Region Air Navigation Planning

Agenda Item 6: Air Navigation Deficiencies

Agenda Item 7: MIDANPIRG Working Arrangements

Agenda Item 8: Future Work Programme

Agenda Item 9: Any other Business

7. CONCLUSIONS AND DECISIONS – DEFINITION

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

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

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

8. LIST OF CONCLUSIONS AND DECISIONS

MSG CONCLUSION 5/1: SEMINAR/WORKSHOP ON PANS–AERODROMES

MSG CONCLUSION 5/2: MID eANP FOCAL POINTS

MSG CONCLUSION 5/3: IMPLEMENTATION OF THE TOP SIX ATS ROUTES

MSG CONCLUSION 5/4: MID REGION ATM CONTINGENCY PLAN

MSG CONCLUSION 5/5:	*PUBLICATION OF FIR BOUNDARY POINTS*
MSG DECISION 5/6:	*MID SEARCH AND RESCUE ACTION GROUP*
MSG CONCLUSION 5/7:	*TRANSITION PLAN FOR THE RNAV TO RNP INSTRUMENT APPROACH CHART DEPICTION*
MSG CONCLUSION 5/8:	*MID REGION PBN IMPLEMENTATION PLAN*
MSG DECISION 5/9:	*MID REGION ADS-B IMPLEMENTATION PLAN*
MSG CONCLUSION 5/10:	*NATIONAL AIM IMPLEMENTATION ROADMAP*
MSG CONCLUSION 5/11:	*INTERREGIONAL SEMINAR ON "SERVICE IMPROVEMENT THROUGH INTEGRATION OF DIGITAL AIM, MET AND ATM INFORMATION"*
MSG CONCLUSION 5/12:	*MID REGIONAL REQUIREMENTS FOR HALF-HOURLY METAR*
MSG CONCLUSION 5/13:	*MID eANP VOLUME III – B0-AMET*
MSG CONCLUSION 5/14:	*WORKSHOP ON ASBU BLOCK 1 MODULES IMPLEMENTATION*
MSG DECISION 5/15:	*MIDANPIRG PROCEDURAL HANDBOOK (MID DOC 001)*
DRAFT CONCLUSION 5/1:	*ACTION PLAN FOR A-CDM IMPLEMENTATION*
DRAFT CONCLUSION 5/2:	*ESTABLISHMENT OF HELIPORTS DATABASE*
DRAFT CONCLUSION 5/3:	*FTBP TESTING DOCUMENT*
DRAFT CONCLUSION 5/4:	*MID REGION AIR NAVIGATION STRATEGY*
DRAFT CONCLUSION 5/5:	*MIDANPIRG TORS*

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA

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

REPORT ON AGENDA ITEM 2: FOLLOW-UP ON THE OUTCOME OF MIDANPIRG/15 AND MSG/4 MEETINGS

Review of action taken by the ANC on MIDANPIRG/15 Report

2.1 The subject was addressed in WP/2 presented by the Secretariat. The meeting recalled that MIDANPIRG/15 meeting, Bahrain, 8 - 11 June 2015 developed 29 Conclusions and 6 Decisions. The meeting was apprised of the actions taken by the Air Navigation Commission on the MIDANPIRG/15 Report (AN-WP/8985 and AN Min. 200-4 refers). The meeting noted that the MIDANPIRG/15 Report was first reviewed by the ANC Working Group of the Whole for Strategic Review and Planning (WG/SRP) on 23 September 2015 and then by the ANC itself on 1 October 2015.

2.2 The meeting noted with appreciation that the ANC congratulated MIDANPIRG on producing a very thorough Report that contained a lot of information on the Region, and expressed its appreciation in particular for the Report on Agenda item 5 and its alignment with the Global Air Navigation Plan (GANP) and the related ASBU modules, as well as the performance indicators and associated targets and status.

2.3 The meeting noted that the ANC considered the need to develop global provisions and/or guidance material to reduce the risk associated with call sign similarity and confusion, including possible amendment to the ICAO FPL format. (Conclusion 15/2 refers).

Review status of MSG/4 and MIDANPIRG/15 Conclusions and Decisions

2.4 The meeting reviewed the progress made on the implementation of the MSG/4 and MIDANPIRG/15 Conclusions and Decisions. The actions taken by States and the Secretariat on the above mentioned Conclusions and Decisions were reviewed as at **Appendices 2A** and **2B,** respectively.

REPORT ON AGENDA ITEM 3: GLOBAL AND REGIONAL DEVELOPMENT

Global Air Navigation Plan (Doc 9750) Review and Update

3.1 The subject was addressed in WP/4 presented by the Secretariat. The meeting was apprised of the the amendments introduced into the revised Draft version of the *Global Air Navigation Plan* (GANP, Doc 9750), which constitutes the fifth edition and includes an updated Aviation System Block Upgrades (ASBU) document.

3.2 The meeting noted that the 2016 draft edition of GANP focuses on improving the consistency of presentation, introducing already planned subjects and updating the Block 0 and Block 1 modules description in the ASBU document. One important change was made to the periodicity of the Blocks. It was found necessary to map the three-year ICAO Assembly cycle and the two-year ICAO amendment cycle with the timeframes of the Blocks, therefore a six-year cycle for the Blocks was proposed. Following this new timeframe the Blocks are now organised in a six years non-overlapping timeframe.

3.3 The meeting reviewed the summary of changes to the GANP and noted that the draft fifth edition of the GANP document and the updated ASBU document along with other supporting documents are available on the website: http://www.icao.int/airnavigation/Pages/GANP-Resources.aspx

3.4 The meeting noted that the Air Navigation Commission, at the fifth meeting of its 200th Session held on 6 October 2015, reviewed the proposed fifth edition of the GANP and authorized its transmission to States and appropriate international organizations for comments. Accordingly, ICAO HQ issued State Letter AN 13/54-15/77, dated 1 December 2015, requesting comments to reach ICAO HQ not later than 10 March 2016. The comments provided by States and international organizations are being analyzed by the ICAO secretariat at headquarters for future consideration by the Air Navigation Commission.

First Edition of the Procedures for the Air Navigation Services – Aerodromes (PANS-Aerodromes – Doc 9981)

3.5 The subject was addressed in WP/5 presented by the Secretariat. The meeting was apprised of the main contents of the first edition of PANS-Aerodromes (Doc 9981) which was approved on 20 October 2014 by the President of the Council and will become applicable on 10 November 2016.

3.6 The meeting urged States and service providers to implement the provisions of the PANS– Aerodromes and to publish up to date lists of significant differences from this document in their AIP by 10 November 2016. The meeting recognized the need for a regional seminar/workshop to raise awareness and support implementation of the new provisions of the PANS-Aerodromes. The meeting agreed that, for an improved efficiency, the Seminar/Workshop might be held back-to-back with the RGS WG/4 meeting. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 5/1: SEMINAR/WORKSHOP ON PANS–AERODROMES

That, a Seminar/Workshop on the implementation of PANS-Aerodromes (Doc 9981) be organized by ICAO in 2017.

REPORT ON AGENDA ITEM 4: AIR NAVIGATION SAFETY MATTERS AND COORDINATION WITH RASG-MID

RASG-MID ACTIVITIES

The subject was addressed in WP/6 presented by the Secretariat.

4.1 The meeting was apprised of the RASG-MID activities. It was highlighted that the Draft MID Annual Safety Report (MID-ASR) Fourth Edition, was reviewed by the RSC/4 meeting (Cairo, Egypt, 15 -17 December 2015) and will be endorsed by the RASG-MID/5 meeting (Doha, Qatar, 22-24 May 2016). According to the MID-ASR, the main Focus Areas in the MID Region are Runway Safety (RS), Loss of Control In-Flight (LOC-I) and System Component Failure (SCF). In addition, Near Midair Collision (NMAC) and Controlled Flight Into Terrain (CFIT) have been identified as Emerging Risks.

4.2 With respect to reporting of accidents and serious incidents, the meeting noted that the RSC/4 meeting underlined that ECCAIRS should be used for the reporting of accidents and serious incidents to ICAO. In this regard, it was agreed that the following Safety Indicator should be added to the MID Region Safety Strategy: "Percentage of MID States that use ECCAIRS for the reporting of accidents and serious incidents".

4.3 Based on the outcome of the HLSC 2015 related to core Safety Performance Indicators (SPIs), 2 new Safety Indicators will be added to the MID Region Safety Strategy: "Average Fleet Age" and "Percentage of fleet above 20 years of age".

4.4 A revised version of the MID Region Safety Strategy will be presented to the RASG-MID/5 for endorsement. It was highlighted that the RASG-MID will be focusing on the States with the greatest needs (Low EI/SSC), in line with the "No Country Left Behind" initiative, and would not limit its activities to address the Focus Areas (RS, LOC-I and SCF).

4.5 The meeting noted that the Accidents and Incidents Analysis Working Group (AIAWG) held its first meeting in Cairo, Egypt (29-31 March 2016) and agreed on a mechanism to fulfil the mandate assigned to the AIA WG (collection/reporting, validation and analysis of data), supported by an online tool to be developed on iSTARS.

4.6 In this regard, the meeting noted that the AIA WG Core Team will finalize an iSTARS ADREP Occurrence Data Form to be used for adding/modifying accidents/incidents data through iSTARS ADREP application, as well as develop related guidelines, establish a validation process of data provided and develop standard and limited lists of main root causes and contributing factors. The meeting supported the outcomes of the the AIAWG and encouraged States to take necessary measures to contribute to its work programme.

4.7 The meeting noted that the Interregional English Language Proficiency Workshop, was jointly organized by the ICAO APAC, EUR/NAT and MID Regional Offices and gratefully hosted by Kuwait (9-11 November 2015). The meeting reviewed the outcome of the the ELP Workshop and encouraged States to take necessary measures to implement the relevant recommendations.

4.8 The meeting noted that the Third MID Region Safety Summit will be held in Doha, Qatar, from 24 to 25 May 2016 and encouraged States to participate actively. The objective of the Summit is to raise awareness on the Global Aviation Safety Developments including the Global

Aviation Safety Plan (GASP), Regional Safety Priorities and Targets, as well as Air Navigation issues related to safety.

4.9 The meeting noted that the High-Level Briefing to the DGCAs and CEOs to be held in Doha, Qatar on 26 May 2016 will include a progress report on the MID Region's priorities and targets, an update on the current regional initiatives and projects and the way forward to enhance aviation safety and air navigation at regional level.

Coordination between MIDANPIRG and RASG-MID

4.10 The meeting recalled that the RASG-MID and MIDANPIRG have been coordinating some safety-related issues such as mitigation measures for Controlled Flight Into Terrain CFIT (unstabilized approaches) and call sign confusion and similarity. Other subjects of interest to both groups have been identified, in particular those related to ATM safety such as SMS implementation for ANS/ATM, Language Proficiency for Air Traffic Controllers, RVSM safety monitoring, etc.

4.11 The meeting noted that the First MIDANPIRG/RASG-MID Coordination meeting was held on 10 June 2015 as a side meeting during the MIDANPIRG/15 meeting (Bahrain, 8-11 June 2015) and endorsed the Table at **Appendix 4A**, listing the subjects in which both MIDANPIRG and RASG-MID have interest with an assignment of the leading Group. The Second MIDANPIRG/RASG-MID Coordination Meeting (MRC/2) will be held on 24 May 2016 as a side meeting to the RASG-MID/5 meeting and the Third MID Region Safety Summit (Doha, Qatar, 22-26 May 2016). The meeting encouraged all the chairpersons of MIDANPIRG and its subsidiary bodies to attend.

REPORT ON AGENDA ITEM 5: MID REGION AIR NAVIGATION PLANNING

MID Region Aviation Statistics and Forecasts

5.1 The subject was addressed in WP/7 presented by the Secretariat. The meeting agreed that the development of forecasts for major traffic flows from, to and within the MID Region that also includes Peak Period analysis and other planning analyses is necessary to support regional air navigation planning and implementation processes.

5.2 The meeting noted that the final ICAO traffic statistics for 2015 will be available at the end of June 2016. However, some initial statistics are available, as follows:

- The Middle East Region moved **14 per cent** of world Revenue Passenger-Kilometers (RPK) and recorded the highest annual growth of **12.1 per cent** in 2015.
- Seating capacity offered by the MID Region airlines in 2015, increased by around **13.8 per cent** compared to 2014.
- The MID Region recorded the highest international passenger traffic growth rate of **13.4 per cent** and **11.3 %** growth in freight traffic.
- The total number of scheduled commercial departures in 2015 grew at a pace of **6.1** per cent to reach about **1.22** million departures, compared to **1.15** recorded in 2014 (source iSTARS).

5.3 With regard to traffic forecasts, according to ICAO forecasts, the total aircraft movements to, from and within the Middle East Region are estimated to increase to be slightly above **5.2 millions** in **2030** at an average annual growth rate of 8.7 per cent over the same period.

5.4 The meeting recalled that MIDANPIRG/15, through Conclusion 15/9, a) urged States to **nominate** to ICAO Focal Points for aviation statistics and provide the statistics required by ICAO in a timely manner and to the extent possible in an electronic format; and b) invited ICAO to organize a Second Aviation Data Analyses Seminar in 2016. The meeting noted that the Seminar is scheduled for the First Quarter of 2017.

5.5 Based on the above, the meeting urged States to implement the provisions of MIDANPIRG Conclusion 15/9 a); and encouraged States to host and/or support the Aviation Data Analyses Seminar in 2017, in coordination with the ICAO MID Office.

MID electronic Air Navigation Plan (MID eANP)

5.6 The subject was addressed in WP/9. The meeting was apprised of the status of the MID Air Navigation Plan (MID eANP) and the need for the development of a mechanism for the amendment of the MID eANP Volume III.

Approval of the MID eANP VOL I, II and III

5.7 The meeting recalled that the MIDANPIRG/15 meeting reviewed and endorsed the MID eANP VOL I, II and III (MIDANPIRG/15 Conclusion 15/11 refers).

5.8 The meeting noted that the MID eANP VOL I and II were approved on 21 December 2015 and 14 February 2016, respectively. The meeting also noted that taking into consideration the MIDANPIRG/15 endorsement of the MID eANP and the standard procedure for amendment (related to Volume III), the notification of approval of the MID eANP Volume III was issued on 15 February 2016. It was noted with appreciation that the MID Region was the first Region that completed the transition from the old Basic ANP and FASID to the new eANP format.

5.9 The MID eANP Volume I, II and III are available on the ICAO MID website at: http://www.icao.int/MID/Pages/MIDeANP.aspx

5.10 It was highlighted that a meeting of the Global eANP WG is tentatively scheduled for 2017 in order to further review the eANP template approved by the ICAO Council and make proposals for improvement, as deemed necessary, in particular for the "General Regional Requirements" parts. The eANP WG would also identify the tools and features to be developed on the eANP online framework, taking into consideration stakeholders needs. The issue of FIRs/UIRs boundary coordinates (Tables ATM I-1 *MID Region Flight Information Regions (FIRs)/ Upper Information Regions (UIRs) and* SAR I-1 *MID Region Search and Rescue Regions (SRRs)*); and the FIR Boundary coordinates/descriptions will be also addressed by the eANP WG at global level.

Procedure/mechanism for the amendment of the MID eANP Volume III

5.11 The meeting recalled that the ANP Volume 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).

5.12 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.

5.13 The management of Volume III is the responsibility of the MIDANPIRG. Volume III 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 and/or references to online monitoring tools, as endorsed by MIDANPIRG. The status of implementation is updated on a regular basis as endorsed by MIDANPIRG.

5.14 The meeting noted that amendment of Volume III of the MID eANP should be effected on the basis of an adequately documented proposal submitted to the ICAO MID Regional Office by:

- a State (or a group of States); or
- MIDANPIRG or its Subsidiary Bodies; or
- the ICAO Secretariat; or
- International Organizations directly concerned with the operation of aircraft.

5.15 If the proposal concerns an amendment of the provisions in Part 0 - "Introduction" or Part I - "General Planning Aspects" of Volume III, the ICAO MID Regional Office will submit the proposal to ICAO Headquarters (Air Navigation Bureau) for coordination with all ICAO Regional Offices. The views of the ICAO Regional Offices will be taken into consideration in the consolidation/approval of the amendment by ICAO HQ. The approved amendment will be published in Volume III of all regional plans at convenient intervals.

5.16 The meeting agreed that a mechanism for the amendment of the MID eANP Volume III Part II - "Air Navigation System Implementation" should be developed, endorsed by MIDANPIRG and reflected in the MIDANPIRG Procedural Handbook. The meeting agreed that the mechanism would be developed by the ICAO MID Regional Office in coordination with concerned parties, and should include the following:

- Collection of information/initiation of amendment;
- Validation of the information (different layers of validation might be needed);
- Notification of change/consultation, as deemed necessary;
- Amend Volume III

5.17 The meeting recalled that one of the objectives of the development of the new eANP was the provision of online tools which support the amendment of the dynamic data (with different layers of approval) in an easy and timely manner. Accordingly, the development of the mechanism for the amendment of the MID eANP Volume III Part II - "Air Navigation System Implementation" and its automation should be closely coordinated with ICAO HQ and all the ICAO Regions.

5.18 The meeting agreed that in order to facilitate the coordination of all issues related to the MID eANP (collection and validation of information, notification of the changes/consultation, as deemed necessary, etc.), States should assign a focal point. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 5/2: MID eANP FOCAL POINTS

That, States be urged to assign a MID eANP focal point to be the main point of contact for all issues related to the MID eANP, including the validation of amendments to Volume III Part II - "Air Navigation System Implementation".

AOP Planning Matters

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

Revised list of MID international Aerodromes

5.19 The meeting recalled that currently 59 international aerodromes are listed in the Table AOP I-1 of the MID ANP. It was highlighted that some of the aerodromes which are required/used for international operations are not yet included in the Table AOP I-1. Accordingly, the meeting reiterated that the concerned States should review the current ANP and send an updated list of international aerodromes to the ICAO MID Regional Office, taking into consideration the users' needs.

Aerodrome Certification

5.20 The meeting noted that 31 out of the 59 international aerodromes (53%) in the MID Region have been certified, as reflected in **Appendix 5A**.

A-CDM Seminar

5.21 The meeting recalled that B0-ACDM related to Improved Airport Operation through Airport Collaborative Decision Making (A-CDM) is a priority 1 ASBU module in the MID Air Navigation Strategy. The meeting noted that a Seminar on A-CDM has been successfully conducted in Bahrain from 11 to 13 October 2015. The Work Programme and the presentations delivered during the Seminar are available at the ICAO MID Regional Office website: http://www.icao.int/MID/Pages/2015/A-CDM%20Seminar.aspx.

5.22 The outcomes of the A-CDM seminar included the following recommendations:

1) MID States and stakeholders to consider the establishment of A-CDM Committee to foster the implementation of A-CDM at the airports identified by the MID Air Navigation Strategy and request assistance from ICAO MID Regional Office, if needed.
2) Terminal congestion, particularly in adverse weather conditions, should be considered as part of the A-CDM.
3) Roles and responsibilities of regulators, aerodromes, air operators, ground handling agents and ATC should be clearly defined for A-CDM implementation.
4) ICAO to consider the above elements in drafting the A-CDM Manual.

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

DRAFT CONCLUSION 5/1: ACTION PLAN FOR A-CDM IMPLEMENTATION

That, States be urged to develop their action plan for A-CDM implementation in line with the MID Air Navigation Strategy.

B0-SURF (A-SMGCS)

5.24 The meeting recalled that the Advanced Surface Movement Guidance and Control Systems (A-SMGCS) is an expansion of the Surface Movement Guidance and Control Systems (SMGCS) to improve capacity and safety by making use of modern technologies and a higher level of integration between various functionalities. B0-SURF: Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2) is a priority 1 ASBU module in the MID Air Navigation Strategy.

5.25 The meeting urged States, that have not yet done so, to provide the ICAO MID Regional Office with their action plan for the B0-SURF implementation taking into consideration the agreed applicability in the MID Air Navigation Strategy.

Heliports

The meeting noted that the ICAO Heliport Seminar (IHS) successfully held in Dubai from 8 to 10 December 2015. The objectives of Seminar were to provide an overview on ICAO Standards and Recommended Practices (SARPs) related to Heliports with a focus on design and operation requirements. Concurrently with the (IHS), the UAE GCAA hosted the Heliport Design Working Group (HDWG) in Dubai and this provided a great opportunity for the HDWG members to participate in the IHS and interact with the MID States.

5.26 The outcomes of the IHS included the following recommendations:

1) encourage States to implement ICAO provisions related to Heliports (Annex 14 Volume II) through national Regulations and Safety Oversight. This should include implementation of adequate SMS;

2) encourage States to establish and maintain database for Heliports. This should include monitoring new Heliports construction;

3) invite ICAO to consider inclusion of core training elements (CAA inspectors & Heliport operator) as part of the Heliport Design and services Manual; and

4) report the outcome of the Seminar to RASG-MID and share with the other RASG's.

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

DRAFT CONCLUSION 5/2: ESTABLISHMENT OF HELIPORTS DATABASE

That, States be urged to establish and maintain a database for Heliports with information about location and type of use, as a minimum.

ATM Planning Matters

5.28 The subject was addressed in WP/11 presented by the Secretariat.

ATS Routes

5.29 The meeting noted that a number of States were still implementing changes to the Regional ATS Route Network without complying with the established procedures for the amendment of the MID Air Navigation Plan (ANP). Accordingly, the meeting urged States to adhere to the established ICAO procedures related to the publication and amendment of regional ATS routes, prior to the publication of the ATS Routes amendment in their Aeronautical Information Publications (AIPs).

5.30 The meeting noted that ATM SG/2 meeting reviewed and updated the MID ANP - Table ATS 1 and agreed to remove the comment "FIR Boundary Point" and the coordinates of the Waypoints composing the ATS Routes, in order to avoid confusion and inconsistencies and facilitate the maintenance of the information in the Table.

5.31 The meeting noted with concern that no update on the Route Catalogue was received by the ICAO MID Office. Accordingly, States and Users were encouraged to review the Route Catalogue available on the ICAO Website, take necessary measures to implement the proposed routes in a coordinated manner and provide feedback/updates to the ICAO MID Regional Office.

5.32 Taking into consideration the escalated situation in some States, the meeting agreed to a revised list of routes to be implemented as a priority as at **Appendix 5B** (6 routes). The meeting urged concerned States to take necessary measures to implement these routes in an expeditious manner. Accordingly, the meeting agreed to the following MSG Conclusion to replace and supersede the MIDANPIRG Conclusion 14/11:

MSG CONCLUSION 5/3: IMPLEMENTATION OF THE TOP SIX ATS ROUTES

*That, concerned States be urged to take necessary measures to implement the identified routes at **Appendix 5B** and provide the ICAO MID Regional Office with an update on the actions undertaken by **15 November 2016**, for review by the ANSIG/2 meeting.*

Contingency Planning

5.33 The meeting commended the work of the Contingency Coordination Teams (CCTs), established in accordance with the MID Region ATM Contingency Plan, which succeeded to provide a forum for sharing information, identify the challenges and agree on contingency measures to ensure the safety of air traffic during contingency situations. In this respect, the meeting encouraged States to implement the provisions of the MIDANPIRG Conclusion 15/20 and support the work of the CCTs.

5.34 The meeting reviewed and updated the MID Region ATM Contingency Plan (MID Doc 003), available on the ICAO MID website. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 5/4: MID REGION ATM CONTINGENCY PLAN

That, the revised version of the MID Region ATM Contingency Plan (MID Doc 003, Edition April 2016) is endorsed.

5.35 The meeting noted that some airspace users continue to circumnavigate Baghdad, Damascus and Tripoli FIRs due to the conflict zones. With regard to Yemen, some air operators resumed operations through Sana'a FIR using the ATS routes over the high seas.

5.36 The meeting noted that the majority of the information posted on the ICAO Conflict Zone Information Repository (CZIR) is related to the MID Region. The meeting encouraged States to provide updated information related to conflict zones, in accordance with the interim procedure to disseminate information on risks to civil aviation arising from conflict zones attached to State Letter Ref.: SMM 1/4-15/16 dated 20 March 2015.

5.37 The meeting noted that ICAO issued State Letter Ref.: AN 13/35-15/36 dated 21 May 2015, related to State emergency response to natural disasters and associated air traffic contingency (ATC) measures, reminding States of their obligations with regard to the importance and necessity of proactive contingency planning. Accordingly, the meeting encouraged States to implement the provisions of the above-mentioned State Letter and review their plans and measures to ensure they are fit for purpose.

5.38 The meeting encouraged States to implement the global and regional contingency provisions/measures to ensure the safety of air traffic operating across the MID Region, and complete the signature of the contingency agreements with their adjacent States, if not yet done so.

Civil/Military Cooperation and Flexible Use of Airspace

5.39 The meeting recalled that MIDANPIRG/15, through Conclusion 15/15, established the MID Civil/Military Support Team, with a view to expedite the implementation of the FUA Concept in the MID Region. Accordingly, the meeting encouraged States to request the ICAO MID Regional Office to coordinate the conduct of a Support Team visit, which includes in its work programme the conduct of a Civil/Military Cooperation Workshop.

5.40 The meeting reviewed the Reporting and Monitoring Table related to ASBU B0-FRTO included in the MID eANP Volume III. The meeting encouraged States to provide the ICAO MID Regional Office with their inputs to the Table by **15 October 2016**.

5.41 The meeting recalled that MIDANPIRG/15 urged States to take necessary measures to implement the provisions of the Resolution A38-12 and MIDANPIRG/14 Conclusions 14/12 and 14/13 and provide the ICAO MID Regional Office with an update on the action(s) undertaken before 1 October 2015. It was underlined that no feedback was received. Accordingly, the meeting urged States to provide their feedback to the ICAO MID Regional Office related to the actions undertaken, by **15 October 2016**.

Air Traffic Flow Management

5.42 The meeting noted that a project related to regional/sub-regional ATFM system was endorsed as one of the MAEP projects. In this respect, the Second Meeting of the MAEP Board (Cairo, Egypt, 11-13 April 2016), agreed that the project implementation could not be initiated before 2017, providing that all the enablers/prerequisites are implemented and taking into consideration the initiatives carried out by States.

5.43 The meeting recalled that MIDANPIRG/15, through Decision 15/16, tasked the ATM Sub-Group to develop a preliminary project proposal addressing the necessity, feasibility, and timelines related to the eventual implementation of a regional/sub-regional ATFM system, for consideration by the MAEP Steering Committee. Taking into consideration the outcome of the MAEP Board/2 meeting, the meeting agreed that the development of the project proposal (business plan) should be carried out under the framework of MAEP.

5.44 The meeting reviewed the MID eANP Volume III Reporting and Monitoring Table related to the ASBU B0-NOPS at **Appendix 5C** and agreed that it should be further reviewed by the ANSIG/2 meeting before inclusion in the MID eANP Volume III. The meeting encouraged States to provide the ICAO MID Regional Office with their inputs/plans related to the implementation of the B0-NOPS by **15 October 2016**.

5.45 The meeting encouraged all stakeholders to participate in the ICAO ATFM Seminar scheduled to be held in UAE, 21-23 November 2016.

MID Region FIRs description

5.46 The meeting recalled that in accordance with Annex 15, Appendix 7, Table A7-1, Publication **Resolution** for the FIR boundary points is **1 minute**. However, in accordance with Annex 11, Appendix 5, Table 1, the accuracy for FIR boundary points is **2 Km**.

5.47 The meeting reviewed the Guidelines for the publication of FIR boundary points, at **Appendix 5D** and agreed that the Guidelines should be taken into consideration in the publication of the FIR boundary points in the States' AIPs.

5.48 The meeting reviewed the Table ATM I-1 *MID Region Flight Information Regions (FIRs)/*Upper *Information Regions (UIRs)* at **Appendix 5E** highlighting the inconsistencies between adjacent FIRs and agreed to the following MSG Conclusion:

MSG CONCLUSION 5/5: PUBLICATION OF FIR BOUNDARY POINTS

That, States be urged to:

*a) take into consideration the Guidelines at **Appendix 5D** for the description of their FIR boundaries;*

*b) review the Table ATM I-1 MID Region Flight Information Regions (FIRs)/Upper Information Regions (UIRs) at **Appendix 5E** and coordinate with neighboring States, as appropriate, the definition of common boundaries; and*

c) *provide the ICAO MID Regional Office with their updates and comments before **15 October 2016**.*

Remotely Piloted Aircraft System (RPAS)

5.49 The meeting noted that the ANC during its 196th Session in May 2014 established the RPAS Panel to replace the Unmanned Aircraft Systems Study Group (UASSG).

5.50 The main objective of the RPAS Panel is to develop Standards and Recommended Practices (SARPs), procedures and guidance to facilitate safe, secure an efficient integration of Remotely Piloted Aircraft (RPA) into non-segregated airspace and aerodromes, maintaining the existing level of safety for manned aviation, with priority to Instrument Flight Rules (IFR) operations in controlled airspace. The personnel licensing provisions related to RPAS will be adopted in 2018.

5.51 The meeting encouraged States to use the guidance material related to RPAS provided in the ICAO Doc 10019 and the information available on the RPAS webpage: https://www4.icao.int/rpas

5.52 The meeting encouraged States to consider the developments related to RPAS, and take necessary measures for the amendment of the relevant civil aviation regulations and procedures in a timely manner, in order to ensure safe integration of the RPA into the non-segregated airspace. States were also encouraged to attend the RPAS Workshops that will be organized by ICAO. The meeting noted that the RPAS and Remote ATS Symposium will be held in Stockholm, Sweden, from 9 to 10 May 2016.

5.53 The meeting agreed that RPAS should be addressed also from a regulatory perspective by the RASG-MID.

SAR Planning Matters

5.54 The subject was addressed in WP/12 presented by the Secretariat. The meeting noted that the deficiencies related to the Search and Rescue (SAR) in the MID Region were mainly related to the:

a) lack of signature of SAR agreements;

b) lack of plans of operations for the conduct of SAR operations and SAR exercises;

c) lack of provision of required SAR services; and

d) non-compliance with the carriage of Emergency Locator Transmitter (ELT) requirements.

5.55 The meeting recalled that the DGCA-MID/3 and MIDANPIRG/15 meetings recognized the importance of the conduct of regional/sub-regional SAR training exercises.

5.56 The meeting noted that based on the recommendations of the ICAO Council, the ATM SG/2 meeting reviewed the SAR Plan developed by the Asia/Pacific SAR Task Force and agreed that it could be used for the development of the MID SAR Plan.

5.57 The meeting agreed to the establishment of a MID SAR Action Group composed of SAR Experts from volunteer States (Bahrain, Egypt, Iran, Saudi Arabia and UAE) and ICAO to develop the MID SAR Plan, and an Action Plan for the conduct of regional/sub-regional SAR training exercises. Accordingly, the meeting agreed to the following MSG Decision:

MSG DECISION 5/6: MID SEARCH AND RESCUE ACTION GROUP

That, a MID SAR Action Group be established to:

a) carry out a Gap Analysis related to the status of implementation of SAR services in the MID Region;

b) develop a SAR Plan for the MID Region based on the Asia/Pacific experience and other best practices; and

c) develop an action plan for the conduct of regional/sub-regional SAR training exercises.

5.58 The meeting recognized that the establishment of a dedicated SAR Task Force may provide an opportunity for a better attendance of SAR experts, especially from the military side. Nevertheless, the meeting agreed that the formal establishment of a dedicated Task Force for SAR should be further discussed by the ATM SG/3 meeting, for final decision by MSG or MIDANPIRG.

5.59 The meeting reviewed the model Agreement for use between SPOCs and Mission Control Centres at **Appendix 5F**, developed by the Secretariat of COSPAS-SARSAT and ICAO collaboratively. Accordingly, the meeting urged States to ensure that their SPOC sign the MCC/SPOC agreement with their relevant MCC, which would enhance the response to the monthly MCC communication tests.

5.60 The meeting encouraged States to attend the inter-regional AFI/APAC/MID SAR Workshop, tentatively scheduled to be held in Seychelles during the second half of July 2016.

PBN Planning Matters

5.61 The subject was addressed in WP/13 presented by the Secretariat. The meeting was informed of Amendment 6 to the *Procedures for Air Navigation Services — Aircraft Operations* (PANS-OPS, DOC 8168) and the new ICAO Circular 336 on the transition from RNAV to RNP approach chart identification.

5.62 The meeting noted that the inconsistencies between the aeronautical charts, PBN operational approvals and avionics displays have created confusion for pilots and air traffic controllers. As part of PBN procedures naming convention, as of **1 December 2022**, the term “RNP” will be used instead of RNAV (GNSS) and/or RNAV (GPS); and “RNP (AR)” will be used instead of RNAV (RNP). Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 5/7: TRANSITION PLAN FOR THE RNAV TO RNP INSTRUMENT APPROACH CHART DEPICTION

*That, States be urged to provide their transition plan for the RNAV to RNP Instrument Approach Chart Depiction (Chart Title) to the ICAO MID Regional Office before **31 October 2016**, taking into consideration the provisions/timelines set forth in Amendment 6 to PANS-OPS, Volume II, Part III, Section 5, Chapter 1 and the ICAO Circular 336.*

5.63 The meeting was apprised of the latest developments related to the Visual Guided Approaches (VGAs). The meeting noted that VGAs are established at specific aerodromes to enhance safety, improve efficiency and for environmental/noise considerations. In this respect, the meeting encouraged States to work closely with the air operators to make available the required regulations/provisions and certification process, and to implement VGAs where needed/applicable, taking into consideration the best practices and the ICAO provisions that will be issued by 2018.

5.64 The meeting re-iterated MSG Conclusion 4/11 - States' PBN Implementation Plans and urged States to provide the ICAO MID Regional Office with their updated PBN Implementation Plans on an annual basis (by end of December). In this respect, it was noted that ten (10) States have, so far, provided their National PBN Implementation Plan.

5.65 The meeting agreed to update the applicability areas of B0-CCO and B0-CDO in the revised version of the MID Air Navigation Strategy (MID Doc 002), based on the outcome of the PBN SG/2 meeting. Discussions have been initiated on the planning for the ASBU B1-APTA and B1-CDO Modules.

5.66 The meeting agreed that the B1-APTA and B1-CDO would apply to certain aerodromes/runway ends. In this regard, the meeting urged States to identify the runway ends where GLS CAT II/III precision would be required, and the aerodromes/TMAs where B1-CDO could be implemented, in consultation with the airspace users.

5.67 The meeting reviewed and endorsed the revised version of the MID Region PBN Implementation Plan (MID Doc 007) and agreed to the following MSG Conclusion:

MSG CONCLUSION 5/8: MID REGION PBN IMPLEMENTATION PLAN

That, the revised version of the MID Region PBN Implementation Plan (MID Doc 007, Edition April 2016) is endorsed.

CNS Planning Matters

5.68 The subject was addressed in WP/14 presented by the Secretariat.

Outcome of the MIDAMC STG/3 meeting:

5.69 The meeting urged States that have CIDIN connections to take necessary measures, and plan for removal of these outdated connections as soon as possible, with the support of the MIDAMC, if needed.

5.70 The meeting reviewed the plan to implement AMHS communication paths between Jeddah-Vienna, and Bahrain-Vienna, to enable the exchange of OPMET data in digital format. The meeting urged all concerned to take necessary action in order to implement the plan and tasked the CNS Sub Group to update the plan.

5.71 The meeting noted the efforts of the MIDAMC STG/3 meeting in developing the testing document for the File Transfer Body Part (FTBP) and urged States to participate in the trials. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 5/3: FTBP TESTING DOCUMENT

*That, the First Edition of File Transfer Body Part (FTBP) Trial and Testing Document at **Appendix 5G** is endorsed; and be published as MID Document.*

5.72 The meeting was apprised of the progress achieved for the implementation of the AMHS gateway for the MID Region with SITA. Currently Jordan is preparing for IP network connectivity and AMHS interoperability testing, which is progressing well. Similar effort will be initiated for AMHS interconnection with Qatar. Furthermore, Lebanon has an AFTN connection with SITA and is interested to migrate to IP in order to have additional connection for the Region.

B0-FICE Plan and Implementation Monitoring

5.73 The meeting reviewed the status of implementation of B0-FICE and raised concern about the low level of AIDC/OLDI implementation. The meeting urged States to accelerate the implementation of AIDC/OLDI in order to improve coordination between air traffic service units and meet the MID Air Navigation Strategy targets.

ADS-B out plan and Monitoring

5.74 The meeting discussed the ADS-B implementation and recognized the efficiencies it provides for the operations. It was highlighted that ADS-B implementation is included in the GANP Roadmap as an enabler technology that supports many ASBU Modules. It was noted that ADS-B is/will be mandated in some ICAO Regions and even some MID States. In this respect, IATA confirmed that more than 90% of the fleet are equipped with ADS-B out.

5.75 The meeting reviewed the two templates proposed for the ADS-B implementation monitoring. The meeting agreed that the final template to be used in the MID Region should be developed by the CNS SG, which should also develop a MID Region ADS-B Implementation Plan. Accordingly, the meeting agreed to the following MSG Decision:

MSG DECISION 5/9: MID REGION ADS-B IMPLEMENTATION PLAN

That, the CNS SG be tasked to develop a MID Region ADS-B Implementation plan including the ADS-B monitoring Template.

GNSS PLANNING

5.76 The meeting reviewed the outcome of the Joint ACAC/ICAO MID Workshop on GNSS and tasked the CNS SG to initiate the necessary follow-up. Furthermore, the meeting urged States to provide effective spectrum management and protection including the promulgation of the necessary regulation for the GNSS frequencies to reduce the likelihood of unintentional interference or degradation of GNSS performance.

5.77 The meeting recalled that MIDANPIRG Conclusion 15/28 invited States to use the guidance prepared by the CNS SG for the development/amendment of their regulatory provisions related to the use of GNSS and associated threats. Furthermore, the meeting noted that ACAC/ICAO are planning to organize a joint Workshop on GNSS vulnerabilities in 2017.

5.78 The meeting noted that ICAO developed new guidance on GNSS monitoring for inclusion in the GNSS Manual (Doc 9849). Corresponding updates to Annex 10 will also become applicable by November 2018.

AIM PLANNING MATTERS

5.79 The subject was addressed in WP/15 presented by the Secretariat. The meeting was apprised of the development in the AIM field through the review of the outcome of the AIM SG/2 meeting (Kish Island, Iran, 31 August-2 September 2015).

National AIM Implementation Roadmap

5.80 The meeting recalled that the MSG/4 meeting invited States to take into consideration the "*MID Region AIM implementation Roadmap*" in planning for the transition from AIS to AIM in a prioritized manner; and to provide the ICAO MID Regional Office with their National AIM Implementation Roadmap using the National AIM Implementation Roadmap Template at **Appendix 5H**, before 1 March 2015.

5.81 The meeting noted with appreciation that twelve (12) States (Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Sudan and UAE) have provided their National AIM Implementation Roadmaps. The meeting recognized that the "National AIM Implementation Template" was a useful tool to support States in the development of their National AIM Implementation Roadmaps.

5.82 The meeting reviewed the *"MID Region AIM implementation Roadmap"* as updated by the AIM SG/2 meeting at **Appendix 5I**. The meeting agreed that States should take into consideration the "MID Region AIM implementation Roadmap" in planning for the transition from AIS to AIM in a prioritized manner; and provide their updated National Implementation Roadmap on an annual basis (by end of December) using the Roadmap Template.

5.83 Based on the above, the meeting agreed to the following MSG Conclusion to replace and supersede the MSG Conclusion 4/17:

MSG CONCLUSION 5/10: NATIONAL AIM IMPLEMENTATION ROADMAP

That, States be urged to:

*a) take into consideration the "MID Region AIM implementation Roadmap" at **Appendix 5I** in planning for the transition from AIS to AIM in a prioritized manner; and*

*b) provide the ICAO MID Regional Office with their updated National AIM Implementation Roadmap on an annual basis (by end of December), using the Template at **Appendix 5H.***

Guidance for AIM Planning and Implementation in the MID Region

5.84 The meeting noted with appreciation that the ICAO MID Office Secretariat developed a Draft "*Guidance for* AIM *Planning and implementation in the MID Region"* to support AIM Planning and Implementation in the MID Region. The Document explains concept and operational elements of AIM; outlines the Regional and National AIM planning (Roadmaps); and provides guidance and tools for their implementation at the Regional and National levels.

5.85 The meeting urged States to review the draft "*Guidance for AIM Planning and implementation in the MID Region*" at **Appendix 5J**, and provide the ICAO MID Regional Office with their comments/inputs, including their needs/expectations and best practices/success stories, before **15 September 2016**, for the development of the final version to be presented to MIDANPIRG/16 for endorsement.

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

5.86 The meeting recalled that the Performance Improvement Area 2 (Globally Interoperable Systems and Data – Through Globally Interoperable System Wide Information Management) of the ASBU Methodology focuses on the ASBU Modules which support CDM through Information Management in a SWIM environment. It was highlighted that the implementation of Block 1 Modules of the PIA 2 is one of the challenges that needs timely planning for Block 1.

5.87 The meeting noted that the Fourth Inter-Regional Coordination meeting between APAC, EUR/NAT and MID (IRCM/4) which was held in Bangkok, Thailand from 14 to 16 September 2015, agreed that an Interregional Seminar be held jointly between the APAC, EUR/NAT and MID Regions on "*Service Improvement through Integration of Digital AIM, MET and ATM Information*" in 2017. The objective of the Seminar will be to monitor/review implementation status of the ASBU Block 0 Modules of the PIA 2 (i.e. B0-DATM, B0-AMET and B0-FICE) and associated challenges/lessons learned and to focus on the pre-requisites for an efficient and timely planning for the implementation of the Block 1 Modules of the PIA 2 (B1-DATM, B1-AMET, B1-SWIM and B1-FICE).

5.88 The meeting also noted that an ICAO SWIM Workshop will be held at the ICAO APAC Regional Office, Bangkok, Thailand from 16 to 18 May 2016. The workshop will provide early guidelines to implement the SWIM environment in compliance with ICAO Global Air Navigation Plan ASBU Block 1. It aims also at refining the regional input to the agenda of the 2017 interregional ICAO Seminar involving EUR, MID and APAC Regions. The workshop will offer a good opportunity for discussion and exchange of experience/expertise between SWIM experts from all over the world. Participants will also engage with some of the most advanced companies in SWIM services and solutions taking part of the exhibition which is planned to be held concurrently with the Workshop.

5.89 The following aspects of SWIM will be addressed in the Workshop:

- B1-SWIM objectives and definitions;
- Where are we today?;
- How to cope with the transition?; and
- Shaping the input to the regional planning.

5.90 The meeting encouraged States to participate in the ICAO SWIM Workshop (Bangkok, Thailand, 16-18 May 2016).

5.91 Based on the above, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 5/11: INTERREGIONAL SEMINAR ON "SERVICE IMPROVEMENT THROUGH INTEGRATION OF DIGITAL AIM, MET AND ATM INFORMATION"

That,

a) ICAO organize an Interregional Seminar on "Service improvement through integration of digital AIM, MET and ATM Information" in 2017; and

b) States be encouraged to attend and support the Seminar.

5.92 The meeting noted that the IFAIMA Global AIM Conference will be held in Rio, Brazil from 17 to 19 May 2016.

MET PLANNING MATTERS

5.93 The subject was addressed in WP/17 presented by the Secretariat. The meeting was apprised of the development in the MET field through the review of the outcome of the MET SG/6 meeting (Cairo, Egypt, 1-3 March 2016).

5.94 The meeting noted that the MET SG/6 meting discussed the provisions related to the half-hourly METAR and agreed that criteria such as number of operations at an aerodrome, frequency of weather change and use of METAR in VOLMET be considered when requiring an aerodrome to provide METAR every 30 minutes. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 5/12: MID REGIONAL REQUIREMENTS FOR HALF-HOURLY METAR

*That, States provide the ICAO MID Regional Office with proposed changes to the MET Part of Volume II related to the criteria used for determining which AOP aerodromes should issue half-hourly METAR, by **30 June 2016**.*

5.95 The meeting agreed with the MET SG/6 meeting to include the implementation of SIGMET in Volume III B0-AMET as at **Appendix 5K**. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 5/13: MID eANP VOLUME III – B0-AMET

That,

*a) the MID eANP Volume III – B0-AMET be amended to reflect the changes at **Appendix 5K**; and*

b) the notification of the amendment of the MID eANP Volume III – B0-AMET be sent to the MID eANP Focal Points.

MID REGION AIR NAVIGATION STRATEGY

5.96 The subject was addressed in WP/8 presented by the Secretariat. The meeting recalled that MIDANPIRG/15, through Conclusion 15/10, updated and endorsed the MID Region Air Navigation Strategy (MID Doc 002).

5.97 It was highlighted that, as a follow up action to the MIDANPIRG/15 Conclusion 15/10, the ICAO MID Regional Office issued State Letter Ref.: AN 1/7– 15/191 dated 25 June 2015 requesting States to take necessary measures to provide the ICAO MID Regional Office, not later than 30 November 2015, with relevant data necessary for regional air navigation planning, reporting and monitoring. Accordingly, the meeting urged States to implement the provisions of the MIDANPIRG/15 Conclusion 15/10.

5.98 The meeting agreed with the MET SG/2 meeting proposal to include a new performance indicator related to the implementation of SIGMET in the MID Region Air Navigation Strategy. The meeting supported also the proposal of the PBN SG/2 meeting related to the applicability area for CCO and CDO implementation. Accordingly, the meeting updated the MID Region Air Navigation Strategy as at **Appendix 5L** and agreed the revised version be presented to MIDANPIRG/16 for endorsement. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 5/4: MID REGION AIR NAVIGATION STRATEGY

That, the revised MID Region Air Navigation Strategy (MID Doc 002, Edition April 2016) is endorsed.

5.99 The meeting agreed that, for a timely planning of the ASBU Block 1 Modules implementation, it would be necessary to start the consultation process between all stakeholders to identify those ASBU Block 1 Modules that are considered a priority for the Region, based on operational needs/improvements, using the Draft MID Region ASBU Prioritization and Monitoring Table at **Appendix 5M**.

5.100 The meeting agreed that the MIDANPIRG subsidiary bodies will have to develop the performance indicators and targets related to the proposed priority 1 Block 1 ASBU Modules, for review/endorsement by MIDANPIRG and/or MSG and that a Workshop on ASBU Block 1 Modules implementation be organized by ICAO in 2017. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 5/14: WORKSHOP ON ASBU BLOCK 1 MODULES IMPLEMENTATION

That, a Workshop on ASBU Block 1 Modules implementation be organized by ICAO in 2017.

REPORT ON AGENDA ITEM 6: AIR NAVIGATION DEFICIENCIES

REVIEW OF AIR NAVIGATION DEFICIENCIES

6.1 The meeting recalled that MIDANPIRG/15 re-iterated that the identification and reporting of Air Navigation Deficiencies by User-Organizations contribute significantly to the enhancement of air navigation safety in the MID Region. Nevertheless, the meeting noted with concern that the use of the MID Air Navigation Deficiency Database (MANDD) is far below expectations. Accordingly, the meeting urged States and authorized Users to use the MANDD for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies.

6.2 The meeting noted that, as a follow-up action to MIDANPIRG Conclusion 15/35, the ICAO MID Regional Office issued State Letter Ref. AN 2/2 - 15/351 dated 29 December 2015 requesting States to take all necessary measures to implement the provisions of the above Conclusion and send their feedback on the actions taken to the ICAO MID Regional Office, not later than 31 January 2016.

6.3 The meeting noted the action taken by the different MIDANPIRG Subsidiary bodies related to the list of air navigation deficiencies pertaining to their Terms of Reference (TORs). The list of air navigation deficiencies as updated by the different MIDANPIRG subsidiary bodies and the Secretariat (based on requests/information received from States) is available on the MANDD, which can be accessed through the following link: http://www.cairo.icao.int/

6.4 The meeting noted with concern that the majority of deficiencies listed in the MANDD have no specific Corrective Action Plan (CAP). Accordingly, the meeting urged States having deficiencies, to implement the provisions of MIDANPIRG Conclusion 15/35.

REPORT ON AGENDA ITEM 7: MIDANPIRG WORKING ARRANGEMENTS

MIDANPIRG TORs

7.1 The subject was addressed in WP/19 presented by the Secretariat. The meeting recalled that PIRGs and RASGs are established by the ICAO Council and their Terms of Reference (TORs) are approved by the Council.

7.2 The last amendment of the MIDANPIRG TORs was related to the addition of a task pertaining to the coordination with RASG-MID on safety issues (bullet m), in 2010 (MIDANPIRG/12 Conclusion 12/1, refers).

7.3 The meeting recalled the following A38 Resolutions related to the PIRGs responsibilities:

Resolution A38-2 – *ICAO Global Planning for Safety and Air Navigation*

(Appendix B – GANP):

- Calls upon PIRGs and the aviation industry to utilize the guidance provided in the GANP for planning and implementation activities which establish priorities, targets and indicators consistent with globally-harmonized objectives, taking into account operational needs.
- Calls upon States, PIRGs and the aviation industry to provide timely information to ICAO, and to each other, regarding the implementation status of the GANP, including the lessons learned from the implementation of its provisions.
- Invites PIRGs to use ICAO standardized tools or adequate regional tools to monitor and, in collaboration with ICAO, analyze the implementation status of air navigation systems.

Resolution A38-12 - *Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation:*

- Planning and Implementation Regional Groups (PIRGs), using a project management approach, shall identify problems and shortcomings in Regional Plans and in the implementation thereof, along with suggested remedial measures.

7.4 The meeting recognized that some parts of the MIDANPIRG TORs are outdated or overtaken by events as highlighted in **Appendix 7A.**

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

DRAFT CONCLUSION 5/5: MIDANPIRG TORS

That, ICAO takes necessary measures to update the PIRGs Terms of Reference (TORs) to keep pace with latest developments.

MIDAMC STG TOR

7.6 The subject was addressed in WP/20 presented by the Secretariat. Based on the outcome of the MIDAMC STG/3 and MAEP Board/2 meetings, the meeting reviewed and updated the TOR of the MIDAMC STG as at **Appendix 7B** and agreed that they should be further reviewed by the CNS SG before endorsement by the MIDANPIRG/16 meeting.

MIDANPIRG Members/Alternates/Advisers and Sub Groups Focal Points

7.7 The subject was addressed in WP/21 presented by the Secretariat. The meeting reviewed the lists of MIDANPIRG Members/Alternates/Advisers and Subsidiary bodies' Focal Points (ATM SG, AIM SG, CNS SG, MET SG and PBN SG) and agreed that the ICAO MID Regional Office send a State Letter requesting States to provide updates, as deemed necessary.

7.8 The meeting urged States to support the work of the Subsidiary bodies by assigning experts and specialists able to effectively contribute to the work of the different MIDANPIRG subsidiary bodies.

MIDANPIRG Procedural Handbook

7.9 The subject was addressed in WP/22 presented by the Secretariat. The meeting recalled that MIDANPIRG/15 agreed to the following changes to be included in the MIDANPIRG Procedural Handbook (MID Doc 001):

- the revised TORs of the MSG, CNS SG and PBN SG;
- procedure for election of Chairpersons;
- coordination mechanism between MIDANPIRG and RASG-MID; and
- guidelines on the publication and amendment of MID Documents (MID Docs).

7.10 The meeting noted that, in accordance with the procedure for amendment of the air navigation plan endorsed by the Council on 18 June 2014, the mechanism for the amendment of Part II of Volume III of the eANP would be developed, agreed by MIDANPIRG and reflected in the MIDANPIRG Procedural Handbook (TBD).

7.11 The meeting reviewed the consolidated version of the MIDANPIRG Procedural Handbook reflecting the above agreed changes as at **Appendix 7C**. The meeting reviewed and discussed the MIDANPIRG Organizational Structure and the MSG TORs; and agreed that they are still valid and any proposed change should be addressed by MIDANPIRG.

7.12 Based on the above, the meeting agreed to the following MSG Decision:

MSG DECISION 5/15: MIDANPIRG PROCEDURAL HANDBOOK (MID DOC 001)

That, the MIDANPIRG Procedural Handbook (MID Doc 001) Edition April 2016 ***(Appendix 7C)*** *is endorsed.*

REPORT ON AGENDA ITEM 8: FUTURE WORK PROGRAMME

8.1 The subject was addressed in WP/16 presented by the Secretariat. The meeting noted that MIDANPIRG/16 is planned to be held in Kuwait, 13-16 February 2017.

8.2 The meeting recalled that MSG was established to execute a pivotal function as a coordinating and steering organ with highest possible efficiency in accordance with the goals set by MIDANPIRG. In this respect, the meeting agreed that the MIDANPIRG Chairpersons in coordination with the Secretariat should decide on the conduct of MSG meetings on ad-hoc basis, taking into consideration the regional developments and needs.

8.3 The meeting initiated discussion on the working arrangements of MIDANPIRG and in particular the interaction between MSG and ANSIG. One idea was to organize, when deemed necessary, a meeting of the MIDNAPIRG and its Subsidiary bodies' chairpersons, to review the regional priorities and recommend some measures to improve the implementation of the regional requirements and address issues related to MIDANPIRG working arrangements. Accordingly, the meeting agreed that the proposal should be further explored and presented to MIDANPIRG/16 meeting. In this respect, it was highlighted that the MIDANPIRG/RASG-MID Coordination meetings could also be used for that purpose.

REPORT ON AGENDA ITEM 9: ANY OTHER BUSINESS

9.1 Nothing has been discussed under this agenda item.

APPENDICES

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

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
MSG CONCLUSION 4/1: GLOBAL AIR NAVIGATION PLAN (DOC (9750) REVIEW AND UPDATE					Completed
That, States and air navigation stakeholders in the MID Region be urged to:	Implement the Conclusion	ICAO	State Letter	Dec 2014	SL AN 1/5-14/339 dated 23 Dec. 2014
a) review and provide inputs to the questionnaire at Appendix 3A; and		States	Feedback	15 January 2015	
b) provide feedback on the use of the fourth edition of the GANP and its possible improvement before 15 January 2015.					
MSG CONCLUSION 4/2: MID REGION CONTINGENCY PLAN					Completed
That, the MID Region ATM Contingency Plan (Edition November 2014) is endorsed as a Regional Document to be available on the ICAO MID website.	Implement the Conclusion	MSG/4	MID Region ATM Contingency Plan	Nov. 2014	
MSG CONCLUSION 4/3: MID REGION AIR NAVIGATION STRATEGY					Closed
That,					
a) the MID Air Navigation Strategy at **Appendix 4B** is endorsed as the framework identifying the regional air navigation priorities, performance indicators and targets; and	Implement the Conclusion	MSG/4	AN Strategy	Nov. 2014	(Replaced and superseded by Conc. 15/10)
b) MID States be urged to:		ICAO	State Letter	Jan. 15	SL AN 1/7 - 15/035 dated 2 Feb. 2015
i. develop their National Air Navigation Performance Framework, ensuring the alignment with and support to the MID Region Air Navigation Strategy; and		States	National Plans		
ii. provide the ICAO MID Regional Office, on annual basis (by end of November), with relevant data necessary for regional air navigation planning and monitoring.		States	Feedback	On annual basis (Nov.)	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
MSG CONCLUSION 4/4: DEVELOPMENT OF THE MID eANP That, a) the ANP WG/2 finalize the MID eANP for endorsement by MIDANPIRG/15; and b) States be urged to review the MID eANP Volumes I, II and III available on the ICAO MID website, and provide updates/inputs to the ANP WG/2 meeting.	Implement the Conclusion	ANP WG/2 States	Draft MID eANP VOL I, II and III	Dec 2014 Dec 2014	Completed
MSG CONCLUSION 4/5: MAEP ESTABLISHMENT That, MAEP be established as an ICAO TCB project with a Project Management Office (PMO) hosted by the ICAO MID Regional Office.	Implement the Conclusion	MSG/4	MAEP establishment	Nov. 2014	Actioned
MSG DECISION 4/6: MAEP STEERING COMMITTEE (MSC) That, the MAEP Steering Committee (MSC) is established with Terms of Reference as at **Appendix 4C.**	Implement the Conclusion	MSG/4	MAEP SC establishment	Nov. 2014	Completed
MSG CONCLUSION 4/7: MAEP FUNDING MECHANISM That, a) the running cost of the MAEP PMO be ensured through contributions from all MAEP Member States; b) the annual amounts to be paid by the MAEP Member States are, as follows: i. Bahrain, Iran, Oman, Qatar, Saudi Arabia and UAE annual contribution is US$ 30,000 each; ii. Egypt, Iraq, Kuwait and Libya annual contribution is US$ 20,000 each; and	Implement the Conclusion	MSG/4	MAEP Funding Mechanism	Nov. 2014	Closed (Replaced and superseded by MAEP Board Conc. 2/2)

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
iii. Jordan, Lebanon, Sudan, Syria and Yemen annual contribution is US$ 10,000 each. c) the funding of the projects/working packages: i. be addressed by the Board, on case-by-case basis; and ii. be ensured through contribution (cash or in-kind) by concerned States, stakeholders and sponsors/donors. d) the MAEP funding mechanism be revised by the MAEP Board, when necessary.					
MSG CONCLUSION 4/8: REGIONAL IFPS STUDY That, States be urged to provide the Flight Plan Data/Difficulties to the ICAO MID Regional Office **before 31 December 2014,** in order for Bahrain to carry out further analyses for the Region, necessary for the IFPS project.	Implement the Conclusion	ICAO States	State Letter	Dec 2014	Closed SL AN 8/4.2.1-14/344
MSG CONCLUSION 4/9: LAUNCHING OF THE MID-AMC SERVICE That, a) States, that have not yet done so, be urged to assign their MIDAMC STG members before **30 December 2014**; and b) the first AIRAC date following the training of the MID States key users (5 February 2015) be officially declared as the date of operation of the MIDAMC application.	Implement the Conclusion	ICAO States	State Letter	Dec 2014	Completed SL AN 7/5.1-15/041 dated 4 Feb 2015
MSG CONCLUSION 4/10: MID REGION PBN IMPLEMENTATION PLAN That, the endorsed MID Region PBN Implementation Plan (Version 1, November 2014) be posted on the ICAO MID website.	Implement the Conclusion	MSG/4	MID Region PBN Implementation Plan	Nov. 2014	Completed

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
MSG CONCLUSION 4/11: STATES PBN IMPLEMENTATION PLANS That, States be urged to: a) develop/update their PBN implementation Plan taking into consideration the MID Region PBN Implementation Plan, the MID Air Navigation Strategy and the Users requirements; and b) provide the ICAO MID Regional Office with their updated PBN Implementation Plan on an annual basis (by end of December).	Implement the Conclusion	ICAO States	State Letter Feedback	Dec. 2014 25 January 2015 thereafter on annual basis (by end of December)	Closed SL AN 6/28-14/334 dated 21 Dec. 2014
MSG CONCLUSION 4/12: STRATEGY FOR IMPLEMENTATION OF AIDC/OLDI That, the endorsed MID Region Strategy for the implementation of AIDC/OLDI (Version 1, November 2014) be posted on the ICAO MID website.	Implement the Conclusion	MSG/4	Strategy for Implementation of AIDC/OLDI	Nov. 2014	Completed
MSG CONCLUSION 4/13: REGIONAL ICD FOR AIDC That, the PAN Regional ICD for AIDC version 1.0 endorsed as the official ICD for use in the MID Region be posted on the ICAO MID website.	Implement the Conclusion	MSG/4	Regional ICD for AIDC	Nov. 2014	Completed
MSG CONCLUSION 4/14: MID REGION PROCESS FOR MODE S IC CODES ALLOCATION That, the endorsed MID Region process for Mode S IC codes allocation be posted on the ICAO MID website.	Implement the Conclusion	MSG/4	MID Region Process for Mode S IC Code Allocation	Nov. 2014	Completed
MSG CONCLUSION 4/15: ADS-B PLANNING AND IMPLEMENTATION That, recognizing the importance of ADS-B technology, States be encouraged to plan/implement ADS-B and provide the ICAO MID Regional Office with their plans/progress reports by **15 January 2015**.	Implement the Conclusion	ICAO States	State Letter	Dec 2014	Closed AN 8/4.2.1-14/345 (Replaced and

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
					superseded by MSG Dec. 5/9)
MSG CONCLUSION 4/16: DRAFT METHODOLOGY FOR REPORTING AND ASSESSING THE PROGRESS RELATED TO THE TRANSITION FROM AIS TO AIM That, States be urged to provide the ICAO MID Regional Office with their comments/inputs related to the "Methodology for reporting and assessing the progress related to the transition from AIS to AIM" and the Finalization/Compliance Criteria, at **Appendices 4I** and **4J**, respectively.	Implement the Conclusion	ICAO States	State Letter Feedback	TBD	Completed Feedback received from States; the Methodology moved to the "*AIM Guidance material for the MID Region*".
MSG CONCLUSION 4/17: NATIONAL AIM IMPLEMENTATION ROADMAP That, States: a) be invited to take into consideration the "MID Region AIM implementation Roadmap" at **Appendix 4L** in planning for the transition from AIS to AIM in a prioritized manner; and b) that have not yet done so, be urged to provide the ICAO MID Regional Office with their National AIM Implementation Roadmap using the Template at **Appendix 4K**, before **1 March 2015.**	Implement the Conclusion	ICAO States	State Letter Feedback	Mar 2015	Closed ME 3/1-15/034 dated 1 Feb 2015; Roadmaps received from 12 States (Replaced and superseded by MSG Conc. 5/10)
MSG CONCLUSION 4/18: MIDAD FOCAL POINTS That, for an improved coordination between all Stakeholders related to the MIDAD Project, States that have not yet done so, be urged to designate MIDAD Focal Points (FPPs) before **31 December 2014.**	Implement the Conclusion	ICAO States	State Letter Feedback	Dec 2014	Completed MIDAD FPP List completed by 12 States

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
MSG DECISION 4/19: TERMS OF REFERENCE OF THE MIDAD TASK FORCE That, the Terms of Reference of the MIDAD Task Force be updated as at **Appendix 4O.**	Implement the work programme of the MIDAD TF	MSG/4	TOR of the MIDAD TF endorsement	Nov 2014	Completed
MSG CONCLUSION 4/20: MID SCRAG NOMINATION That, Mr. Ahmed Alobadli from the United Arab Emirates is nominated as the MIDANPIRG member of the SADIS Cost Recovery Administrative Group.	Coordinate with the MIDANPIRG SCRAG Member	MSG/4	Assignment of new MID SCRAG member	Nov 2014	Completed
MSG CONCLUSION 4/21: AMHS ROUTING FROM MID TO EUR REGIONS That, the MID-AMC develop a plan to implement AMHS communication paths between Jeddah-Vienna, and Bahrain-Vienna before **31 March 2015**, to enable the exchange of OPMET data in digital form between the MID and EUR Regions.	Implement the Conclusion	MIDAMC	AMHS Plan	Apr. 2015	Completed Plan developed already under implementation
MSG CONCLUSION 4/22: CALL SIGN CONFUSION That, a) a survey based on the questionnaire at **Appendix 5A** related to the acceptance/processing of flight plans containing "alphanumeric" call signs ending with letter(s) be conducted; b) States that have not yet done so be invited to take necessary measures to comply with ICAO Annex 10 and Doc 4444 provisions related to the acceptance of the alphanumeric call signs; and c) States be invited to inform the ICAO MID Regional Office of the preferred option for the mitigation of the risks associated with the call sign confusion before **31 January 2015**.	Implement the Conclusion	ICAO States and Users	State Letter Feedback	Dec. 2014 Feb. 2015	Completed SL AN 6/34-14/332 dated 21 Dec. 2014

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
MSG DECISION 4/23: CALL SIGN CONFUSION AD-HOC WORKING GROUP That, a Call Sign Confusion ad-hoc Working Group be established in order to: a) analyze the results of the survey on the acceptance/processing of flight plans containing "alphanumeric" call signs ending with letter(s); and b) develop solutions to mitigate the risk associated with call sign confusion and similarity.	Implement the Decision	MSG/4	CSC WG	Nov. 2014	Completed First meeting, 16-18 Feb. 2015 CSC WG dissolved by MIDANPIRG Conclusion 15/1

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

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
DECISION 15/1: DISSOLUTION OF THE CALL SIGN CONFUSION AD-HOC WORKING GROUP That, the Call Sign Confusion Ad-hoc Working Group is dissolved.	Implement the Conclusion	MIDANPIRG/15	Dissolve CSC WG	Jun. 2015	Completed
CONCLUSION 15/2: CALL SIGN SIMILARITY PROVISIONS AND GUIDELINES That, States be urged to: a) take necessary measures to ensure that their Aircraft Operators (AOs) implement a mechanism to de-conflict call similarity between the same AO flights and thereafter between their local AOs and other Middle East AOs flights; b) report call sign similarity/confusion cases using the template at **Appendix 4.1C**; and c) develop a simplified mechanism to trigger the reporting of call sign similarity/confusion by ATCOs.	Implement the Conclusion	ICAO States	State Letter Feedback	July 2015 Sep. 2015	Actioned SL AN 6/34-15/189 dated 25 June 2015
CONCLUSION 15/3: MIDRMA REVISED MEMORANDUM OF AGREEMENT That, a) the revised version of the MIDRMA Memorandum of Agreement (MOA) dated 12 March 2014, at Appendix 4.2A is endorsed, to replace and supersede the MIDRMA MOA dated 27 February 2006; and b) the ICAO MID Regional Office follow-up with concerned States the signature of the revised MIDRMA MOA.	Implement the Conclusion	MIDANPIRG/15 States	Revised MIDRMA MOA Sign the revised MIDRMA MOA	Jun. 2015 Dec. 2016	Actioned Completed 10 States signed the revised MOA

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 15/4: MIDRMA FUNDING MECHANISM That, a) the activities of the MIDRMA be ensured through contributions from all MIDRMA Member States, which could be recovered in accordance with ICAO Policies on charges for Airports and Air Navigation Services (Doc 9082), in coordination with IATA; b) the MIDRMA Member States pay their contributions on a yearly basis not later than two (2) months after the issuance of the invoices by ICAO; c) ICAO issue the invoices related to States contribution to the MIDRMA Project on a yearly basis as decided by the MIDRMA Board or its Chairperson; d) the annual amounts to be paid by the MIDRMA Member States are, as follows: i) Bahrain, Egypt, Iran, Oman and Saudi Arabia annual contribution is US$ 30,000 each; and ii) Iraq, Jordan, Kuwait, Lebanon, Libya, Qatar, Sudan, Syria and Yemen annual contribution is US$ 10,000 each; e) UAE is exempted from the payment of contributions to the MIDRMA for the first ten (10) years of operation (up-to end of 2015); f) the MIDRMA Member States comply with the payment instructions contained in the invoices sent by ICAO HQ (Project code, fund number, invoice number, Bank information, etc); g) in case a MIDRMA Member State does not pay the contribution to the MIDRMA Project in a timely manner, the MIDRMA Board might consider to take penalty measures against this State (exclusion from the MID RVSM Safety Monitoring Report, review of the Membership, etc); h) the MIDRMA Board Chairperson, in compliance with the Custodian Agreement and based on the agreed funding mechanism and the	Implement the Conclusion	MIDANPIRG/15	MIDRMA funding Mechanism	Jun. 2015	Completed (Replaced and superseded by MIDRMA Board Conc. 14/3)

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
estimation of the yearly operating budget of the MIDRMA, be delegated the authority to certify on behalf of the MIDRMA Member States the requests for advance payment from the MIDRMA account managed by ICAO HQ to the MIDRMA Bank account in Bahrain, as decided by the MIDRMA Board; i) the bills related to the MIDRMA expenses be certified by the MIDRMA Board Chairperson and reviewed by the MIDRMA Board at each of its meetings; and j) the MIDRMA funding mechanism be revised by the MIDRMA Board, when necessary.					
CONCLUSION 15/5: ONLINE REPORTING OF LARGE HEIGHT DEVIATION (LHD) That, States: a) be urged to use only the online tool at (http://www.midrma.com/lhd) for reporting LHDs; and b) be encouraged to provide feedback to the MIDRMA for further improvement of the tool.	Implement the Conclusion	ICAO States	State Letter Feedback	Jul.2015 Oct. 2015	Actioned SL AN 6/5.10.15A – 15/190 dated 28 June 2015
CONCLUSION 15/6: SIMPLIFIED LARGE HEIGHT DEVIATION (LHD) REPORTING PROCEDURE That, States be urged to implement a procedure within their ACCs to easily trigger the LHD reporting process and provide the ICAO MID Regional Office with an update on the action(s) undertaken.	Implement the Conclusion	ICAO States	State Letter Feedback	Jul.2015 Oct. 2015	Actioned SL AN 6/5.10.15A – 15/190 dated 28 June 2015
CONCLUSION 15/7: MID RVSM SAFETY MONITORING REPORT (SMR) 2014 That, the MID RVSM Safety Monitoring Report (SMR) 2014 is endorsed.	Implement the Conclusion	MIDANPIRG/15	MID RVSM SMR 2015	Jun. 2015	Completed

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 15/8: MID RVSM SAFETY MONITORING REPORT (SMR) 2015					Actioned
That,	Implement the Conclusion	ICAO	State Letter	Sep.2015	SL AN 6/5.10.15A – 15/244 dated 7 Sep. 2015
a) the FPL/traffic data for the period **1 – 30 September 2015** be used for the development of the MID RVSM Safety Monitoring Report (SMR 2015);					
b) only the appropriate Flight Data form available on the MIDRMA website (www.midrma.com) should be used for the provision of FPL/traffic data to the MIDRMA; and		States	Traffic data	Oct. 2015	Data provided
c) the final version of the MID RVSM SMR 2015 be ready for presentation to and endorsement by MIDANPIRG/16.		MIDRMA	SMR 2015	Dec. 2016	
CONCLUSION 15/9: AVIATION STATISTICS AND TRAFFIC FORECASTS					Actioned
That,					
a) States be urged to:					SL AT 5/3 - 16/120 dated 7 April 2016
i. nominate to ICAO Focal Points for aviation statistics;					
ii. provide the statistics required by ICAO in a timely manner and to the extent possible in an electronic format					
b) ICAO organise a Second Aviation Data Analyses Seminar in 2016 to keep the momentum and further enhance the technical knowledge of States.					Seminar planned for Q1-2017
CONCLUSION 15/10: MID REGION AIR NAVIGATION STRATEGY					Actioned
That,	Implement the Conclusion				SL AN 1/7– 15/191 dated 25 June 2015
a) the revised MID Region Air Navigation Strategy:					
i. is endorsed as the framework identifying the regional air navigation priorities, performance indicators and targets; and		MIDANPIRG/15	MID AN Strategy		MID Doc 002 published

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
ii. be published as MID Doc 002.		ICAO	MID Doc 002		(To be replaced and superseded by Draft Conc. 5/4)
b) MID States be urged to:		ICAO	State Letter		
i. develop their National Air Navigation Performance Framework, ensuring the alignment with and support to the MID Region Air Navigation Strategy; and		States	National Performance Framework	Nov. 2015	
ii. provide the ICAO MID Regional Office, on an annual basis (by the end of November), with relevant data necessary for regional air navigation planning, reporting and monitoring.		States	Feedback	Nov. 2015	
CONCLUSION 15/11: ENDORSEMENT OF THE MID eANP That, a) the new MID ANP VOL I, II and III available at: http://www.icao.int/MID/MIDANPIRG/Pages/Final%20Report/MID-eANP.aspx are endorsed; and b) the ICAO MID Regional Office process the necessary Proposals for Amendment, in accordance with the procedure for amendment approved by the Council, for formal approval by the end of 2015.	Issue Proposals for Amendment	ICAO	Proposals for Amendment	Dec. 2015	Completed MID eANP Vol I, II and III, approved and published on the ICAO MID Website
DECISION 15/12: DISSOLUTION OF THE ANP AD-HOC WORKING GROUP That, the ANP Ad-Hoc Working Group is dissolved.	Implement the Conclusion	MIDANPIRG/15	Dissolve ANP WG	Jun. 2015	Completed
CONCLUSION 15/13: MID FLIGHT PROCEDURE PROGRAMME (FPP) WORKSHOP That, as part of the ICAO support for the establishment of the MID FPP, a Workshop be organized back-to-back with the MAEP SC/2 meeting to be held in October 2015 in order to develop a framework for the establishment of the MID FPP.	Implement the Conclusion	ICAO	Conduct of MID FPP Workshop	Oct. 2015	Completed Workshop held (18-19 Oct. 2015)

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
DECISION 15/14: DISSOLUTION OF THE MPST That, the MID PBN Support Team (MPST) is dissolved.	Implement the Conclusion	MIDANPIRG/15	Dissolve the MPST	Jun.2015	Completed
CONCLUSION 15/15: MID CIVIL/MILITARY SUPPORT TEAM That, a MID Civil/Military Support Team be established with a view to expedite the implementation of the Flexible Use of Airspace (FUA) Concept in the MID Region.	Implement the Conclusion	MIDANPIRG/15	Establishment of MID Civil/Military Support Team	Jun.2015	Actioned
DECISION 15/16: COLLABORATIVE AIR TRAFFIC FLOW MANAGEMENT (ATFM-CDM) That, the ATM Sub-Group develop a Preliminary Project Proposal addressing the necessity, feasibility, and timelines related to the eventual implementation of a regional/sub-regional ATFM system, for consideration by the MAEP Steering Committee.	Implement the Conclusion	ATM SG	ATM Sub-Group develop a Preliminary Project Proposal	Dec. 2015	To be closed MAEP SC/2 meeting deferred the discussion on the project to 2017
CONCLUSION 15/17: FORMAL AGREEMENTS BETWEEN AIS AND DATA ORIGINATORS That, States be urged to: a) take necessary measures for the signature of formal arrangements between AIS/AIM and the data originators, commensurate with the Aerodrome operators, Air Navigation Service Providers (ANSPs) and the Military Authority; and b) inform the ICAO MID Regional Office of the actions taken before **31 December 2015**.	Implement the Conclusion	ICAO States	State Letter Feedback	Dec. 2015	Actioned SL AN 8/4.1-15/205 dated 6 July 2015 Very few replies received; to be followed-up by the AIM SG
CONCLUSION 15/18: MID REGIONAL GUIDANCE FOR IMPLEMENTATION OF AIDC/OLDI That, the MID Region guidance for the implementation of AIDC/OLDI (Edition 1.1, June 2015) is endorsed as MID Doc 006.	Implement the Conclusion	MIDANPIRG/15	MID Region Guidance for AIDC/OLDI3	Jun. 2015	Competed MID Doc 006 endorsed

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 15/19: REGIONAL PERFORMANCE DASHBOARDS That, ICAO expedite the expansion of the regional performance dashboards to include the MID Region-specific indicators, metrics and targets, for which the necessary data is available**.**	Implement the Conclusion	ICAO	Dashboards with Regional indicators, metrics and targets	Dec. 2015	Ongoing
CONCLUSION 15/20: MID REGION ATM CONTINGENCY PLAN That, the MID Region ATM Contingency Plan (Edition June 2015): a) is endorsed as MID Doc 003; and b) be used by States and concerned stakeholders to ensure the orderly flow of international air traffic in the event of disruptions of air traffic services and related supporting services and to preserve the availability of major world air routes within the air transportation system in such circumstances.	Implement the Conclusion	MIDANPIRG/15	MID Region ATM Contingency Plan MID Doc 003	Jun. 2015	Completed MID Doc 003 published
CONCLUSION 15/21: MID REGION ACCS LETTER OF AGREEMENT TEMPLATE That, States be encouraged to use the MID Region Area Control Centres (ACCs) Letter of Agreement Template (Edition June 2015) available on the ICAO MID website, to ensure the harmonization of coordination procedures between ACCs.	Implement the Conclusion	ICAO	State Letter	Jul. 2015	Actioned SL AN 6/2.1 – 15/192 dated 28 Jun. 2015
CONCLUSION 15/22: MID REGION HIGH LEVEL AIRSPACE CONCEPT That, the MID Region High Level Airspace Concept (Edition June 2015) is endorsed as MID Doc 004.	Implement the Conclusion	MIDANPIRG/15	MID Region High Level Airspace Concept	Jun. 2015	Completed Endorsed as MID Doc 004

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 15/23: MID SSR CODE MANAGEMENT PLAN (CMP) That, a) the Middle East Secondary Surveillance Radar Code Management Plan (MID SSR CMP) (Edition June 2015) is endorsed as MID Doc 005; b) States (regulator and service provider) be urged to: i. take necessary measures to ensure strict compliance with the procedures included in the MID SSR CMP; and ii. report interference/conflict cases, if any, to the ICAO MID Regional Office related to the misuse of SSR codes.	Implement the Conclusion	MIDANPIRG/15 ICAO States	MID SSR CMP State Letter Feedback	Jun. 2015 Jul. 2015 periodically	Completed Endorsed as MID Doc 005 SL AN 6/17 – 15/193 dated 25 Jun. 2015
DECISION 15/24: MID REGIONAL/SUB-REGIONAL SEARCH AND RESCUE TRAINING EXERCISES That, the ATM Sub-Group develop an action plan for the conduct of regional/sub-regional SAR training exercises.	Implement the Conclusion	ATM SG	Action Plan for SAR training exercises	Dec. 2015	Actioned ATM SG/2 established a SAR AG to develop the action plan
CONCLUSION 15/25: MIDAD SUPPORT TEAM (MIDAD ST) That, the MIDAD Support Team (MIDAD ST) a) be composed of members from Bahrain, Jordan, Iran, Kuwait, Oman, Qatar, Saudi Arabia, Sudan, UAE and the ICAO MID Regional Office; and b) provide necessary support to the MIDAD Task Force to successfully complete Phase 2 of the MIDAD Project.	MIDAD ST to provide necessary support	MIDANPIRG/15	MIDAD ST composition		Actioned
CONCLUSION 15/26: EAD-MIDAD MEMORANDUM OF COOPERATION (MOC) That, a Memorandum of Cooperation (MOC) on sharing/exchange of Aeronautical Information/Services between EAD and MIDAD be	Sign MOC	ICAO	MOC signed	Dec. 2015	Actioned EAD-MIDAD Coordination

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
signed by the ICAO MID Regional Director (on behalf of MIDAD States) with EUROCONTROL.					meeting held in Dec. 2015
CONCLUSION 15/27: SUPPORT ICAO POSITION TO WRC-15 That, States be urged to: a) support the ICAO Position to the WRC-15; b) make necessary arrangements for the designated Civil Aviation Personnel to participate actively in the preparatory work for WRC-15 at the national level; and c) attend the preparatory regional spectrum management groups meetings and WRC-15 to support and protect aviation interests.	Implement the Conclusion	States ICAO	States attendance and support State Letter	 July 2015	Completed SL AN 7/30.15.1-15/208 dated 07 Jul. 2015
CONCLUSION 15/28: GNSS RADIO FREQUENCY INTERFERENCE That, States be invited to use the guidance at **Appendix 5.2.2E** for the development/amendment of their regulatory provisions related to the use of GNSS and associated threats.	Implement the Conclusion	ICAO	State Letter	Dec 2015	Completed AN 7/30.21 – 15/345 dated 22 Dec. 2015
CONCLUSION 15/29: WORKSHOP ON THE USE OF THE ICAO FREQUENCY FINDER That, a Workshop on the use of the new Frequency Finder software be scheduled for 2016.	Organize Workshop	ICAO	Workshop	2nd half 2016	Actioned SIP Approved and workshop will be held in Oct. 2016

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 15/30: AFTN/CIDIN AFS CONNECTIVITY AND AMHS IMPLEMENTATION That States be urged to: a) refrain from establishing new AFTN and CIDIN connections at the International level; b) gradually phase out the current connections based on AFTN or CIDIN standards; and c) expedite their AMHS implementation.	Implement the Conclusion	ICAO	State Letter	July 2015	Actioned SL AN 7/5.1-15/209 dated 8 Jul. 2015
CONCLUSION 15/31: MIDAMC ACCREDITATION PROCEDURE That, the accreditation procedure for registering in the MIDAMC be amended as at **Appendix 5.2.2G**.	Amend the procedure	MIDANPIRG/15	The procedure amended	June 2015	Completed
CONCLUSION 15/32: MID REGION PROCESS FOR MODE S IC CODES ALLOCATION That, the Eurocontrol Document "Requirements process for the coordinated allocation and use of Mode S Interrogator Codes in the ICAO Middle East Region" (Edition 1.02 dated August 2014), be used for the allocation of the Mode S IC codes.	Implement the Conclusion	MIDANPIRG/15	Procedure adopted	June 2015	Completed
CONCLUSION 15/33: OPMET EXCHANGE SCHEME That States be urged to update their OPMET exchange scheme in coordination with ROC Jeddah and back-up ROC Bahrain in order to complete MID ROC implementation by **30 September 2015**.	Implement the Conclusion	ICAO/States	State letter Updated OPMET exchange scheme	Sep 2015	Actioned SL Ref: AN 10/11-15/206 issued 8 Jul 2015 Status: 8 States FI 5 States PI 2 States NI

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 15/34: SINGLE ENGINE TAXI OPERATIONS That, States be encouraged to: a) consider the implementation of Single Engine Taxi Operations at their International Aerodromes,; as a possible measure for the reduction of CO_2 emissions, as practicable (decision to be supported by a safety assessment); and b) share their experience on the subject with other States, as required.	Implement the Conclusion	ICAO State	State Letter Feedback	Jul. 2015	Actioned SL AN 6/17 – 15/194 dated 28 Jun. 2015
CONCLUSION 15/35: AIR NAVIGATION DEFICIENCIES That, States be urged to: a) use the MID Air Navigation Deficiency Database (MANDD) for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies, including the submission of a specific Corrective Action Plan (CAP) for each deficiency; and b) submit a Formal Letter to the ICAO MID Regional Office containing the evidence(s) that mitigation measures have been implemented for the elimination of deficiency(ies) when requesting the elimination of deficiency(ies) from the MANDD.	Implement the Conclusion	ICAO States	State Letter CAP and necessary updates/ evidences	When necessary	Actioned SL AN 2/2 – 15/351 dated 29 Dec. 2015

Coordination between MIDANPIRG and RASG-MID

Subjects of interest for MIDANPIRG and RASG-MID	Responsible/Leading Group	
	RASG-MID	MIDANPIRG
Aerodrome Operational Planning (AOP)		X
Runway and Ground Safety	X	
Heliports	X	
AIM, CNS and MET safety issues		X
CFIT	X	
SSP Implementation	X	
SMS implementation for ANS and Aerodromes	X	
Accidents and Incidents Analysis and Investigation	X	
English Language Proficiency	X	
RVSM safety monitoring		X
SAR and Flight Tracking		X
PBN		X
Civil/Military Coordination		X
Airspace management		X
Call Sign Similarity and Confusion		X
Conflict Zones		X
Contingency Planning		X
USOAP-CMA	X	
COSCAP, RSOO and RAIO	X	
Air Navigation Deficiencies		X
Training for ANS personnel		X
Training other civil aviation personnel	X	
Laser attack	X	
Fatigue Risk Management	X	
RPAS		X

Status of Implementation of Aerodrome Certification in the MID Region

	State	Number of Intl Aerodromes	Number of Certified Intl Aerodromes	Percentage certified
1	**Bahrain**	1	1	100%
2	**Egypt**	7	4	57%
3	**Iran**	9	4	44%
4	**Iraq**	6	2	33%
5	**Jordan**	3	1	33%
6	**Kuwait**	1	1	100%
7	**Lebanon**	1	0	0%
8	**Libya**	3	0	0%
9	**Oman**	2	2	100%
10	**Qatar**	2	2	100%
11	**Saudi Arabia**	4	4	100%
12	**Sudan**	4	2	50%
13	**Syria**	3	0	0%
14	**UAE**	8	8	100%
15	**Yemen**	5	0	0%
	Total	***59***	***31***	***53%***

MID TOP SIX PROPOSED ATS ROUTES

TPR	ATS Route Catalogue Reference	ATS Route Affected	States Concerned	Status			Remarks
				Reviewed by	Date	Changed	
(a)	*(b)*	*(c)*	*(d)*	*(e)*	*(f)*	*(g)*	*(h)*
1	RC-045	New	Saudi Arabia-Sudan	ATM SG/2	Dec. 2015	No	Moved to ANP
2	RC-055	L315	Egypt-Saudi Arabia	ATM SG/2	Dec. 2015	Yes	Saudi proposed SOBEL-DEDLI
3	RC-083	New	Egypt-Saudi Arabia	ATM SG/2	Dec. 2015	No	Route amended and moved to ANP
4	Not from catalogue	New	Iran-Turkey	ATM SG/2	Dec. 2015	Yes	
5	Not from catalogue	New	Iran-Pakistan	ATM SG/2	Dec. 2015	Yes	
6	Not from catalogue	New	Egypt-Cyprus	ATM SG/2	Dec. 2015	Yes	

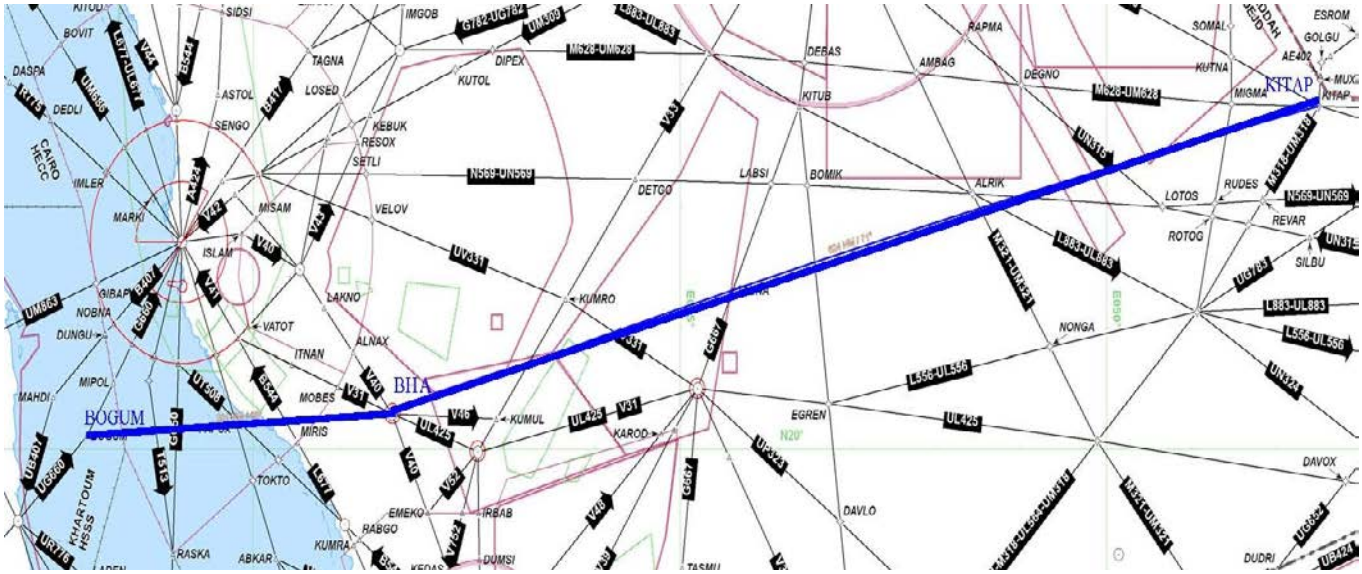
Table explanation

a) TPR used as reference for the proposed Top Six routes to be considered for implementation, numbers do not reflect the level of priority.
b) Source of the proposed routes.
c) Affected ATS Routes by the implementation of the new proposed routes.
d) States Concerned with the implementation.
e) The Group, Sub-Group or Task Force that had reviewed and updated the status of implementation of these top 10 routes.
f) Date of last status update.
g) Indicates if the status is changed or Not.
h) Remarks

TPR 1 (MID/RC -045)	**ATS Route Name:** New Route	**Entry-Exit:** PSD- KITAP	**Inter-Regional Cross Reference**		**Users Priority**	**Originator of Proposal**	IATA
						Date of Proposal	ARN TF/2

Route Description	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken / Required**	**Deadline for each Action**
Port Sudan (PSD) BOGUM Al BAHA (BHA) KITAP	Saudi Arabia Sudan		Not implemented	Moved to ANP August 2014	Sudan has no objection from Port Sudan to SALWA (CDR) KSA suggest Port Sudan BHA-KITAP (Normal route) will avoid CDR KSA needs more time for studying.	
Flight Level Band:						
Potential City Pairs: DGAA, DNMM, HSSS, OEJN, SBGR to OBBI, OMAA, OMDB, OTBD (Central and Eastern Arabian Peninsula to Sudan, West Africa, South America)						

Conclusions/Remarks	**Saves 58 miles and 3196 Kg of CO2 to recalculate**		**Last updated**	ATM SG/2 Dec. 2015

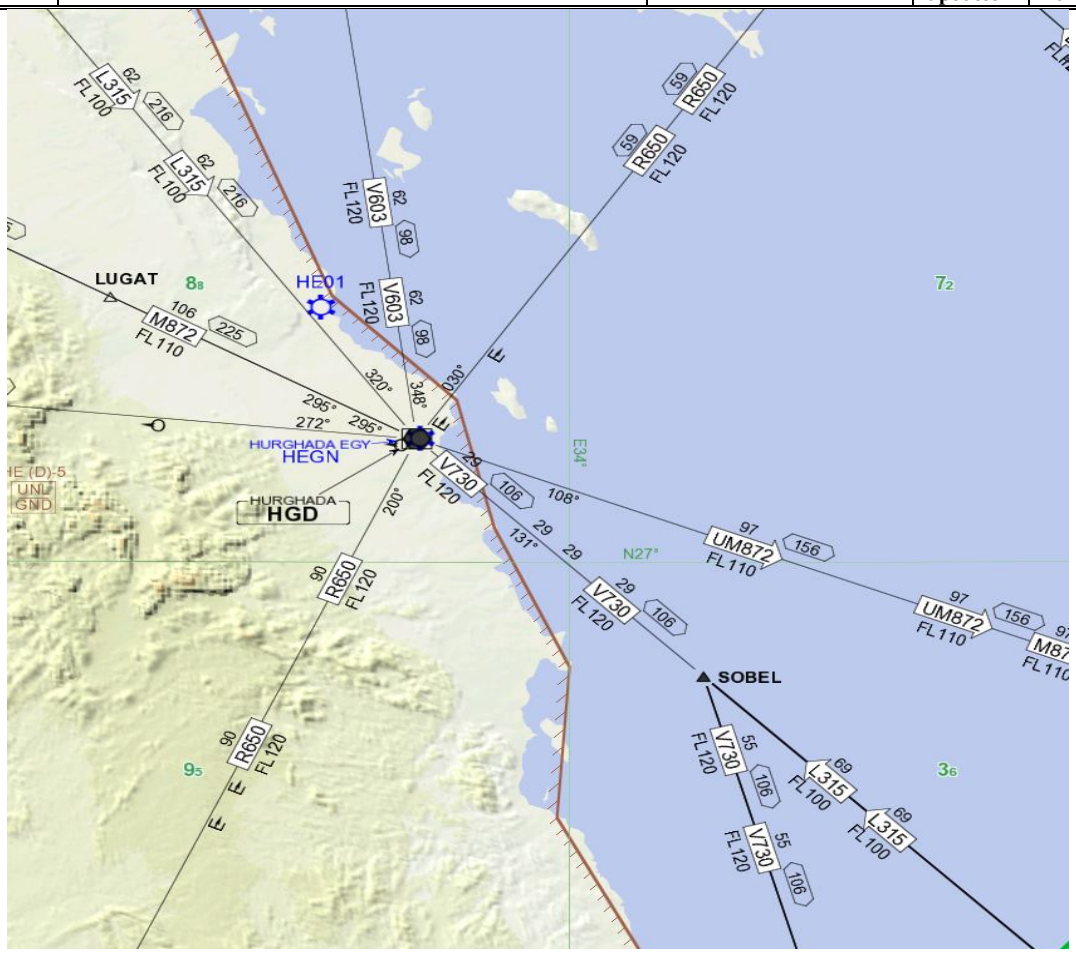


TPR 1

TPR 2 **(MID/RC-055)**	**ATS Route Name:** L315	**Entry-Exit:** HEMA-CVO	**Inter-Regional Cross Reference if any**		**Users Priority**	Med	**Originator of Proposal**	IATA
							Date of Proposal	ARN TF/2

Route Description MAK-CVO	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken / Required**	**Deadline for each Action**
GIBAL HGD CVO	Egypt Saudi Arabia		Implemented with opposite direction CVO-HGD Eastbound GIBAL-HGD Westbound	Already in ANP	Saudi Arabia proposed L315 westbound and new Segment HDG or SOBEL-DEDLI for eastbound. This requires that CVO-HGD to be bi-directional. Egypt needs more time for studying **IATA is requesting the route to be Eastbound** Coordination is required between Egypt and Saudi Arabia	
Flight Level Band: Upper						
Potential City Pairs: North-western Red Sea to HECA and Europe						

Conclusions/Remarks	Saves 9 miles		**Last updated**	ATM SG/2 December 2015	

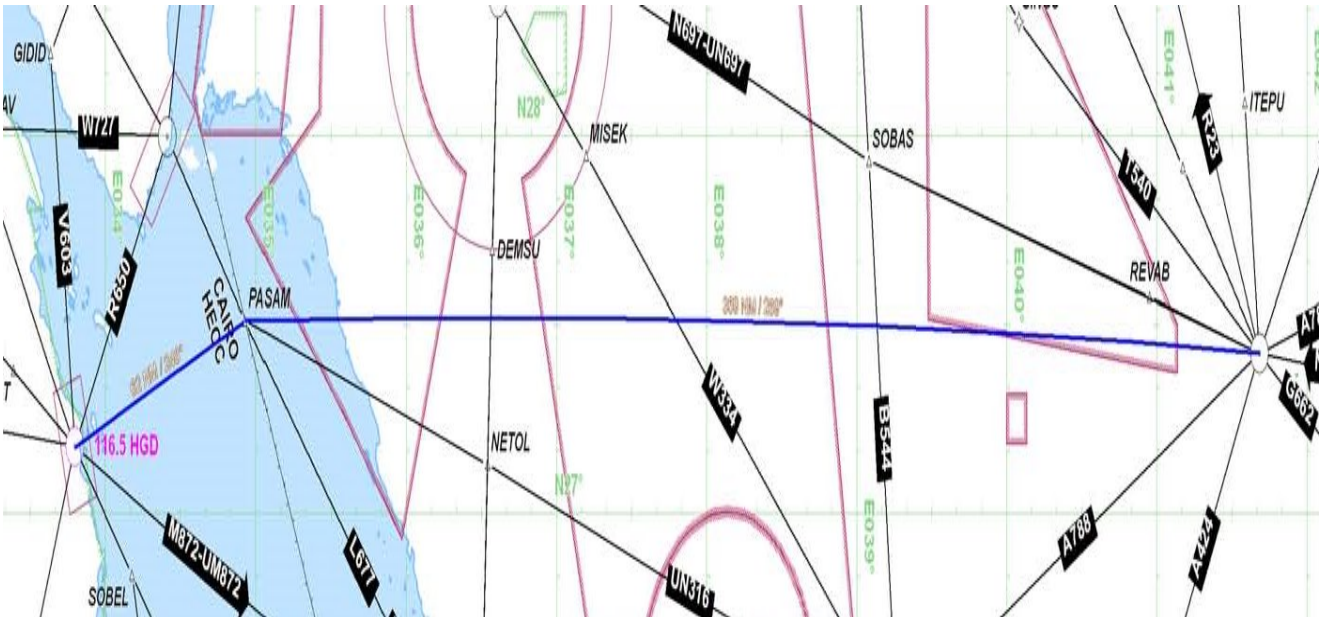


TPR 2

TPR 3 (MID/RC-083)	**ATS Route Name:** New Route UQ598 Westbound	**Entry-Exit:** PASAM – HIL	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	IATA iFLEX Proposal
							Date of Proposal	17 May 2011

Route Description	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
HIL PASAM HGD	Egypt Saudi Arabia			Moved to ANP	Priority Routes Important Segment HGD-PASAM It's a west bound direction (FUA) N697 - HIL-PASAM-HGD -V608 RC 083 amended to include segment AST-DITAR only Concerned States to implement the route	TBD
Flight Level Band:						
Potential City Pairs:						

Conclusions/Remarks			**Last updated**	ATM SG/2 Dec. 2015

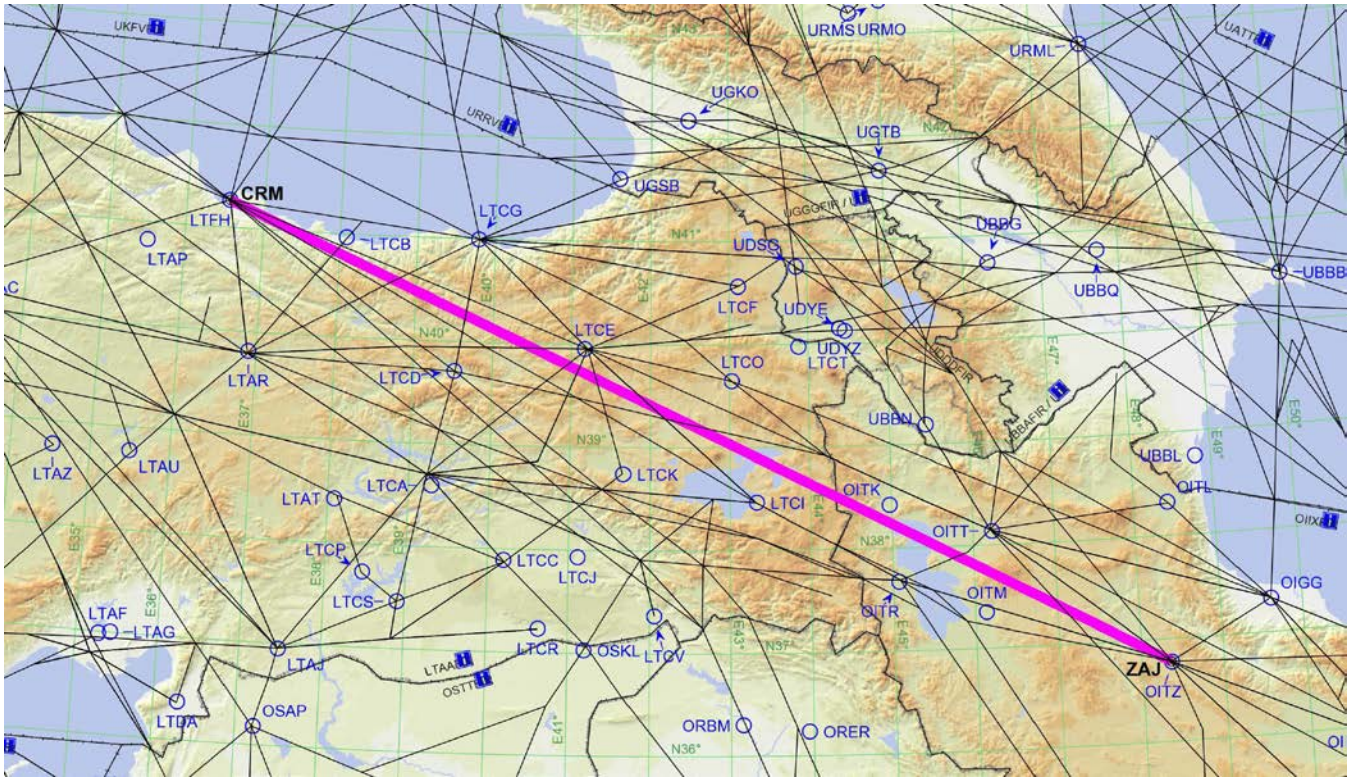


TPR 3

TPR 4	**ATS Route Name:** New Route	**Entry-Exit:** New	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	Iran	
							Date of Proposal	7 August 2015	

Route Description		**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
CRM ZAJ	Iran Turkey					Iran is ready to implement the route as soon as possible pending Turkey acceptance. Concerned States to implement the route	TBD
Flight Level Band:							
Potential City Pairs:							

Conclusions/Remarks	To accommodate the traffic in case ALARM is closed		**Last updated**	ATM SG/2 Dec. 2015

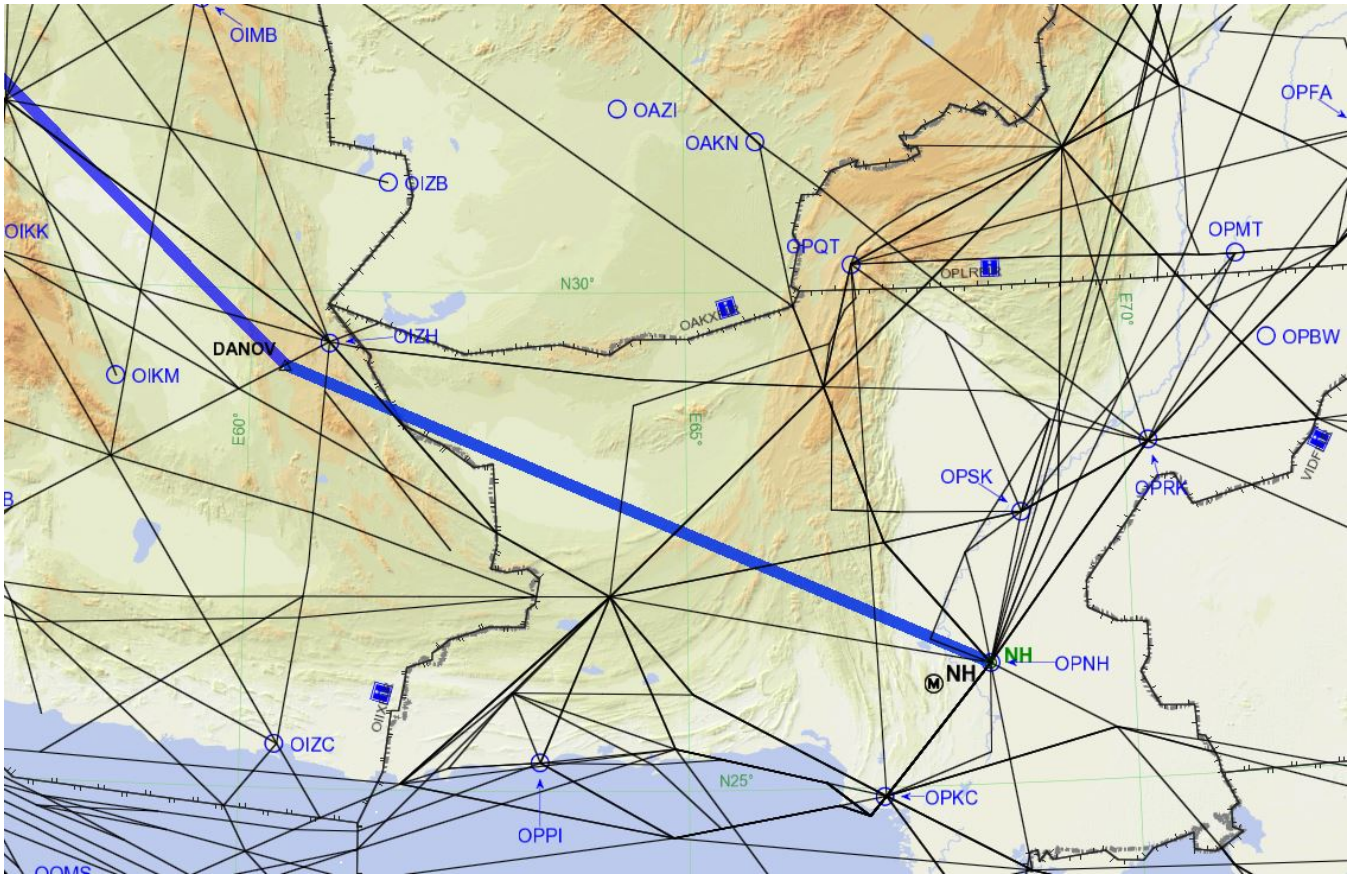


TPR 4

TPR 5	**ATS Route Name:** New Route	**Entry-Exit:** New	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	Iran
							Date of Proposal	11 May 2015

Route Description	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
DANOV NH	Iran Pakistan				Iran is ready to implement the route as soon as possible pending Turkey acceptance Concerned States to implement the route	TBD
Flight Level Band:						
Potential City Pairs:						

Conclusions/Remarks	To ensure efficient continuity of Iran OTS in Karachi FIR		**Last updated**	ATM SG/2 Dec 2015

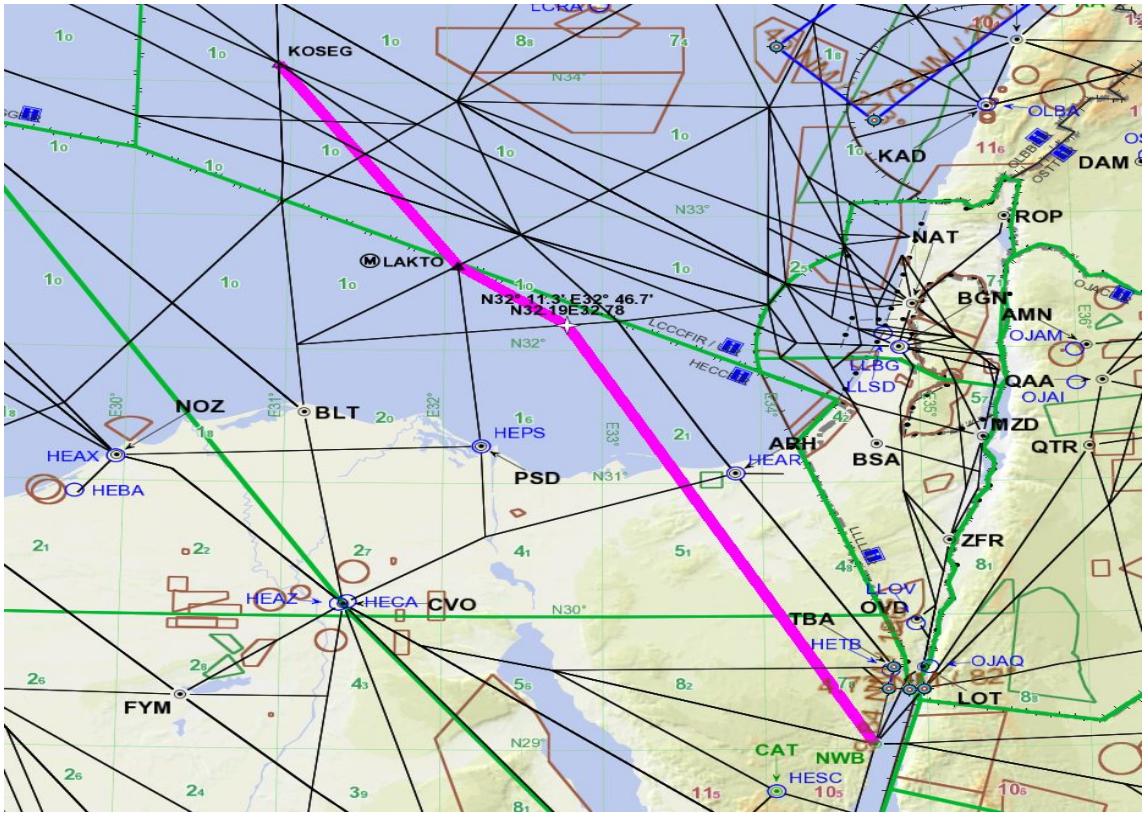


TPR 5

TPR 6	**ATS Route Name:** New Route	**Entry-Exit:** PASAM – HIL	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	Egypt
							Date of Proposal	1 Dec 2015

Route Description		**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
NWB New Point LAKTO KOREG	Egypt Cyprus					Egypt is ready to implement the route as soon as possible pending Cyprus acceptance More coordination is required for the continuity of the route within Nicosia FIR Concerned States to implement the route	TBD
Flight Level Band:							
Potential City Pairs:							

Conclusions/Remarks			**Last updated**	ATM SG/2 December 2015



TPR 6

B0 – NOPS: Improved Flow Performance through Planning based on a Network-Wide view

Monitoring and Reporting

EXPLANATION OF THE TABLE

Column

1 Name of the State
2 Status of implementation of a mechanism for the implementation of ATFM Measures based on collaborative decision:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
3 Provide reference to the Document including the mechanism for the implementation of ATFM Measures
4 List of implemented ATFM Measures
5 Provide a list of ATFM Measures, which were coordinated with the neighbouring States
6 Remarks

State	Mechanism for the Implementation of ATFM Measures based on Collaborative Decision	Reference (Document)	ATFM Measures Implemented	ATFM Measures were Coordinated with the Following States	Remarks
1	2	3	4	5	6
Bahrain					
Egypt					
Iran					
Iraq					
Jordan					
Lebanon					
Libya					
Kuwait					
Oman					
Qatar					
Saudi Arabia					
Sudan					
Syria					
Unite Arab Emirates					
Yemen					
Total					
Percentage					

GUIDELINES FOR THE PUBLICATION OF FIR BOUNDARY POINTS

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

      Note: *Transfer of Control Points, ATS route significant points or waypoints may not necessarily be aligned with boundaries delineation.*

   e) Where delineation of FIR/UIR follows an arc of specific dimension, it should be defined as follows:

      [starting point of ARC] *following an arc of a circle at a* ***radius of [distance]*** *NM centered on* ***[coordinates in DMS]*** *and ending at point* ***[coordinates in DMS]***.

2) Where FIR is described using "sovereign" boundaries
   a) The description should be simple
      i) Follow sovereign boundary between [State 1] and [State 2]). [1]
   b) Where delineation of FIR/UIR is made by reference to sovereign boundaries common to neighbouring FIR/UIR, the delineation shall be mutually agreed upon.
   c) Where an FIR/UIR follows a sovereign boundary, the United Nations international boundary data set is referred to by ICAO.

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

Review of MID Table ATM I-1

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

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

MID TABLE ATM I-1

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

FIR/UIR Location Indicator	Lateral limits coordinates	COMMENTS FROM ICAO	# of FIR/UIR Description Requirement	Remarks
1	2		See FIR/UIR Definition #	3
	the national borders of Oman, Saudi Arabia and UAE meet to 224200N 0551200E, then the Saudi Arabia / Oman territorial boundary to 190000N 0520000E 253000N 0490000E 263330N 0452130E 275000N 0455500E 275000N 0490800E thence along the limit of the Saudi Arabia territorial waters to 281500N 0485200E then back to starting point 284400N 0494000E	Description should match with the one in FIR Jeddah and Muscat This coordinate should match with FIR Kuwait and add starting point coordinate	1a 1d 2b 2c 2a	State's AIS Publication (AIP ENR 2.1-1 dated 17 October 2013) PfA (Serial MID Basic ANP 13/03 – ATM/SAR)- realignment of Bahrain and Jeddah FIRs pending approval
Beirut (OLBB)	FIR/UIR Beirut The geographical Lebanese/Syrian borders, then along the Lebanese/Palestinian borders, and a semicircular Arc, radius 45 NM centered KAD VOR		1d 2b 2c 2a 1e	Not Source: the State's AIS Publication
Cairo (HECC)	FIR/UIR Cairo *Northern border 340000N 0241000E 340000N 0271000E 333000N 0300000E *Eastern border 315000N 0335900E 313600N 0343000E then follow the International border to: 293000N 0345500E 293000N 0350000E 280600N 0343500E 220000N 0380000E *Southern border 220000N 0380000E 220000N 0250000E *Western border 220000N 0250000E 314000N 0251000E 340000N 0241000E	Coordinate should match with FIR Tripoli	1d 2a	Source: the State's AIS Publication
Damascus (OSTT)	FIR/UIR Damascus From 355500N 0354000E to 355600N 0355500E then along the national border of Syria with Turkey and Iraq to a point 332200N 0384800E, then along the national border of Syria with Jordan to 324100N 0353800E then along the		1a 1d 2b 2c 2a	Source: the State's AIS Publication

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

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

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

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

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Attachment 1

DRAFT
MCC/SPOC Model Agreement

[Agreement]
between

[name] Mission Control Centre

and

[State name] SAR Point of Contact

for the Distribution and Reception of COSPAS-SARSAT Distress Alert Data for Search and Rescue

DEFINITIONS

"Agreement" means this Agreement;

"Ground Segment Provider" means any State which establishes and operates the ground segment equipment and avails itself to the System, under the terms of the International COSPAS-SARSAT Programme Agreement (ICSPA) and in the context of this [agreement], [State];

"Local User Terminal (LUT)" means a computer hardware system installed to receive signals relayed by the satellites and processes them to determine radio beacon location;

"Mission Control Centre (MCC)" means a computer system established to accept the output from the Local User Terminal and convey distress alert and location data to appropriate authorities and in the context of this MOU, the [name] SPOC;

"Radio beacons" means distress alert instruments designed to be activated in a distress and to transmit a radio signal at 406 MHz, the characteristics of which comply with appropriate provisions of the International Telecommunication Union and COSPAS-SARSAT specifications;

"Search and Rescue Point of Contact (SPOC)" means Rescue Co-ordination Centres and other established and recognized national points of contact which can accept responsibility to receive COSPAS-SARSAT alert data to enable the rescue of persons in distress;

"Service Area" means that part of the world within which a COSPAS-SARSAT alert data distribution service is provided by an MCC, in accordance with document C/S P.011 "COSPAS-SARSAT Programme Management Policy"; an MCC Service Area is defined by the list of SPOCs to which that MCC distributes COSPAS-SARSAT alert data;

"System" means the COSPAS-SARSAT System comprising a Space Segment, Ground Segment and radio beacons operating at 406 MHz.

1. PURPOSE

a. The purpose of this Agreement between the [MCC] and [SPOC] is to formalize the exchange of space based distress alerts received through the satellite system of the International COSPAS-SARSAT Programme. This is to ensure that institutional arrangements between the two entities at the operational level are effective.

b. This Agreement aims to ensure that rapid and reliable two-way communication is established between the two centres servicing the [name] Search and Rescue Region (SRR) for prompt provision of Search and Rescue Services to persons in distress in aviation, maritime and land incidents.

2. INTRODUCTION

a. Knowing the importance of co-operation in search and rescue (SAR), and of the provision of expeditious and effective SAR services;

b. Desiring to support the provisions of the Convention on International Civil Aviation of the International Civil Aviation Organisation (ICAO) and the International Convention on Maritime Search and Rescue of the International Maritime Organisation (IMO);

c. Noting the Standards and Recommended Practices in Annex 12 to the Convention on International Civil Aviation of ICAO and the provisions of the International Convention for the Safety of Life at Sea (SOLAS);

d. Supporting the principles of the COSPAS-SARSAT Programme as determined by the COSPAS-SARSAT Council;

e. The [MCC[and [SPOC] have agreed as follows:

3. OBJECTIVES

[Administration of MCC], as signatory to the International COSPAS-SARSAT Programme Agreement, shall pursue the following objectives:

a. Provide distress alert and location data from the System to the international community in support of SAR operations on a non-discriminatory basis;

b. Support, by providing these distress alert and location data, the objectives of IMO and ICAO concerning search and rescue;

c. Cooperate with other national authorities and relevant international organizations in the operation and co-ordination of the System;

d. Provide and confirm distress alert and location data from the COSPAS-SARSAT System from the [name] MCC to the [SPOC]; and

e. Provide information concerning the System status to [SPOC].

The [SPOC] shall at all times endeavour to support the [MCC] in its efforts to fulfil its objectives and commitments under the ICSPA in accordance with the provisions of this [Agreement].

The MCC and SPOC shall establish reliable communication links (AFTN, fax, email) and operational procedures, which include backup routines.
In the spirit of close cooperation, the MCC and SPOC shall consult from time to time with a view to ensuring the full implementation of the provisions of this [Agreement] and necessary amendments as appropriate.

4. PROCEDURES

a. The [name] Mission Control Centre ([.]MCC) established in [location], [State], providing services under the ICSPA shall communicate distress alerts located in the SRR of the SPOC, or for beacons which contain the country code of the SPOC to [SPOC], [State] for undertaking search and rescue services, assisted as required by RCCs within the State of the SPOC.
b. MCC and SPOC agree that the distribution of alert data by [name] MCC is undertaken on a best effort basis and that [name] MCC cannot guarantee continuous system availability.
c. [State] shall designate a single SAR point of contact (SPOC), where possible, for receiving COSPAS-SARSAT alert and location data for distress locations in their SAR area of responsibility and provide the address, telephone, telex or facsimile number or AFTN address of their SPOC to [MCC] and the COSPAS-SARSAT Secretariat (Attachment 1).
d. [SPOC] will immediately notify [MCC] of any changes to the provided contact details in (Attachment 1).
e. [SPOC] shall develop a comprehensive plan for the distribution of distress alert and location data to SAR authorities within its SRR, as appropriate.
f. The [SPOC] shall endeavour to minimize false alerts in their country.
g. The [SPOC] shall provide information on their national point of contact for beacon registers to the COSPAS-SARSAT Secretariat and the [MCC].
h. The [SPOC] shall maintain reliable communication links with MCC and respond to monthly communication tests from the [name] MCC immediately after receipt thereof (not using an automatically generated response) to verify the integrity of communications links between the MCC and SPOC.
i. [SPOC] shall communicate routine reports, such as alert summaries and monthly operations reports on SAR incidents that were assisted by Emergency Locator Transmitters (ELTs), Emergency Position-indicating Radio Beacons (EPIRBs) or

Personnel Locator Beacons (PLBs) to [MCC] on a regular basis, with special reports as and when required.

5. DEPOSITARY

The Depositary of this Agreement and any subsequent amendments thereto shall be the Secretariat of the International COSPAS-SARSAT Programme.
The MCC and SPOC will also provide a signed copy of this Agreement to the ICAO Regional Office concerned with the [name] SRR and the IMO Secretariat, if desired by them.

6. ENTRY INTO FORCE, AMENDMENT, RENEWAL AND TERMINATION

This [Agreement] will enter into effect when it has been signed on behalf of all parties. The [Agreement] shall remain in force for a period of two years from the date on which it enters into force and shall be extended automatically for successive periods of two years.

a. This [Agreement] is signed on Day_____of_____20xx, between [MCC] and [SPOC].

b. The [Agreement] will be reviewed as required and may be modified or amended by mutual agreement of both parties in writing.

c. Both parties, in the event of initiating action to terminate the [Agreement] shall give the other party a minimum of 120 days prior notice in writing.

(I) **SIGNATURE**

_____

AUTHORIZED REPRESENTATIVE

[MCC]

_____

(II) **SIGNATURE**

_____

AUTHORIZED REPRESENTATIVE
[SPOC]

_____

Attachment 1: CONTACT DETAILS

[MCC]

Phone:

Fax:

Email:

AFTN:

Other:

[SPOC]

Phone:

Fax:

Email:

AFTN:

Other:

[Other]

Phone:

Fax:

Email:

AFTN:

Other:

[Add further contacts as required]

- END -

MID DOC XXX

INTERNATIONAL CIVIL AVIATION ORGANIZATION

File Transfer Body Part (FTBP)
Trial and Testing Document

FIRST EDITION JANUARY, 2016

Developed by: MIDAMC STEERING GROUP

Table of Contents

References

[1] ICAO Annex 10 – Aeronautical Telecommunication; Vol.II, Communication Procedure

[2] ICAO doc 9880- Manual on Detailed Technical Specifications for the Aeronautical Telecommunication Network (ATN) using ISO/OSI Standards and Protocols, Part II – Ground-Ground Applications - Air Traffic Services Message Handling Services (ATSMHS), First Edition – 2010

[3] EUR Doc 020 – AMHS Manual

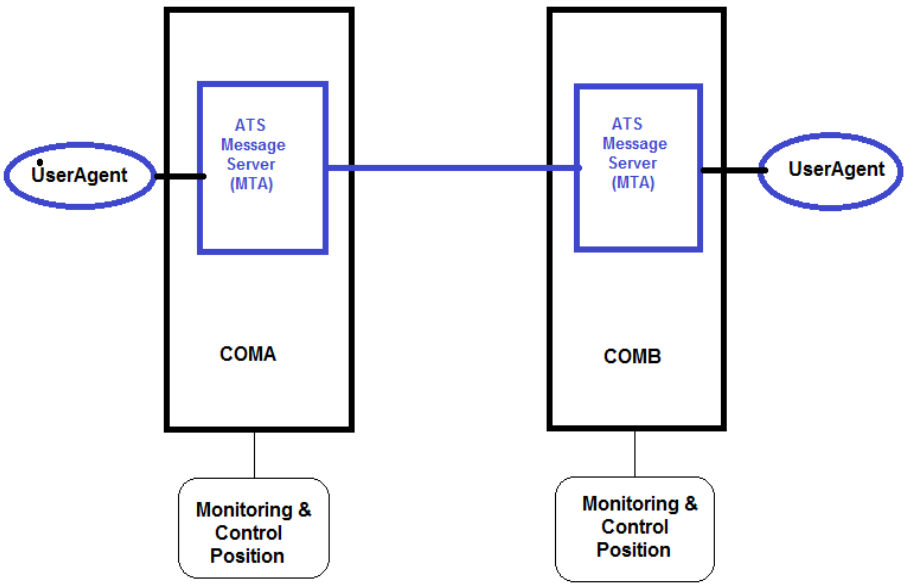
1. Introduction

The Message Handling service provided in the ATN is called the ATS Message Handling Service (ATSMHS). This service is specified using X.400 standards. There are two levels of ATSMHS service: Basic ATS Message Service and Extended ATS Message Service. Basic ATS Message Service provides a nominal capability equivalent from a user perspective to those provided by AFTN. And Extended ATS Message Service provides enhanced features such as supporting transfer of more complex message structures (body parts), use of the directory service, and support for security.

The purpose of this document is to define the functional tests for ATS Extended Service handling specially File Transfer body part (FTBP) in order to ensure the end-to-end capability of AMHS systems and network to exchange this type of messages. These tests are performed after the successful operation of AMHS basic services, through which the compliance of all systems to the AMHS technical specifications has been demonstrated and proved.

2. Test Environment

Both test systems should have operational AMHS link, and P1 connection setup. Two User Agents should be used to exchange traffic with File Transfer Body Part. The testing environment is as shown in the figure below:



The test can be performed in AMHS Network and unnecessary to have direct AMHS link between the two COM centers, the traffic can be exchanged via intermediary(ies) COM center(s), which should be involved in the test activities.

The User Agent address at COM A could be "COMAASTT", and at COM B "COMBASTT". The User Agent can be either P3 or P7 User Agent.

Network Analysis software can be used to monitor X.400 traffic and its effect on network Bandwidth. The software can be agreed on prior the test.

3. Test Procedure

Before the tests, the test partners should coordinate and document the type of body part used in IPMs submitted by their User Agents when submitting text messages, either as:

- IPMs containing a basic ia5-text body part, or
- IPMs containing an extended ia5-text body part, or
- IPMs containing a general-text body part with ISO646 repertoire.

3.1 Submission, Transfer and Delivery of a message including Binary file from UserAgent to UserAgent.

Test01	**Submission of Binary file**
Test Criteria	**The Test is successful if COMB receive the message with Binary file attached with text message from COMA**
Scenario Description	From the UA of COMA send a sequence of five ATS messages (IPMs) to the COMB addressing the COMBASTT. • Message 1 (Test011) shall have ATS-message-priority KK and binary file • Message 2 (Test012) shall have ATS-message-priority GG and binary file • Message 3 (Test013) shall have ATS-message-priority FF and binary file • Message 4 (Test014) shall have ATS-message-priority DD and binary file attached • Message 5 (Test015) shall have ATS-message-priority SS and binary file attached Each message shall have different ATS-filing-time and ATS-message-text. Verify the messages received by the remote UA. In particular, verify: • ATS-message-priority, • ATS-message-filing-time, • ATS-message-text. • The Binary file
Reference	**9880**

Test02	Submission of Binary file
Test Criteria	**The Test is successful if COMA receive the message with Binary file attached with text message from COMB**
Scenario Description	From the UA of COMB send a sequence of five ATS messages (IPMs) to the COMA addressing the COMAASTT. • Message 1 (Test021) shall have ATS-message-priority KK and binary file • Message 2 (Test022) shall have ATS-message-priority GG and binary file • Message 3 (Test023) shall have ATS-message-priority FF and binary file • Message 4 (Test024) shall have ATS-message-priority DD and binary file attached • Message 5 (Test025) shall have ATS-message-priority SS and binary file attached Each message shall have different ATS-filing-time and ATS-message-text. Verify the messages received by the remote UA. In particular, verify: • ATS-message-priority, • ATS-message-filing-time, • ATS-message-text. • The Binary file
Reference	**9880**

3.2 Submission, Transfer and Delivery of a message including Binary file from UserAgent to AFTN User

Test031	Submission of Binary file to AFTN User
Test Criteria	**The Test is successful if COMA receive Non Delivery report (NDR) from the Gateway of COMB**
Scenario Description	From the UA of COMB send an ATS messages (IPMs) with binary file attached to the COMA addressing an AFTN user like the control tower COMAZTZX. • Message 1 (Test031) shall have ATS-message-priority FF and binary file Verify the messages not received by the remote AFTN User and that the sender receive NDR
Reference	**9880**

Test032	Submission of Binary file to AFTN User
Test Criteria	**The Test is successful if COMB receive Non Delivery report (NDR) from the Gateway of COMA**
Scenario Description	From the UA of COMA send an ATS messages (IPMs) with binary file attached to the COMB addressing an AFTN user like the control tower COMBZTZX. • Message 1 (Test032) shall have ATS-message-priority FF and binary file Verify the messages not received by the remote AFTN User and that the sender receive NDR
Reference	**9880**

4. Test Summary

Use the Network Analysis software to analyze the traffic overhead occurred when sending binary files with the message. Also document the message size on system hard disks. Monitor any warning message or alarm during the tests.

Stress tests can be performed, by sending 20, 50 messages repeating test Test01 and Test02. Network and system response should be carefully monitored in order not affecting the life traffic.

5. ATS Extended Services Trial Team (ASTT)

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NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

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

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

Legend		Not Started
		In Progress
		Implemented

MID REGION AIM IMPLEMENTATION ROADMAP FOR THE TRANSITION FROM AIS TO AIM

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

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

INTERNATIONAL CIVIL AVIATION ORGANIZATION

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

GUIDANCE FOR AIM PLANNING AND IMPLEMENTATION IN THE MID REGION

EDITION APRIL, 2016

RECORD OF AMENDMENTS

Edition Number	Edition Date	Description	Pages Affected
0.1	1 September 2015	Initial draft version	All
0.2	7 October 2015	Inputs incorporated by AIM SG/2	All
0.3	April 2016	Change in Doc title; improving order and content of chapters; States comments considered; Reviewed by MSG/5	All

TABLE OF CONTENTS

FOREWARD

The “Guidance for AIM Planning and Implementation in the MID Region” has been developed in 2015-16 to harmonize Transition from AIS to AIM in the MID Region and to addresses Global and Regional issues related to planning and implementation of Aeronautical Information Management. This Regional AIM Plan explains concept and operational elements of AIM; outlines the Regional and National AIM Roadmaps; and provides guidance and tools for their implementation at the Regional and National levels.

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

First edition of the Document, consolidated by the ICAO MID Regional Office, was endorsed by .....

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

Abbreviations and Acronyms

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

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

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

CHAPTER 1

ICAO AIM CONCEPT

INTRODUCTION

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

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

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

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

TRANSITION FROM AIS TO AIM

ICAO Roadmap for the transition from AIS to AIM

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

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

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

– *Phase 1 — Consolidation*

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

– *Phase 2 — Going digital*

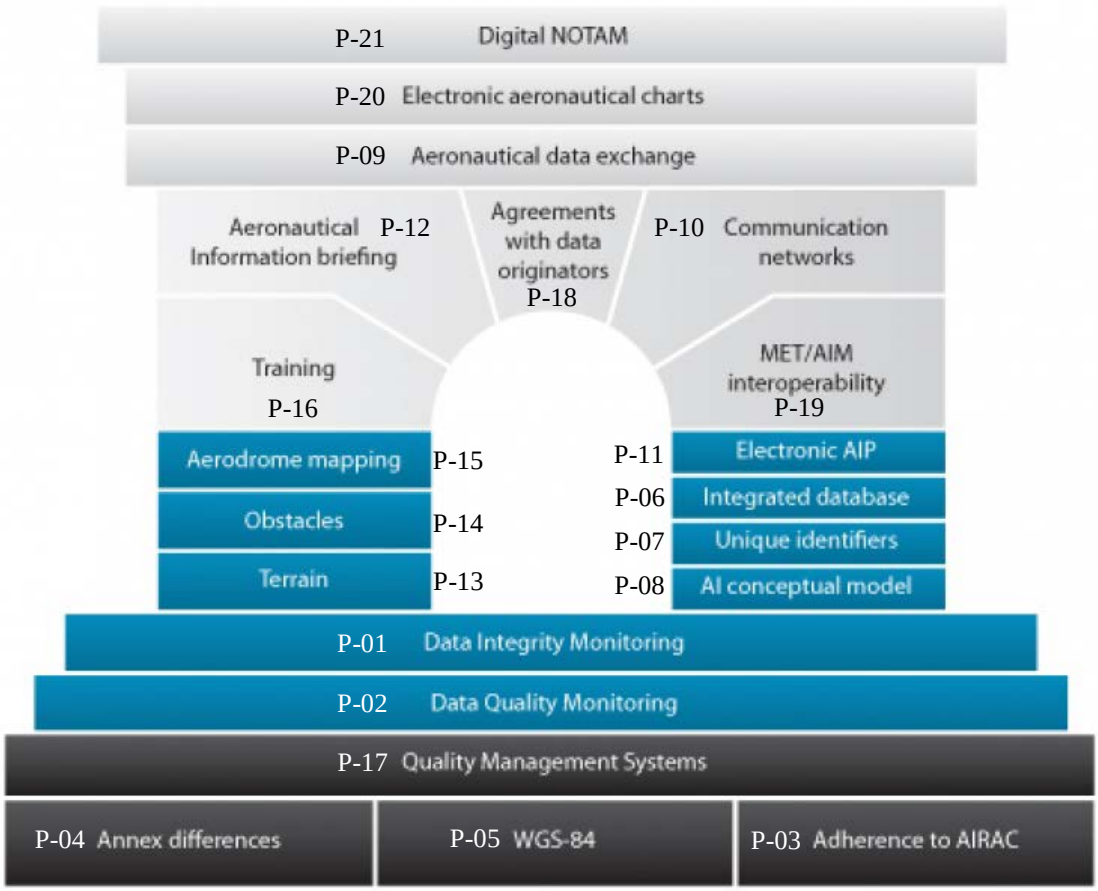
Main components of the Phase 2 are:

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

– *Phase 3 — Information management*

Main components of the Phase 3 are:

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



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

AIS-AIM Study Group

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

– A global strategy/roadmap for the transition from AIS to AIM;

– SARPs and guidance material related to the provision of a standard AICM and standard AIXM to enable the global exchange of data in digital format; and

– Other SARPs, guidance material and training material necessary to support AIM implementation.

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

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

1.9 AIS-AIMSG/12 was the last AIS-AIMSG held in Montreal, Canada from 19 to 23 October 2015. Materials related to the AIS-AIM SG including the meetings' Study Notes, Information Papers and Summary of Discussions are available on the ICAO AIM website at:

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

Information Management Panel (IMP)

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

1.11 Four (4) Working Groups were established to undertake tasks of the Panel:

- Information Services and NOTAM
- Information Architecture & Management

- SWIM Awareness & Communication
- SWIM Governance

1.12 Materials related to the IMP including the meetings' Working/Information Papers and Reports are available on the ICAO AIM website at:

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

CHAPTER 2

REGIONAL AIM PLANNING

MID REGION AIM IMPLEMENTATION ROADMAP

2.2 Having Phase I of the transition from AIS to AIM mostly completed in the MID Region, the current focus should be the implementation of phase II of the Roadmap for the transition from AIS to AIM to prepare further transition to Phase III in a timely manner. Accordingly, States should take into consideration the "MID Region AIM Implementation Roadmap" in planning for the transition from AIS to AIM in a prioritized manner.

MID REGION AIM IMPLEMENTATION ROADMAP

	2014				2015				2016				2017				2018				Priority	Remarks
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
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Aerodrome Mapping																					**4**	Optional based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs

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

CHAPTER 3

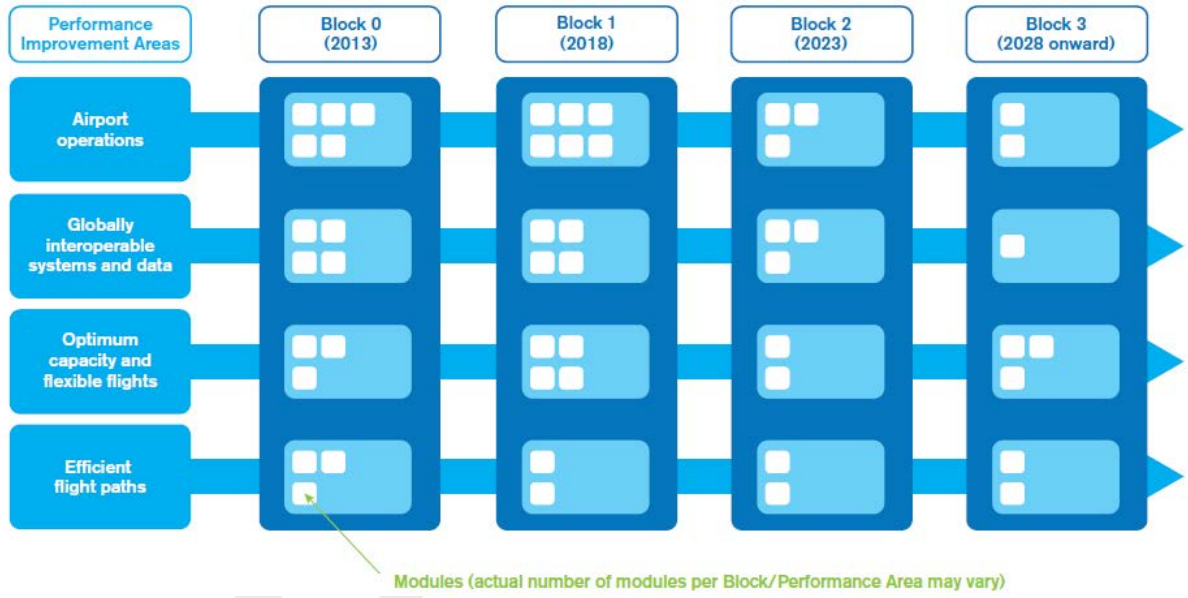
ASBU METHODOLOGY AND THE MID AIR NAVIGATION STRATEGY (AIM/SWIM RELATED ASBU MODULES)

ASBU METHODOLOGY

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

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

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



MID REGION AIR NAVIGATION STRATEGY

3.4 Revised MID Region Air Navigation Strategy (MID Doc 002) was endorsed by the MIDANPIRG/15 meeting to introduce Block 0 ASBU Modules implementation priorities, elements, indicators and targets for the MID Region. It recognizes 11 (out of 18) Block 0 Modules as priority 1 in the MID Region (for more information refer to the MID Doc 002 in the ICAO Secure Portal at: https://portal.icao.int/RO_MID/Pages/MIDDocs.aspx).

BLOCK 0 AIM RELATED MODULE

B0-DATM Implementation

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

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

Description and purpose

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

Main performance impact:

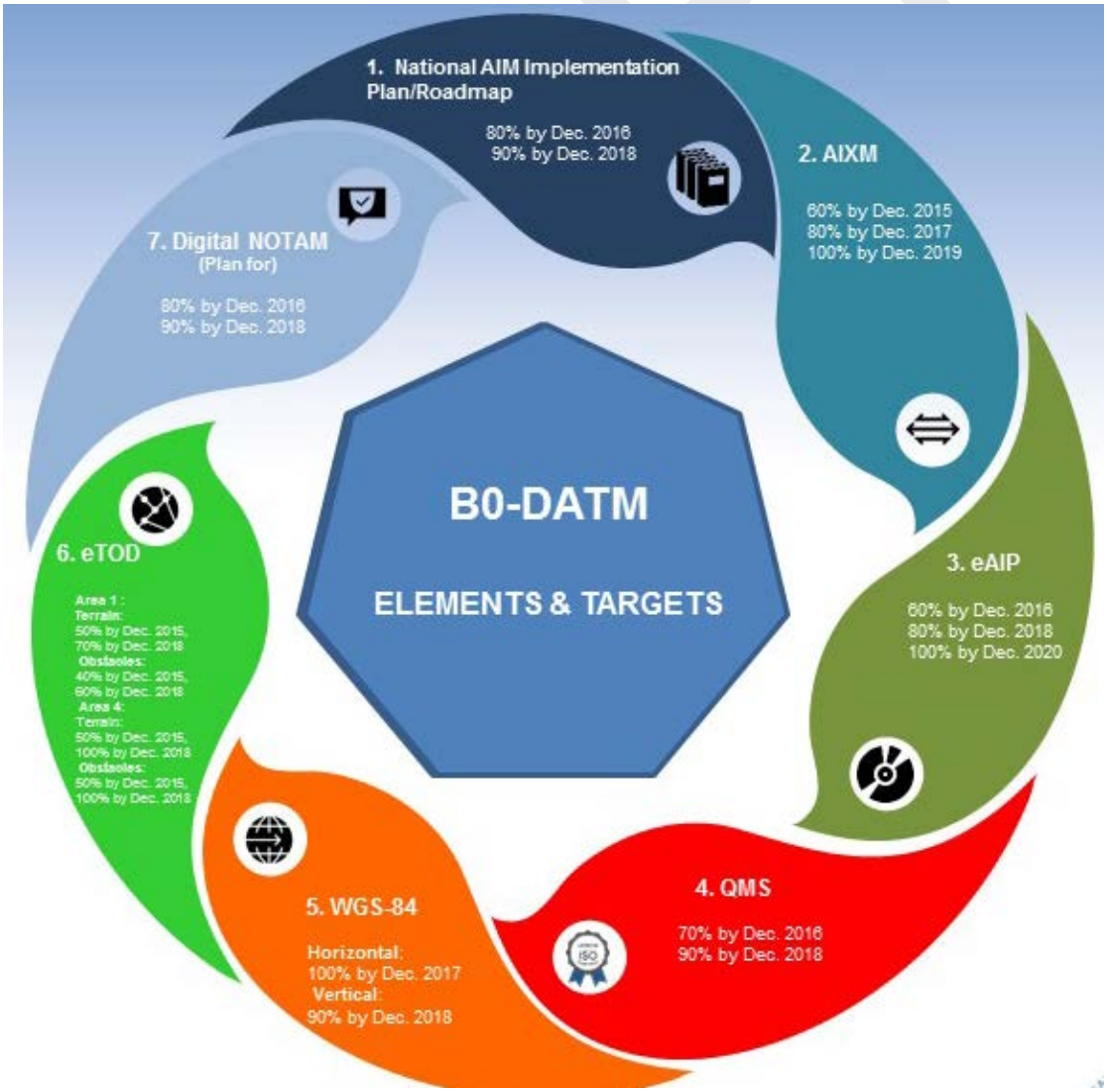
KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
N	N	Y	Y	Y

Applicability consideration:

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

B0 – DATM: Service Improvement through Digital Aeronautical Information Management			
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***
1- National AIM Implementation Plan/Roadmap	*All States*	Indicator: % of States that have National AIM Implementation Plan/Roadmap Supporting Metric: Number of States that have National AIM Implementation Plan/Roadmap	80% by Dec. 2016 90% by Dec. 2018
2-AIXM	*All States*	Indicator: % of States that have implemented an AIXM-based AIS database Supporting Metric: Number of States that have implemented an AIXM-based AIS database	60% by Dec. 2015 80% by Dec. 2017 100% by Dec. 2019
3-eAIP	*All States*	Indicator: % of States that have implemented an IAID driven AIP Production (eAIP) Supporting Metric: Number of States that have implemented an IAID driven AIP Production (eAIP)	60% by Dec. 2016 80% by Dec. 2018 100% by Dec. 2020
4-QMS	*All States*	Indicator: % of States that have implemented QMS for AIS/AIM Supporting Metric: Number of States that have implemented QMS for AIS/AIM	70% by Dec. 2016 90% by Dec. 2018
5-WGS-84	*All States*	Indicator: % of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD) Supporting Metric: Number of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD) Indicator: % of States that have implemented WGS-84 Geoid Undulation Supporting Metric: Number of States that have implemented WGS-84 Geoid Undulation	Horizontal: 100% by Dec. 2017 Vertical: 90% by Dec. 2018

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



Aeronautical Information Exchange Model (AIXM)

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

a) an exhaustive temporality model, including support for the temporary information contained in NOTAM;

b) alignment with ISO standards for geospatial information, including the use of the geography markup language (GML);

c) support for the latest ICAO and user requirements for aeronautical data including obstacles, terminal procedures and airport mapping databases; and

d) modularity and extensibility.

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

3.8 AIXM has two components:

a) The AIXM UML Model provides a formal description of the information.

b) The AIXM XML Schemas are an encoding format for aeronautical data.

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

electronic AIP (eAIP)

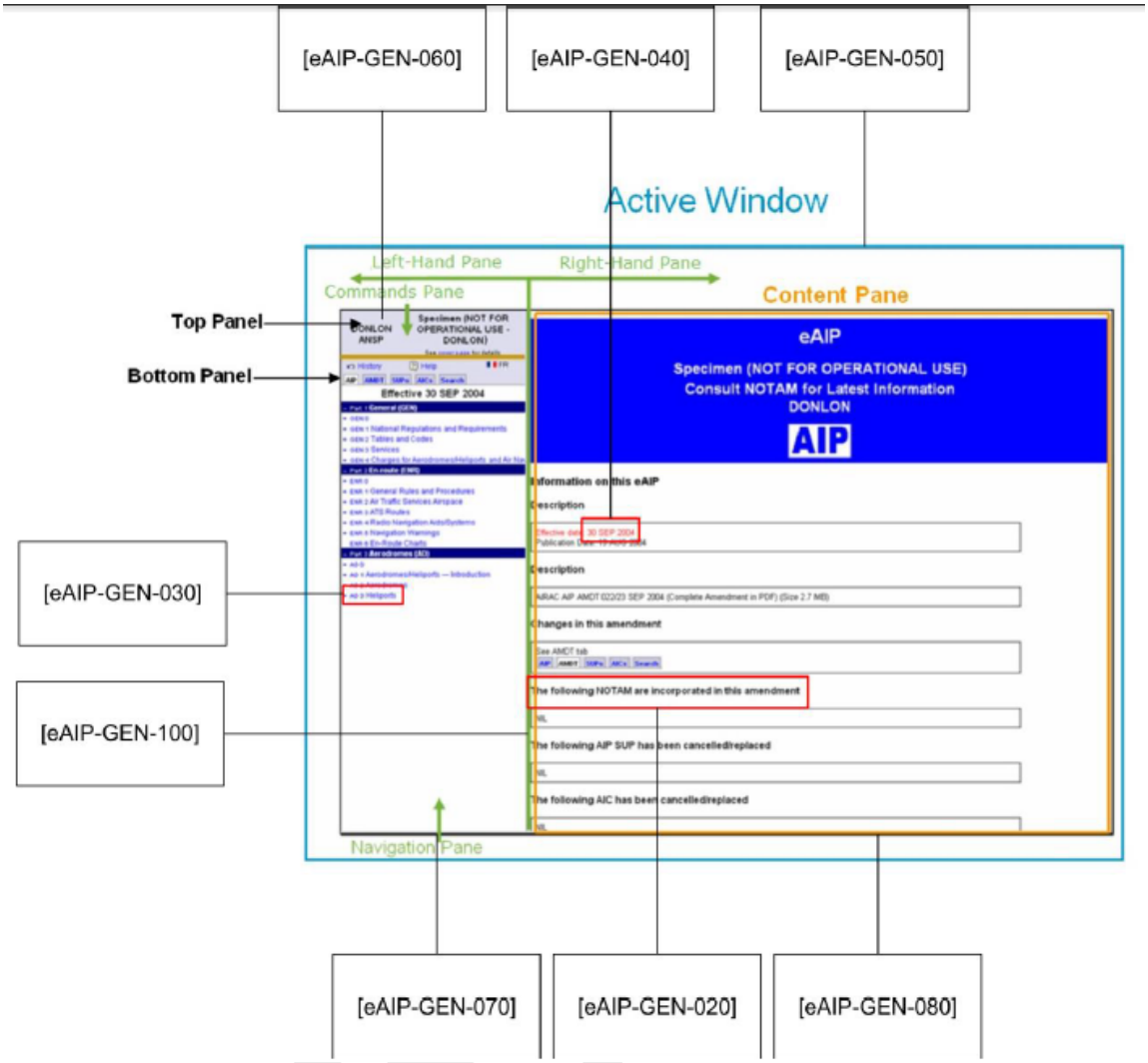
3.10 The AIP, AIP Amendment, AIP Supplement and AIC should also be published in a format that allows for displaying on a computer screen and printing on paper. When provided, the eAIP should be available on a physical distribution medium (CD, DVD, etc.) and/or online on the Internet. When provided, the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

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

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

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

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



3.13 The eAIP, as a minimum, should have help and search facility and provide history of current and previous amendments to users. It should also include a table of content. Format, display and content requirement for AIP Pages, AIP SUP, AIP Amendment and AIC should be in accordance with Annex15, Doc 8126 and other related SARPs.

Note 3 – More guidance material on the specifications of eAIP could be found in the EUROCONTROL Specifications for the electronic Aeronautical Information Publication (eAIP).

Quality Management System (QMS)

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

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

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

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

World Geodetic System-1984 (WGS-84)

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

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

a) Enroute

b) Terminal

c) Aerodrome

d) Geoid Undulation

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

electronic Terrain and Obstacle Dataset (eTOD)

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

— Area 1: the entire territory of a State;

— Area 2: within the vicinity of an aerodrome, subdivided as follows;

— Area 2a: a rectangular area around a runway that comprises the runway strip plus any clearway that exists.

— Area 2b: an area extending from the ends of Area 2a in the direction of departure, with a length of 10 km and a splay of 15 per cent to each side;

— Area 2c: an area extending outside Area 2a and Area 2b at a distance of not more than 10 km from the boundary of Area 2a; and

— Area 2d: an area outside the Areas 2a, 2b and 2c up to a distance of 45 km from the aerodrome reference point, or to an existing TMA boundary, whichever is nearest;

— Area 3: the area bordering an aerodrome movement area that extends horizontally from the edge of a runway to 90 m from the runway centre line and 50 m from the edge of all other parts of the aerodrome movement area.

— Area 4: The area extending 900 m prior to the runway threshold and 60 m each side of the extended runway centre line in the direction of the approach on a precision approach runway, Category II or III.

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

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

AIM/SWIM RELATED MODULES

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

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

CHAPTER 4

AIM NATIONAL PLANNING AND IMPLEMENTATION

NATIONAL PLANNING

4.1 States should focus on the implementation of phase II of the ICAO Roadmap for the transition from AIS to AIM and take into consideration the "MID Region AIM implementation Roadmap" in planning for the transition from AIS to AIM in a prioritized manner

4.2 States are required to develop/update their National AIM Implementation Roadmap on an annual basis (by end of December), using the Template at **Appendix A** (National AIM Implementation Roadmap Template).

IMPLEMENTATION OF A SYSTEM FOR AIRAC ADHERENCE MONITORING

4.2 Operationally significant changes to the AIP, listed in Annex 15, Appendix 4 shall be published in accordance with AIRAC procedures and shall be clearly identified by the acronym — AIRAC.

4.3 When an AIP Amendment or an AIP Supplement is published in accordance with AIRAC procedures, a NOTAM called "Trigger NOTAM" shall be originated giving a brief description of the contents, the effective date and time, and the reference number of the amendment or supplement.

4.4 The Trigger NOTAM shall be issued as soon as possible, preferably at the publication date of the AIRAC AIP Amendment or the AIP Supplement. This NOTAM shall come into force on the same effective date and time as the amendment or supplement and shall remain valid for a period of fourteen days.

4.5 The text in Item E) should start with the words 'TRIGGER NOTAM' (followed only in the case of an AIP Amendment by the abbreviation PERM), the reference number of the published AIP Amendment or AIP Supplement concerned, the effective date and a brief description of its contents. Effective time will be omitted in Item E) unless it differs from the default AIRAC effective time of 0000 UTC.

4.6 Trigger NOTAM shall be issued in the appropriate NOTAM series, according to the information to be promulgated and shall follow the normal NOTAM procedures.

Example:

Q) HECA/QARTT/I/BO/000/999
A) HECC B) 1604280000 C) 1409032359
E) TRIGGER NOTAM – PERM AIRAC AIP AMDT 4/16 WEF 28 APR 2016.
IMPLEMENTATION OF NEW ATS ROUTE UL111.

Note – the term 'PERM' is inserted in Item E) to stress that Item C) contains an artificial end-date and that the information is of a permanent nature.

4.7 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.

4.8 Implementation dates other than AIRAC effective dates shall not be used for pre-planned operationally significant changes requiring cartographic work and/or for updating of navigation databases.

4.9 Information provided under the AIRAC system in paper copy form shall be distributed by the AIS unit at least 42 days in advance of the effective date with the objective of reaching recipients at least 28 days in advance of the effective date. Information provided as electronic media, concerning the circumstances listed in Annex 15, Appendix 4 shall be distributed/made available by the AIS unit so as to reach recipients at least 28 days in advance of the AIRAC effective date.

Recommendation *– Whenever major changes are planned and where advance notice is desirable and practicable, information provided as electronic media should be distributed/made available at least 56 days in advance of the effective date. This should be applied to the establishment of, and premeditated major changes in, the circumstances listed in Appendix 4, Part 3, and other major changes if deemed necessary.*

4.10 AIS/AIM should 1) raise the awareness of the Data Originators regarding the AIRAC provisions and 2) include necessary procedures related to AIRAC adherence in the arrangement with the Data Originators.

4.11 States should implement a system for AIRAC adherence monitoring and report on annual basis (by 31 December) to the ICAO MID Regional Office the case(s) of late publication of aeronautical information of operational significance and non-adherence to the AIRAC provisions. **Appendix B** could be used as a monitoring and reporting tool in the AIRAC adherence.

AIR NAVIGATION DEFICIENCIES

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

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

'U' priority = Urgent requirements having a direct impact on safety and requiring immediate corrective actions. Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for air navigation safety.

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

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

4.14 MIDANPIRG is responsible to identify and address specific deficiencies in the air navigation field and to facilitate the development and implementation of an action plan by States to resolve identified deficiencies, where necessary.

4.15 States are required 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. Each State MANDD Focal Point is given the required credential and MANDD is accessible at: http://www.cairo.icao.int/

4.16 A Sample State's Corrective Action Plan (CAP) is provided as **Appendix C** for assistance to States in developing their CAPs for the Air Navigation Deficiencies.

4.17 States are required to submit a Formal Letter to the ICAO MID Regional Office containing the evidence(s) that mitigation measures have been implemented for the elimination of deficiency(ies) when requesting the elimination of deficiency(ies) from the MANDD.

HUMAN RESOURCE AND TRAINING

4.18 Within the context of the established quality management system, the competencies and the associated knowledge, skills and abilities required for each function shall be identified, and personnel assigned to perform those functions shall be appropriately trained. Processes shall be in place to ensure that personnel possess the competencies required to perform specific assigned functions. Appropriate records shall be maintained so that the qualifications of personnel can be confirmed. Initial and periodic assessments shall be established that require personnel to demonstrate the required competencies. Periodic assessments of personnel shall be used as a means to detect and correct shortfalls.

Note 1 - Guidance material concerning training methodology to ensure the competency of personnel is contained in the Aeronautical Information Management Training Development Manual (Doc 9991).

CHAPTER 5

REPORTING AND MONITORING

MID eANP VOLUME III

5.1 The status of implementation is reported/monitored through the Tables in the MID eANP Volume III. the MID eANP is available on the ICAO MID website at: http://www.icao.int/MID/Pages/MIDeANP.aspx

REGIONAL PERFORMANCE DASHBOARD

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

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

5.4 For the first edition of the Regional Performance Dashboards, the implementation of 3 steps from Phase I of the ICAO Roadmap for transition from AIS to AIM (AIRAC, QMS and WGS-84) is monitored. The dashboard can be accessed on the ICAO website at: http://www.icao.int/safety/Pages/Regional-Targets.aspx.

5.5 It is agreed that in the expansion of the MID Regional Performance Dashboard, AIM National Roadmap, AIXM 5+, eAIP, eTOD Area 1 and 4 should be added to the MID Region Dashboard.

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

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

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

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

Element (Phase/Step/Step No.)			Metric/ Indicator	Finalization/Compliance Criteria	Link to ASBU Block	Remarks
1			**2**	**3**	**4**	**5**
Phase 1						
AIRAC adherence		P-03	FC/NC	Implementation of a system for AIRAC adherence monitoring (compliance with annex 15 AIRAC provisions) (TBD)	Block 0	
WGS-84 implementation		P-05	FC/PC/NC	National AIP GEN 2.1.3 ‘Geodetic reference datum’ provides information about the implementation of WGS-84 in ENR, Terminal and AD	Block 0	
QMS		P-17	FC/NC	ISO 9001 Certification	Block 0	
Phase 2						
Data quality monitoring		P-01	FI/NI	QMS (P-17) and Agreement with data originators (P-18) is implemented (TBD)	Block 0	
Data integrity monitoring		P-02				*Linked to P-01*
Integrated aeronautical information database	AIXM-based AIS Database	P-06	FI/NI	National aeronautical data and information is stored and maintained in AIXM-based AIS database	Block 0	*Structured AI Database with digital exchange capabilities (AIXM 5.1)*
	Implementation of IAID		FI/PI/NI	Implementation of a database providing eAIP (text, tables and charts) and NOTAM, linked to the terrain/obstacles and aerodrome mapping datasets (TBD)	Block 1	
Unique identifiers		P-07				*Linked to P-06*
Aeronautical information conceptual model		P-08				*Linked to P-06*
Electronic AIP		P-11	FI/NI	National AIP GEN 3.1.3 ‘Aeronautical publications’ provides information about the availability of the National AIP in electronic format (eAIP)	Block 0	
Terrain	Area 1	P-13	FC/NC	National AIP GEN 3.1.6 ‘Electronic terrain and obstacle data’ provides information on how the dataset can be obtained	Block 0	
	Area 4	P-13	FC/PC/NC or N/A	National AIP GEN 3.1.6 ‘Electronic terrain and obstacle data‘ provides information on how the dataset for specific CAT II/III RWY can be obtained. States should indicate in remarks the number of existing CAT II/III RWY. N/A for States with no CAT II/III RWY.	Block 0	*In case of PC, list name of CAT II/III ADs having the dataset*

Element (Phase/Step/Step No.)			Metric/ Indicator	Finalization/Compliance Criteria	Link to ASBU Block	Remarks
1			2	3	4	5
	Area 2a	P-13	FC/PC/NC	National AIP GEN 3.1.6 'Electronic terrain and obstacle data' provides information on how the dataset can be obtained. States should indicate in remarks the number of AD eligible for provision of Area 2 data. This number should come from the Regional eANP Table AOP II-1 – for aerodromes with one of the following designation: — RS: international scheduled air transport, regular use — RNS: international non-scheduled air transport, regular use — RG: international general aviation, regular use.	Block 0	*In case of PC, list name of ADs having the dataset*
	Take-off flight path area	P-13	FC/PC/NC	Same as Terrain Area 2a	Block 0	*In case of PC, list name of ADs having the dataset*
	An area bounded by the lateral extent of the aerodrome obstacle limitation surfaces	P-13	FC/PC/NC	Same as Terrain Area 2a	Block 0	*In case of PC, list name of ADs having the dataset*
Obstacles	Area 1	P-14	FC/NC	National AIP GEN 3.1.6 'Electronic terrain and obstacle data' provides information on how the dataset can be obtained	Block 0	
	Area 4	P-14	FC/PC/NC or N/A	National AIP GEN 3.1.6 'Electronic terrain and obstacle data' provides information on how the dataset for specific CAT II/III RWY can be obtained. States should indicate in remarks the number of existing CAT II/III RWY. N/A for States with no CAT II/III RWY.	Block 0	*In case of PC, list name of CAT II/III ADs having the dataset*
	Area 2a	P-14	FC/PC/NC	National AIP GEN 3.1.6 'Electronic terrain and obstacle data' provides information on how the dataset can be obtained. States should indicate in remarks the number of AD eligible for provision of Area 2 data. This number should come from the Regional eANP Table AOP II-1 – for aerodromes with one of the following designation: — RS: international scheduled air transport, regular use	Block 0	*In case of PC, list name of ADs having the dataset*

Element (Phase/Step/Step No.)		Metric/ Indicator	Finalization/Compliance Criteria	Link to ASBU Block	Remarks
1		**2**	**3**	**4**	**5**
			— RNS: international non-scheduled air transport, regular use — RG: international general aviation, regular use.		
objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take-off flight path area	P-14	FC/PC/NC	Same as Obstacles Area 2a	Block 0	*In case of PC, list name of ADs having the dataset*
penetrations of the aerodrome obstacle limitation surfaces	P-14	FC/PC/NC	Same as Obstacles Area 2a	Block 0	*In case of PC, list name of ADs having the dataset*
Aerodrome mapping	P-15	FI/PI/NI	National AIP GEN 3.1.6 ‘Electronic terrain and obstacle data’ provides information on how the dataset can be obtained	Block 1	*In case of PC, list name of ADs having the dataset*
Phase 3					
Aeronautical data exchange	P-09	FI/PI/NI	Direct data exchange between AIS and data originators/users (TBD)	Block 1	*In case of PC, list name of Units (Data Originators/Users)*
Communication networks	P-10				
Aeronautical information briefing	P-12	FI/PI/NI	Provision of preflight aeronautical information briefing at the international aerodromes (TBD) Mandatory for international aerodromes contained in the Regional eANP Table AOP II-1 – for aerodromes with one of the following designation: — RS: international scheduled air transport, regular use — RNS: international non-scheduled air transport, regular use — RG: international general aviation, regular use.	Block 1	*In case of PC, list name of ADs providing AI briefing*
Training	P-16				

Element (Phase/Step/Step No.)		Metric/ Indicator	Finalization/Compliance Criteria	Link to ASBU Block	Remarks
1		**2**	**3**	**4**	**5**
Agreement with data originators	P-18	FI/PI/NI	Signed agreements between AIS and ANSPs (ATM, CNS, etc.), Aerodromes and Military	Block 0	*In case of PC, list name of Data Originator(s)*
Interoperability with meteorological products	P-19				*Linked to P-12*
Electronic aeronautical charts	P-20	FI/NI	National AIP GEN 3.2 'Aeronautical Charts provides information about the availability of the e-Aeronautical Charts	Block 1	
Digital NOTAM	P-21	FI/NI	TBD	Block 1	

FC: Fully Compliant; PC: Partially Compliant; NC: Not Compliant; FI: Fully Implemented; PI: Partially Implemented; NI: Not Implemented; N/A: Not Applicable

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APPENDICES

APPENDIX A
NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

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

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

Legend		Not Started
		In Progress
		Implemented

APPENDIX B

AIRAC ADHERENCE MONITORING

YEAR: 2016			**STATE: …….**		
AIRAC EFF Date	**AIRAC AMDT Serial Number; or NIL Notification**	**AIRAC AMDT PUB/Distribution Date**	**Trigger NOTAM (Serial Number)**	**No change until 28 days after EFF Date? (Yes / No)**	**Remarks**
7 JAN 16	- AIRAC …../16; or - NIL notification issued on …….				
4 FEB 16	- AIRAC …../16; or - NIL notification issued on …….				
3 MAR 16	- AIRAC …../16; or - NIL notification issued on …….				
31 MAR 16	- AIRAC …../16; or - NIL notification issued on …….				
28 APR 16	- AIRAC …../16; or - NIL notification issued on …….				
26 MAY 16	- AIRAC …../16; or - NIL notification issued on …….				
23 JUN 16	- AIRAC …../16; or - NIL notification issued on …….				
21 JUL 16	- AIRAC …../16; or - NIL notification issued on …….				
18 AUG 16	- AIRAC …../16; or - NIL notification issued on …….				
15 SEP 16	- AIRAC …../16; or - NIL notification issued on …….				
13 OCT 16	- AIRAC …../16; or - NIL notification issued on …….				
10 NOV 16	- AIRAC …../16; or - NIL notification issued on …….				
8 DEC 16	- AIRAC …../16; or - NIL notification issued on …….				

APPENDIX C

SAMPLE STATE'S CORRECTIVE ACTION PLAN

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

References

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

- END -

B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety

Description and purpose

Global, regional and local meteorological information:

a) forecasts provided by world area forecast centres (WAFC), volcanic ash advisory centres (VAAC) and tropical cyclone advisory centres (TCAC);
b) aerodrome warnings to give concise information of meteorological conditions that could adversely affect all aircraft at an aerodrome including wind shear; and
c) SIGMETs to provide information on occurrence or expected occurrence of specific en-route weather phenomena which may affect the safety of aircraft operations and other operational meteorological (OPMET) information, including METAR/SPECI and TAF, to provide routine and special observations and forecasts of meteorological conditions occurring or expected to occur at the aerodrome.

This module includes elements which should be viewed as a subset of all available meteorological information that can be used to support enhanced operational efficiency and safety.

Main performance impact:

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

Applicability consideration:
Applicable to traffic flow planning, and to all aircraft operations in all domains and flight phases, regardless of level of aircraft equipage.

B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety			
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***
SADIS 2G and Secure SADIS FTP	*All States*	Indicator: % of States having implemented SADIS 2G satellite broadcast or Secure SADIS FTP service Supporting metric: number of States having implemented SADIS 2G satellite broadcast or Secure SADIS FTP service	90% by Dec. 2015 100% by Dec. 2017
QMS	*All States*	Indicator: % of States having implemented QMS for MET Supporting metric: number of States having implemented QMS for MET	60% by Dec. 2015 80% by Dec. 2017
SIGMET	*All MWOs in MID Region*	Indicator: % of FIRs in which SIGMET is implemented Supporting metric: number of FIRs SIGMET is implemented	90% by Dec. 2016 100% by Dec. 2018

Table B0-AMET 3-1

SADIS 2G and Secure SADIS FTP

EXPLANATION OF THE TABLE

Column

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

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

Table B0-AMET 3-2

Volcanic Ash Advisory Centers

EXPLANATION OF THE TABLE

Column

1 Name of the State responsible for the provision of a volcanic ash advisory centre (VAAC)

2 Name of the VAAC

Note: The name is extracted from the ICAO Location Indicators (Doc 7910).

3 ICAO location indicator of the VAAC

4 Status of implementation of volcanic ash advisory information, where:

FC – Fully compliant
PC – Partially compliant
NC – Not compliant

5 Status of implementation of volcanic ash advisory information in graphical format, where:

FC – Fully compliant
PC – Partially compliant
NC – Not compliant

State	Volcanic Ash Advisory Centre (VAAC)	ICAO Location Indicator	Status of Implementation	
			VAA	VAG
1	2	3	4	5
FRANCE	Toulouse	LFPW	FC	FC

Table B0-AMET 3-3

Tropical Cyclone Advisory Centers

EXPLANATION OF THE TABLE

Column

1 Name of the State responsible for the provision of a tropical cyclone advisory centre (TCAC)

2 Name of the TCAC

Note: The name is extracted from the ICAO Location Indicators (Doc 7910).

3 ICAO location indicator of the TCAC

4 Status of implementation of tropical cyclone advisory information, where:

FC – Fully compliant
PC – Partially compliant
NC – Not compliant

5 Status of implementation of tropical cyclone advisory information in graphical format, where:

FC – Fully compliant
PC – Partially compliant
NC – Not compliant

State	Tropical Cyclone Advisory Centre (TCAC)	ICAO Location Indicator	Status of Implementation	
			TCA	TCG
1	2	3	4	5
INDIA	New Delhi	VIDP	FC	FC

Table B0-AMET 3-4

Quality Management System

EXPLANATION OF THE TABLE

Column

1 Name of the State

2, 3, 4, 5 Status of implementation of Quality Management System of meteorological information – QMS: not started/ planning, ongoing/ partially implemented, Implemented/ISO 9001 Certified, Date of Certification.

6 Action Plan

7 Remarks

State	Not started/ planning	Ongoing/ partially implemented	Implemented/ ISO 9001 Certified		Action Plan	Remarks
			Status	Date of Certification		
1	2	3	4	5	6	7
BAHARAIN			√	2008		
EGYPT			√	23 May 2012		
IRAN, ISLAMIC REPUBLIC OF		~~√~~	√	Oct 2015	~~No Action Plan~~	
IRAQ	√				No Action Plan	
JORDAN			√	2 Apr 2014		
KUWAIT			√	23 Aug 2013		
LEBANON	√				No Action Plan	
LIBYA	√				No Action Plan	
OMAN		√			TBD	
QATAR			√	Dec 2011		
SAUDI ARABIA			√	Aug 2014		
SUDAN			√	5 June 2014		
SYRIAN ARAB REPUBLIC	√				No Action Plan	
UNITED ARAB EMIRATES			√	19 Dec 2012		
YEMEN	√				No Action Plan	

MID DOC 002

INTERNATIONAL CIVIL AVIATION ORGANIZATION

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

MID REGION

AIR NAVIGATION STRATEGY

EDITION APRIL, 2016

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MID REGION AIR NAVIGATION STRATEGY

1. Introduction

1.1 As traffic volume increases throughout the world, the demands on air navigation service providers in a given airspace increase, and air traffic management becomes more complex.

1.2 It is foreseen that the implementation of the components of the ATM operational concept will provide sufficient capacity to meet the growing demand, generating additional benefits in terms of more efficient flights and higher levels of safety. Nevertheless, the potential of new technologies to significantly reduce the cost of services will require the establishment of clear operational requirements.

1.3 Taking into account the benefits of the ATM operational concept, it is necessary to make many timely decisions for its implementation. An unprecedented cooperation and harmonization will be required at both global and regional level.

1.4 ICAO introduced the Aviation System Block Upgrades (ASBU) methodology as a systemic manner to achieve a harmonized implementation of the air navigation services. An ASBU designates a set of improvements that can be implemented globally from a defined point in time to enhance the performance of the ATM system.

1.5 Through Recommendation 6/1 - *Regional performance framework – planning methodologies and tools*, AN-Conf/12 urged States and PIRGs to harmonize the regional and national air navigation plans with the ASBU methodology in response to this, the MID region is developing MID Region Air Navigation Strategy that is aligned with the ASBU methodology.

1.6 Stakeholders including service providers, regulators, airspace users and manufacturers are facing increased levels of interaction as new, modernized ATM operations are implemented. The highly integrated nature of capabilities covered by the block upgrades requires a significant level of coordination and cooperation among all stakeholders. Working together is essential for achieving global harmonization and interoperability.

2. Strategic Air Navigation Capacity and Efficiency Objective

2.1 To realize sound and economically-viable civil aviation system in the MID Region that continuously increases in capacity and improves in efficiency with enhanced safety while minimizing the adverse environmental effects of civil aviation activities.

3. MID Air Navigation Objectives

3.1 The MID Region air navigation objectives are set in line with the global air navigation objectives and address specific air navigation operational improvements identified within the framework of the Middle East Regional Planning and Implementation Group (MIDANPIRG).

Near-term Objective (2013 - 2018): ASBU Block 0

3.2 Block ‘0’ features Modules characterized by operational improvements which have already been developed and implemented in many parts of the world today. It therefore has a near-term implementation period of 2013–2018. The MID Region near-term priorities are based on the implementation of an agreed set of Block 0 Modules as reflected in **Table 1** below.

3.3 The MID Region Air Navigation Strategy is aimed to maintain regional harmonisation. The States should develop their national performance framework, including action plans for the implementation of relevant priority 1 ASBU Modules and other modules according to the State operational requirements.

Mid-term Objective (2018 - 2023): ASBU Block 1

3.4 Blocks 1 through 3 are characterized by both existing and projected performance area solutions, with availability milestones beginning in 2018, 2023 and 2028, respectively. Associated timescales are intended to depict the initial deployment targets along with the readiness of all components needed for deployment.

Long-term Objective (2023 - 2028): ASBU Block 2

3.5 The Block Upgrades incorporate a long-term perspective matching that of the three companion ICAO Air Navigation planning documents. They coordinate clear aircraft- and ground-based operational objectives together with the avionics, data link and ATM system requirements needed to achieve them. The overall strategy serves to provide industry wide transparency and essential investment certainty for operators, equipment manufacturers and ANSPs.

4. MID Region ASBU Block 0 Modules Prioritization and Monitoring

4.1 On the basis of operational requirements and taking into consideration the associated benefits, **Table 1** below shows the priority for implementation of the 18 Block "0" Modules**,** as well as the MIDANPIRG subsidiary bodies that will be monitoring and supporting the implementation of the Modules:

Table 1. MID REGION ASBU BLOCK 0 MODULES PRIORITIZATION AND MONITORING

Module Code	Module Title	Priority	Monitoring		Remarks
			Main	Supporting	
Performance Improvement Areas (PIA) 1: **Airport Operations**					
B0-APTA	Optimization of Approach Procedures including vertical guidance	1	PBN SG	ATM SG, AIM SG, CNS SG	
B0-WAKE	Increased Runway Throughput through Optimized Wake Turbulence Separation	2			
B0-RSEQ	Improve Traffic flow through Runway Sequencing (AMAN/DMAN)	2			
B0-SURF	Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)	1	ANSIG	CNS SG	Coordination with RGS WG
B0-ACDM	Improved Airport Operations through Airport-CDM	1	ANSIG	CNS SG, AIM SG, ATM SG	Coordination with RGS WG
Performance Improvement Areas (PIA) 2 **Globally Interoperable Systems and Data Through Globally Interoperable System Wide Information Management**					
B0-FICE	Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	1	CNS SG	ATM SG	
B0-DATM	Service Improvement through Digital Aeronautical Information Management	1	AIM SG	-	

B0-AMET	Meteorological information supporting enhanced operational efficiency and safety	1	MET SG	-	
Performance Improvement Areas (PIA) 3 **Optimum Capacity and Flexible Flights – Through Global Collaborative ATM**					
B0-FRTO	Improved Operations through Enhanced En-Route Trajectories	1	ATM SG		
B0-NOPS	Improved Flow Performance through Planning based on a Network-Wide view	1			
B0-ASUR	Initial capability for ground surveillance	2			
B0-ASEP	Air Traffic Situational Awareness (ATSA)	2			
B0-OPFL	Improved access to optimum flight levels through climb/descent procedures using ADS-B	2			
B0-ACAS	ACAS Improvements	1	CNS SG		
B0-SNET	Increased Effectiveness of Ground-Based Safety Nets	2			
Performance Improvement Areas (PIA) 4 **Efficient Flight Path – Through Trajectory-based Operations**					
B0-CDO	Improved Flexibility and Efficiency in Descent Profiles (CDO)	1	PBN SG		
B0-TBO	Improved Safety and Efficiency through the initial application of Data Link En-Route	2	ATM SG	CNS SG	
B0-CCO	Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)	1	PBN SG		

Priority 1: Modules that have the highest contribution to the improvement of air navigation safety and/or efficiency in the MID Region. These modules should be implemented where applicable and will be used for the purpose of regional air navigation monitoring and reporting for the period 2013-2014.

Priority 2: Modules recommended for implementation based on identified operational needs and benefits.

5. Measuring and monitoring air navigation performance

5.1 The monitoring of air navigation performance and its enhancement is achieved through identification of relevant air navigation Metrics and Indicators as well as the adoption and attainment of air navigation system Targets.

5.2 MIDANPIRG through its activities under the various subsidary bodies will continue to update and monitor the implementation of the ASBU Modules to achieve the air navigation targets.

5.3 The priority 1 Modules along with the associated elements, applicability, performance Indicators, supporting Metrics, and performance Targets are shown in the **Table 2** below.

Note*: The different elements supporting the implementation are explained in detail in the ASBU Document which is attached to the Global Plan (Doc 9750).*

6. Governance

6.1 Progress report on the status of implementation of the different priority 1 Modules should be developed by the Air Navigation System Implemenation Group (ANSIG) and presented to the MIDANPIRG Steering Group (MSG) and/or MIDANPIRG on regular basis.

6.2 The MIDANPIRG and its Steering Group (MSG) will be the governing body responsible for the review and update of the MID Region Air Navigation Strategy.

6.3 The MID Region Air Navigation Strategy will guide the work of MIDANPIRG and its subsidary bodies and all its member States and partners.

6.4 Progress on the implementation of the MID Region Air Navigation Strategy and the achievement of the agreed air navigation targets will be reported to the ICAO Air Navigation Commission (ANC), through the review of the MIDANPIRG reports; and to the stakeholders in the Region within the framework of MIDANPIRG.

Table 2. MONITORING THE IMPLEMENTATION OF THE ASBU BLOCK 0 MODULES IN THE MID REGION

B0 – APTA: Optimization of Approach Procedures including vertical guidance

Description and purpose

The use of performance-based navigation (PBN) and ground-based augmentation system (GBAS) landing system (GLS) procedures will enhance the reliability and predictability of approaches to runways, thus increasing safety, accessibility and efficiency. This is possible through the application of Basic global navigation satellite system (GNSS), Baro vertical navigation (VNAV), satellite-based augmentation system (SBAS) and GLS. The flexibility inherent in PBN approach design can be exploited to increase runway capacity.

Main performance impact:

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

Applicability consideration:

This module is applicable to all instrument, and precision instrument runway ends, and to a limited extent, non-instrument runway ends.

B0 – APTA: Optimization of Approach Procedures including vertical guidance			
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***
States' PBN Implementation Plans	All	Indicator: % of States that provided updated PBN implementation Plan Supporting metric: Number of States that provided updated PBN implementation Plan	80 % by Dec. 2014 100% by Dec. 2015
LNAV	All RWYs Ends at International Aerodromes	Indicator: % of runway ends at international aerodromes with RNAV(GNSS) Approach Procedures (LNAV) Supporting metric: Number of runway ends at international aerodromes with RNAV (GNSS) Approach Procedures (LNAV)	All runway ends at Int'l Aerodromes, either as the primary approach or as a back-up for precision approaches by Dec. 2016
LNAV/VNAV	All RWYs ENDs at International Aerodromes	Indicator: % of runways ends at international aerodromes provided with Baro-VNAV approach procedures (LNAV/VNAV) Supporting metric: Number of runways ends at international aerodromes provided with Baro-VNAV approach procedures (LNAV/VNAV)	All runway ends at Int'l Aerodromes, either as the primary approach or as a back-up for precision approaches by Dec. 2017

Module B0-SURF: Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)

Description and purpose

Basic A-SMGCS provides surveillance and alerting of movements of both aircraft and vehicles on the aerodrome thus improving runway/aerodrome safety. ADS-B information is used when available (ADS-B APT).

Main performance impact:

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

Applicability consideration:

A-SMGCS is applicable to any aerodrome and all classes of aircraft/vehicles. Implementation is to be based on requirements stemming from individual aerodrome operational and cost-benefit assessments. ADS-B APT, when applied is an element of A-SMGCS, is designed to be applied at aerodromes with medium traffic complexity, having up to two active runways at a time and the runway width of minimum 45 m.

B0-SURF: Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)			
Elements	***Applicability***	**Performance Indicators/Supporting Metrics**	**Targets**
A-SMGCS Level 1*	OBBI, HECA, OIII, OKBK, OOMS, OTBD, OTHH, OEDF, OEJN, OERK, OMDB, OMAA, OMDW	Indicator: % of applicable international aerodromes having implemented A-SMGCS Level 1 Supporting Metric: Number of applicable international aerodromes having implemented A-SMGCS Level 1	70% by Dec. 2017
A-SMGCS Level 2*	OBBI, HECA, OIII, OKBK, OOMS, OTBD, OTHH, OEJN, OERK, OMDB, OMAA, OMDW	Indicator: % of applicable international aerodromes having implemented A-SMGCS Level 2 Supporting Metric: Number of applicable international aerodromes having implemented A-SMGCS Level 2	50% by Dec. 2017

**Reference: Eurocontrol Document – "Definition of A-SMGCS Implementation Levels, Edition 1.2, 2010".*

B0 – ACDM: Improved Airport Operations through Airport-CDM

Description and purpose

To implement collaborative applications that will allow the sharing of surface operations data among the different stakeholders on the airport. This will improve surface traffic management reducing delays on movement and manoeuvring areas and enhance safety, efficiency and situational awareness.

Main performance impact:

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

Applicability consideration:

Local for equipped/capable fleets and already established airport surface infrastructure.

B0 – ACDM: Improved Airport Operations through Airport-CDM			
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***
A-CDM	OBBI, HECA, OIII, OKBK, OOMS, OTBD, OTHH, OEJN, OERK, OMDB, OMAA, OMDW	Indicator: % of applicable international aerodromes having implemented improved airport operations through airport-CDM Supporting metric: Number of applicable international aerodromes having implemented improved airport operations through airport-CDM	40% by Dec. 2017

B0 – FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration

Description and purpose

To improve coordination between air traffic service units (ATSUs) by using ATS Interfacility Data Communication (AIDC) defined by the ICAO *Manual of Air Traffic Services Data Link Applications* (Doc 9694). The transfer of communication in a data link environment improves the efficiency of this process particularly for oceanic ATSUs.

Main performance impact:

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

Applicability consideration:

Applicable to at least two area control centres (ACCs) dealing with enroute and/or terminal control area (TMA) airspace. A greater number of consecutive participating ACCs will increase the benefits.

B0 – FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration			
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***
AMHS capability	*All States*	Indicator: % of States with AMHS capability Supporting metric: Number of States with AMHS capability	70% of States with AMHS capability by Dec. 2017
AMHS implementation /interconnection	*All States*	Indicator: % of States with AMHS implemented (interconnected with other States AMHS) Supporting metric: Number of States with AMHS implemented (interconnections with other States AMHS)	60% of States with AMHS interconnected by Dec. 2017
Implementation of AIDC/OLDI between adjacent ACCs	*All ACCs*	Indicator: % of FIRs within which all applicable ACCs have implemented at least one interface to use AIDC/OLDI with neighboring ACCs Supporting metric: Number of AIDC/OLDI interconnections implemented between adjacent ACCs	70% by Dec. 2017

B0 – DATM: Service Improvement through Digital Aeronautical Information Management

Description and purpose

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

Main performance impact:

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

Applicability consideration:

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

B0 – DATM: Service Improvement through Digital Aeronautical Information Management			
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***
1- National AIM Implementation Plan/Roadmap	*All States*	Indicator: % of States that have National AIM Implementation Plan/Roadmap Supporting Metric: Number of States that have National AIM Implementation Plan/Roadmap	80% by Dec. 2016 90% by Dec. 2018
2-AIXM	*All States*	Indicator: % of States that have implemented an AIXM-based AIS database Supporting Metric: Number of States that have implemented an AIXM-based AIS database	60% by Dec. 2015 80% by Dec. 2017 100% by Dec. 2019
3-eAIP	*All States*	Indicator: % of States that have implemented an IAID driven AIP Production (eAIP) Supporting Metric: Number of States that have implemented an IAID driven AIP Production (eAIP)	60% by Dec. 2016 80% by Dec. 2018 100% by Dec. 2020
4-QMS	*All States*	Indicator: % of States that have implemented QMS for AIS/AIM Supporting Metric: Number of States that have implemented QMS for AIS/AIM	70% by Dec. 2016 90% by Dec. 2018
5-WGS-84	*All States*	Indicator: % of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD) Supporting Metric: Number of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD) Indicator: % of States that have implemented WGS-84 Geoid Undulation Supporting Metric: Number of States that have implemented WGS-84 Geoid Undulation	Horizontal: 100% by Dec. 2017 Vertical: 90% by Dec. 2018

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

B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety

Description and purpose

Global, regional and local meteorological information:

a) forecasts provided by world area forecast centres (WAFC), volcanic ash advisory centres (VAAC) and tropical cyclone advisory centres (TCAC);
b) aerodrome warnings to give concise information of meteorological conditions that could adversely affect all aircraft at an aerodrome including wind shear; and
c) SIGMETs to provide information on occurrence or expected occurrence of specific en-route weather phenomena which may affect the safety of aircraft operations and other operational meteorological (OPMET) information, including METAR/SPECI and TAF, to provide routine and special observations and forecasts of meteorological conditions occurring or expected to occur at the aerodrome.

This module includes elements which should be viewed as a subset of all available meteorological information that can be used to support enhanced operational efficiency and safety.

Main performance impact:

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

Applicability consideration:
Applicable to traffic flow planning, and to all aircraft operations in all domains and flight phases, regardless of level of aircraft equipage.

B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety			
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***
SADIS 2G and Secure SADIS FTP	***All** States*	Indicator: % of States having implemented SADIS 2G satellite broadcast or Secure SADIS FTP service Supporting metric: number of States having implemented SADIS 2G satellite broadcast or Secure SADIS FTP service	90% by Dec. 2015 100% by Dec. 2017
QMS	***All** States*	Indicator: % of States having implemented QMS for MET Supporting metric: number of States having implemented QMS for MET	60% by Dec. 2015 80% by Dec. 2017
SIGMET	***All** MWOs in MID Region*	Indicator: % of FIRs in which SIGMET is implemented Supporting metric: number of FIRs SIGMET is implemented	90% by Dec. 2016 100% by Dec. 2018

B0 – FRTO: Improved Operations through Enhanced En-Route Trajectories

Description and purpose

To allow the use of airspace which would otherwise be segregated (i.e. special use airspace) along with flexible routing adjusted for specific traffic patterns. This will allow greater routing possibilities, reducing potential congestion on trunk routes and busy crossing points, resulting in reduced flight length and fuel burn.

Main performance impact:

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

Applicability consideration:

Applicable to en-route and terminal airspace. Benefits can start locally. The larger the size of the concerned airspace the greater the benefits, in particular for flex track aspects. Benefits accrue to individual flights and flows. Application will naturally span over a long period as traffic develops. Its features can be introduced starting with the simplest ones.

B0 – FRTO: Improved Operations through Enhanced En-Route Trajectories			
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***
Flexible use of airspace (FUA)	*All States*	Indicator: % of States that have implemented FUA Supporting metric*: number of States that have implemented FUA	40% by Dec. 2017
Flexible routing	*All States*	Indicator: % of required Routes that are not implemented due military restrictions (segregated areas) Supporting metric 1: total number of ATS Routes in the Mid Region Supporting metric 2*: number of required Routes that are not implemented due military restrictions (segregated areas)	60% by Dec. 2017

** Implementation should be based on the published aeronautical information*

B0 – NOPS: Improved Flow Performance through Planning based on a Network-Wide view

Description and purpose

Air Traffic Flow Management (ATFM) is used to manage the flow of traffic in a way that minimizes delay and maximizes the use of the entire airspace. ATFM can regulate traffic flows involving departure slots, smooth flows and manage rates of entry into airspace along traffic axes, manage arrival time at waypoints or Flight Information Region (FIR)/sector boundaries and re-route traffic to avoid saturated areas. ATFM may also be used to address system disruptions including crisis caused by human or natural phenomena.

Experience clearly shows the benefits related to managing flows consistently and collaboratively over an area of a sufficient geographical size to take into account sufficiently well the network effects. The concept for ATFM and demand and capacity balancing (DCB) should be further exploited wherever possible. System improvements are also about better procedures in these domains, and creating instruments to allow collaboration among the different actors.

Guidance on the implementation of ATFM service are provided in the ICAO Doc 9971– Manual on Collaborative Air Traffic Flow Management

Main performance impact:

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

Applicability consideration:

Applicable to en-route and terminal airspace. Benefits can start locally. The larger the size of the concerned airspace the greater the benefits. Application will naturally span over a long period as traffic develops.

B0 – NOPS: Improved Flow Performance through Planning based on a Network-Wide view			
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***
ATFM Measures implemented in collaborative manner	*All States*	Indicator: % of States that have established a mechanism for the implementation of ATFM Measures based on collaborative decision Supporting metric: number of States that have established a mechanism for the implementation of ATFM Measures based on collaborative decision	100% by Dec. 2017

B0 – ACAS: ACAS Improvements

Description and purpose

To provide short-term improvements to existing airborne collision avoidance systems (ACAS) to reduce nuisance alerts while maintaining existing levels of safety. This will reduce trajectory deviations and increase safety in cases where there is a breakdown of separation

Main performance impact:

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

Applicability consideration:

Safety and operational benefits increase with the proportion of equipped aircraft.

B0 – ACAS: ACAS Improvements			
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***
Avionics	All States	Indicator: % of States requiring carriage of ACAS (TCAS v 7.1) for aircraft with a max certificated take-off mass greater than 5.7 tons Supporting metric: Number of States requiring carriage of ACAS (TCAS v 7.1) for aircraft with a max certificated take-off mass greater than 5.7 tons	80% by Dec. 2015 100% by Dec. 2016

B0 – CDO: Improved Flexibility and Efficiency in Descent Profiles (CDO)

Description and purpose

To use performance-based airspace and arrival procedures allowing aircraft to fly their optimum profile using continuous descent operations (CDOs). This will optimize throughput, allow fuel efficient descent profiles and increase capacity in terminal areas.

Main performance impact:

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

Applicability consideration:
Regions, States or individual locations most in need of these improvements. For simplicity and implementation success, complexity can be divided into three tiers:

a) least complex – regional/States/locations with some foundational PBN operational experience that could capitalize on near term enhancements, which include integrating procedures and optimizing performance;

b) more complex – regional/States/locations that may or may not possess PBN experience, but would benefit from introducing new or enhanced procedures. However, many of these locations may have environmental and operational challenges that will add to the complexities of procedure development and implementation; and

c) most complex – regional/States/locations in this tier will be the most challenging and complex to introduce integrated and optimized PBN operations. Traffic volume and airspace constraints are added complexities that must be confronted. Operational changes to these areas can have a profound effect on the entire State, region or location.

B0 – CDO: Improved Flexibility and Efficiency in Descent Profiles (CDO)			
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***
PBN STARs	OBBI, HESN, HESH, HEMA, HEGN, HELX, OIIE, OISS, OIKB, OIMM, OIFM, ORER, ORNI, OJAM, OJAI, OJAQ, OKBK, OLBA, OOMS, OOSA, OTHH, OEJN, OEMA, OEDF, OERK, HSNN, HSOB, HSSS, HSPN, OMAA, OMAD, OMDB, OMDW, OMSJ	Indicator: % of International Aerodromes/TMA with PBN STAR implemented as required. Supporting Metric: Number of International Aerodromes/TMAs with PBN STAR implemented as required.	100% by Dec. 2016 for the identified Aerodromes/TMAs 100% by Dec. 2018 for all the International Aerodromes/TMAs
International aerodromes/TMAs with CDO	OBBI, HESH, HEMA, HEGN, OIIE, OIKB, OIFM, OJAI, OJAQ, OKBK, OLBA, OOMS, OTHH, OEJN, OEMA, OEDF, OERK, HSSS, HSPN, OMAA, OMDB, OMDW, OMSJ	Indicator: % of International Aerodromes/TMA with CDO implemented as required. Supporting Metric: Number of International Aerodromes/TMAs with CDO implemented as required.	100% by Dec. 2018 for the identified Aerodromes/TMAs

B0 – CCO: Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)

Description and purpose

To implement continuous climb operations in conjunction with performance-based navigation (PBN) to provide opportunities to optimize throughput, improve flexibility, enable fuel-efficient climb profiles and increase capacity at congested terminal areas.

Main performance impact:

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

Applicability consideration:

Regions, States or individual locations most in need of these improvements. For simplicity and implementation success, complexity can be divided into three tiers:

a) least complex: regional/States/locations with some foundational PBN operational experience that could capitalize on near-term enhancements, which include integrating procedures and optimizing performance;

b) more complex: regional/States/locations that may or may not possess PBN experience, but would benefit from introducing new or enhanced procedures. However, many of these locations may have environmental and operational challenges that will add to the complexities of procedure development and implementation; and

c) most complex: regional/States/locations in this tier will be the most challenging and complex to introduce integrated and optimized PBN operations. Traffic volume and airspace constraints are added complexities that must be confronted. Operational changes to these areas can have a profound effect on the entire State, region or location.

B0 – CCO: Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)			
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***
PBN SIDs	OBBI, HESN, HESH, HEMA, HEGN, HELX, OIIE, OISS, OIKB, OIMM, OIFM, ORER, ORNI, OJAM, OJAI, OJAQ, OKBK, OLBA, OOMS, OOSA, OTHH, OEJN, OEMA, OEDF, OERK, HSNN, HSOB, HSSS, HSPN, OMAA, OMAD, OMDB, OMDW, OMSJ	Indicator: % of International Aerodromes/TMA with PBN SID implemented as required. Supporting Metric: Number of International Aerodromes/ TMAs with PBN SID implemented as required.	100% by Dec. 2016 for the identified Aerodromes/TMAs 100% by Dec. 2018 for all the International Aerodromes/TMAs
International aerodromes/TMAs with CCO	OBBI, HESN, HESH, HEMA, HEGN, HELX, OIIE, OIKB, OIFM, ORER, ORNI, OJAM, OJAI, OJAQ, OKBK, OLBA, OOMS, OOSA, OTHH, OEJN, OEMA, OEDF, OERK, HSNN,	Indicator: % of International Aerodromes/TMA with CCO implemented as required. Supporting Metric: Number of International Aerodromes/TMAs with CCO implemented as required.	100% by Dec. 2018 for the identified Aerodromes/TMAs

	HSOB, HSSS, HSPN, OMAA, OMDB, OMDW, OMSJ		

Table 1. MID REGION ASBU PRIORITIZATION AND MONITORING

Block Code (Thread)	Block 0		Block 1		Monitoring	Remarks (Supporting bodies)
	Module Title	Priority	Module Title	Priority		
Performance Improvement Areas (PIA) 1 **Airport Operations**						
APTA	Optimization of Approach Procedures including vertical guidance	1	Optimized Airport Accessibility	X	PBN SG	ATM SG, AIM SG, CNS SG
WAKE	Increased Runway Throughput through Optimized Wake Turbulence Separation	2	Increased Runway Throughput through Dynamic Wake Turbulence Separation	X		
RSEQ	Improve Traffic flow through Runway Sequencing (AMAN/DMAN)	2	Improved Airport Operations through Departure, Surface and Arrival Management	X		
SURF	Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)	1	Enhanced Safety and Efficiency of Surface Operations- SURF, SURF IA and Enhanced Vision Systems (EVS)	X	ANSIG	CNS SG Coordination with RGS WG
ACDM	Improved Airport Operations through Airport-CDM	1	Optimized Airport Operations through Airport-CDM	X	ANSIG	CNS SG, AIM SG, ATM SG Coordination with RGS WG
RATS	-	-	Remotely Operated Aerodrome Control	X	ATM SG	CNS SG
Performance Improvement Areas (PIA) 2 **Globally Interoperable Systems and Data Through Globally Interoperable System Wide Information Management**						
FICE	Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	1	Increased Interoperability, Efficiency and Capacity though FF-ICE, Step 1 application before Departure	X	CNS SG	AIM SG, MET SG, ATM SG
DATM	Service Improvement through Digital Aeronautical Information Management	1	Service Improvement through Integration of all Digital ATM Information	X	AIM SG	
SWIM	-	-	Performance Improvement through the application of System-Wide Information Management (SWIM)	X	AIM SG	ATM SG, MET SG, CNS SG

AMET	Meteorological information supporting enhanced operational efficiency and safety	1	Enhanced Operational Decisions through Integrated Meteorological Information (Planning and Near-term Service)	X	MET SG	AIM SG
Performance Improvement Areas (PIA) 3 **Optimum Capacity and Flexible Flights – Through Global Collaborative ATM**						
FRTO	Improved Operations through Enhanced En-Route Trajectories	1	Improved Operations through Optimized ATS Routing	X	ATM SG	
NOPS	Improved Flow Performance through Planning based on a Network-Wide view	1	Enhanced Flow Performance through Network Operational Planning	X		
ASUR	Initial capability for ground surveillance	2	-	-		
ASEP	Air Traffic Situational Awareness (ATSA)	2	Increased Capacity and Efficiency through Interval Management	X		
OPFEL	Improved access to optimum flight levels through climb/descent procedures using ADS-B	2	-	-		
ACAS	ACAS Improvements	1	-	-	CNS SG	
SNET	Increased Effectiveness of Ground-Based Safety Nets	2	Ground-based Safety Nets on Approach	X		
Performance Improvement Areas (PIA) 4 **Efficient Flight Path – Through Trajectory-based Operations**						
CDO	Improved Flexibility and Efficiency in Descent Profiles (CDO)	1	Improved Flexibility and Efficiency in Descent Profiles (CDOs) using VNAV	X	PBN SG	
TBO	Improved Safety and Efficiency through the initial application of Data Link En-Route	2	Improved Traffic Synchronization and Initial Trajectory-Based Operation	X	ATM SG	CNS SG
CCO	Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)	1	-	-	PBN SG	
RPAS	-	-	Initial Integration of Remotely Piloted Aircraft (RPA) Systems into non-segregated airspace	X	ATM SG	

TERMS OF REFERENCE FOR THE MIDDLE EAST AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL GROUP (MIDANPIRG)

1. Background

1.1 The Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG) was established by the Council of ICAO on 19 November 1993, through CNP/9819 during the 7th meeting of 140th session (C140/7) with the objectives and terms of reference approved then.

1.2 The Council subsequently on 29 June 1994 approved the membership of the Group as follows: Bahrain, Egypt, Iran (Islamic Republic of), Jordan, Lebanon, Oman, Saudi Arabia and United Arab Emirates (UAE).

1.3 The Council on 27 June 2008 considered a revision to membership of Planning and Implementation Regional Groups (PIRGs) and agreed that all ICAO Member States, to which a Regional Office was accredited who are service providers in an air navigation region and part of that region's Air Navigation Plan (ANP), should be included in the membership of that Region's PIRG. Furthermore, user States are entitled to participate in any other PIRG meetings as a non-member. International organizations recognized by the Council may be invited as necessary to attend PIRG meetings as observers.

2. Terms of Reference of the MIDANPIRG

2.1 The Terms of Reference of the Group are to:

a) ensure continuous and coherent development of the Middle East Regional Air Navigation Plan and other relevant regional documentation in a manner that is harmonized with adjacent regions, consistent with ICAO SARPs and Global Air Navigation Plan for CNS/ATM systems (Doc 9750) and reflecting global requirements;

b) facilitate the implementation of air navigation systems and services as identified in the Middle East Regional Air Navigation Plan with due observance to the primacy of air safety, regularity and efficiency; and

c) identify and address specific deficiencies in the air navigation field.

2.2 In order to meet the Terms of Reference the Group shall:

a) review, and propose when necessary, the target dates for implementation of facilities, services and procedures to ensure the coordinated development of the Air Navigation System in the Middle East Region;

b) assist the ICAO Middle East Regional Office in fostering the implementation of the Middle East Regional Air Navigation Plan;

c) in line with the Global Aviation Safety Plan (GASP), ensure the conduct of any necessary system performance monitoring, identify specific deficiencies in the Air Navigation field, especially in the context of safety, and propose corrective action;

d) facilitate the development and implementation of an action plan by States to resolve identified deficiencies, where necessary;

e) develop amendment proposals for the update of the Middle East Regional Air Navigation Plan MID BASIC and FASID Doc 9708 and Regional supplementary procedures (SUPPs) Doc 7030 to reflect changes in the operational requirements;

f) monitor implementation of air navigation facilities and services and where necessary, ensure interregional harmonization, taking due account of organizational aspects, economic issues (including financial aspects cost/benefit analysis, business case studies) and environmental matters;

g) examine human resources planning and training issues and propose where necessary human resources development capabilities in the region that are compatible with the Middle East Regional Air Navigation Plan;

h) review the Statement of Basic Operational Requirements and Planning Criteria and recommend to the Air Navigation Commission such changes to them as may be required in the light of developments;

i) request financial institutions on a consultative basis as appropriate to provide advice in the planning process;

j) maintain close cooperation with relevant organizations and State grouping to optimize the use of available expertise and resources;

k) conduct the above activities in the most efficient manner possible with a minimum of formality and documentation and call meetings of the MIDANPIRG, when it is necessary to do so;

l) invite senior officials of the State, as required, to seek the endorsement of regional air navigation plans, expeditious implementation of air navigation systems elements and the resolution of air navigation deficiencies; and

m) coordinate safety issues with the respective Regional Aviation Safety Group for the Middle East (RASG-MID).

3. Membership

3.1 All ICAO Member States, who are service providers in an air navigation region and part of that region's ANP, should be included in the membership of that region’s PIRG. Furthermore, user States are entitled to participate in any other PIRG meetings as a non-member. International organizations recognized by the Council may be invited as necessary to attend PIRG meetings as observers.

3.2 The Group is composed of the members from the following States: Bahrain, Egypt, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Sudan, Syria, United Arab Emirates (UAE) and Yemen.

3.4 States should ensure that their designated Representatives on the Group have experience in the provision of the full range of international air navigation systems and serve for a sufficiently lengthy period of time in order to maintain continuity in the activities of the Group. The designated Representative can be assisted, when required, by Technical Advisers during meetings of the Group.

MIDAMC Steering Group
(MIDAMC STG)

1. TERMS OF REFERENCE (TOR)

1.1 The Terms of Reference of the MIDAMC Steering are:

a) to promote the efficiency and safety of aeronautical fixed services in the MID Region through the operation and management, on a sound and efficient basis, of a permanent MID Regional ATS Messaging Management Center (MIDAMC);

b) foster the implementation of the Air traffic service Message handling service in the MID Region through provision of the guidance materials and running facilitation tools, utilizing the MIDAMC;

c) MIDAMC Steering Group will consist of a focal point from each Participating MID State who would represent the State and acts as the Steering Group Member;

d) MIDAMC Steering Group will be responsible for overall supervision, direction, evaluation of the MIDAMC project and will review/update the MIDAMC work plan whenever required;

e) The MID Region is considering the establishment of Regional IP Network; the MIDAMC STG will act as the project manager of MID IP Network project; and

f) provide regular progress reports to the CNS SG, ANSIG and MIDANPIRG concerning its work programme.

1.2 In order to meet the Terms of Reference, the MIDAMC Steering Group shall:

a) develop/update the accreditation procedure for all users on the MIDAMC;

b) develop and maintain guidance materials for MIDAMC users;

c) discuss and identify solution for operational problems may be arising;

d) provide support/guidance to States for AMHS Implementation, and monitor the AMHS activities;

e) assist and encourage States to conduct trial on Implementation of the ATS extended services, and identify operational requirements;

f) identify the need for any enhancement for the MIDAMC and prepare functional and technical specifications, and define its financial implications;

g) follow-up on ICAO standards and recommendations on the ATS messaging management;

h) define future liabilities and new participating States and ANSPs;

i) follow-up and review the work of similar groups in other ICAO Regions; and

j) support and follow up the Regional IP Network project and proposes appropriate actions for the early implementation and perform the tasks of the CRV Operation Group.

2. COMPOSITION

a) Members appointed by the MIDANPIRG member States;
b) ICAO MID Regional Office; and
c) other representatives, who could contribute to the activity of the Steering Group , could be invited to participate as observers, when required.

MID Doc 001

INTERNATIONAL CIVIL AVIATION ORGANIZATION

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

PROCEDURAL HANDBOOK

EDITION APRIL, 2016

RECORD OF AMENDMENTS

Edition Date	Description	Pages Affected
July 2015	Amendment of MSG, CNS SG and PBN SG Terms of Reference (TORs); and new paragraph on coordination between MIDANPIRG and RASG-MID, as endorsed by MIDANPIRG/15 Published as MID Doc 001 to replace and supersede the Procedural Handbook 7th Edition- December 2013	All
April 2016	Inclusion of a new item on Mechanism for the amendment of the MID eANP Volume III; and Publication and amendment of MID Documents Editorial amendments	Part I/II All

MIDANPIRG PROCEDURAL HANDBOOK

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FOREWORD

1. Introduction

1.1 The Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG) Procedural Handbook is a publication prepared by the ICAO Secretariat and adopted by the MIDANPIRG. Its purpose is to provide, for easy reference of interested parties, a consolidation of material, particularly of a procedural nature, about the work of the MIDANPIRG and its contributory bodies. It contains the Terms of Reference of the MIDANPIRG and certain other provisions approved by the Council of ICAO. It also contains the working arrangements and internal instructions developed by the Group for the practical application of its Terms of Reference.

1.2 The Handbook describes: Terms of Reference; Composition; Position in ICAO; Working Arrangements; Rules of Procedure and Practices governing the Conduct of Business.

1.3 The framework of Part and Section headings in addition to the page numbering has been devised to provide flexibility and the facilitation of the revision of additional or new material. Each Part includes an Introduction giving its purpose and status. A Table of Contents is provided which serves also as a subject index and as a checklist for the current pages.

1.4 Replacement pages will be issued as necessary. Additional material will be incorporated in the existing Sections or will be the subject of new Sections, as required.

1.5 The Procedural Handbook will be distributed to Members and Observers of the Group, the ICAO Secretariat, and to other States and International Organizations participating in meetings, contributing to, or having interest in the work of the Group and/or its Contributory Bodies.

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

PROCEDURAL HANDBOOK

PART I

TERMS OF REFERENCE, COMPOSITION AND POSITION IN ICAO OF THE MIDANPIRG

1. Background

1.1 The Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG) was established by the Council of ICAO on 19 November 1993, through CNP/9819 during the 7th meeting of 140th session (C140/7) with the objectives and terms of reference approved then.

1.2 The Council subsequently on 29 June 1994 approved the membership of the Group as follows: Bahrain, Egypt, Iran (Islamic Republic of), Jordan, Lebanon, Oman, Saudi Arabia and United Arab Emirates (UAE).

1.3 The Council on 27 June 2008 considered a revision to membership of Planning and Implementation Regional Groups (PIRGs) and agreed that all ICAO Member States, to which a Regional Office was accredited who are service providers in an air navigation region and part of that region's Air Navigation Plan (ANP), should be included in the membership of that Region's PIRG. Furthermore, user States are entitled to participate in any other PIRG meetings as a non-member. International organizations recognized by the Council may be invited as necessary to attend PIRG meetings as observers.

2. Terms of Reference of the MIDANPIRG

2.1 The Terms of Reference of the Group are to:

a) ensure continuous and coherent development of the Middle East Regional Air Navigation Plan and other relevant regional documentation in a manner that is harmonized with adjacent regions, consistent with ICAO SARPs and Global Air Navigation Plan for CNS/ATM systems (Doc 9750) and reflecting global requirements;

b) facilitate the implementation of air navigation systems and services as identified in the Middle East Regional Air Navigation Plan with due observance to the primacy of air safety, regularity and efficiency; and

c) identify and address specific deficiencies in the air navigation field.

2.2 In order to meet the Terms of Reference the Group shall:

a) review, and propose when necessary, the target dates for implementation of facilities, services and procedures to ensure the coordinated development of the Air Navigation System in the Middle East Region**;**

b) assist the ICAO Middle East Regional Office in fostering the implementation of the Middle East Regional Air Navigation Plan;

c) in line with the Global Aviation Safety Plan (GASP), ensure the conduct of any necessary system performance monitoring, identify specific deficiencies in the Air Navigation field, especially in the context of safety, and propose corrective action**;**

d) facilitate the development and implementation of an action plan by States to resolve identified deficiencies, where necessary;

e) develop amendment proposals for the update of the Middle East Regional Air Navigation Plan MID BASIC and FASID Doc 9708 and Regional supplementary procedures (SUPPs) Doc 7030 to reflect changes in the operational requirements;

f) monitor implementation of air navigation facilities and services and where necessary, ensure interregional harmonization, taking due account of organizational aspects, economic issues (including financial aspects cost/benefit analysis, business case studies) and environmental matters;

g) examine human resources planning and training issues and propose where necessary human resources development capabilities in the region that are compatible with the Middle East Regional Air Navigation Plan;

h) review the Statement of Basic Operational Requirements and Planning Criteria and recommend to the Air Navigation Commission such changes to them as may be required in the light of developments;

i) request financial institutions on a consultative basis as appropriate to provide advice in the planning process;

j) maintain close cooperation with relevant organizations and State grouping to optimize the use of available expertise and resources;

k) conduct the above activities in the most efficient manner possible with a minimum of formality and documentation and call meetings of the MIDANPIRG, when it is necessary to do so;

l) invite senior officials of the State, as required, to seek the endorsement of regional air navigation plans, expeditious implementation of air navigation systems elements and the resolution of air navigation deficiencies; and

m) coordinate safety issues with the respective Regional Aviation Safety Group for the Middle East (RASG-MID).

3. Membership

3.1 All ICAO Member States, who are service providers in an air navigation region and part of that region's ANP, should be included in the membership of that region’s PIRG. Furthermore, user States are entitled to participate in any other PIRG meetings as a non-member. International organizations recognized by the Council may be invited as necessary to attend PIRG meetings as observers.

3.2 The Group is composed of the members from the following States: Bahrain, Egypt, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Sudan, Syria, United Arab Emirates (UAE) and Yemen.

3.4 States should ensure that their designated Representatives on the Group have experience in the provision of the full range of international air navigation systems and serve for a sufficiently lengthy period of time in order to maintain continuity in the activities of the Group. The designated Representative can be assisted, when required, by Technical Advisers during meetings of the Group.

4. Participation in the Group's activities by other States

4.1 The Group may invite States from outside the MID Region to participate in its meetings whenever it feels that such States will be affected by specific aspects of the work of the Group or when this will be of assistance in the general conduct of its work.

4.2 Any State, other than those mentioned in paragraph 3.2 above, having aircraft on its register or an operator whose principal place of business or permanent residence is located in such State, which operates into the MID Region, shall have the right to participate in the meetings of the Group subject to the applicable provisions in paragraphs 3.1 above.

4.3 States not covered by the provisions in paragraphs 4.1 and 4.2 above may participate as observers in meetings of the Group, subject to the applicable provisions in those paragraphs.

5. Participation by International Organizations

5.1 The Group shall normally invite representatives of International Organizations and Regional Bodies recognized by the ICAO Council as representing important civil aviation interests to participate in its work in a consultative capacity. These include AACO, ACAC, ACI, CANSO, EUROCONTROL, EUROMED, IACA, IATA, IFAIMA, IFALPA, IFATCA and WMO. Other International Organizations and/or Middle East Regional Bodies may also participate when specifically invited by the Group.

6. Creation and dissolution of contributory bodies

6.1 In order to assist in its work, the Group may create contributory bodies (Boards, Committees, Sub-Groups, Task Forces & Working Groups, etc), charged with preparatory work on specifically defined subjects. Representation in such contributory bodies should be by specialists in the subjects concerned and familiar with the area under consideration. The establishment and work of contributory bodies shall be governed by the following considerations:

a) shall only be formed when it has been clearly established that it is likely to be able to make a substantial contribution to the subject in question;

b) shall be given clear and concise terms of reference describing not only its task but also an expected target date for its completion;

c) composition shall be such that, while being kept as small as possible, all States and organizations likely to be able to make valid contributions are given the opportunity to participate in it;

d) their work progress shall be subject to review by the Group, especially in order to avoid duplication of efforts in fields already covered by other activities; and

e) shall be dissolved as soon as it has either completed its assigned task or it has become apparent that work on the subject in question cannot be usefully continued.

7. Position in ICAO

7.1 The Group shall be the guiding and co-ordinating body for all activities conducted within ICAO concerning the Air Navigation System for the MID Region but shall not assume authority vested in other ICAO bodies except where such bodies have specifically delegated their authority to the Group. The activities of the Group shall be subject to review by the Council.

7.2 The work of other bodies established and meetings (excluding limited, special or full-scale RAN meetings) held within the framework of ICAO, concerned with the MID Air Navigation System shall be co-ordinated as appropriate with the MIDANPIRG in order to ensure coherence of all regional activities regarding the development and operation of that system.

8. MIDANPIRG Steering Group (MSG)

8.1 Taking into consideration, the new regional planning methodologies precipitated by the ICAO Global Plan and business planning requirements and with a view to increase the efficiency of MIDANPIRG, the MIDANPIRG Steering Group (MSG) was established to execute a pivotal function as a coordinating and steering organ with highest possible efficiency in accordance with the goals set by MIDANPIRG.

8.2 The MSG would address regional planning arrangements, including the identification of regional air navigation priorities and performance indicators and targets.

8.3 The MSG shall at all times work within a minimum of formality and paperwork. In interval between meetings of the Group, the representatives shall maintain continuity in the work of the Group. Best advantage should be taken of modern communications facilities, particularly e-mails, to keep the Members and the Secretary in permanent contact with each others.

8.4 Term of Reference of the MSG

8.4.1 The Terms of Reference of the MIDANPIRG Steering Group (MSG) are:

a) execute its pivotal function as a coordinating and steering organ with highest possible efficiency in accordance with the goals set by MIDANPIRG;

b) define and keep under review the MID Region Air Navigation Strategy, including the air navigation priorities, targets and associated action plans;

c) ensure that the planning and implementation of air navigation systems in the Region, is coherent and compatible with systems in adjacent Regions, and that it is carried out within the framework of the ATM Operational Concept (Doc 9854) and the Global Air Navigation Plan (GANP, Doc 9750);

d) manage the MID Air Navigation Plan (Doc 9708) and ensure its alignment with the GANP (Doc 9750);

e) direct the work of the MIDANPIRG subsidiary bodies in the best manner, commensurate with the overall MIDANPIRG work programme, with clearly defined tasks, deliverables and target dates;

f) approve, on behalf of MIDANPIRG, those Draft Conclusions/Decisions emanating from MIDANPIRG subsidiary bodies, which necessitate urgent follow-up action(s);

8.4.2 In order to meet the Terms of Reference, the MSG shall:

a) support regional air navigation planning and implementation processes taking into consideration forecasts for major traffic flows from, to and within the MID Region;

b) develop and continuously update the MID Region performance objectives in the light of new developments, taking into consideration the region priorities and MID States national plans;

c) provide necessary high level assistance and guidance to the MIDANPIRG subsidiary bodies to ensure harmonization and interoperability in line with the

GANP, the MID ANP and Aviation System Block Upgrade (ASBU) methodology;

d) ensure that the work programmes of the different MIDANPIRG subsidiary bodies are in line with the agreed air navigation priorities;

e) follow-up the on-going work undertaken within the MIDANPIRG framework and make recommendations for further evolution of the framework;

f) manage the MID Air Navigation Plan (Doc 9708) and related documentation and facilitate the implementation of the international operational requirements contained therein;

g) identify the issues related to funding, training and resource requirements necessary to support a safety framework that would lay the foundation for successful implementation of the ASBUs;

h) develop action plans to address the identified impediments to air traffic management modernization as part of ASBU planning and implementation activities;

i) develop a mechanism for sharing of best practices for the ASBU implementation;

j) carry out specific tasks assigned to it by MIDANPIRG to advance its work at the required speed; and

k) address special issues of strategic and/or financial nature for which no agreement has been reached by the appropriate MIDANPIRG subsidiary body, with a view to facilitate their presentation to MIDANPIRG.

8.4.3 Composition

The MSG is composed of:

a) the Chairperson and in his/her absence the First Vice-Chairperson of MIDANPIRG;

b) MIDANPIRG Member States;

c) concerned International and Regional Organizations as observers; and

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

9. Mechanism for the amendment of the MID eANP Volume III

(TBD)

10. Coordination between MIDANPIRG and RASG-MID

10.1 The Secretariat will ensure that the safety issues raised by the PIRGs and RASGs are fully coordinated. In addition, the following MIDANPIRG/RASG-MID coordination mechanism should be implemented:

- the Chairperson(s) of MIDANPIRG should attend the RASG-MID meetings;

- the Chairperson(s) of RASG-MID should attend the MIDANPIRG meetings;
- the ICAO MID Regional Office to organize on a yearly basis a MIDANPIRG/RASG-MID Coordination meeting to be attended by the Chairpersons of both Groups and their subsidiary bodies, in order to follow-up on the activities being coordinated between the two Groups, agree on the level of involvement of the relevant subsidiary bodies, address any roadblocks and identify additional subjects, which need to be addressed by/coordinated between both Groups; and
- the coordination between MIDANPIRG and RASG-MID be based on the following Table listing the subjects in which both MIDANPIRG and RASG-MID have interest with an assignment of the leading Group:

Subjects of interest for MIDANPIRG and RASG-MID	**Responsible/Leading Group**	
	RASG-MID	**MIDANPIRG**
Aerodrome Operational Planning (AOP)		X
Runway and Ground Safety	X	
AIM, CNS and MET safety issues		X
CFIT	X	
SSP Implementation	X	
SMS implementation for ANS and Aerodromes	X	
Accidents and Incidents Analysis and Investigation	X	
English Language Proficiency	X	
RVSM safety monitoring		X
SAR and Flight Tracking		X
PBN		X
Civil/Military Coordination		X
Airspace management		X
Call Sign Similarity and Confusion		X
Conflict Zones		X
Contingency Planning		X
USOAP-CMA	X	
COSCAP, RSOO and RAIO	X	
Air Navigation Deficiencies		X
Training for ANS personnel		X
Training other civil aviation personnel	X	
Laser attack	X	
Fatigue Risk Management	X	
RPAS		X

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

PROCEDURAL HANDBOOK

PART II

WORKING ARRANGEMENTS

1. Relations with States

1.1 States located geographically in the MID Region and States having aircraft on their register, which operate in the MID Region, shall be kept fully informed of activities of the MIDANPIRG. To achieve this objective, States should receive, on a regular basis:

a) The proposed agenda for meetings of the Group

b) The reports on meetings of the Group; and, as appropriate

c) The summaries or reports on meetings of its contributory bodies

1.2 States should ensure necessary co-ordination and follow-up of the Group's activities within their Administrations.

1.3 The Group may obtain information from MID provider States on specific questions and offer them advice in the form of specific proposals for action.

1.4 The Group should encourage the integration of the overall facilities and services required for international civil aviation operations with the national civil aviation plans of States, so that duplication may be avoided.

1.4.1 Additionally, the Group should concentrate on a clear identification of existing deficiencies in the MID Air Navigation System, on the establishment of priorities in overcoming them, on the development of methods of achieving implementation and on practical solutions to specific problems, particularly, issues seriously affecting the safety of international civil aviation operations in the MID Region.

2. Relations with other Bodies and Organizations

2.1 The Group shall keep itself informed of the activities of other bodies and organizations to the extent that such activities are likely to have an impact on the planning and operation of the Middle East Air Navigation System.

2.2 When necessary, the Group shall provide information and advice to such bodies and organizations, if this is required, in order to:

a) avoid duplication of studies and/or effort; and

b) engage their assistance in matters which, while having a bearing on the air navigation system, are outside the competence of ICAO and/or the terms of reference of the MIDANPIRG.

3. Administration of the Group

3.1 The Group shall be administered as follows:

a) by a Chairperson elected from the Representatives designated by Member States of the Group. A First and Second Vice-Chairperson shall also be elected from the said Representatives; and

b) by a Secretary designated by the Secretary General of ICAO. In the execution of his duties the Secretary will be supported by the MID Regional Office.

Note – ICAO MID Regional Director, Cairo has been designated as Secretary of MIDANPIRG.

3.2 The Chairperson, in close co-operation with the Secretary, shall make all necessary arrangements for the most efficient working of the Group. The Group shall at all times work with a minimum of formality and paper work (paperless meetings).

3.3 Between meetings of the Group or its contributory bodies, some subjects may be dealt with by correspondence among appointed Representatives of its Member States through the Secretary of the MIDANPIRG or of the contributory bodies concerned. However, if States are to be consulted this should be made through the ICAO Regional Director of the Office of accreditation.

4. Meetings of the Group

4.1 Based on the advice of the Members of the Group and of the Secretary, the Chairperson shall decide on the date and duration of meetings of the Group.

4.2 Meetings shall normally be convened at the location of the ICAO Regional Office in Cairo, Egypt. If a State offers to host a meeting, it shall coordinate with the Secretary of the Group as early as possible, but in any case at least six (06) months in advance and, shall be responsible for providing a venue, services and all costs of travel, accommodation and subsistence allowance for Secretariat attendees.

4.3 Members may be accompanied by Advisers. Total attendance should, however, be kept to a minimum consistent with the topics to be discussed in order to maintain the desired informality of proceedings.

4.4 The ICAO MID Regional Office shall normally provide the Secretariat services to the Group.

5. Establishment of Sub-Groups

5.1 To assist in its work, the Group may create Sub-Groups charged with preparatory work on specific subjects requiring expert advice for their resolution.

5.2 Participation in Sub-Groups should be by specialists in the subjects under consideration. Such specialists should be provided by Member States, International Organizations and/or Regional Bodies and Organizations having relevant experience in the field concerned.

5.3 Secretaries of Sub-Groups established by the Group will be appointed by the Secretary of the Group.

6. Task Forces

6.1 The MIDANPIRG or its Sub-Groups may appoint Task Forces composed of specialists either from within and/or outside the Group or the Sub-Group as the case may be to perform studies or prepare supporting documentation on defined subjects for consideration by the Group or Sub-Groups as a whole. International and Regional Organizations may also be invited to provide specialists in these Task Forces, as required.

7. Role of Designated Members

7.1 Representatives of States designated as Members of the Group shall assume the duties and responsibilities of ensuring the normal conduct of business of the Group. Members should attend regularly all the meetings of the Group and maintain the continuity of the Group's work in the interval between meetings. This may take the form of assignment of specific tasks to selected individual Members and/or participation in Task Forces referred to in paragraph 6.1 above.

8. Status of Observers

8.1 Representatives of International Organizations and States which are neither located nor have aircraft on their register operating in the MID Region will have the status of Observers at MIDANPIRG meetings.

9. Co-ordination and reporting lines

9.1 The Group reports to the ICAO Council through its Secretary and the ICAO Secretariat as follows:

a) proposals for amendment of the MID Air Navigation Plan (facilities, services and Basic Operational Requirements and Planning Criteria-FASID/BORPC) and proposals for amendment of the Regional Supplementary Procedures (SUPPs) originated by the MIDANPIRG will be processed in accordance with the approved amendment procedures;

b) suggestions by the MIDANPIRG calling for amendment or modification of the provisions in the ICAO world-wide provisions (Annexes, PANS, Manuals, etc..) that may arise, will be submitted to the Air Navigation Commission (ANC) for consideration and action as appropriate;

c) items concerning serious deficiencies in implementation of the MID Regional Plan are to be brought to the attention of the States concerned and, after all possible efforts for implementation have been exhausted, to the attention of the ANC;

d) specific policy issues emanating from the work of the MIDANPIRG and matters of impact on other regions will be submitted to the Council;

e) matters concerning its terms of reference, its composition, working arrangements and position in ICAO; and

f) other matters as deemed necessary.

9.2 Sub-Groups report to the Group. Co-ordination among Sub-Groups will primarily be ensured by the Group when establishing their terms of reference and work programme or taking action on their reports. In addition, the work of the Sub-Groups should also be co-ordinated through their respective Chairperson and Secretaries, assisted, as required, by the ICAO Secretariat.

9.3 Routine relations between the Group or its Sub-Groups and other ICAO groups and meetings concerning the MID Region shall be conducted through the MIDANPIRG Secretary and/or the ICAO Regional Director of the Office of accreditation as required.

9.4 Relations with representatives of States designated as Members of the Group and representatives of International Organizations attending regularly the meetings of the Group shall be conducted through the Secretary of the Group. Other ICAO Regional Offices shall be kept informed of such correspondence whenever it may have an impact on the work of these Offices, as part of interregional coordination.

9.5 Relations with specialists provided by States as members of MIDANPIRG Sub-Groups shall be conducted by the Secretary of the Sub-Group.

9.6 Relations with States and International Organizations whether or not represented in the Group, as well as relations with Regional Organizations, will normally be conducted through the ICAO Regional Director.

10. Publication and amendment of MID Documents

10.1 MID Documents are issued and maintained in line with the following principles:

a) A MID Document constitutes supplementary reference and guidance material to be used by States, operators and service providers in the Region in support of planning, implementation and operations of air navigation facilities and services.

b) Regular reviews of current MID Documents should be conducted by the responsible MIDANPIRG Contributory Bodies.

c) A document is proposed to receive MID Document status on the basis of scope, content, date and area of applicability.

d) A draft MID Document that is issued by a Contributory Body should be reviewed by the MSG or MIDANPIRG for formal endorsement and designation of the appropriate MID Document number.

e) All amendments to the MID Documents of a technical and non-contentious nature are to be endorsed by the MSG or MIDANPIRG. Such revisions should be of a routine nature of existing MID Documents (through MSG or MIDANPIRG Conclusions).

f) A formal decision by MSG or MIDANPIRG (Conclusion) will be necessary for major revisions and discontinuation of documents or for documents that may contain contentious material.

g) In the event that an amendment requires approval before the upcoming MSG or MIDANPIRG meeting is convened (urgent amendment is required), the responsible MIDANPIRG Contributory Body will request the ICAO Regional Office to circulate the proposal by email to the MIDANPIRG member States and international organizations for their comments.

h) In case of non-contentious amendments and the event that the responsible Contributory Body concludes that the revised version of a document needs to be issued before upcoming MSG or MIDANPIRG meeting is convened, the updated version of the document will be published on the ICAO MID website with the indication “formal MIDANPIRG approval pending”.

i) In the absence of objections at the deadline for comment, the new revision to the MID Document will be considered approved. The ICAO MID Regional Office will inform the MIDANPIRG member States and international organizations of the approval by email.

j) The responsible MIDANPIRG Contributory Bodies and notes on the management of the respective MID Documents are listed under “References” of the MIDANPIRG *Handbook* (MID Doc 001).

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

PROCEDURAL HANDBOOK

PART III

RULES OF PROCEDURE FOR THE CONDUCT OF MEETINGS OF THE MIDANPIRG

1. General

1.1 The MIDANPIRG shall at all times work with a minimum of formality and paper work (paperless meetings). To achieve this aim, the rules of procedure for the conduct of meetings should be as flexible and simple as possible. The Group is expected to conduct its business by consensus of all interested parties. The following provisions do not include therefore any procedures for handling motions or voting.

1.2 There shall be no minutes for the meetings of the Group. Reports on meetings should not include formal Statements by members or other participants. However, specific divergent views expressed in relation to decisions taken or conclusions reached shall be recorded as an integral part of the report.

2. Participation

Note – The following rules of procedure are based on the provisions contained in paragraphs 3, 4 and 5 of Part I and in paragraphs 2, 7 and 8 of Part II.

2.1 Representatives of Member States of ICAO designated as Members of the MIDANPIRG should strive to ensure continuity and regularity of their participation in all meetings of the Group.

2.1.1 Subject to the applicable provisions in paragraph 4 of Part I, any other Member State of ICAO is entitled to participate in meetings of the MIDANPIRG, if it so wishes. To this effect, the State concerned should notify the Secretary of the MIDANPIRG of its intention of being represented, not later than 30 days prior to the meeting in which it has decided to participate. Such notification should include an indication of the subjects in which that State is interested and the name and title of its Representative(s).

Note – The notification referred to above is not required in the case of States having decided to attend regularly the meetings of the Group.

2.2 The Group shall normally invite International Organizations recognized by the Council as representing important civil aviation interests to participate in the work of the MIDANPIRG in a consultative capacity. Among the Organizations, ACAC, CANSO, IATA, IFAIMA, IFALPA and IFATCA should be invited on a continuous basis. Other International Organizations and/or Regional Organizations may also participate when specifically supported by the Group and approved by the ICAO Council.

Note – The Secretary of the MIDANPIRG, in consultation with the Chairperson shall undertake to keep the total number of participants to a level consistent with the required efficiency and informality of the proceedings.

3. Convening of meetings

Note – In addition to the working arrangements set forth in paragraph 4 of Part I, the rules of procedure below should be followed in convening meetings of the Group.

3.1 At each of its meetings the Group should endeavour to agree on the date and duration of its next meeting.

3.2 In accordance with its objectives the Group shall:

a) ensure the continuous and coherent development of the MID Region Air Navigation Plan as a whole and in relation to that of adjacent Regions; and

b) identify specific problems in the air navigation field concerning the MID Region and propose, in appropriate form, resolving action addressed to parties concerned.

Note – To achieve these objectives the convening of at least one meeting every 18 months would generally suffice. However, in order to safeguard coherent and orderly air navigation planning in the interest of States and airspace users in the MID Region, the Group may determine the need for any additional meeting that may arise.

3.3 A convening letter for a meeting shall be addressed by the Secretary of the Group, normally 90 days prior to the meeting, to Representatives of:

a) States designated as Members;

b) States, not designated as Members, but which have decided to attend regularly the meetings of the MIDANPIRG; and

c) International/Regional Organizations invited to participate on a continuous basis in the activities of the Group.

3.4 The convening letter should include the agenda, together with explanatory notes prepared by the Secretary in order to assist participants in preparing for the meeting, and a summary report on its activities and those of its Sub-Groups since the last meeting (Part II, para 1.1 c) refers).

3.5 The ICAO MID Regional Director shall ensure that States and International/Regional Organizations concerned, located within the MID Region area of accreditation, are informed by means of a State Letter of the convening of meetings and the subjects planned for discussion.

4. Establishment of the Agenda

4.1 The Secretary, in consultation with the Chairperson of the MIDANPIRG shall establish a draft agenda on the basis of the work programme adopted and the documentation available.

4.2 The draft agenda with explanatory notes shall be circulated with the convening letter, as specified in sub-paragraph 3.4 above, for comments by expected participants in that meeting.

4.3 Comments in relation to the draft agenda or the work of the group received up to 10 working days prior to the meeting will be submitted to the meeting in the form of a Working Paper.

4.4 At the opening of the meeting any State or International/Regional Organization may propose the inclusion of additional items on the agenda, and this shall be accepted if the majority of States attending the meeting so agree.

5. Languages

5.1 The language of the meetings of the MIDANPIRG shall be English.

5.2 The reports on meetings and supporting documentation for meetings of the Group will be prepared in English.

6. Officers and Secretariat of the MIDANPIRG

Note – The following rules of procedure are supplementary to the working arrangements for the administration of the MIDANPIRG contained in paragraph 3 of Part II.

6.1 In order to ensure the necessary continuity in the work of the Group, the Chairperson, the First Vice-Chairperson and Second Vice-Chairperson of the Group should assume their functions at the end of the meeting at which they are elected and serve for three meetings unless otherwise decided.

6.2 States designated as Members of the Group may at any time request that the election of the Chairperson and/or Vice-Chairpersons be included on the agenda.

6.3 The Secretary of the Group will serve as Secretary of the meetings. S/he will be assisted by ICAO Regional Officers, as required.

6.4 Presentation of reports of contributory body shall be made by the secretariat on behalf of concerned Chairperson. Presentation of reports of other ICAO regional planning groups or meetings should normally be made by the Secretary.

7. Supporting documentation

7.1 Documentation for meetings of the MIDANPIRG will be prepared by the Secretariat, States designated as Members of the Group and International/Regional Organizations participating on a continuous basis in the activities of the Group.

7.2 Any State, International/Regional Organization, whether or not attending, may submit material for consideration by a meeting. In cases where the material submitted is in the form of supporting documentation on a specific subject, the originator is expected to attend the meeting to which it is presented, at least during the discussions on the subject concerned.

7.3 To the extent possible States, International/Regional Organizations refrain from presenting Working papers of technical nature directly to MIDANPIRG.

7.4 Subjects which are mature enough and which have been reviewed by the appropriate MIDANPIRG subsidiary bodies will be presented to MIDANPIRG.

7.5 Supporting documentation shall be presented in the form of:

a) Discussion Papers: are papers prepared on an ad hoc basis in the course of a meeting with the purpose of assisting participants in their discussions on a specific matter or in the development of conclusions for the draft report of the meeting.

b) Information Papers: are papers prepared on an ad hoc basis in the course of a meeting with the purpose of assisting participants in their discussions on a specific matter or in the development of conclusions for the draft report of the meeting.

c) Working Papers: constitute the main basis of the discussions on the various items on the agenda.

7.6 Working Papers shall be presented in a standardized format. Each paper should be limited to one agenda item or sub-item and contain, as appropriate, introduction of the matter, brief discussion and conclusions with specific proposals for action.

7.7 All meetings of MIDANPIRG and its subsidiary bodies are conducted in paperless format; all documentations including Working Papers, Information Papers and Discussion Papers should be made available through the MID Regional Office website www.icao.int/mid to all interested parties as early as practicable (15 days, if possible), before the meeting at which they are intended to be considered as follows:

a) Representatives of States designated as members of the Group;

b) States having notified the Secretary of their intention of being represented at the relevant meeting;

c) International and/or Regional Organizations attending MIDANPIRG activities on a continuous basis;

d) Provider States whose facilities and/or services are the subject of the paper.

7.8 Other States or International/Regional Organizations originating a Working Paper shall also be provided with a copy of that particular Working Paper regardless of whether or not they attend the meeting of the Group to which it is submitted.

7.9 In view of their nature, the distribution of Discussion and Information Papers shall be limited to participants at the meeting to which they relate.

8. Conclusions and Decisions of the Meetings

8.1 Action taken by the Group shall be recorded in the form of:

a) Conclusions; and

b) Decisions.

8.2 Each Conclusion and Decision formulated by the Group and its Sub-Groups should respond clearly to the following four questions (4-Ws) :

Why	Why this Conclusion or Decision is needed (subject)
What	What action is required (State Letter, survey, proposal for amendment, seminar, etc)
Who	Who is the responsible of the required action (ICAO, States, etc)
When	Target date

8.3 Conclusions deal with matters which, in accordance with the Group's terms of reference, merit directly the attention of States, or on which further action is required to be initiated by the Secretary in accordance with established procedures.

8.3.1 Conclusions are aimed mainly at the furtherance of studies and programmes being undertaken by the Group, its contributory bodies and other ICAO Groups or meetings. For the implementation of such conclusions, the Secretary shall:

a) initiate the required action;

b) through the relevant ICAO Regional Office, invite States and International Organizations or other bodies as appropriate to undertake the tasks called for by the Conclusion concerned; or

c) refer them to ICAO ANC for appropriate action and through the ANC to ICAO Council, if required.

8.3.2 The Secretary will ensure that conclusions are transmitted to the States concerned through the relevant ICAO Regional Offices and will take whatever action may be required to monitor their implementation.

8.3.3 Decisions relate to the internal working arrangements of the Group and its contributory bodies.

9. Conduct of business

9.1 The meetings of the MIDANPIRG shall be conducted by the Chairperson or, in his absence, by the First or Second Vice-Chairperson of the Group, in that order.

9.2 At the first sitting of each meeting, following the opening by the Chairperson, the Secretary shall inform participants of the arrangements made for the conduct of the meeting, its organization and of the documentation available for consideration of the different items on the agenda.

9.3 Each meeting of the MIDANPIRG will consider, as required:

a) reports by its Sub-Groups;

b) reports by regional bodies;

c) specific implementation issues;

d) review and up-date of deficiencies; and

e) consider the Work Programme.

9.4 At each of its meetings, the Group shall also establish a tentative meeting programme (including meetings of subsidiary bodies) for at least the following calendar year (cf. sub-paragraph 3.2, Part IV).

9.5 The Group shall at each of its meetings review its previous meeting outstanding Conclusions/Decisions and Action Plan in order to keep them current and their number at a minimum consistent with the progress achieved in implementation.

10. Reports

10.1 Reports on meetings shall be of a simple layout and as concise as possible and shall include:

a) a brief history of the meeting (duration, attendance, agenda and list of Conclusions and Decisions;

b) a summary of the discussions by the Group on the different items of the agenda including, for each of them, the relevant Conclusions and/or Decisions;

c) the work programme and future action by the Group; and

d) the tentative programme of future meetings of the Group and of its sub groups.

10.2 A draft report in English will be prepared by the Secretariat for approval by the Group before the closing of each meeting.

10.3 The approved Meeting Report shall be circulated by the Secretary to:

a) Members of the Group; and

b) Other States and International/Regional Organizations having attended the relevant meeting.

10.4 The report shall be posted on MID Regional office website and also be circulated, to all Member States in the MID Region as well as to International/Regional Organizations concerned.

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

PROCEDURAL HANDBOOK

PART IV

RULES OF PROCEDURE FOR THE CONDUCT OF MEETINGS OF THE CONTRIBUTORY BODIES OF MIDANPIRG

1. General

1.1 Contributory bodies (Sub-Groups, etc.) of the MIDANPIRG shall work with a minimum of formality and paperwork (paperless meetings).

2. Participation

Note – The following rules of procedure are based on the provisions contained in paragraph 5 of Part II.

2.1 Each Sub-Group of the MIDANPIRG shall be composed of specialists to be provided by Member States, International/Regional Organizations and/or bodies and organizations having experience in the relevant field.

2.2 When deciding on the creation and establishing the mandate and terms of reference of any of its Sub-Groups, the Group shall indicate the States, International/Regional Organizations and/or bodies and Organizations which are to be invited to provide experts for that body. The composition of Sub-Groups shall be kept as small as possible in order to ensure efficiency of their work and the informality of proceedings.

2.3 States other than those specified by the MIDANPIRG but which are in a position to make valid contributions to the work of a Sub-Group are entitled to provide specialists for that body if they so wish. To this effect, they should notify the ICAO MID Regional Director of their intention to participate and of the name and title of the specialist(s) designated.

2.4 States and International/Regional Organizations and/or bodies and Organizations should ensure that the specialists nominated for membership in Sub-Groups of the MIDANPIRG have the required qualifications and experience to fully contribute to the work of the body concerned.

3. Convening of meetings

3.1 The date and duration of meetings of a Sub-Group of the MIDANPIRG shall be decided by the Chairperson of the Sub-Group, in consultation with Members and the Secretary of that Sub-Group.

3.2 As a rule, Sub-Groups should agree at each meeting on the date and duration of the next meeting and on a tentative schedule of future meetings in order to assist the Group in establishing its meetings programme (cf. sub-paragraph 9.4 of Part III).

3.3 For each meeting of a Sub-Group of the MIDANPIRG, a convening letter shall be addressed by the Secretary to the Members of that Sub-Group. This convening letter should include the agenda together with explanatory notes, as required, to assist participants in preparing for the meeting.

4. Establishment of the Agenda

4.1 The Secretary of a Sub-Group, after consultation with the Chairperson and coordination with the ICAO MID Regional Office, shall establish a draft agenda on the basis of the work programme adopted and the documentation available.

4.2 The draft agenda shall be circulated with the convening letter and submitted to the meeting to which it refers, for approval.

5. Languages and supporting documentation

5.1 The language of, and supporting documentation for, meetings of contributory bodies of the MIDANPIRG (Sub-Groups, etc.) shall be English.

5.2 The reports of meetings of these bodies shall be in English.

5.3 Documentation for meetings of the contributory bodies will be prepared by the Secretariat, States designated as Members of the Group and International/Regional Organizations participating on a continuous basis in the activities of the Group.

5.4 States, International/Regional Organizations, whether or not attending, may submit material for consideration by a meeting. In cases where the material submitted is in the form of supporting documentation on a specific subject, the originator is expected to attend the meeting to which it is presented, at least during the discussions on the subject concerned.

Note – Documentation prepared by States and International/Regional Organizations should be forwarded to the Secretary of the Sub-Group, etc., if possible, at least 30 days in advance of the meeting for which it is intended, to permit timely processing.

5.5 Supporting documentation shall be presented in the form of:

a) Discussion Papers;
b) Information Papers;
c) Working Papers; and
d) Power Point Presentations

5.6 Working Papers shall be presented in a standardized format. Each paper should be limited to one agenda item or sub-item and contain, as appropriate, introduction of the matter, brief discussion and conclusions with specific proposals for action.

5.7 Working Papers, Information Papers, Discussion Papers and Power Point Presentations should be made available through the MID Regional Office website www.icao.int/mid to all interested parties as early as practicable (15 days, if possible), before the meeting at which they are intended to be considered.

5.8 In view of their nature, the distribution of Discussion and Information Papers shall be limited to participants at the meeting to which they relate.

6. Officers and Secretariat of Sub-Groups of the MIDANPIRG

6.1 Each Sub-Group shall at its first meeting elect, from the representatives of States Members of that Sub-Group, a Chairperson and a Vice-Chairperson.

6.2 In order to ensure the necessary continuity in the work and unless otherwise determined by special circumstances, the Chairperson and Vice-Chairperson of a Sub-Group assume their functions at the end of the meeting at which they are elected and serve for three meetings unless otherwise decided.

6.3 Members of a Sub-Group may at any time request the election of the Chairperson and/or Vice-Chairperson to be included in the agenda of a meeting of that body.

7. Conduct of business

7.1 Meetings of a Sub-Group shall be conducted by its Chairperson or, in his absence, by the Vice-Chairperson.

7.3 Action by a Sub-Group that requires the prior agreement of the MIDANPIRG before it can be implemented or otherwise, shall be recorded in the form of Draft Conclusion or Draft Decision. All such proposed actions shall be considered by the MIDANPIRG or by MSG for those Conclusions and Decision which do not raise any concern and which necessitate urgent follow-up action.

8. Reports of meeting

8.1 Proceedings of meetings of Sub-Groups should be recorded in the form of a report.

8.3 A Sub-Group report for each Sub-Group is required.

Note – Issues (Draft Conclusions/Decisions) necessitating the agreement of all MID States should always be presented to MIDANPIRG for final endorsement.

8.3 A meeting of a Sub-Group will submit a Report, whenever it has:

a) finalized action on any part of its work programme; or

b) found that it needs further directives or guidance from the MIDANPIRG to proceed in its work.

8.4 For all other meetings, the Secretary of the Sub-Group will prepare a summary on the business conducted by the meeting in order to keep the MIDANPIRG and States informed of developments in its activities.

8.5 Reports on meetings of Sub-Groups shall be of a simple layout and as concise as practicable. To the extent feasible the reports should be presented in a summary format setting aside reporting on non-essential proceedings and on matters solely of internal interest to the Sub-Groups themselves. They should normally cover:

a) short introduction (brief history of the meeting, agenda, tasks at hand);

b) in the sequence of the agenda, summary of findings on different tasks or specific elements thereof including, as appropriate, draft conclusions and/or decisions; and

c) the work programme and future meetings.

8.6 Sub-Groups meeting reports shall be distributed by the Secretary to Members of the Sub-Group concerned, as soon as possible after the meeting to which the report or summary refers. Those reports or summaries shall at the same time be circulated by the ICAO MID Regional Office to all member States of the MID Region, International/Regional Organizations concerned. The reports shall be made available to user States on request.

8.7 Sub-Groups meeting reports shall be submitted to the MSG and/or MIDANPIRG (as appropriate) for review and action.

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

PROCEDURAL HANDBOOK

PART V

MIDDLE EAST PROVIDER AND USER STATES

1. Purpose and Status

1.1 According to the MIDANPIRG working arrangements, all States concerned with the work of the Group shall be kept fully informed of its activities. To this effect, the ICAO MID Regional Director shall:

a) keep States informed of the convening of MIDANPIRG meetings and the subjects planned to be discussed; and

b) send them reports on meetings of the Group, and, as appropriate, summaries or reports on meetings of its subsidiary bodies.

1.2 All Middle East provider and user States, either Contracting or non-Contracting States of the Convention on International Civil Aviation, shall be regarded as concerned with the work of the Group and therefore arrangements should be made to inform them of the activities of the Group.

1.3 In addition, according to the provisions governing the participation in the Group's activities by States other than those designated as members of the MIDANPIRG, Middle East provider and user States, if Contracting States of the Convention on International Civil Aviation, shall be entitled to be represented at meetings of the Group with full rights, if they so wish.

1.4 This section of the MIDANPIRG Procedural Handbook is intended to define States that, for the above purposes, shall be considered Middle East Provider or user States.

PROVIDER STATES

Bahrain	Oman
Egypt	Qatar
Iran, Islamic Republic of	Saudi Arabia
Iraq	Sudan
Jordan	Syria
Kuwait	United Arab Emirates
Lebanon	Yemen
Libya	

USER STATES

Afghanistan
Algeria
Armenia
Austria
Azerbaijan
Bangladesh
Bulgaria
China
Cyprus
Czech Republic
Denmark
Eritrea
Ethiopia
France
Georgia
Germany
Greece
Hungary
India
Indonesia
Israel
Italy
Japan
Kazakhstan
Kenya
Kyrgyzstan
Libyan Arab Jamahirya
Malaysia
Mali
Mauritania
Morocco
Netherlands, Kingdom of the
Nigeria
Norway
Pakistan
Philippines
Republic of Korea
Russian Federation
Senegal
Singapore
Somalia
South Africa
Spain
Sri Lanka
Sudan
Sweden
Switzerland
Tajikistan
Thailand
Tunisia
Turkey
Turkmenistan
United Kingdom
United Republic of Tanzania
United States
Uzbekistan
Zambia
Zimbabwe

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

PROCEDURAL HANDBOOK

PART VI

OTHER REGIONAL BODIES AND INTERNATIONAL ORGANIZATIONS DEALING WITH CIVIL AVIATION MATTERS IN MID REGION

Regional Organizations

Arab Air Carrier Organization (AACO**)**
Arab Civil Aviation Commission (ACAC)

International Organizations

Airports Council International (ACI)
Civil Air Navigation Services Organisation (CANSO)
European Organization for the Safety of Air navigation (EUROCONTROL)
International Air Transport Association (IATA)
International Federation of Aeronautical Information Management Associations (IFAIMA)
International Federation of Air Line Pilots' Associations (IFALPA)
International Federation of Air Traffic Controllers' Associations (IFATCA)
International Air Carrier Association (IACA)
World Meteorological Organization (WMO)

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

PROCEDURAL HANDBOOK

PART VII

SUB-GROUPS OF MIDANPIRG
TERMS OF REFERENCE/WORK PROGRAMME/COMPOSITION/ORGANIZATIONAL STRUCTURE

AIR NAVIGATION SYSTEMS IMPLEMENTATION GROUP (ANSIG)

1. Terms of Reference

1.1 The terms of reference of the ANSIG are:

a) ensure that the implementation of Air Navigation Systems in the MID Region is coherent and compatible with developments in adjacent regions, and is in line with the ATM Operational Concept (Doc 9854), Global Air Navigation Plan (GANP), the Aviation System Block Upgrades (ASBU) methodology and the MID Region Air Navigation Plan/Strategy;

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

c) keep under review the MID Region Air Navigation Strategy, and propose changes to the MID Region Air Navigation Plan/Strategy and Air Navigation priorities, as appropriate;

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

e) provide a platform for harmonization of developments and deployments of the MID Air Navigation Systems;

f) monitor and review the latest Air Navigation developments and provide expert inputs for the implementation of the Air Navigation Systems based on ATM operational requirements;

g) ensure that the work programmes of all Subsidiary Bodies reporting to ANSIG are harmonized and coordinated, achieving the agreed air navigation performance targets;

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

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

1.2 In order to meet the Terms of Reference, the ANSIG shall:

a) agree on the necessary data to be collected for monitoring the MID Key Performance Indicators and Metrics;

b) monitor the status of implementation of the different ASBU Module elements included in the MID Air Navigation Plan/Strategy and ensure that the associated performance targets are met;

c) consolidate inputs from all Subsidiary Bodies and propose changes to the Plan/Strategy and Air Navigation priorities, as appropriate;

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

e) develop and continuously update the MID regional Air Navigation Report Forms (ANRF) in order to reflect the MID Region Performance Objectives;

f) review and identify intra and inter-regional co-ordination issues and where appropriate recommend actions to address those issues;

g) identify the environmental effect and use the guidance provided by the Committee on Aviation Environmental Protection (CAEP) in the analysis of environmental benefits of implementing Air Navigation Systems;

h) support the implementation of the performance framework and propose new technical elements for the continuous improvement of the performance framework; and

i) foster the integrated improvement of MID Air Navigation systems implementation through proper training and qualification of the personnel

2. Composition:

2.1 The ANSIG is composed 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.

AERONAUTICAL INFORMATION MANAGEMENT SUB-GROUP (AIM SG)

1. Terms of Reference

1.2 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) methodology and the MID Region Air Navigation Strategy;

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

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

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 ANSIG and 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 and services in the MID Region;

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

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

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

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

f) 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;

g) 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;

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

i) foster the integrated improvement of AIM services through proper training and qualification of the AIM personnel.

2. Composition:

2.1 The Sub-Group is composed 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.

AIR TRAFFIC MANAGEMENT SUB-GROUP (ATM SG)

1. TERMS OF REFERENCE

1.1 The terms of reference of the ATM Sub-Group are:

a) ensure that the planning and implementation of ATM 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) methodology and the MID Region Air Navigation Strategy;

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

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

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

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

f) based on the airspace user needs and in coordination with stakeholders (States, International Organizations, user representative organizations and other ICAO Regions), identify requirements and improvements for achieving and maintaining an efficient route network in the MID Region;

g) foster and initiate actions aimed at improving civil/military cooperation and Flexible Use of Airspace (FUA) implementation;

h) keep under review the adequacy of requirements in Search and Rescue field, taking into account, *inter alia*, changes to aircraft operations and new operational requirements or technological developments;

i) ensure the effectiveness of the SSR code allocation system in the MID Region;

j) identify, State by State, those specific deficiencies that constitute major obstacles to the provision of efficient air traffic management and recommend specific measures to eliminate them;

k) develop the MID Region ATM Contingency Plan and ensure that its maintained up to date;

l) monitor the implementation of the MID Region ASBU Modules included in the MID Region Air Navigation Strategy related to the ATM, provide expert inputs for ATM related issues; and propose solutions for meeting ATM operational requirements;

m) monitor and review the latest developments in the area of ATM;

n) provide regular progress reports to the ANSIG Group and MIDANPIRG concerning its work programme; and

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

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

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

b) provide necessary inputs to the MID Air Navigation Strategy through the monitoring of the agreed Key Performance Indicators related to ATM;

c) review the MID ATS Routes Network in order to assess its capacity and constraints;

d) identify requirements and improvements for achieving and maintaining an efficient ATS route network in the MID Region;

e) propose a strategy and prioritized plan for development of improvements to the route network, highlighting:

- areas that require immediate attention
- interface issues with adjacent ICAO Regions

f) develop a working depository for route proposals that will be used as a dynamic reference document for ongoing discussions on routes under development/ modification. In this respect, the Task Force should explore the utility that can be realized from the route catalogue concept/ATS routes database;

g) engage the necessary parties regarding routes under consideration, especially the Military Authorities;

h) promote civil/military cooperation and the implementation of the concepts of Flexible Use of Airspace (FUA), free flight, flexible tracks;

i) facilitate effective civil/military cooperation and joint use of airspace in the MID Region;

j) in coordination with the MIDRMA, carry out safety assessment of the proposed changes to the ATS Routes Network;

k) submit completed route proposals for amendment of the Basic ANP Table ATS-1, to the ICAO MID Regional Office for processing;

l) monitor the RVSM operations and support the continued safe use of RVSM in the MID Region;

m) review and maintain the MID Region SSR Code Allocation Plan and monitor the implementation of the SSR codes allocation procedures in the Region;

n) assist States in the development and co-ordination of contingency plans and ensure that the Regional contingency plan is maintained up-to-date;

o) assess the effectiveness of the agreed Contingency measures/procedures and propose mitigation measures, as appropriate;

p) address ATM and SAR interface issues with other regions and make specific recommendations to achieve seamlessness and harmonization;

q) review the requirements and monitor the status of implementation of ATM and SAR services;

r) analyse, review and monitor deficiencies in the ATM and SAR fields;

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

t) establish and monitor ATM performance objectives for the MID Region; and

u) taking into account human factors studies and available guidance material, make operational recommendations related to ATM personnel in the changing technological environment.

2. COMPOSITION

2.1 The Sub-Group is composed of:

a) MIDANPIRG Member States;

b) experts nominated by Middle East Provider States from both Civil Aviation Authority and Military Authority;

c) concerned International and Regional Organizations as observers; and

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

COMMUNICATION, NAVIGATION AND SURVEILLANCE SUB-GROUP (CNS SG)

1. Terms of Reference

1.1 The terms of reference of the CNS Sub-Group are:

a) ensure that the implementation of CNS 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) methodology and the MID Region Air Navigation Strategy;

b) monitor the status of implementation of the MID Region CNS-related ASBU Modules included in the MID Region Air Navigation Strategy as well as other required CNS supporting infrastructure, identify the associated difficulties and deficiencies and provide progress reports, as required;

c) keep under review the MID Region CNS performance objectives/priorities, develop action plans to achieve the agreed performance targets and propose changes to the MID Region CNS plans/priorities, modernization programmes through the ANSIG, as appropriate;

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

e) provide a platform for harmonization of developments and deployments of CNS facilities and procedures within Region and inter regional;

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

g) monitor and review the latest GNSS developments and activities;

h) follow-up the developments of ICAO position for future ITU World Radio Communication (WRC) Conferences and provide expert advises to States;

i) follow-up the establishment of the MID ATS Message Management Centre (MIDAMC);

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

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

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

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

b) provide necessary inputs to the MID Air Navigation Strategy through the monitoring of the agreed Key Performance Indicators related to CNS facilities and procedures;

c) identify and review those specific deficiencies and problems that constitute major obstacles to the provision of efficient CNS implementation, and recommend necessary remedial actions;

d) lead the work programme of the MIDAMC including the conduct of trainings and upgrades;

e) assist, coordinate, harmonize and support in the implementation of CNS facilities and procedures;

f) seek States support to ICAO Position at WRCs, and encourage States for the proper utilization of the Frequency Spectrum and Interrogation Code Allocations;

g) monitor the progress of studies, projects, trials and demonstrations by the MID Region States, and other ICAO Regions in CNS and GNSS;

h) study requirements for GNSS Augmentation Systems in the MID Region, and develop implementation plans as necessary;

i) update ATN Plan as necessary MID Region and assist in its implementation conduct; and

j) follow-up surveillance technologies implementation to be in line with the surveillance strategy and MID operational improvements in coordination with other Sub-Groups and coordinate Interrogation Code Allocations.

2. Composition

2.1 The Sub-Group is composed 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.

METEOROLOGY SUB-GROUP (MET SG)

1. Terms of Reference

1.1 The terms of reference of the MET Sub-Group are:

a) ensure that the implementation of MET 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) methodology and the MID Region Air Navigation Strategy;

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

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

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

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

f) monitor and review the latest MET developments that support Air Navigation and provide expert inputs for the implementation of the Air Navigation Systems related to MET based on ATM operational requirements;

g) provide regular progress reports to the ANSIG and 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 MET SG shall:

a) monitor the status of implementation of the required MET facilities and services in the MID Region;

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

c) provide necessary inputs to the MID Air Navigation Strategy through the monitoring of the agreed Key Performance Indicators related to MET;

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

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

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

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

h) foster the integrated improvement of MET services through proper training and qualification of the MET personnel; and

i) liaise with other States providing services and/or serve as inter-regional exchange of meteorological information for international civil aviation (e.g. SADIS (U.K.), VAAC Toulouse (France), TCAC New Delhi (India), Regional OPMET Centre Vienna (Austria)).

2. Composition

1.3 The Sub-Group is composed of:

a) MIDANPIRG Member States;

b) World Meteorological Organization (WMO) and other 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.

PERFORMANCE BASED NAVIGATION SUB-GROUP (PBN SG)

1. Terms of Reference

1.1 The terms of reference of the PBN Sub-Group are:

a) ensure that the implementation of PBN 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) methodology and the MID Region Air Navigation Strategy;

b) monitor the status of implementation of the MID Region PBN-related ASBU Modules included in the MID Region Air Navigation Strategy as well as other required PBN supporting infrastructure, identify the associated difficulties and deficiencies and provide progress reports, as required;

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

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

e) provide a platform for harmonization of developments and deployments of PBN concentrating on PBN for approach and terminal areas;

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

g) carry out necessary studies for the establishment of a MID Flight Procedure Programme Office;

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

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

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

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

b) provide necessary inputs to the MID Air Navigation Strategy through the monitoring of the agreed Key Performance Indicators related to PBN;

c) identify and review those specific deficiencies and problems that constitute major obstacles to the provision of efficient PBN implementation, and recommend necessary remedial actions;

d) conduct study related to the establishment of the MID Flight Procedure Programme office;

e) monitor the progress of studies, projects, trials and demonstrations by the MID Region States, and other ICAO Regions in PBN; and

f) foster the implementation of PBN through proper training and qualification of the procedure design personnel and all other personnel involved in PBN implementation.

2. Composition

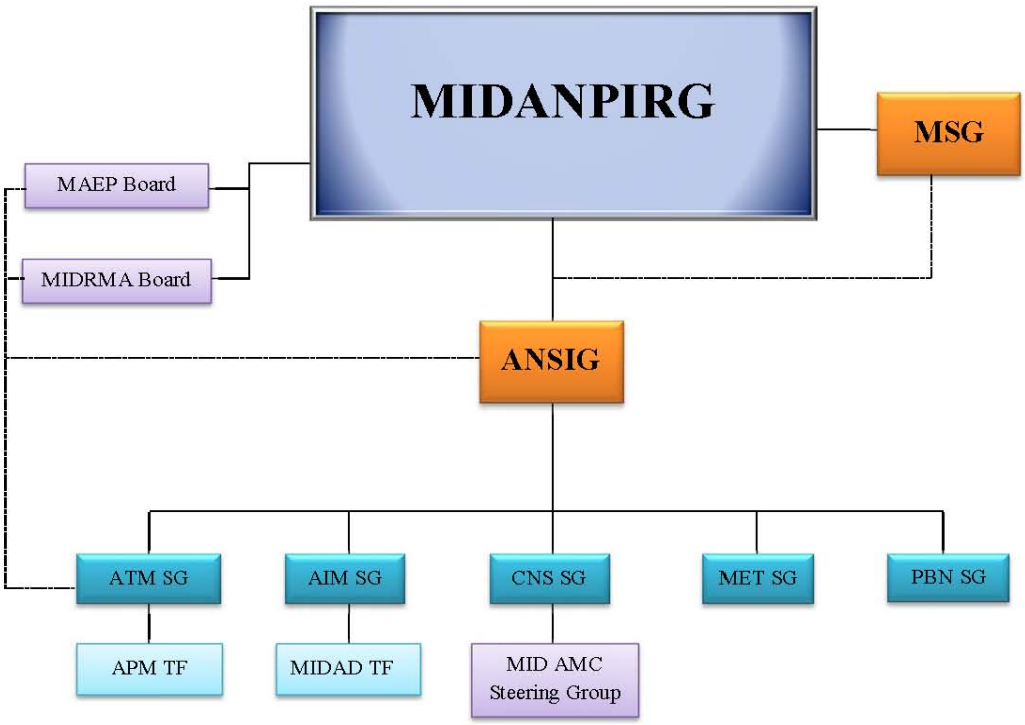
2.1 The Sub-Group is composed of:

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.

MIDANPIRG Organizational Structure



MSG	MIDANPIRG Steering Group	PBN SG	Performance Based Navigation Sub-Group
ANSIG	Air Navigation Systems Implementation Group	APM TF	ATM Performance Measurement Task Force
AIM SG	Aeronautical Information Management Sub-Group	MIDAD TF	MID Region AIS Database Task-Force
ATM SG	Air Traffic Management Sub-Group	MAEP Board	MID Region ATM Enhancement Programme Board
CNS SG	Communication Navigation Surveillance Sub-Group	MIDRMA Board	Middle East Regional Monitoring Agency Board
MET SG	Meteorology Sub-Group	MID AMC Steering Group	MID Region ATS Message Management Centre Steering Group

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ATTACHMENT

LIST OF PARTICIPANTS

NAME	TITLE & ADDRESS
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